GOLDEN PLAINS SHIRE

ATTACHMENTS

Under Separate Cover
Council Meeting

6.00pm Tuesday 21 December 2021

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RABBIT MANAGEMENT STRATEGY 2021-2031

GOLDEN PLAINS SHIRE

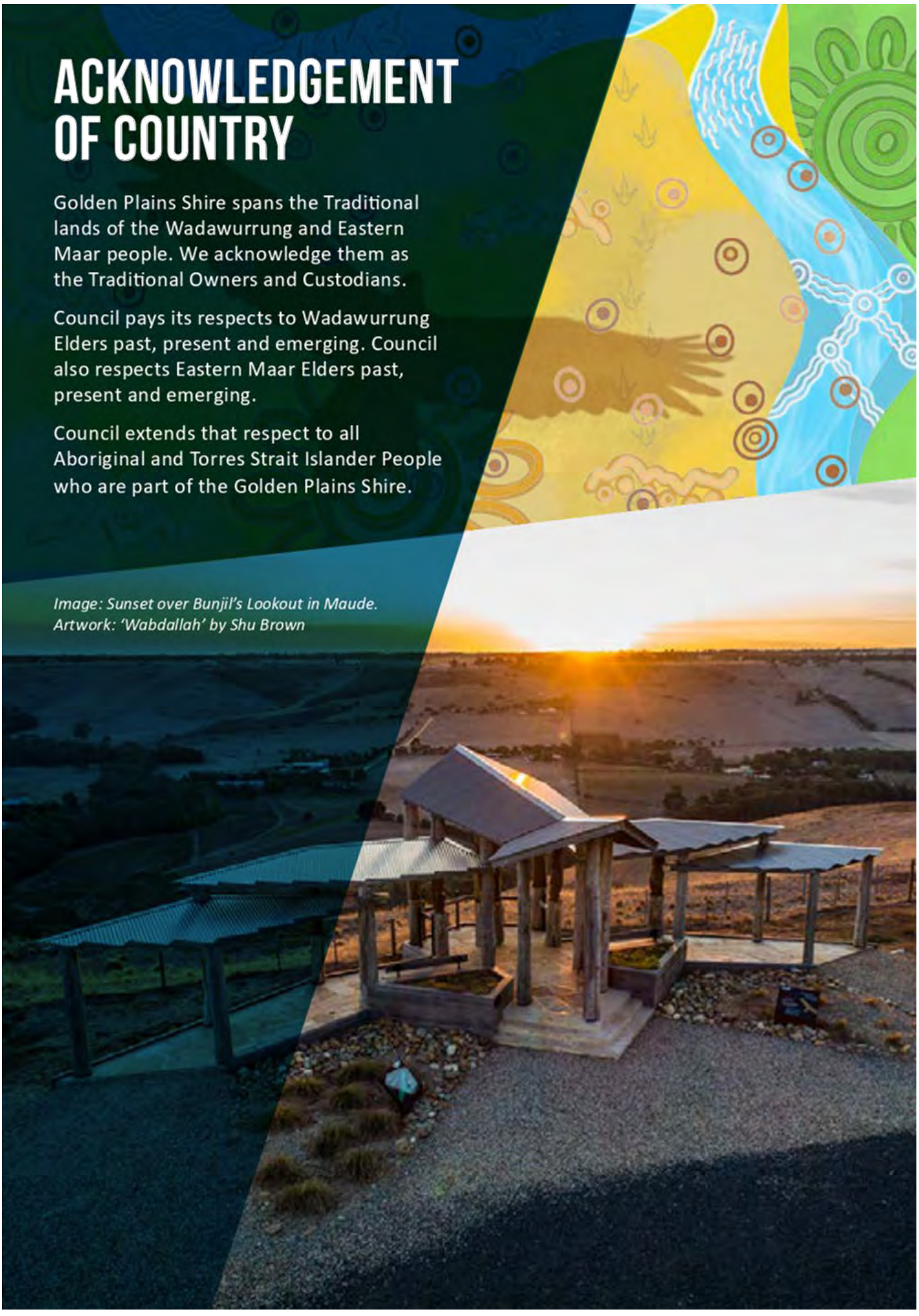
ACKNOWLEDGEMENT OF COUNTRY

Golden Plains Shire spans the Traditional lands of the Wadawurrung and Eastern Maar people. We acknowledge them as the Traditional Owners and Custodians.

Council pays its respects to Wadawurrung Elders past, present and emerging. Council also respects Eastern Maar Elders past, present and emerging.

Council extends that respect to all Aboriginal and Torres Strait Islander People who are part of the Golden Plains Shire.

Image: Sunset over Bunjil's Lookout in Maude.
Artwork: 'Wabdallah' by Shu Brown



DOCUMENT CONTROL

Document: Golden Plains Shire Rabbit Management Strategy 2021-2031
Author: Dale Smithyman, Natural Resources Officer
Date: December 2021
Synopsis: A strategy that sets out Council's approach to management of rabbits.

SCHEDULE OF ADOPTION

Version no.	Date	Comment
Rabbit Management Strategy 2021-2031 Version 1		

This Rabbit Management Strategy is owned and managed by :

Golden Plains Shire Council
2 Pope Street
Bannockburn, VIC 3331

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GOLDEN PLAINS SHIRE RABBIT MANAGEMENT STRATEGY 2021-2031

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1. EXECUTIVE SUMMARY

Golden Plains Shire Council recognises that wild European Rabbits (*Oryctolagus cuniculus*) are a widespread and destructive agricultural and environmental pest. The species negatively impacts on agriculture, soil, native flora and fauna, residential amenity and built infrastructure through grazing and the development of warrens.

Under State legislation, Council has a responsibility to control rabbits on land that it owns or manages and; where possible, to eradicate them.

This Strategy sets out our vision and goals regarding the management of rabbits on Council owned and managed land and more broadly in the community.

The Strategy is based on industry best practice and research as well as the practical experience of Council officers in the field.

The basis upon which our Strategy is built is provided through a historical context, supporting plans and legislation and research into rabbit biology and ecology.

The Strategy is enacted through the separate Golden Plains Shire Rabbit Management Plan 2021-2031.

Figure 1: The European Rabbit - an attractive but destructive introduction to Australia

Vision

Rabbits are effectively controlled on Council land and across the municipality to minimise their impact on agriculture, community and the environment.

Goals

To provide long term reduction in rabbit numbers on Council managed land.

To improve rabbit control outcomes on Council managed land by engaging with adjacent landholders to conduct rabbit control

To raise community awareness regarding the rabbit problem, increase community knowledge and enable the community to undertake effective rabbit control.

To advocate for and support State Government rabbit control compliance and enforcement

2. INTRODUCTION

Golden Plains Shire Council recognises that wild European Rabbits (*Oryctolagus cuniculus*) are a widespread and destructive agricultural and environmental pest. The species impacts on agriculture, soil, native flora and fauna, residential amenity and built infrastructure through grazing and the development of warrens.

The State Legislation: the *Catchment and Land Protection Act 1994* (CALP Act), requires landholders to take reasonable steps to prevent the spread of rabbits and as far as possible, eradicate them.

Council generally only hears from residents about the pest when rabbit numbers are high and they're having a noticeable impact on landholder's properties.

Council has a long history of controlling rabbits on land that it owns or manages. This program; supported by a consistent budget allocation, has resulted in significant reductions in rabbits across Council's reserves.

While this Strategy focuses on rabbits on Council owned or managed land (Council public reserves, roadsides), it also contains actions to assist with the control of rabbits on private land within townships and adjacent to Council reserves.

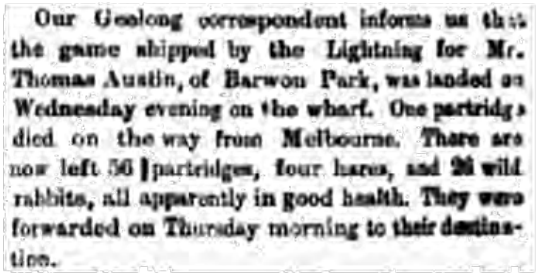
Figure 2: Effective Rabbit resistant fencing at the Old Batesford Cemetery Council Reserve.

3. HISTORY

Domesticated rabbits arrived in Australia with the First Fleet but seemed to have failed to become established. There were various other importations of rabbits in the early years of the colony, but none seemed to become strongly established as these introductions may have come from domesticated stock (Stodart & Parer 1988). The first feral rabbit population was reported in Tasmania as early as 1827 (DSEWPC 2011).

The Geelong area has the unfortunate distinction of being the recognised epicentre of the introduction of the European Rabbit to Australia. Wild caught rabbits from England were imported into Geelong and deliberately released into the wild at Barwon Park near Winchelsea; just south of the Golden Plains Shire boundary, by Thomas Austin in late 1859.

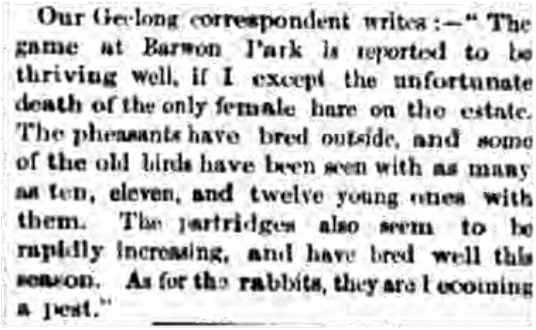
The Argus reported on Saturday the 31st of December 1859 that 26 rabbits along with hares and partridges arrived in Geelong for Thomas Austin of Barwon Park.



Our Geelong correspondent informs us that the game shipped by the Lightning for Mr. Thomas Austin, of Barwon Park, was landed on Wednesday evening on the wharf. One partridge died on the way from Melbourne. There are now left 56 partridges, four hares, and 26 wild rabbits, all apparently in good health. They were forwarded on Thursday morning to their destination.

Figure 3: The Argus Saturday 31st December 1859 (1859 'GEELONG')

By December of 1862; only 3 short years later, The Argus newspaper reported that *"As for the rabbits, they are becoming a pest"*.



Our Geelong correspondent writes:—"The game at Barwon Park is reported to be thriving well, if I except the unfortunate death of the only female hare on the estate. The pheasants have bred outside, and some of the old birds have been seen with as many as ten, eleven, and twelve young ones with them. The partridges also seem to be rapidly increasing, and have bred well this season. As for the rabbits, they are becoming a pest."

Figure 4: The Argus, Tuesday 30th December 1862 (1862)

By 1865, Thomas Austin was reporting that he had killed 20,000 rabbits on his estate and estimated that there were 10,000 more in the neighbourhood. There were so many rabbits being harvested off the property that the market for them in Geelong was flooded and they were being shipped to Melbourne. Live rabbits were also being shipped off to establish the species in other locations around the country.

By 1878 a Rabbit Nuisance Suppression Bill was introduced to the Victorian Parliament in an effort to reduce the pest which was now widespread. Vigorous debate ensured both in favour of and against the Bill before it was finally passed but quickly modified in response to a savage public response (Rolls E, 1969).

Rabbits spread in Australia at the fastest rate recorded for any introduced mammal anywhere in the world (Stodart & Parer, 1988) and plagues of rabbits now started to occur at various locations across the country due to deliberate introductions, natural spread and in response to favourable breeding conditions. These plagues caused extensive agricultural losses and drove

further efforts to control the pest species.

"the rabbits are increasing daily and spreading alarmingly. For miles and miles the country is laid bare of feed, and as unsmiling as a desert, and runs that a couple of years ago carried 30,000 and 40,000 sheep are either without stock or have so few on that it hardly pays to give the Government the appraised rental"
The Rabbit Scourge – No 1 (15 February 1892)

While the introduction of rabbits is often viewed in a negative light; in 1929, the rabbit industry was reported to be the largest employer of labour in Australia with approximately 20,000 trappers and multitudes of others employed in the processing works turning millions of rabbits into meat, fur and hide products both for domestic and export markets. It is estimated that between 1870 and 1970, 20 billion rabbits were killed for commercial purposes. The rabbit industry was also lucrative, and trappers could earn considerably more than other manual workers of the time (Eather W & Cottle D, 2015).

The humble rabbit formed the backbone of meat consumption for many families until the introduction of the myxomatosis virus in the 1950's when rabbit numbers steeply declined and the price for rabbit increased rapidly. By the 1960's rabbit consumption had been mostly replaced by chicken.

There was a tension between the successful rabbit industry and the cost of rabbits to the agricultural community. In 1942, the rabbit industry in skins and flesh was worth £3,000,000. The estimated yearly losses to agriculture were £30,000,000 (Pick 1942).

This [rabbiting] is the best ticket I ever struck. I consider I have the life of a gentleman. I make from £4 to £5 [a week] all the year round. I am never short of a 'tenner,' and I went down to the Burns-Squires and Burns-Johnson fights [staged in Sydney on 24 August 1908 and 26 December 1908]. The rabbits paid for these trips. Talk about exterminating them! I say preserve them – they are a Godsend to many a poor man and his family.
Eather W & Cottle D, 2015

After extensive testing and several failed releases, in 1951 the Myxomatosis virus was released and became established and resulted in a spectacular reduction in rabbit numbers (Ward 2011). Since the release, resistance to the virus has increased and rabbit numbers have risen again but not back to their pre-myxomatosis levels.

Figure 3: Rabbit trapper, Cowra, undated

Subsequent release of Rabbit Haemorrhagic Disease (RHD); also known as calicivirus in 1995 saw further reductions in rabbit numbers. Additional strains of the disease have been released in subsequent years to maintain the efficacy of the virus as a control method.

4. RABBIT BIOLOGY

The biology of the rabbit is the key to its rapid and widespread colonisation of much of the country.

A single pair of rabbits in good conditions can increase to 184 rabbits within 18 months. In good conditions a rabbit doe can produce a litter every month.

Devanny N, VRAN (2021)

Rabbits have a very high reproductive rate and can breed at any time when there is sufficient food available. A rabbit doe can breed as long as there is green pick with a protein content of 12-14%. They can commence breeding at 4 months of age and with a short gestation period of around 30 days, may produce 5 or more litters of up to 7 young (kittens) per litter (DEE 2016a). Therefore, a single female rabbit can produce up to 50 young per year but average around 28 kittens per year (PPWCMA 2014). In good conditions rabbit numbers can explode rapidly.

Rabbits in the wild usually live only 1-2 years but can survive up to 6 years of age. Young rabbits have very high mortality with almost 80% of kittens not making it to 3 months of age (DEE 2016a).

Rabbits can take advantage of a wide variety of landscapes and habitats. While the rabbit warren is widely recognised as the 'home' of the species, they can use fallen logs or dense vegetation such as Gorse (*Ulex europaeous*) or Boxthorn (*Lycium ferocissimum*) as harbour. Where there is an abundance of surface cover, rabbits can live above ground but require a warren to breed. Warrens can be extensive and deep, particularly where the soil; such as sandy loams, is conducive for warren development. Warrens provide protection from predation as well as providing stable and safe locations for breeding.

While rabbits prefer open country with good sandy loam soils with adequate vegetative cover, they can utilise a wide variety of landscapes and vegetation types. They tend to avoid heavier clay soils, cropped and forested areas but make good use of land in and around settled and agricultural areas (DEE 2016a). They can also utilise man made environments and live under sheds and houses or in home gardens.

Rabbits are herbivores and eat a wide range of plants. While pasture grass is their primary food source, they will consume crops and the roots of plants and chew on young trees and shrubs often causing ringbarking and the death of the plant. They can eat up to one third of their body weight in a day, consuming around 100-500 grams of food per day and rapidly denude an area of vegetation. It is estimated that 12 rabbits equal one Dry Sheep Equivalent in terms of vegetation consumed (DEE 2016, PPWCMA 2014). Their ability to gain moisture from their food limits their dependence on water sources and this has allowed the species to colonise dry areas and to survive prolonged drought (DEE 2016).

5. RABBIT BEHAVIOUR

Rabbits are generally territorial and form social groupings around the warren. Territorial boundaries are often marked with dung heaps. These territories break down when food is scarce.

Social groups have a dominant male (buck) and female (doe). The dominant male will defend a territory to protect access to breeding females. Females will defend access to nesting sites. A territory may range in size from 0.2 to 2 hectares depending on a variety of social and resource factors.

Adult rabbits rarely disperse from their established home range while young rabbits (20-60 day old) are more likely to disperse to find new less occupied areas to establish in.

Rabbits are neophobic; wary of new items and changes in their environment and will take time to adapt to new things. This must be considered when planning control methods, particularly baiting.

Rabbit feeding patterns are characterised by shy and brave feeders. Shy feeders will remain in close proximity to the warren or harbour to feed. Brave feeders will range further afield. This pattern results in the denuding of vegetation around harbour or warrens.

Rabbits are mostly active in the late afternoon and early evening when the emerge from the warren or harbour to feed and socialize near cover. At night they range further for food and will stay above ground unless disturbed.

Rabbits can be a highly visible in open grassy country and are generally seen in the late afternoon through to the early morning but can be active at any time if conditions are conducive to this behaviour or their numbers are high. They mostly stay within the vicinity of the warren (approximately 150-200m) so that they can rapidly return to safety if threatened (DEE 2016). Surface rabbits are often startled out of their cover when walking though long grass.

6. RABBIT DISTRIBUTION

Rabbits are widely distributed across the country and occupy all ecological zones with the exception of the tropics. It is estimated that rabbits occupied 70% of Australia within 70 years of being released (DEE 2016b). Southern Australia provides many areas of ideal habitat where the species is widespread and abundant. Rabbits can disperse up to 20km when seeking new warrens or safe harbour. This dispersal usually occurs immediately after the breeding season. A second dispersal often occurs just prior to breeding as young males seek new territories and breeding opportunities.

Dispersing rabbits will seek old warrens to recolonise rather than building new warrens.

Within Golden Plains Shire, the pest is widespread and locally abundant with a greater prevalence in the habitats of the south and east of the municipality.

The species is not well suited to the heavier clay soils and colder, wetter conditions of the northern and north-eastern parts of the Shire but still persists and can thrive in times of good conditions or in small pockets where local soils, geology or vegetation provide suitable conditions.

The pest struggles on the heavy black volcanic soils of the Victorian Volcanic Plains in the south and west of the municipality with the exception being along rivers and watercourses where

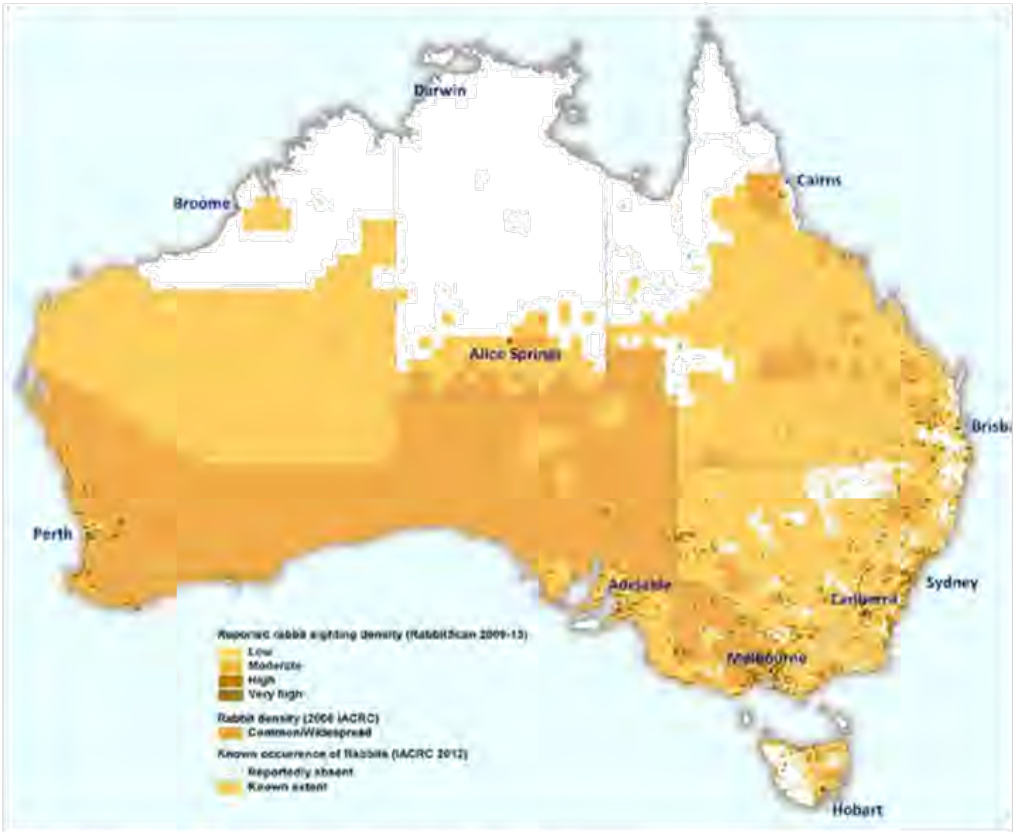


Figure 4: Reported abundance and distribution of rabbits across Australia (DEE 2016a)

riverbanks and floodplains provide suitable habitat.

The species is notable for its abundance and prevalence in the loams and sandy loams of the south-east of the Shire. In particular, rabbits are widespread and problematic around Inverleigh, Teesdale, Bannockburn and Batesford where they enjoy the open agricultural and settled environment with suitable soils and vegetation.

The species is also problematic on the rises fringing the Victorian Volcanic Plain where older Ordovician derived soils and younger Quaternary deposits around Rokewood, Kuruc-a-Ruc Creek, Moonlight/Misery Creek, Illabarook provide suitable soils and landscapes for well-established and problematic rabbit populations.

7. RABBIT ABUNDANCE

Estimation of rabbit abundance is problematic due to fluctuations in population sizes in response to favourable/unfavourable conditions, the influence of biocontrol agents and the vast area of the continent that they occupy (DEE 2016b).

In 1920 it was estimated that the rabbit population was 10 billion (Pestsmart 2021).

In 1953, CSIRO estimated the rabbit population at 750 million (1953). The introduction of the myxomatosis virus in the early 1950's significantly reduced this number and their number is estimated at around 200 million today. However, their exact abundance is unknown and cannot be readily quantified as population sizes frequently fluctuate due to factors such as; breeding events, mortality caused by biocontrol agents or drought; and availability of resources; and a lack of consistent and standardised monitoring across the rabbit's range.

Rabbit abundance in Golden Plains Shire varies based on season and the availability of harbour and warren sites. Rabbits can be very abundant and highly visible throughout the year in particular localities like along Native Hut Creek in Teesdale where a combination of suitable soils for warren establishment, harbour in the form of dense infestations of Boxthorn and Spiny Rush, lack of rabbit control and residents' gardens with ample feed result in good breeding success.

Figure 5: Rabbits around a waterhole during myxomatosis trials, Wardang Island, South Australia, 1938. National Archives of Australia A1200, L44186

8. RABBIT IMPACTS

Rabbits; which have been described as Australia's most costly vertebrate pest, inflict damage on agricultural and environmental assets. While the economic cost of rabbits on agriculture has been estimated, the value of damage to environmental assets has not been quantified (DEE 2016b).

Agricultural and economic impacts

The initial and strongest drive for the control of rabbits following their introduction and rapid expansion came from the agricultural sector who suffered the greatest impacts from the species with damage to crops and soils and competition for stock pasture. Farmers were reported as leaving their land due to the impact of rabbits as early as 1881.

While agricultural impacts were large, in 1929 the rabbit industry was the largest employer of labour (Eather W & Cottle D, 2015). The industry died out after the release of myxomatosis in the 1950's.

Heavy rabbit infestations can significantly damage crops and pasture and compete with stock. Rabbit grazing patterns and behaviour have a heavy impact on perennial pastures compared to grazing stock. The grazing impact of 12 rabbits is considered the same as 1 dry sheep equivalent (DEE 2016a). Heavy rabbit infestations can significantly reduce agricultural land carrying capacity leading to increased erosion and nutrient loss. A 2009 assessment estimated that agricultural impacts from rabbits cost the economy around $200 million per annum (CISS 2012).

There are no specific data related to agricultural losses as a result of rabbit damage in Golden Plains Shire.

Figure 6: Aerial view of extensive rabbit warrens and damage on Bruces Creek south of Bannockburn

Conversely, industries based on farmed or wild rabbits have been adversely affected by the introduction of biological rabbit controls. A small, farmed rabbit and wild rabbit industry still operates but cost pressures for farmed product are seeing this industry struggle.

Rabbits have economic impacts outside of agriculture through damage to lawns, gardens, sports grounds and parklands. They can also impact on built infrastructure such as dams, drainage and buildings leading to costs associated with remediation.

Environmental impacts

Rabbits have had a significant environmental impact. Their introduced presence into native ecosystems has resulted in complex interactional impacts relating to herbivory impacts, effects on native animals and other introduced fauna (i.e., foxes and cats).

Rabbits impact over 300 *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) Act listed threatened species and nine ecological communities. This includes 44 species of fauna (15 birds, 20 mammals, 6 reptiles, 1 invertebrate, 1 fish and 1 amphibian) and 260 listed plant species (DEE, 2016b). This has led to rabbits being listed as a key threatening process under the EPBC Act 1999.

Rabbits selective grazing of plants reduces the ability of native vegetation to regenerate or recruit new plants leading to a progressive decline in native vegetation quality. Density of rabbits as low as 1-2 rabbits per hectare or even as low as 0.5 rabbits per hectare can cause the loss palatable native seedlings thereby encouraging weed invasion (Cooke & McPhee 2007, DELWP 2017).

The rapid reduction in rabbit numbers following the introduction of Myxomatosis in the 1950's saw a recovery in the native timber industry based on White Cypress (*Callitris glaucophylla*) in western New South Wales as rabbit damage to seedlings was significantly reduced and the Cypress flourished (Thompson & Eldridge 2005).

Rabbit grazing also facilitates invasion by introduced weed species that are more adapted to grazing by rabbits or are capable of rapidly colonising areas disturbed and denuded by rabbits.

The presence of rabbits has been implicated as a factor in the loss of similar size herbivorous species such as the Bilby (*Macrotis lagotis*) from the landscape (DEE 2016a)

Rabbits help to sustain populations of predators such a foxes and feral cats by providing them with a readily available source of food. These predators then predate upon the few remaining native fauna.

Through damage to native vegetation and burrowing, rabbits contribute to landscape damage through soil loss and erosion.

Social impacts

The social impact of rabbits is varied. Recreational shooters derive satisfaction from their sport in shooting rabbits and assist landholders with the control of the pest. Some landholders like to see rabbits in the landscape and enjoy their presence as 'wildlife'.

The rabbit's long history in the western cultural norms of childhood tales as soft and cuddly animals has engendered amongst many a love of the species and a lack of desire to undertake control. The

methods of control are perceived by many as being cruel. For many there is no issue with the species as they are not directly financially impacted by the activities of the pest.

New biological controls to reduce the impact of the species can cause considerable cost, loss and distress to domestic rabbit owners and rabbit breeders/farmers who have to immunise to protect their animals.

Figure 7 : Rabbit grazing damage in a residential garden

9. PLANS AND STRATEGIES

The management of rabbits across Australia is guided by plans and policies at a Federal, State and Local Government level.

Australian Pest Animal Strategy 2017-2027

The Australian Pest Animal Strategy was developed in 2007 and revised in 2017. The Strategy defines a pest animal as those animals that cause more damage than benefits to human valued resources and social wellbeing.

The Strategy embodies 8 principles to underpin effective pest animal management:

- Prevention and early intervention are more cost effective;
- Pest animal management is a shared responsibility;
- Management of mobile animals requires a coordinated approach across a range of scales and tenures;
- Management of established pest animals should focus on the protection of priority assets;
- Pest animal management should be based on actual rather than perceived impacts;
- Best practice pest animal management balances efficacy, target specificity, safety, humaneness, community perceptions, efficiency, logistics and emergency needs; and
- Best practice pest animal management integrates a range of control techniques (including commercial use where appropriate), considers interactions between species (such as rabbits and foxes) and accounts for seasonal conditions (for example, to take advantage of pest animal congregations during drought) and animal welfare.

These principles should be incorporated into pest animal prevention, eradication and management strategies, plans and actions across all management levels.

Victorian Invasive Plants and Animals Policy Framework

The Victorian Invasive Plant and Animal Policy Framework 2010 presents the overarching Victorian Government approach to the management of existing and potential invasive species within the context of the Whole of Government Biosecurity Strategy for Victoria.

The Policy Framework utilises a strategic biosecurity approach that uses risk management to assess threats and determine the appropriate intervention for greatest public benefit.

The Policy Framework relies on four key actions:

1. Prevention - New infestations are kept out of the state.
2. Eradication - All infestations of new high-risk species in the state are targeted for eradication.
3. Containment - The priority is to target small satellite infestations for eradication. The core infestation is prevented from further spread, which may include reduction within the infestation where appropriate.

4. Asset-based protection - Widespread pests are managed using an asset-based approach where all threats are managed to minimise their impact on the asset.

Rabbits due to their status as an established pest animal are addressed using an asset-based protection approach in Victoria.

Council Plan 2021-2025

The Golden Plains Shire Council Plan 2021-2025 identifies sustainability and the value of ecosystems, nature and cultural heritage as key community priorities. The adopted community vision 2040 *"We want to value and preserve our natural ecosystems, landscapes, features, open spaces, bushland and connection to cultural heritage"* recognises the importance of maintaining and enhancing our environment.

Council's rabbit management program works toward meeting this key community priority as the control of rabbits reduces damage to natural ecosystems and enhances Council's revegetation efforts.

The Strategy and Plan align with Objective 3.1 - Valuing and protecting nature, cultural heritage and the environment and Objective 3.3 - Responsibly maintaining and managing natural landscapes and resources within the Council Plan. These objectives aim to ensure that Council's land management practices and behaviours ensure our native vegetation and ecosystems are healthy and protected.

Council Environment Strategy 2019-2027

Under Council's Environment Strategy Strategic Direction 3 Thriving Natural Environments, reduction in the impact of invasive species is recognised as a key target along with the development and implementation of an Invasive Species Program.

This Strategy and the accompanying Rabbit Management Plan enacts Council's desire to meet these targets within the Environment Strategy.

Actions within the Rabbit Management Plan will address the Environment Strategy's Key Implementation Mechanisms:

1. Manage invasive species and their impacts on Council owned and managed land.
2. Reduce invasive species and their impacts on privately owned land through community engagement and enforcement by the responsible agency.
3. Manage invasive species and their impacts through effective land use planning.
4. Establish and support partnerships with other agencies, community groups and education facilities to facilitate cross-boundary invasive species management.
5. Educate and empower the community, community groups and landholders about the impacts of invasive species and ways to manage them.

10. LEGISLATION AND POLICY

The impact and control of European Rabbits falls under both Federal and State Legislation.

Federal

European Rabbits are recognised as a Key Threatening Process under the *Environment Protection and Biodiversity Conservation Act 1999*. A Threat Abatement Plan; Threat abatement plan for competition and land degradation by rabbits, was developed for the species in 2008 and updated in 2016 and provides a national framework to guide and coordinate the response to rabbit impacts on biodiversity.

State

In Victoria feral or wild populations of European rabbits are declared as established pest animals under the *Catchment and Land Protection Act 1994*.

Under the *Catchment and Land Protection Act 1994* landowners have a responsibility to take all reasonable steps to prevent the spread of — and as far as possible eradicate established pest animals from their land.

The State Government is the body authorised under the Act to undertake enforcement of landholder requirements for rabbit control.

There are a number of legislative instruments that relate directly or indirectly to the management of rabbits.

- *Catchment and Land Protection Act 1994* – declaration of pest plant animals and determination of the statutory landholder pest animal control requirements.
- *Agricultural and Veterinary Chemicals (Control of Use) Act 1992* – imposes controls in relation to the use, application and sale of agricultural chemicals, including rabbit control poisons and chemicals.
- *Water Act 1989* – provides the legal framework for managing Victoria's water resources. Rabbit control works that require excavation/implosion of warrens or heavy machinery for harbour removal will require a Works on a Waterway Permit from the Corangamite Catchment Management Authority.
- *Cultural Heritage Act 2006* and *Cultural Heritage Regulations 2018* – acts to provide for the protection of Aboriginal cultural heritage in Victoria. A Cultural Heritage Management Plan or Cultural Heritage Permit may be required within areas of cultural heritage sensitivity where high impact works such as warren ripping/destruction resulting in significant ground disturbance are to be undertaken.
- *Flora and Fauna Guarantee Act 1988* – legislation to conserve threatened species and communities and manage potentially threatening processes. Rabbit control works should ensure that they do not breach the Act and cause impact on listed species and communities.
- *Planning and Environment Act 1987* – provides the framework for the use, development and protection of land in Victoria. Rabbit control works should ensure they do not breach the statutory requirements of the Act

such as Vegetation Protection Overlays and Environmental Significance Overlays.

- *Prevention of Cruelty to Animals Act 1979* and *Prevention of Cruelty to Animals Regulations 2019* – aims to protect the welfare of animals in Victoria. Rabbit control programs and methods must aim to destroy rabbits and their harbour in the most humane way possible.

  This is supported by the Code of Practice for the humane control of rabbits (Sharp t and Saunders G, 21012)

- *Land Act 1958* – this act requires holders of agricultural licences and leases to control noxious weeds and vermin.

- *Local Government Act 2020* – this act allows Councils to enact and enforce rabbit control through local laws and planning permit conditions.

Local government

Some municipalities have adopted requirements for control of European Rabbits under their Local Law where enforcement of the *Catchment and Land Protection Act 1994* is not being satisfactorily undertaken by the State or Council wishes to address particular local issues pertaining to the species.

Golden Plains Shire Council Local Law No 1 General Public Amenity contains provision for Council Officers to issue a Notice to Comply seeking control of noxious weeds and pest animals within or directly adjacent to township areas where the State Government do not carry out compliance and enforcement activities.

11. RESPONSIBILITIES

Private land

All landholders and land managers have a responsibility under the *Catchment and Land Protection Act 1994* to take all reasonable steps to prevent the spread of — and as far as possible eradicate established pest animals from their land.

Council land

Golden Plains Shire Council; as a landholder, is responsible for meeting the requirements of the *Catchment and Land Protection Act 1994* on land it owns or manages. This includes parks, recreation reserves and roadsides and freehold land under Council ownership, land vested in Council and Crown Land delegated to Council to manage.

Crown land

Within Golden Plains Shire, there are many parcels of Crown Land held under the direct management of the Department of Environment, Land, Water and Planning (DELWP). Additionally, there are many Crown Land parcels that are managed by other bodies under a Crown Land lease or licence or under delegated management to another party (e.g., Council, Parks Victoria).

DELWP hold responsibility for rabbit management for all Crown Land that has not been delegated for management by another party or held under Crown Land lease or licence. Where Crown Land management has been delegated to another party or leased/licenced, then that body is responsible for compliance with rabbit management.

DELWP is significantly underfunded and understaffed given the scale of the land they manage across the State and as a result, works to control pest plants and animals may not always meet community expectations.

Roadsides and road reserves

The road reserve manager is responsible for meeting the requirements of the *Catchment and Land Protection Act 1994* on land it manages.

Council, Vicroads and Regional Roads Victoria (RRV) manage roads and road reserves across the municipality.

Council manages approximately 1800km of roads which is around 2% of the total land in the Shire.

Where a road reserve is held under tenure through a Crown Land licence, the tenure holder is responsible for meeting the requirements of the *Catchment and Land Protection Act 1994* on the land under tenure.

Parks Victoria

Parks Victoria is responsible for meeting the requirements of the *Catchment and Land Protection Act 1994* on land it manages. Within the municipality, Parks Victoria manages significant areas of public land such as the Inverleigh Nature Conservation Reserve and Brisbane Ranges National Park.

Parks Victoria is significantly underfunded and understaffed given the scale of the land they manage across the State and as a result, works to control pest plants and animals may not always meet community expectations.

Corangamite Catchment Management Authority (CCMA)

The Catchment Management Authority develops and implements the Regional Catchment Strategy and various other strategies pertaining to particular catchment issues (e.g., Waterway Strategy, Floodplain Strategy).

Rabbits have been identified in the CCMA Waterway Strategy 2014-2022 as a threat to waterway and wetland values. The establishment of rabbit control programs is identified as a priority action for the Barwon River, Woady Yaloak and Moorabool River catchments within the Golden Plains Shire.

The CCMA supports on ground works to manage rabbits through funding support for land management projects when funds are available.

Agriculture Victoria

Compliance and enforcement activities under the *Catchment and Land Protection Act 1994* are carried out by Biosecurity Officers of Agriculture Victoria .

12. COMMUNITY ATTITUDES

Resident attitudes and responses to rabbits within the community vary widely from those who do not want to see the species harmed to those who seek their elimination from the landscape at all costs.

Community attitudes to rabbits are complex as people and groups view the rabbit in diverse ways often reflecting their social, economic or environmental values. Western cultural norms derived from childhood tales with rabbits depicted as soft and cuddly animals has engendered a love of the species. Depictions of rabbit control as violent and cruel in popular media such as the movie *Watership Down* influence community attitudes.

Figure 8: The ever-popular Peter Rabbit by Beatrix Potter has contributed to community attitudes to rabbits.

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The problem of rabbits and the solutions are complex. Attitudes can shift and change due to the complexity of the issue and the social and political context of the time (Adams *et al* 2019).

The drivers of community attitudes have changed over time from the pro-rabbit views of early settlers and acclimatisation societies through to the opposing interests of commercial rabbit enterprises and impacted agricultural communities to the largely anti-rabbit stance held by many today (Adams *et al* 2019).

Community attitudes against rabbits are often a common response from disparate groups who may not normally agree, and they illustrate the diverse drivers (economic, social, environmental) behind these attitudes. Farmers and environmentalists may not agree on many issues but often find common ground in their battle against the rabbit.

Within some groups, the understanding of the need to control rabbits may be shared but the methodologies of control may not be. For example, proponents of animal welfare may share the understanding of the need to control rabbits but believe the methodologies are inhumane. Environmentalists might agree that control of rabbits is vital to aid ecosystem recovery but struggle to accept deep ripping methodology with its associated soil damage and potential vegetation damage.

Many farmers and landholders will accept a certain level of rabbit impact on their property as the economic impact is limited while numbers are low. This attitude is possibly supported by the cost and difficulty in completely eradicating rabbits from a property. The cost and efforts to eliminate rabbits often far outweighs the economic benefit of chasing down those last few rabbits. Anecdotal reports indicate that some

farmers like to retain a few rabbits to reduce predation pressure during lambing when predators may take a rabbit over a lamb defended by its

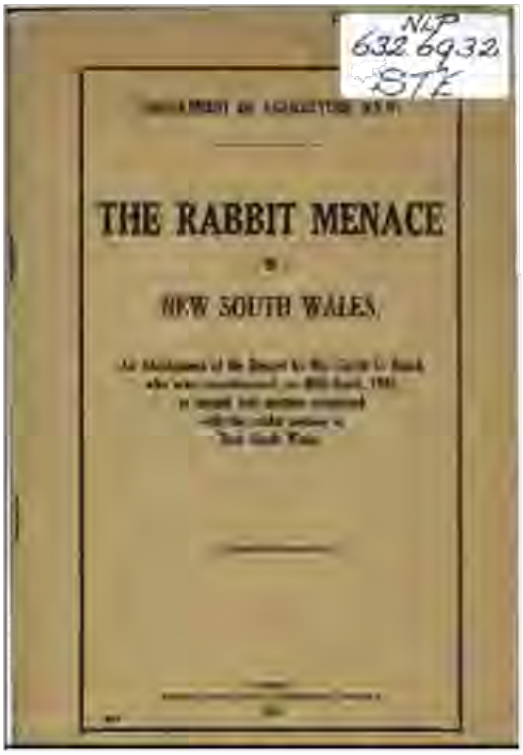

Figure 9: Inquiry into the Rabbit Menace by the New South Wales Department of Agriculture in 1925

mother.

Residents often do not see or experience either the physical or financial impacts of rabbits leading to a lack of interest in their control. The success of the myxomatosis and calicivirus programs mean that most communities have not witnessed the extensive damage caused by rabbits in the past (DEE 2016a) and therefore do may readily accept that the species is a problem.

A lack of understanding regarding legislated landholder responsibilities for rabbit control may contribute to a failure to control the pest. Landholders may blame the rabbits from nearby Crown or Council land while not accepting the responsibility to manage rabbits on their own land. Landholders may think that it is a Council or State Government responsibility to control rabbits and not a landholder responsibility.

Council generally only hears from the community regarding rabbit issues when numbers are locally or seasonally high and they're highly visible or having a direct impact on residents.

Lack of participation is a significant impediment to any sort of rabbit control program.

Control programs; either community or individual, are voluntary and often only have limited uptake due to the varying attitudes towards the pest species, landholder capacity to participate, lack of landholder knowledge about methods (i.e., fear of doing the wrong thing) and a lack of enforcement by State Government authorities. Landholders may choose to not participate in a control program as their neighbour is not participating, thereby contributing to a cycle that leads to program failure.

The diversity of rabbit control methodologies available; a lack of 'simple' controls, concerns regarding humaneness of methodologies and 'off target' impacts and the fact that there is no 'silver bullet' to the rabbit problem contribute to lack of uptake of rabbit control by landholders, particularly within rural residential communities. Control of rabbits is complex and landholders generally want a simple solution. Without a simple solution, landholders will be reluctant to take on the long and complicated task of dealing with rabbits and instead will accept that some rabbit damage; while unwanted, is acceptable.

Therefore, the diversity of community attitudes are a significant challenge for any rabbit control program.

13. ENFORCEMENT

The lack of enforcement action taken against landholders with pest plants and animals is a common complaint from adjacent landholders. However, compliance activities and subsequent enforcement action for non-compliance can be a resource hungry and costly undertaking.

State Government

Compliance activities and enforcement of the *Catchment and Land Protection Act 1994* requiring landholders to control rabbits lies with Agriculture Victoria who is responsible for administering the Act.

Compliance activities are actions and programs designed to ensure the law is followed. Enforcement activities are actions undertaken when the law is not followed and help to ensure a return to compliance with the law.

Section 20; general duties of landowners, of the *Catchment and Land Protection Act 1994* requires landowners to take all reasonable steps to prevent the spread or, and as far as possible eradicate, established pest animals.

If a landholder or land manager does not comply with Section 20 of the Act, the State Government may serve a Directions Notice or Land Management Notice on the landowner that outlines measures that must be taken for the control or eradication of noxious species on the land.

If the landholder fails to comply with a Directions Notice or a Land Management Notice, penalties may be imposed.

Compliance and enforcement programs are generally carried out within target areas; often supporting Landcare led

Figure 10: Denuded and weedy ground around a long-established rabbit warren. Photo: Alf Manciagli

community engagement programs. These programs aim to bolster the gains through Landcare programs by targeting recalcitrant landholders who fail to engage with or undertake works as part of the target area.

The last rabbit target area in Golden Plains Shire was the Rabbit Lawaluk project in 2011-2013. Biosecurity Officers from Agriculture Victoria carried out compliance and enforcement activities across approximately 8000 hectares in the Mount Mercer area. The project area was chosen based on a priority focus score for Corangamite noting the streams in the area flow into the internationally significant Ramsar Wetland Lake Connewarre, and the surrounding Western Volcanic Plains grasslands.

Ad-hoc enforcement against individual landholders in response to neighbour complaints is rarely; if ever, undertaken. Agriculture Victoria will generally respond to complaints by contacting landholders to remind them of their responsibility under the Act to control rabbits.

State Government compliance and enforcement is woefully under resourced for the task and as a result, compliance and enforcement falls a long way short of the community's expectation.

Local Government

Some municipalities have adopted requirements for control of European Rabbits under their Local Law where enforcement of the *Catchment and Land Protection Act 1994* is not being satisfactorily undertaken by the State or Council wishes to address particular local issues pertaining to the species.

Council's Local Law No 1 General Public Amenity contains provision for the issue of a Notice to Comply to address pest plant and animal issues. The use of the provision has been limited due to the complexity of pest management issues and resourcing.

14. OUR STRATEGY

Our Strategy is based around the understanding that the complete elimination of rabbits from all Council land; while highly desirable, is not possible. Our approach seeks to ensure that using available resources, rabbit numbers are reduced to the lowest possible number and maintained at low levels to minimise their negative effects on agriculture, community and the environment.

The Strategy is enacted through the separate Golden Plains Shire Rabbit Management Plan 2021-2031.

Vision

Rabbits are effectively controlled on Council land and across the municipality to minimise their impact on agriculture, community and the environment.

Goal 1 – Reduce Rabbits

To provide long term reduction in rabbit numbers on Council managed land.

Goal 2 – Engage Neighbours

To improve rabbit control outcomes on Council managed land by engaging with adjacent landholders to conduct rabbit control.

Goal 3 – Raise Awareness

To raise community awareness regarding the rabbit problem, increase community knowledge and enable the community to undertake effective rabbit control.

Goal 4 – Improve Compliance

To advocate for and support State Government rabbit control compliance and enforcement .

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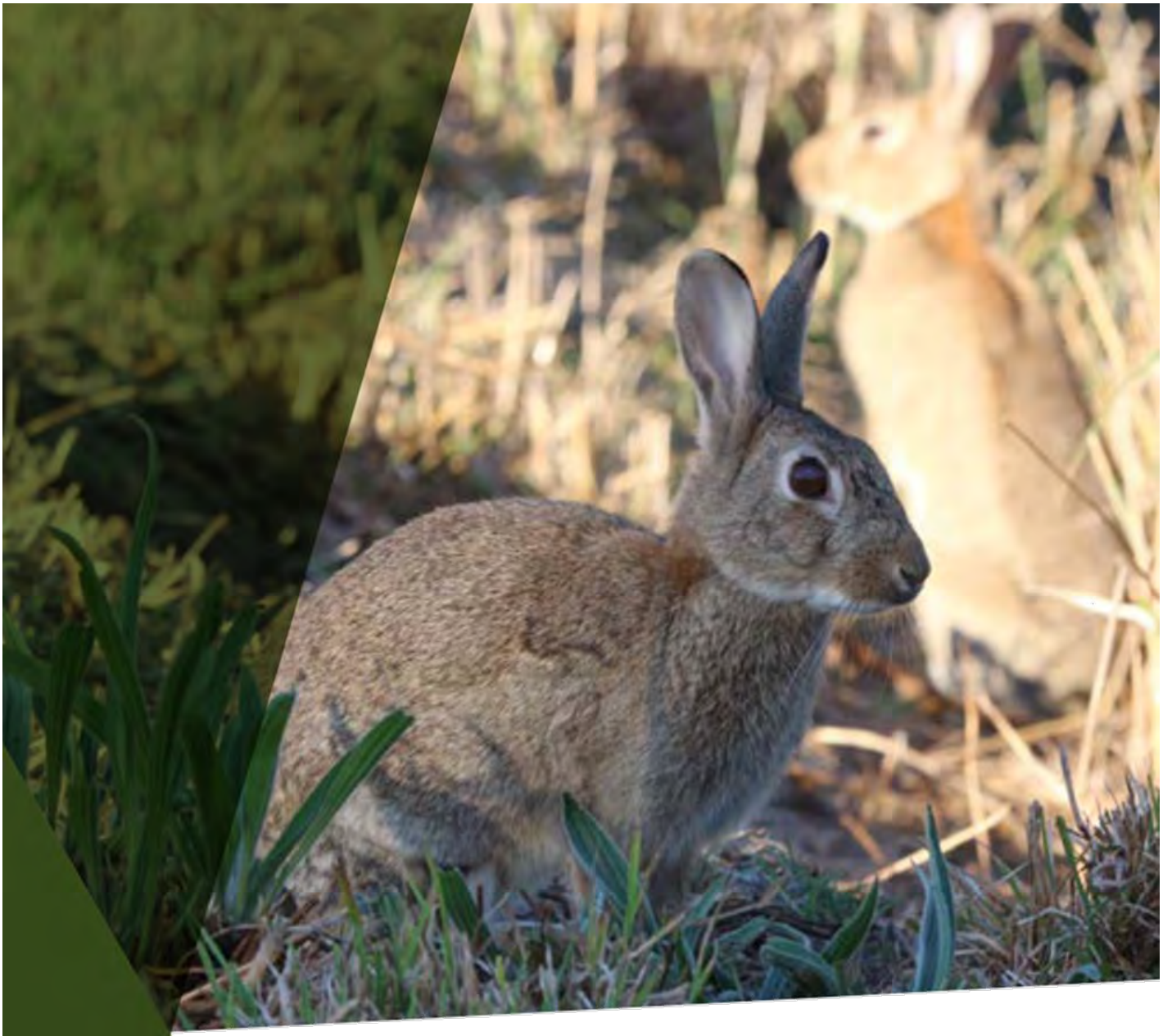


RABBIT MANAGEMENT PLAN 2021-2031

GOLDEN PLAINS SHIRE

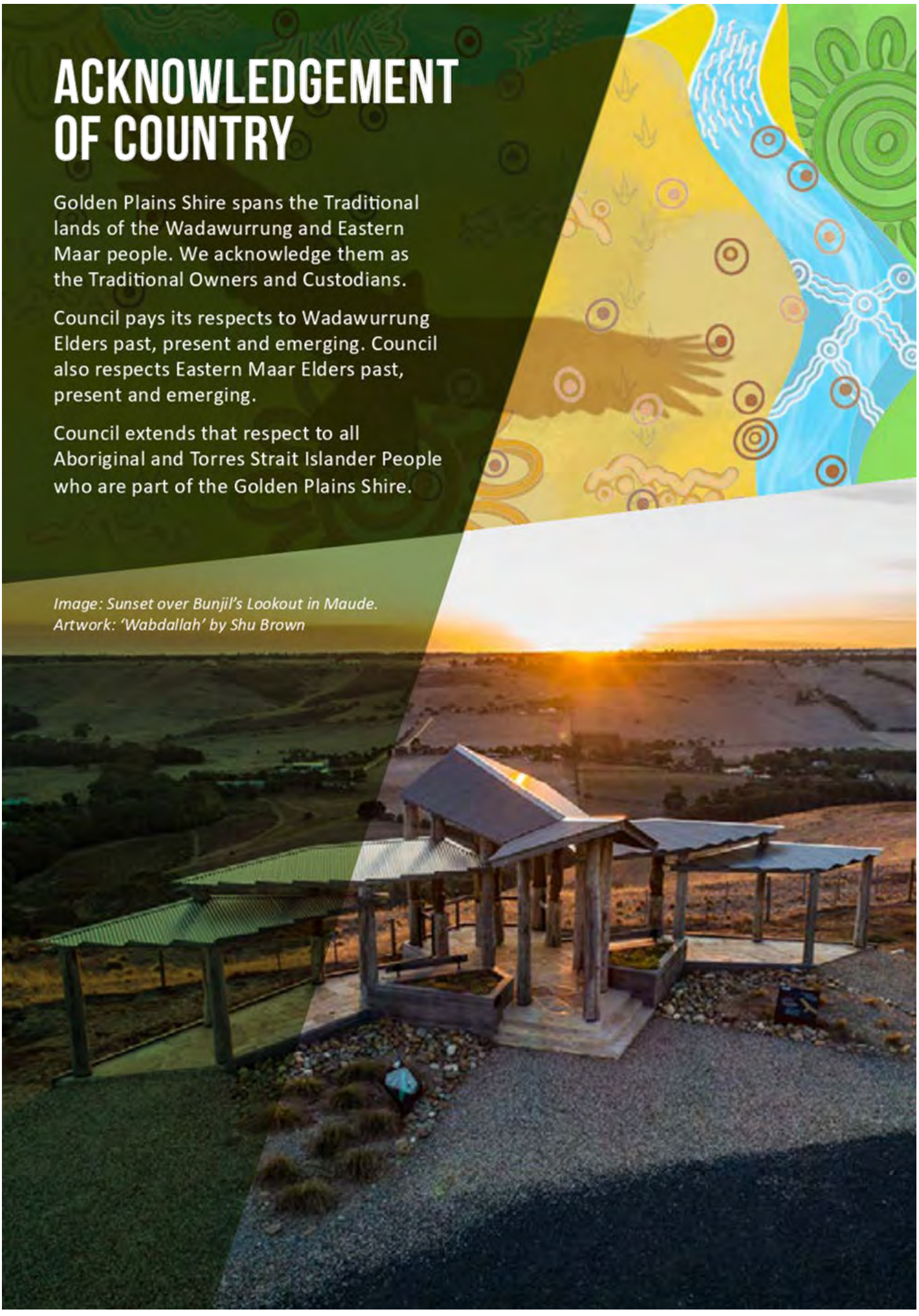
ACKNOWLEDGEMENT OF COUNTRY

Golden Plains Shire spans the Traditional lands of the Wadawurrung and Eastern Maar people. We acknowledge them as the Traditional Owners and Custodians.

Council pays its respects to Wadawurrung Elders past, present and emerging. Council also respects Eastern Maar Elders past, present and emerging.

Council extends that respect to all Aboriginal and Torres Strait Islander People who are part of the Golden Plains Shire.

Image: Sunset over Bunjil's Lookout in Maude.
Artwork: 'Wabdallah' by Shu Brown



DOCUMENT CONTROL

Document: Golden Plains Shire Rabbit Management Plan 2021-2031
Author: Dale Smithyman, Natural Resources Officer
Date: December 2021
Synopsis: An action plan that sets out Council's approach to management of rabbits.

SCHEDULE OF ADOPTION

Version no.	Date	Comment
Rabbit Management Plan 2021-2031 Version 1		

This Rabbit Management Plan is owned and managed by :

Golden Plains Shire Council
2 Pope Street
Bannockburn, VIC 3331

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1 EXECUTIVE SUMMARY

Golden Plains Shire Council recognises that wild European Rabbits (*Oryctolagus cuniculus*) are a widespread and destructive agricultural and environmental pest. The species negatively impacts on agriculture, soil stability, native flora and fauna, residential amenity and built infrastructure through grazing and the development of warrens.

Under State legislation, Council has a responsibility to control rabbits on land that it owns or manages and; where possible, to eradicate them.

This Plan is based on the separate Golden Plains Shire Rabbit Management Strategy 2021 and illustrates Council's current rabbit management program and sets out the steps by which Council aims to meet the Vision and Goals of the Strategy.

The Plan is based on industry best practice and research as well as practical experience of Council officers in the field.

Figure 1: Geelong Landcare Network Rabbit Control Workshop.

Vision

Rabbits are effectively controlled on Council land and across the municipality to minimise their impact on agriculture, community and the environment.

Goals

To provide long term reduction in rabbit numbers on Council managed land.

To improve rabbit control outcomes on Council managed land by engaging with adjacent landholders to conduct rabbit control.

To raise community awareness regarding the rabbit problem, increase community knowledge and enable the community to undertake effective rabbit control.

To advocate for and support State Government rabbit control compliance and enforcement.

2 INTRODUCTION

Golden Plains Shire Council recognises that wild European Rabbits (*Oryctolagus cuniculus*) are a widespread and destructive agricultural and environmental pest. The species impacts on agriculture, soil stability, native flora and fauna, residential amenity and built infrastructure through grazing and the development of warrens.

State Legislation: the *Catchment and Land Protection Act 1994,* requires landholders to take reasonable steps to prevent the spread of rabbits and as far as possible, eradicate them

Council generally only hears from residents about the pest when rabbit numbers are high and they're having a noticeable impact on landholder's properties.

Council has a long history of controlling rabbits on land that it owns or manages. This program; supported by a consistent budget allocation, has resulted in significant reductions in rabbits across Council's reserves.

While this Plan focuses on rabbits on Council owned or managed land (Council public reserves and roadsides), it also contains actions to assist with the control of rabbits on private land within townships and adjacent to Council reserves.

Figure 2: Effective Rabbit resistant fencing at the Old Batesford Cemetery Council Reserve.

3 CONTROL METHODS

3.1 Integrated pest animal management

Integrated pest animal management ensures that pest management does not just focus on a single method of control but encompasses a range of approaches and methodologies that exploit the pest's biology and behaviour that contribute most to removal of a species.

An integrated plan should encompass:

- monitoring that allows determination of areas of pest animal activity, pest animal density, pest animal impacts. It provides a baseline to determine the success of the control program;
- implementation of control methods that exploit the pest animals' biology and behaviour;
- prevention works to minimise the risk of reinfestation; and
- evaluation and follow-up

There are numerous methods available for controlling rabbits. This allows land managers flexibility in choosing control methods that suit their circumstances and the aims of their program. There are no 'silver bullet' solutions to a landholder's rabbit problem.

An effective rabbit control program should apply several treatments suited to the situation to tackle the problem. The combined approach should aim to reduce rabbit numbers, remove rabbit harbour and reduce the risk of reinfestation. Only through an integrated control program can land managers hope to get rabbits under control and keep numbers low.

Any rabbit control program should include the destruction of rabbit warrens as the warren is the key to the success of the rabbit.

Each control method has constraints and costs which need to be considered in developing any control program. Not all methods are suited to all situations.

3.2 The rabbit recipe

Any program to reduce rabbits in the long term should follow the Victorian Rabbit Action Network's Rabbit Recipe.

Figure 3: The Rabbit recipe for long term control of rabbits.

Assess the problem

Understanding the rabbit issue is vital to developing any integrated rabbit control program. Spotlight counts, warren and rabbit harbour mapping and observation of rabbit signs (e.g., buck dung piles, scratchings, evidence of grazing, rabbit trails and access points under fences) can inform any program to control the pest.

Reduce numbers

Reduction of rabbit numbers; usually through a baiting program or fumigation, must be done to maximise the effectiveness of subsequent steps in the program. Other methods of reduction in numbers can be undertaken (e.g., fumigation, shooting, ferreting) to suit the circumstances of the infestation.

The method of reduction must aim to reduce rabbit numbers by 95%.

Destroy warrens and remove harbour

The destruction of the warren is the key to any successful ongoing control of rabbits.

Rabbit control programs that do not include the destruction of warrens are just a rabbit harvesting program that kills off a proportion of the population each time the program is run but does not result in long term reductions in rabbit numbers and impacts.

The warren is the key to the success of the rabbit. Destroy the warren to destroy the rabbit.
Devanny N, VRAN (2021)

Warren destruction can be carried out by excavation or ripping or implosion with explosives. In sensitive or difficult sites, labour intensive hand excavation may be required.

The removal of harbour is also important as harbour provides cover and shelter for rabbits as they construct warrens.

The destruction of warrens can be problematic in areas of cultural heritage sensitivity, along waterways, around structures, in areas of highly erodible soils or areas of high conservation value containing disturbance sensitive native vegetation.

Monitor and react

Follow up monitoring must be undertaken to identify reopened warrens for further treatment, to assess the effectiveness of the program and to identify improvements.

3.3 Timing

Rabbit control should be carried out at the appropriate time to maximise the effect of the program. This is usually when the number of rabbits is lowest (late summer/autumn) and breeding has generally ceased, territories have broken down as food is scarce and biological and natural controls have reduced numbers.

Controlling rabbit populations when they are low is the most cost-effective time to control rabbits. Naturally low numbers of rabbits means that a larger proportion of the remaining population will be killed which reduces the chances of rapid recovery of populations and reinfestation.

As some control methods rely on particular periods in the annual rabbit cycle, the timing of these methods can be complicated by unusual seasonal conditions that see rabbits continuing to breed, maintain territories or disperse outside their 'normal' time for these

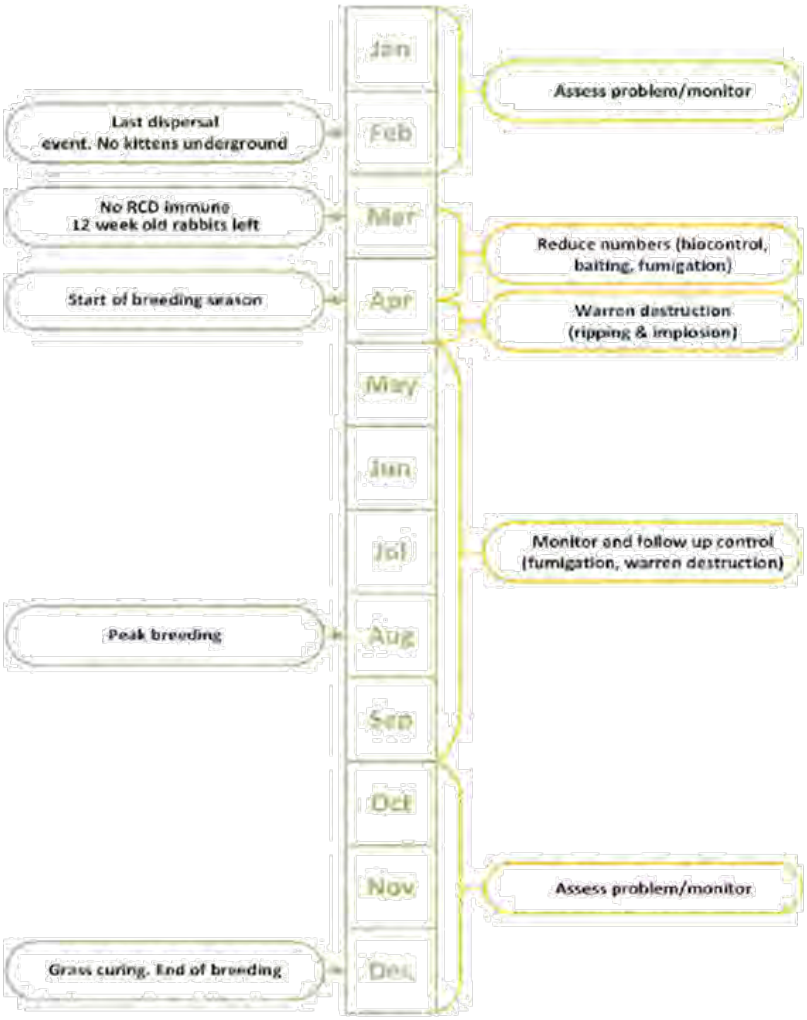

Figure 4: Rabbit control calendar on an 'average' year.

activities. Ongoing monitoring and flexibility in delivery of the relevant control option must be applied to maximise effectiveness.

3.4 Monitoring

The monitoring of rabbit numbers is an integral part of any rabbit control program. Monitoring can take several forms that can be adapted to the location and program. Some can apply complex mathematical treatments to determine abundances.

Spotlighting is commonly used to provide a means of estimating relative population size. Spotlight counts can be conducted from vehicles or on foot along pre-determined transects to try to ensure sufficient coverage. While the methodology is simple it has shortcomings such as timing, observer bias and suffers from the influence of weather, visibility and landscape constraints.

Sight counts are conducted during daylight hours. However, as rabbits are primarily active in the early evening, daylight counts may miss a substantial proportion of the population.

Warren counts have been found to be useful in estimating rabbit abundance. Research has shown high correlation between active burrows and population size (Mitchell, B. and Balogh, S. (2007)). Simple warren count data can be augmented by active entrance counts and counts of rabbits at the warren.

Dung counts can be useful in estimating populations of nocturnal animals as dung is readily visible during the day. The accuracy is affected by factors such as defecation and accumulation rates and dung visibility.

Other rabbit signs such as trails, scratchings and bait station visitation can be used but only provide indexes of abundance.

3.5 Humane rabbit control

There is an expectation that rabbit control treatments will aim to provide methods of control that minimise animal suffering while maximising the efficacy of the program. The most humane method that will achieve the control program outcomes must be used.

The requirement to humanely control rabbits is contained in the *Prevention of Cruelty to Animals Act 1979*.

The Code of Practice for the humane control of rabbits (Sharp T and Saunders G 2012) provides guidance on the various methodologies for rabbit control and their humaneness.

Each method of control has issues around its use to control rabbits and so the most humane methods are often difficult to deliver, dangerous to off target animals or not cost effective (Pestsmart 2020a).

Council is aware of issues with some rabbit control methods and is always keen to apply new or innovative methods to control rabbits that are more humane.

3.6 Exclusion fencing

Exclusion fencing is considered the most humane method of controlling rabbits. It is, however, very expensive and requires regular maintenance to ensure its effectiveness. Effective fencing cannot be achieved in all situations due to landscape, access and bounding properties. Exclusion fencing can exclude desirable native fauna (e.g., echidnas) from entering or leaving the excluded area so consideration should be given to where it used and what native species it may impact.

Installation of devices (e.g., swing gates) for use by native animals to access the reserve while still excluding rabbits should be investgated.

3.7 Baiting

Baiting with Sodium fluoroacetate (1080) or Pindone laced baits is considered a key part of most rabbit control programs.

However, the use of poisons in rabbit control programs is problematic as both 1080 and Pindone are considered as inhumane due to the suffering of the animal prior to death (Sharp T and Saunders G, 2012).

Pindone is considered less humane than 1080 due to the length of suffering of a Pindone poisoned rabbit There is an antidote to Pindone (Vitamin K) but no antidote to 1080.

1080 is quick acting due to its toxicity but off target deaths; more particularly associated with domestic dogs taking 1080 laced fox baits, are common and the lack of an antidote means that an animal that has ingested the poison will die.

Therefore, poisoned animals will experience pain and suffering to some degree prior to death for either poison. Therefore, it is important that poisoning programs are well designed and carefully conducted to minimise suffering and off target damage.

Baiting is generally carried out when food resources and rabbit numbers are low and territorial boundaries are reduced. Additionally, the territoriality, neophobic and social structure of rabbits must be considered when planning baiting programs so that all rabbits have the potential to be exposed to baits.

Baiting is usually conducted using Pindone or 1080 laced oats or chopped carrot. Bait is laid along trails of disturbed earth with a bait layer trailer. The rabbits are attracted to the soil disturbance and take up the feed. Free feeds of unbaited oats or carrots are required to habituate rabbits to take up the feed as a rabbit needs to take a couple of feeds of Pindone bait for it to be fatal. Trails need to be laid to maximise the exposure of as many rabbits to the feed and bait as possible.

Baiting stations to may be used in areas where off target impacts need to be reduced. These are, however, considered less effective due to the dominance structure of rabbits whereby a dominant rabbit will exclude others from the bait.

If a more humane method of control of rabbits via baiting becomes available, it should be adopted.

3.8 Warren fumigation

Warren fumigation aims to kill rabbits within the warren. A number of different fumigants are available; however, Chloropicrin is considered to be highly inhumane and is not used. Phosphine, generated through the use of aluminium phosphide tablets placed in the warren, is commonly used.

Phosphine is a systemic poison which depresses the central nervous system and respiratory function (Pestsmart 2020b). It is highly toxic to humans therefore, operators performing warren fumigation must take adequate precautions to safeguard against accidental exposure.

The precise nature and extent of suffering of rabbits after inhalation of phosphine is unknown. However, Phosphine is considered to be more humane than the alternative chloropicrin because it causes less intense suffering (Pestsmart 2020c).

Alternative fumigation methods using carbon dioxide or carbon monoxide are considered more humane but suffer from the ability to deliver the fumigant at the required concentrations or via an appropriate method of delivery in the field.

If a more humane method of control of rabbits in the warren becomes available, it should be adopted.

3.9 Warren destruction

The destruction of rabbit warrens is an essential part of any rabbit control program and is the key to the control of the pest. All other methods are only differing ways of harvesting/killing rabbits and only serve to reduce numbers.

By destroying the homes of rabbits, reinfestation is reduced thereby increasing the effectiveness of follow up programs.

Warren ripping/excavation or implosion should be carried out when the soil is dry to maximise the fracturing of the soil.

Ripping or excavation collapses and crushes the warren, quickly dispatching any rabbits remaining inside. The destruction of the warren destroys the home of any rabbits who were not inside the warren thereby depriving them of shelter from weather and predators and reducing their chance of survival in the long term.

The use of explosives can be very effective in imploding warrens in the right soil types such as sandy loams. It also minimises damage to native vegetation. Explosives kill rabbits by the blast and through crushing or suffocation from the collapse of the soil.

In most cases the time to death is thought to be quick especially when complete destruction of the warren is achieved. Implosion alters soil stability making it hard for rabbits to re-establish the warren.

Warren ripping or blasting is considered more humane when carried out when rabbit numbers are at their lowest (late Summer/Autumn).

Warren destruction can also be undertaken using an oxygen-LPG detonation (e.g., Rodenator). The warren is filled with an oxygen-LPG mix and ignited. The resulting concussive force is sufficient to humanely kill rabbits and collapse the majority of the warren

Figure 5: Use of a 20-tonne excavator to rip a long established and deep warren.

depending on soil type and warren depth.

Warren destruction by heavy machinery can cause significant soil disturbance leading to erosion. It may also significantly damage native vegetation. Implosion minimises soil and native vegetation damage but is not suited to all soil types and locations.

In sensitive or difficult sites, labour intensive hand excavation to collapse a warren may be required combined with alternative methods such as wire netting to reduce rapid reinfestation.

The destruction of warrens can be problematic in areas of cultural heritage sensitivity, along waterways, around structures and in areas of highly erodible soils or areas of high conservation value containing disturbance sensitive native vegetation.

3.10 Shooting

The use of professional shooters who can achieve an accurate head shot is considered a humane method of controlling rabbits as the suffering of the rabbit is very brief. However, shooting is not able to be carried out in built up areas. Nor are appropriately experienced, skilled and responsible shooters readily available.

3.11 Ferreting

The use of ferrets with dogs and long nets can be a useful adjunct to fumigation or other control works in that they act to reduce rabbit numbers and potentially achieve a higher kill.

Figure 6: Pinned down wire netting combined with manual warren collapse used on a dam wall to minimise reinfestation where implosion/ripping cannot be used.

The ad-hoc use of ferrets by enthusiasts does little to reduce rabbit populations.

3.12 Trapping

Trapping using leg hold traps (serrated or soft hold) is considered to cause significant suffering and distress to rabbits and non-target animals and is not widely used nor recommended. The use of serrated tooth leg hold traps is banned in Victoria.

Trapping using either cage traps or soft net traps causes less injury and enables the release of non-target animals with minimal harm. However, cage or soft net traps are not considered cost effective for controlling large rabbit populations. Additionally, the captured rabbits need to be humanely dispatched by either an authorised person at an animal shelter/veterinary clinic/council pound or shot by a professional shooter.

3.13 Biological control

Current biocontrol agents Myxomatosis and Rabbit Haemorrhagic Disease (Rabbit Calicivirus Disease (RCD)) are present in the rabbit population in most areas and so re-releases of the disease are not commonly used as a control method. Their prevalence in a rabbit population is a function of population numbers, seasonal conditions and the presence of the virus vector (e.g., mosquitos, rabbit fleas).

Following the spectacular success of Myxomatosis on its release in the 1950's, the virulence of the biocontrol agent is gradually declining and resistance of rabbits to the infection is increasing. A large proportion of rabbits carry antibodies to RHDV and myxomatosis and if exposed to the biocontrol are likely to survive.

Myxomatosis causes a slow death of up to 4 weeks with considerable suffering by the infected animal. Infected rabbits found with the disease should be quickly and humanely destroyed if possible, to minimise suffering.

With up to 50% of rabbits being naturally immune to RCD; as a biocontrol agent it has only had limited effect on rabbit numbers. RCD infected rabbits die relatively quickly, and suffering is limited. New strains of RCD are occasionally released by authorities and landholders can participate in these releases.

If a more humane method of control of rabbits via biological control becomes available, it should be adopted.

3.14 Harbour removal

The removal of rabbit harbour is considered an essential part of any rabbit control program and when combined with warren destruction can rapidly reduce rabbit numbers and provide long term control.

Removing harbour removes cover for rabbits thereby depriving them of shelter and exposing them to predators.

Rabbit harbour can include dense infestations of woody weeds (e.g., Gorse, Boxthorn), dense standing long grass, sheds, structures, wood piles and burn off/rubbish heaps. Rabbit harbour is often infested with rabbit warrens and the removal of harbour can reduce the reinfestation of destroyed warrens. Rabbits can also find harbour in dense native vegetation. The removal of native vegetation to destroy rabbits is permitted provided the removal is only to the minimum extent necessary to complete the required works.

3.15 Rabbit repellents

Commercially available rabbit repellents and animal repellent devices are readily available (e.g., D-ter Animal and Bird Repellent). Repellents are generally a spray based on a sensory (olfactory or taste) deterrent that requires regular application to remain efficacious. Repellent devices rely on battery or solar power and the use of strobe lights and sonic or ultrasonic sounds emitted on the detection of an animal.

Both methods may have application in domestic settings where regular reapplication or attention is required but are unlikely to be useful in a larger conservation reserve setting but this should be investigated further.

3.16 Future control methods

Ongoing research into more effective and humane control methods for rabbits is being undertaken by research institutions. Work on macropods, foxes and rats have using immunocontraceptive vaccines and hormone treatments have shown promise but difficulties in effective and timely delivery (e.g., dart delivery, oral baits) of the agent will need to be overcome before these agents become readily available. In line with Council's target to reduce rabbit numbers, new and innovative humane approaches to rabbit control should be adopted as they become available.

4 COUNCIL'S CURRENT PROGRAM

Council has a long history of undertaking control of rabbits on land that it owns or manages. The program has developed over a number of years using an adaptive management approach to take advantage of new learnings and methodologies as they become available.

The approach has not been predicated on an existing plan or strategy and has aimed at simply keeping rabbit numbers reasonably low to meet Council's legislative requirement, minimise the impact on native vegetation, aid in revegetation efforts and minimise complaints from neighbouring landholders. The program aims to manage rabbit numbers to reduce impacts rather than the highly desirable but largely unachievable goal of elimination.

The program has been based on annual monitoring of rabbit warrens in Council reserves.

The program has resulted in a significant reduction in the number and the size of warrens in most Council reserves with most warrens now reduced from large, old, multi chamber infestations to much smaller warrens.

Control of rabbits is not easy and there is no 'silver bullet' that eliminates rabbits. Control and possible elimination of rabbits can often take many control attempts over a number years before a warren is eliminated.

Council's Environment and Sustainability Team are responsible for the implementation of pest animal control across Council land.

Figure 7: Bruces Creek North Reserve rabbit warrens in 2011 and 2019 following mapping, fumigation, warren destruction and harbour (Boxthorn) removal.

4.1 Budget

The control program has been consistently supported by a budget allocation backing the program. Between $10,000 and $15,000 of Councils pest plant and animal control budget ($65,000, 2019) is expended on rabbit control annually.

Funding is primarily expended on Council conservation and recreation reserves with small allocations to deal with specific roadside rabbit issues as required.

The consistent and persistent annual control program supported by a solid recurrent budget has largely kept rabbit numbers in check with resident complaints about rabbits on Council land being minimal. In most reserves, rabbit warren numbers have been substantially reduced and in the case of the Old Batesford Cemetery, warrens and rabbits have been eliminated.

4.2 Timing

Council's rabbit program is focussed around January through April. The warmer, drier months help to naturally reduce rabbit numbers through a combination of less feed being available, harsh conditions and the impact of the biological controls; Calicivirus and Myxomatosis which rely on insect vectors which are more active during warmer months.

Rabbit control to deal with new localised infestations or particular rabbit issues that have not been addressed through the regular annual program (e.g., rabbits undermining a dam wall) are undertaken on an as needed basis dependent on funds available.

4.3 Mapping and monitoring

Council's rabbit monitoring program consists of the annual mapping of warrens in Council reserves. Annual warren mapping demonstrates the outcomes of Council's control program and provides data for estimating warren densities.

Project specific rabbit monitoring (e.g., spotlighting) has been undertaken as part of reporting for biological control release programs but has not carried on beyond the life of the project.

Figure 8: Teesdale Grassy Woodland Reserve rabbit warrens in 2008 and 2019 following mapping, fumigation, warren destruction and harbour removal.

The establishment of additional ongoing monitoring programs have largely been constrained by resourcing and it is considered that the current annual warren mapping is the most efficient and effective means of monitoring the issue.

Mapping data has rapidly improved in the recent past with improvements in technology allowing accurate mapping in the field. Prior to this, mapping of rabbits was carried out on hard copy maps based on the surveyor's best judgement of location within a reserve.

While mapping of warrens can be undertaken at any time of year, rabbits are mapped across Council's reserves annually in January/February just prior to control works being undertaken.

Warrens are geolocated on a tablet in the field. Each mapped warren is marked with a plastic flag. This data is then used to generate maps that are provided to Council contractors to facilitate rapid locating, access and treatment of warrens. Mapping is conducted by searching across reserves on foot, revisiting old warren sites, following up on community feedback, closely inspecting potential rabbit harbour and suitable warren locations and soils and observing for rabbit traces to identify new warren locations.

Mapping indicates that the density of warrens per hectare varies widely across Council reserves. Reserves with landscapes and soils that are favourable for rabbits and complications in terms of delivery of control methods; particularly ripping, have warren densities of up to 3.6 warrens per hectare. Other reserves with good control access have warren densities below one warren per hectare.

Improved smartphone technology and the recently developed Rabbit Scan App is being trialled as a replacement for the tablet. Rabbit Scan data is publicly available via the Rabbit Scan website.

Figure 9: Mapping and marking rabbit warrens.

Reserve	Survey Count (Year)		2020	
	Warrens	Warrens/ha	Warrens	Warrens/ha
Barwon-Leigh Junction (12 ha)	29 (2015)	2.4	21	1.8
Bruces Creek North (14.2 ha)	19 (2011)	1.3	3	0.2
Bruces Creek South (8 ha)	12 (2014)	1.5	7	0.9
Flagstaff Hill Gravel Reserve (20.1)	10 (2015)	0.5	7	0.35
Happy Valley Water Reserve (41 ha)	No data	-	37	0.9
Leigh River Reserve (15 ha)	45 (2015)	3	52	3.5
Old Batesford Cemetery (1.7 ha)	6 (2008)	3.5	0	0
Red Gum Reserve (5.9 ha)	34 (2015)	5.7	18	3.1
Rokewood Reservoir (10.1 ha)	52 (2008)	5.2	17	1.7
Teesdale Grassy Woodlands (25.8)	42 (2008)	1.6	15	0.6

Figure 10: Warren counts and warren per hectares for key Council conservation reserves

4.4 Warren fumigation

Mapped warrens on Council reserves are diffusion fumigated. Warrens are firstly filled with smoke to identify all warren entrances. Aluminium phosphide tablets which liberate phosphine gas on exposure to atmospheric or soil moisture are placed in active burrows and the gas generated is allowed to diffuse through the warren and all the entrances are closed.

Follow up inspection and refumigation of reopened warrens is carried out 4-6 weeks following the initial program.

4.5 Warren destruction

Mapped and fumigated warrens are destroyed by either explosion (implosion) or mechanical means (ripping or excavation) where possible and practicable.

Excavation of warrens is carried out using a small rubber tracked excavator to minimise damage to soils and native vegetation.

Implosion of warrens is carried out using ANFO Prilled Ammonium Nitrate by a specially qualified contractor. Access to Council reserves during implosions is controlled to minimise risk.

Both implosion and excavation destroy established warrens and have been very effective at eliminating long standing, extensive and well-established warrens in Council reserves.

Closure and collapse of warrens in sensitive sites using hand tools is being trialled to test the efficacy of the approach. While the method takes substantial time and effort and repeat treatments are required, initial results are encouraging.

In addition, wire netting is being used to minimise reestablishment of warrens on difficult or sensitive sites (e.g., dam walls)

Figure 11: A mapped and flagged rabbit warren ready for fumigation.

Warren destruction along waterways can trigger the requirement to obtain a Works on a Waterway Permit requirement through the Corangamite Catchment Management Authority.

Councils' warren destruction program has recently been significantly curtailed by cultural heritage concerns in areas of cultural heritage sensitivity along waterways and lack of clarity regarding the legality of warren destruction within these areas.

4.6 Harbour removal

The removal of rabbit harbour is an essential component of Councils rabbit control program. Rabbit harbour removal is undertaken at any time of year when Council resources permit. Harbour removal has been very successful in Bruces Creek Reserve in Bannockburn where the removal of extensive Boxthorn infestations has significantly reduced the rabbit infestation.

Council has removed native plant species that were harbouring rabbits only when there is no other option. Removal of native plant species to the minimum extent necessary for pest animal control is permitted under the *Planning and Environment Act 1987*.

Removal of rabbit harbour is most successful when the area that has had the harbour removed can be maintained in a low harbour state to minimise the risk of reinfestation.

Harbour removal with heavy machinery along waterways can trigger a Works within a Waterway Permit requirement through the Corangamite Catchment Management Authority.

Council is currently undertaking trials of progressive removal and control of Toowoomba Canary Grass (*Phalaris aquatica*) and other heavy introduced grasses in Red Gum Reserve, Batesford in an effort to reduce surface cover for rabbits.

Figure 12: Rabbit infested Boxthorn in a new development area in Bruces Creek, Bannockburn.

4.7 Baiting

Given the inhumane nature of the use of 1080 or Pindone poisons and the risk of off target damage, Council does not widely use baiting as a method of control of rabbits on Council land.

Baiting with 1080 poison is not undertaken on Council land due to the risk to off target animals.

Baiting using Pindone poison laced oats is carried out at Red Gum Reserve in Batesford during February to support the Batesford, Fyansford, Stonehaven Landcare Group's community rabbit baiting program. The program coincides with low feed levels in late Summer when rabbits are looking for food and are more likely to take bait.

The baiting program places three free feeds followed by poisoned feeds under wire baiting stations. The wire baiting stations aim to minimise taking of the bait by off target species. The stations are checked every day or two and rebaited as required. The stations are baited with poison feed for as long as the rabbits continue to take the bait.

4.8 Exclusion fencing

Rabbit resistant fencing was installed at the Old Batesford Cemetery in 2016 in response to community concerns regarding the potential damage being done to burials by rabbits digging. Since the installation of the fence only a single rabbit has been found and destroyed in the reserve and there are no active warrens.

Rabbit resistant fencing is expensive and requires vigilance and maintenance but provides hugely beneficial results for the recovery of native vegetation.

Exclusion fencing assists with a significant issue for Council's rabbit program in that it prevents reinfestation by rabbits from adjacent uncontrolled rabbit infested properties.

Due to the nature of Council reserves, their use patterns and their landscapes and locations, there are few

Figure 13: A rabbit baiting station in Red Gum Reserve.

opportunities for the use of exclusion fencing.

Installation of devices (e.g., swing gates) for use by native animals to access the reserve while still excluding rabbits should be investigated.

4.9 Biological controls

Council released rabbit haemorrhagic disease (RHD); more commonly known as calicivirus, in Batesford in 2016 and in Batesford, Inverleigh and Teesdale in 2018 in response to community requests. The rollout was conducted as part of the national release of the RHDV1 K5 virus. Results of the program were inconclusive but are likely to have reduced rabbit numbers somewhat for the period that the virus was active in the rabbit population at the release sites.

4.10 Rabbit repellents

Council is trialling the use of rabbit repellents on sites where rabbit warren destruction has been undertaken but attempts at reinfestation are occurring. The aim is to deter rabbits from establishing warrens on old warren sites.

The use of this humane method should continue be trialled to establish its efficacy as a control method.

4.11 Community programs

Council does not currently lead or run rabbit control programs that are delivered into the community but supports programs run by community groups and the State Government.

Council supports community led rabbit control programs; primarily through Landcare, by providing mail out services of promotional material direct to residents, attending field days and promoting programs on Councils social media.

Council supports State Government led compliance and enforcement of rabbit control in rabbit compliance project areas. This support includes facilitation of landholder contact through mail outs and

provision of local knowledge about problematic rabbit infested areas.

Council supports residents' efforts to control rabbits on their properties through provision of information and advice on potential methods of control that can be used in their particular situation. However, as the control of rabbits on private property is a legislated responsibility, Council does not provide financial incentives (e.g., provision of poison at cost price) to residents to assist them to control rabbits.

4.12 Compliance and enforcement

Council officers are not authorised under the *Catchment and Land Protection 1994* Act to conduct any compliance or enforcement activities for rabbits.

However, Council Local Law No 1 General Public Amenity contains provision for Council Officers to issue a Notice to Comply seeking control of noxious weeds and pest animals on private land within or directly adjacent to township areas where the State Government do not carry out compliance and enforcement activities. This provision has only been used twice in the recent past to address amenity issues pertaining to Serrated Tussock (*Nassella trichotoma*) but has not been used to address rabbits.

Use of the Council Local Law needs to be justifiable as control of rabbits within township areas can be problematic. The presence of warrens which can be controlled would be a key consideration in issuing a Notice to Comply. Therefore, Council policy regarding the application of Local Law No 1 to control rabbits will need to be developed to ensure a consistent and transparent application of the local law.

Complaints regarding rabbits on private land; particularly on agricultural/rural land can be referred to the Biosecurity Officers in Agriculture Victoria.

4.13 Challenges

The success of Council's rabbit program is challenged on a number of fronts.

Council owned or managed land often has open or poorly fenced boundaries that easily allow the incursion of uncontrolled rabbits from adjacent properties. Council has not in the past used Council Local Law to compel adjacent landholders to undertake rabbit control to augment and assist our program and anecdotal evidence indicates that our control program is undermined by invasion from adjacent uncontrolled rabbits. The use of rabbit resistant exclusion fencing would minimise reinfestation from adjacent properties but is expensive to build and maintain and is not suitable for all locations.

Council land often occupies landscapes along streams, rivers and rocky escarpments where control of rabbits is difficult. Dense vegetation, rocky and steep landscapes and long grass obscure rabbit warrens making them difficult to find and treat. The nature of the landscape, areas of cultural heritage sensitivity or presence of valuable native vegetation often precludes the use of heavy machinery or explosives to collapse warrens or remove harbour.

Council funding only allows for a single control program to be conducted each year with a focus on high quality native vegetation reserves and landscapes. Funding does not allow for significant additional works or approaches (e.g., rabbit resistant exclusion fencing).

Resident participation in rabbit control programs either as part of Landcare led programs or on their own are patchy at best. Uncontrolled rabbits on properties neighbouring Council land leads to reinfestation.

Council land is often overlaid by planning controls that seek to minimise impacts on soils, water, landscape or cultural heritage. These controls can impede particular control methods, particularly those methods that result in significant soil disturbance. A particular concern are areas of cultural heritage sensitivity along waterways and lack of clarity regarding the legality of warren destruction within these areas.

5 OUR PLAN

Vision

Rabbits are effectively controlled on Council land and across the municipality to minimise their impact on agriculture, community and the environment.

Goal 1 – Reduce Rabbits

To provide long term reduction in rabbit numbers on Council managed land.

Target

Reduce active rabbit warrens on Council managed land to less than one warren per hectare by 2031.

Actions

- Address impediments to warren destruction and harbour removal (i.e., waterways/cultural heritage sensitivity).
- Monitor rabbit activity through annual warren counts.
- Conduct baiting and fumigation to reduce rabbit numbers in late Summer.
- Destroy warrens through ripping/implosion/manual collapse.
- Seek additional Council funding and external grants for rabbit control.
- Adopt new or innovative humane control practices as they become available.

Goal 2 – Engage Neighbours

To improve rabbit control outcomes on Council managed land by engaging with adjacent landholders to conduct rabbit control.

Target

All landholders adjacent to Council reserves conducting annual rabbit control works in conjunction with Council by 2030.

Actions

- Engage and coordinate with adjacent landholders prior to annual rabbit control works to carry out rabbit control in conjunction with Council.
- Develop a policy to provide clarity regarding the use of Council Local Law No 1 to compel landholders to control rabbits in township areas.
- Issue Notice to Comply to adjacent landholders under Council Local Law No 1 where works are not being conducted in conjunction with Council.

Goal 3 - Raise Awareness

To raise community awareness regarding the rabbit problem, increase community knowledge and enable the community to undertake effective rabbit control.

Target

Participate in two rabbit management community engagement events per annum.

Actions

- Support community engagement events relating to pest plants and animals in the municipality provided through the Victorian Rabbit Action Network, Landcare and local community organisations.
- Provide advice to landholders regarding best practice rabbit management via Council media and when information is sought.
- Support the development of Rabbit Action Groups under the Victorian Rabbit Action Network.
- Support compliance and enforcement activities led by Agriculture Victoria.
- Issue Notice to Comply to landholders under Council Local Law No 1 where neighbour complaints occur in line with Council policy.

Goal 4 – Improve Compliance

To advocate for and support State Government rabbit control compliance and enforcement .

Target

One Rabbit compliance and enforcement Target Area conducted by the State Government in the municipality every 5 years.

Actions

- Lobby the State Government to increase rabbit control compliance and enforcement resourcing .
- Refer landholder complaints regarding rabbits on private land to the State Government.
- Support State Government compliance and enforcement activities led by Agriculture Victoria within the municipality.

6 REFERENCES

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7 October to 4 November, 2021

Website
From 7 October to 4 November, the Golden Plains Shire Council website homepage featured a Draft Rabbit Management Strategy 2021-2031 and Draft Rabbit Management Action Plan 2021-2031 banner, that linked to the consultations Have Your Say page.

The Draft Rabbit Management 2021-2031 Have Your Say page contained information about the Draft Plan and Action Plan and their public exhibition period, including a link to read the plans and make a submission. This page remains live and can be updated with new information as the Rabbit Management Strategy progresses.

Media release
A media release, titled 'Feedback Sought on Rabbit Management', was sent on 7 October to Golden Plains Shire Council's full media contact list, it was also shared on the Golden Plains Shire Council website. The story was featured in the 14 October edition of the Golden Plains Times.

Advertising
The Draft Rabbit Management Strategy consultation was also featured in a Golden Plains Shire Council News ads in the 21 October edition of the Golden Plains Times.

Community Engagement Register
The Draft Rabbit Management Strategy consultation was featured in the October edition of Engage, Council's Community Engagement e-Newsletter, which was distributed to an audience of 315. The newsletter had an open rate of 51.4% and click rate of 12.9%.

Google Analytics

Throughout the duration of the expression of interest period, there were **110 unique pageviews** to the Draft Rabbit Management Strategy Have Your Say page, with the average time spent on the page being **5 minute 15 seconds.** The bounce rate indicates that **30.67%** of visitors viewed only this page on the website and did not click on anything.

There were **46 file downloads** of the Draft Rabbit Management Strategy 2021-2031 document and **38 file downloads** of the Draft Rabbit Management Action Plan 2021-2031. There were **5 users** opened the online form but only **2 users** made a submission using the form.

Google, Facebook and Council's email newsletter were the main acquisition sources for users visiting the Have Your Say page, with **30 users** coming through Google and **19 users** coming from Facebook. The Engage e-Newsletter was the source for **36 users**.

	Page	Pageviews ↓	Unique Pageviews	Avg. Time on Page	Bounce Rate	% Exit
		127	110	00:05:15	30.67%	60.63%
1.	/consultations/rabbit-management-strategy-2021-2031	127	110	00:05:15	30.67%	60.63%

Social media

Total posts: 8
Total reach: 4,318
Total engagement: 199

October 7

Facebook
People reached: 1514
Engagements: 62
Website Conversions (Users): 13

LinkedIn:
People reached: 140
Engagements: 7
Website Conversions (Users): 3

Twitter:
People reached: 134
Engagements: 0

Instagram:
People reached: 183
Engagements: 10

October 21 **Facebook:** *People reached:* 1643 *Engagements:* 116 *Website Conversions (Users)*: 14 **Twitter:** *People reached:* 145 *Engagements:* 0 *Website Conversions (Users)*:	Golden Plains Shire Council Published by Sprout Social · October 21 at 1:41 PM · It's time to have your say on our Draft Rabbit Management Strategy 2021-2031 and Draft Rabbit Management Action Plan 2021-2031! Community members are invited to provide feedback on the documents, which set Council's vision and goals on managing rabbits and the actions Council will undertake over the next 10 years in this space. To read the documents, and make a submission before Thursday 4 November, visit: https://bit.ly/3aYHbFL 
November 3 **Facebook:** *People reached:* 460 *Engagements:* 2 *Website Conversions (Users)*: 3 **Twitter:** *People reached:* 128 *Engagements:* 2 *Website Conversions (Users)*:	Golden Plains Shire Council Published by Sprout Social · November 3 at 7:40 PM · Last chance to provide your feedback on our Draft Rabbit Management Strategy 2021-2031 and Draft Rabbit Management Action Plan 2021-2031! Submissions close at 11.59pm tomorrow, Thursday 4 November. Read the Draft Strategy and Action Plan and have your say at https://bit.ly/22VrZ7C. 

GOLDEN PLAINS SHIRE COUNCIL MEDIA RELEASE

Date: Thursday 7 October, 2021

FEEDBACK SOUGHT ON RABBIT MANAGEMENT

Golden Plains Shire Council is seeking community feedback on its Draft Rabbit Management Strategy 2021-2031 and Draft Rabbit Management Action Plan 2021-2031.

The Draft Rabbit Management Strategy 2021-2031 is a strategic plan that sets out Council's vision and goals regarding the management of rabbits on Council land and across the broader community. Developed in line with industry best practice and research, the Draft Strategy provides historical and legislative context as well as background information regarding rabbit biology and ecology.

The Draft Rabbit Management Action Plan 2021-2031 details the actions Council will take to meet over the next 10 years to deliver on the vision and goals of the Rabbit Management Strategy. The Action Plan illustrates Council's current rabbit management program and provides background on best practice rabbit management methodologies.

The Draft Rabbit Management Strategy 2021-2031 and Draft Rabbit Management Action Plan 2021-2031 are on public exhibition from 7 October to 4 November 2021.

To read the Draft Strategy and the Draft Action Plan, visit Council's website: **goldenplains.vic.gov.au**. Hard copies are available at Council's Customer Service Centres at 2 Pope Street, Bannockburn and 19 Heales Street, Smythesdale.

To make a submission, community members may:

- Complete the online form at **goldenplains.vic.gov.au**;
- Email enquiries@gplains.vic.gov.au; or
- Mail to Golden Plains Shire Council, PO Box 111, Bannockburn, VIC 3331 - marked 'Urgent - submission'

Mayor Cr Helena Kirby encouraged local residents to share their thoughts on the rabbit management strategy and action plan for Golden Plains Shire.

"As a large rural Shire, residents of Golden Plains are very familiar with the negative impacts of rabbits on our environment and the challenges of managing the rabbit population.

"The Draft Rabbit Management Strategy and Action Plan are Council's 10-year framework to manage this issue and we encourage interested community members to read the documents and share their feedback with Council."

Council will consider all submissions for incorporation into the final Rabbit Management Strategy 2021-2031 and final Rabbit Management Action Plan 2021-2031, which will both be presented for adoption at a Council meeting in late 2021.

– ENDS –

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AUTHOR: Katie Martin SECTION: GENERAL NEWS ARTICLE TYPE: NEWS ITEM AUDIENCE : 4,000
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14 OCT, 2021

Input wanted on bunny busting

Golden Plains, Ballarat

Input wanted on bunny busting

Needing feedback: Two documents detailing the municipality's 10-year plan for rabbit management are now out for community consultation. Photo: FILE

BY KATIE MARTIN

COMMUNITY members are now able to share their thoughts on municipal plans for rabbit management across the Golden Plains Shire.

The Shire's draft versions of the Rabbit Management Strategy and Action Plan have been released for comment, with public feedback to be considered for the final copies of the documents.

The drafts outline a 10-year approach to pest control, with the Rabbit Management Strategy including the municipality's vision and goals for the issue.

The Action Plan details how the Shire will deliver on these outcomes and mayor Cr Helena Kirby encouraged residents to read and respond to both documents.

"As a large rural shire, residents of Golden Plains are very familiar with the negative impacts of rabbits on our environment and the challenges of managing the rabbit population," she said.

"The Draft Rabbit Management Strategy and Action Plan are council's 10-year framework to manage this issue and we encourage interested community members to read the documents and share their feedback with council."

Residents can have their say online or via mail until 4 November. To access the digital documents and submit a response, visit **bit.ly/3lngIKF**.

Hard copy plans are available at the Shire's customer service centres at Bannockburn and Smythesdale, and more information about mailing back responses can be found online.

Golden Plains Shire councillors are expected to vote on the final versions of the documents at a meeting later this year.

View this email in your browser

engage Golden Plains

In this edition of Engage, you'll find a number of new engagement opportunities, including the Rabbit Management Strategy 2021-2031, alongside consultations currently open and updates on previous consultations, including the Domestic Animal Management survey.

Community members are encouraged have their say on the Draft Arts, Culture and Heritage Strategy 2022-2026, provide feedback on proposed changes to Council's Governance Rules and find out more about the updated Draft Local Law.

New Engagement Opportunities

Have Your Say: Rabbit Management Strategy 2021-2031

Community members are invited to have their say on Council's Draft Rabbit Management Strategy 2021-2031 and Draft Rabbit Management Action Plan 2021-2031 during their public exhibition period.

The Draft Rabbit Management Strategy 2021-2031 is a strategic plan that sets out Council's vision and goals regarding the management of rabbits on Council land and across the broader community, while the Draft Rabbit Management Action Plan 2021-2031 details the actions Council will take over the next 10 years to deliver on the vision and goals of the Strategy.

Community members can share their feedback on the Draft Strategy and Draft Action Plan online, by email or by mail. Submissions are open until **11.59pm, Thursday 4 November, 2021**.

Have Your Say