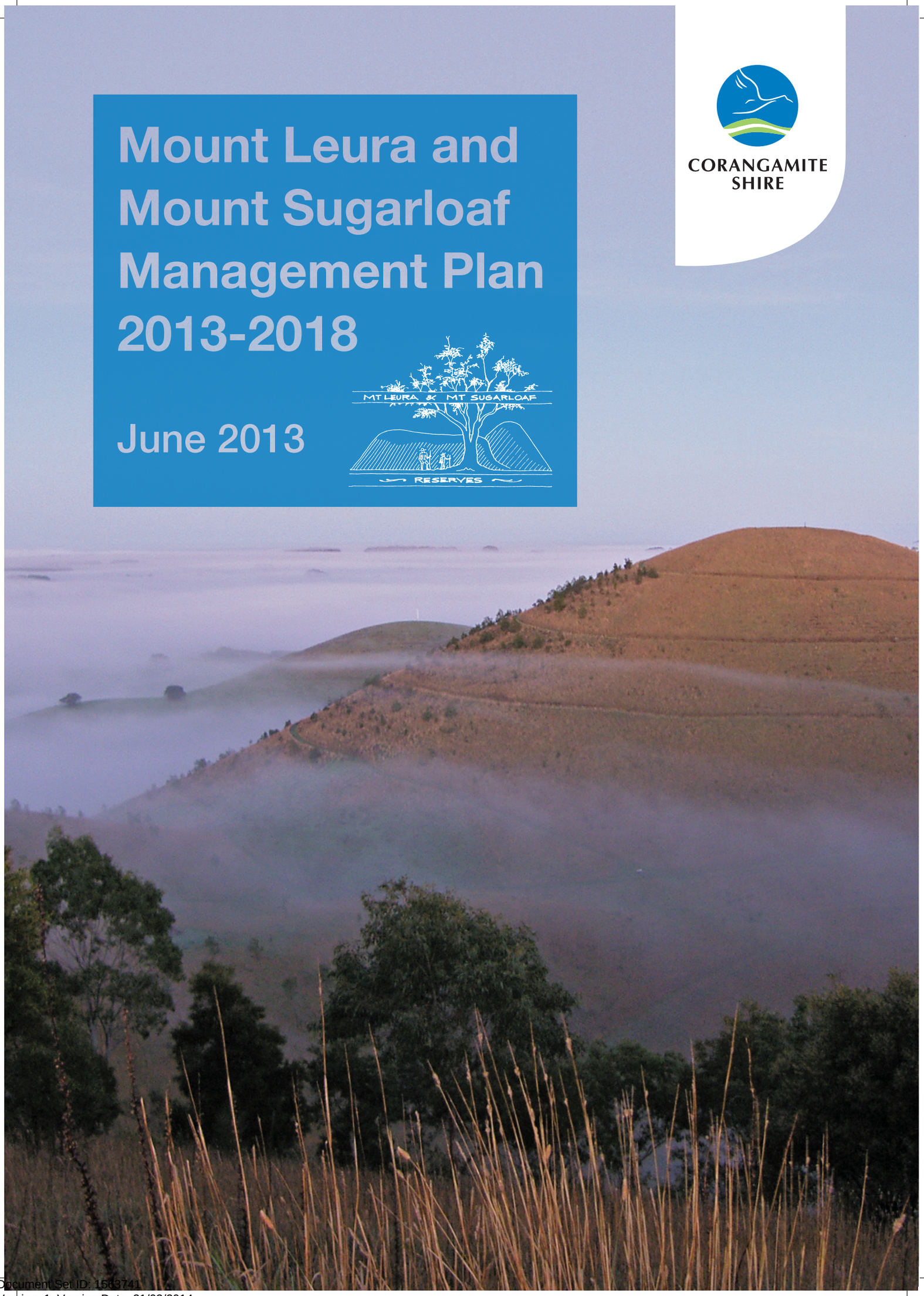
Mount Leura and Mount Sugarloaf Management Plan 2013-2018

June 2013

CORANGAMITE SHIRE



MOUNT LEURA AND MOUNT SUGARLOAF MANAGEMENT PLAN 2013 - 2018

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Corangamite Shire Council
Mount Leura and Mount Sugarloaf Development Committee

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Executive Summary

The Management Plan sets the future direction for the management of the Mt Leura and Mt Sugarloaf Reserves over the next five years. It builds on the previous achievements through the *Mt Leura and Mt Sugarloaf Landscape Master Plan, Management Plan and Implementation Plan* (1994) and aims to meet the current expectations of users, stakeholders and the local community.

There are four parts to this plan, comprising:

Part A: Introducing the Plan
Part B: Strategic Directions
Part C: Summary of Actions
Part D: Vegetation Management Prescriptions

Consultation during this plan's development identified a vision in which the Mt Leura and Mt Sugarloaf reserves are an environmental and geological asset, a place for diverse recreational and educational activities, and a regional tourist destination where people can reconnect with nature in a safe and scenic environment.

The vision is underpinned by five key objectives which have been identified and refined through consultation. These are:

One: Enhance the Visitor Experience
Two: Protect and Enhance Environmental and Landscape Values
Three: Develop Promotional and Educational Opportunities
Four: Support Long Term Viability of the Reserves
Five: Mitigate Risks to Users and Surrounding Residents

Each of these key objectives is supported by a number of strategies to be implemented over the life of the plan. Several of these strategies represent new initiatives, while others seek to either continue or further develop current management activities.

PART A
INTRODUCING THE PLAN

1. Introduction

The Mt Leura and Mt Sugarloaf Reserves are two adjoining parcels of land located at the south-eastern boundary of Camperdown. The reserves are managed together on behalf of Council by the Mt Leura and Mt Sugarloaf Development Committee, a Special Committee of Council established under Section 86 of the *Local Government Act 1989*.

This Management Plan sets the future direction for management of the Mt Leura and Mt Sugarloaf Reserves over the next five years. It builds on the previous achievements of the *Mt Leura and Mt Sugarloaf Landscape Master Plan, Management Plan and Implementation Plan* (1994) whilst aiming to meet the current expectations of users, stakeholders and the local community.

1.1 Structure of the Plan

There are four parts to this plan, comprising:

Part A: Introducing the Plan
Part B: Strategic Directions
Part C: Summary of Actions
Part D: Vegetation Management Prescriptions

1.2 Plan Timeframe

This plan sets out specific management actions to be implemented over a five-year timeframe between 2013/2014 and 2017/2018. Implementation of these actions will be managed through an action plan which will be reviewed annually, and progress towards the plan's key objectives will be evaluated at the end of the five-year timeframe.

Longer term prescriptions for management of the reserves' vegetation are also outlined in this plan. These prescriptions represent the long term goal of recreating the reserves' original woodland vegetation community, and are therefore intended to be implemented over a longer period than the five-year timeframe of this plan.

1.3 Plan Development

This plan has been developed based on consultation with the community and relevant stakeholders. To ensure that relevant stakeholders have input into the plan's development, Council established a Stakeholder Reference Group with representatives from local schools, community groups, user groups, adjoining landholders, regional and State agencies, the Development Committee and Council, as well as several community members. The role of this group was to provide advice about the issues and strategies that need to be included in the new Management Plan. A Project Steering Committee was also established to oversee the development of the plan.

2. Background

2.1 Landscape Context

The Mt Leura Reserve occurs within the Public Park and Recreation Zone, while Mt Sugarloaf lies within the Farming Zone. Both reserves are subject to a Significant Landscape Overlay for the protection of landscape values and significant volcanic features. Agricultural land abuts the reserves' eastern, southern and western boundaries, with residential development adjoining the northern boundary. The reserves also adjoin the Camperdown Showgrounds and the Leura Oval Recreation Reserve. The reserves are shown in Map 1.

2.2 History

The Camperdown district was originally inhabited by indigenous people of the Leehuura gundidj language group, who reportedly named Mt Sugarloaf 'Tuunumbee Heear' or 'moving moving woman'. Mt Leura and Mt Sugarloaf were used by the Leehura people as signaling towers as lookouts to observe the movements of game and neighbouring peoples. The mounts were also important landmarks and were used as a guide for the Leehura's semi-nomadic lifestyle.

European settlement in the region was pioneered by the Manifold brothers, who settled vast tracks of land within the district for sheep grazing. In 1839, the Manifolds settled on the banks of Lake Purrumbete and took possession of 32,000 hectares of land which included Mt Leura and Mt Sugarloaf. The family gifted the Mt Leura Reserve to the Shire of Hampden in January 1899, while Mt Sugarloaf passed into the ownership of another private landholder.

The Mt Leura Reserve became the property of the Town of Camperdown Council when the municipality was established in 1953, and was transferred to the Corangamite Shire following amalgamation in 1995. Grazing was excluded in the 1960s and the reserve has been managed as public open space since then.

The Mt Sugarloaf Reserve was historically used for grazing and quarrying and was privately owned until the National Trust of Australia (Victoria) purchased the property in 1972 following community concern about quarrying on the western slope of Mt Sugarloaf. The reserve was subsequently leased out for grazing until Corangamite Shire Council took over the lease in 1996 and ceased grazing on the reserve in 2005.

2.3 The Mt Leura and Mt Sugarloaf Development Committee

In 1991, the Town of Camperdown Council established an Advisory Committee to advise Council on management issues relating to the Mt Leura Reserve and to develop a plan to guide development of the site's environmental, recreational, geological and cultural values.

The *Mt Leura and Mt Sugarloaf Landscape Master Plan, Management Plan and Implementation Plan* was finalised in 1994 and recommended the establishment of a Special Committee of Council to manage and develop the Mt Leura Reserve, in conjunction with the adjoining Mt Sugarloaf Reserve. From this recommendation, the Mt Leura and Mt Sugarloaf Development Committee (the 'Development Committee') and charged with the role of implementing the Management Plan. A revision of the *Master Plan, Management Plan and Implementation Plan* was undertaken in 1998.

Committee membership consists of six community members and one delegated Council representative, with each community position renewed at the end of a three-year term. A part-time Project Coordinator position is currently funded by Council and through grants secured by the Development Committee. The Project Coordinator undertakes on-ground works within the reserves as directed by Council and the Development Committee.

2.4 Restoration of the Mt Leura and Mt Sugarloaf Reserves

The key objective of the 1994 Management Plan was to 'enhance the scenic, educational and scientific interest of the reserves through revegetation with indigenous flora'. The plan included a landscape master plan which provided prescriptive actions to restore indigenous vegetation to the reserves over 50-80 years. The plan utilised historical records, existing specimens of indigenous vegetation and vegetation surveys within the surrounding district to determine the structure and composition of vegetation originally found on the reserves.

The plan outlined a list of indigenous species known or thought to have occurred on the mounts prior to settlement, and provided management guidelines for their reintroduction to the reserves. The indigenous vegetation once thought to cover the reserves prior to European settlement is an open-canopy grassy woodland known as 'Scoria Cone Woodland'. This vegetation community, or 'Ecological Vegetation Class' (EVC), is generally composed of an open canopy of Manna Gum and Drooping Sheoak trees and an understorey dominated by native grasses and herb species.

The Development Committee has sought to achieve the original plan's vision by undertaking an extensive revegetation campaign. To date, over 500 pine and cypress trees have been removed, with more than 35,000 indigenous trees and 60,000 indigenous grasses planted across the reserves.

2.5 Community Involvement

A strong level of community ownership and support has been instrumental in the success of the project, with assistance having been provided by a broad range of organisations, groups and individuals over the years.

The Friends of Mt Leura Inc. have contributed a substantial number of volunteer hours to support the revegetation program and contributes to general maintenance of the reserves. The group also works to promote the project across the wider community. Staff and students of Camperdown College have also had a high level of involvement since the project's inception.

A community nursery, constructed on college grounds in 1994, has been utilised by the school and by volunteers to propagate the vast majority of indigenous plants planted across the reserves. This partnership has served to build environmental awareness and appreciation among the young people of Camperdown whilst also fostering a sense of wider community ownership over the project.

PART B
STRATEGIC DIRECTIONS

3. Vision and Key Objectives

3.1 Vision for the Reserves

Consultation during this plan's development identified the following vision for the reserves:

The Mt Leura and Mt Sugarloaf Reserves are an environmental and geological asset, a place for diverse recreational and educational activities, and a regional tourist destination where people can reconnect with nature in a safe and scenic environment.

3.2 Key Objectives

The future vision is underpinned by five key objectives which have been identified and refined through consultation. These are:

- *One: Enhance the Visitor Experience*
- *Two: Protect and Enhance Environmental and Landscape Values*
- *Three: Develop Promotional and Educational Opportunities*
- *Four: Support Long term Viability of the Reserves*
- *Five: Mitigate Risks to Users and Surrounding Residents*

3.3 Strategies

The plan's key objectives are supported by a number of strategies to be implemented over the life of the plan. Several of these strategies represent new initiatives, while others seek to either continue or further develop current management activities.

Some new initiatives outlined in this plan include:

- Removal of trees to maintain views in strategic areas;
- Construction of an Educational Resource Centre to provide an all-weather hub for educational activities;
- Upgrades of walking tracks in selected areas to allow disabled access and improve track safety;
- Feasibility assessment for installation of barbecue facilities at the Mt Leura lower shelter;
- Working with Camperdown Pastoral and Agricultural Society to provide toilet facilities for reserve users;
- Development of a curricular-based educational program;
- Establishment of a new interpretive walk about the site's geology;
- Development of a formal sponsorship package with varying sponsorship levels to market the project to potential corporate sponsors.

The plan also outlines current management activities to be continued such as weed control, understorey plantings, wildlife monitoring, working with local schools, and the reserves' 'geo-caching' program. Current activities where further development is required are also identified.

4. Objective One
Enhance the Visitor Experience

The Visitor Experience

The reserves are enjoyed by and accessible to people of all abilities, with a wide range of uses and experiences available.

4.1 Context

The Development Committee have worked with the community to transform the Mt Leura and Mt Sugarloaf reserves into a vibrant and valued community asset for recreation, nature appreciation and education. Amenity and infrastructure improvements implemented by the Committee over the years have served to improve accessibility and greatly enhance the visitor experience for people using the reserves.

The reserves now provide a valuable resource in the form of a large public open space which is free to use and accessible at all times. Being within close vicinity to the township and accessible by sealed road, the reserves are regularly used by motorists, walkers, runners and cyclists. Passive recreation is a key attraction for many users, who visit the reserves to reconnect with nature and to enjoy the reserves' diverse flora and fauna species.

The Ballarat Light Car Club also uses the Mt Leura Road and Reserve several times a year for the Mt Leura Hill Climb time trials, which attracts up to 90 contestants and bring many more to the Camperdown area.

While the reserves now attract thousands of visitors annually, it is believed that many of these visitors access the site via Mt Leura Road and do not make use of walking trails due to concerns about access and safety. It is therefore appropriate to assess the suitability of current facilities to service this diverse and growing visitor base.

This objective aims to enhance the visitor experience by improving accessibility for people of all abilities and increasing the range of visitor amenities available within the site. The objective is achieved by addressing three priority issues as identified below.

4.2 Accessibility

The quality of available walking trails helps set the Mt Leura and Mt Sugarloaf reserves apart from others of their kind, with an extensive 5km network of walking trails constructed throughout the reserves. There are currently six walking trails varying in length from the short 160m 'Kath's Track' near the Mt Leura Upper Carpark to the Panoramic Circuit of 1.7km (Figure 1). The majority of these are mown grass tracks, with some sections of the Saddle Trail and Southern Loop Trail graveled to facilitate emergency access. Figure 1 shows the walking trail network within the reserves.

Ensuring suitable access is important in allowing people to experience the panoramic scenery and educational, environmental and recreational qualities of the reserves. The summit of Mt Leura is also accessible by car via the Mt Leura Road, providing a significant point of difference to many other volcanic features where sealed vehicle access is not available.

Consultation confirmed the need to maintain existing trails, particularly where mown grass paths can become overgrown during the spring growing season. Safety risks around graveled sections of the Panorama and Saddle Trails were also raised, with gravel paths being more likely to become worn and uneven over time. Consultation also identified opportunities to upgrade one or more existing trails to allow improved access for people of limited mobility.

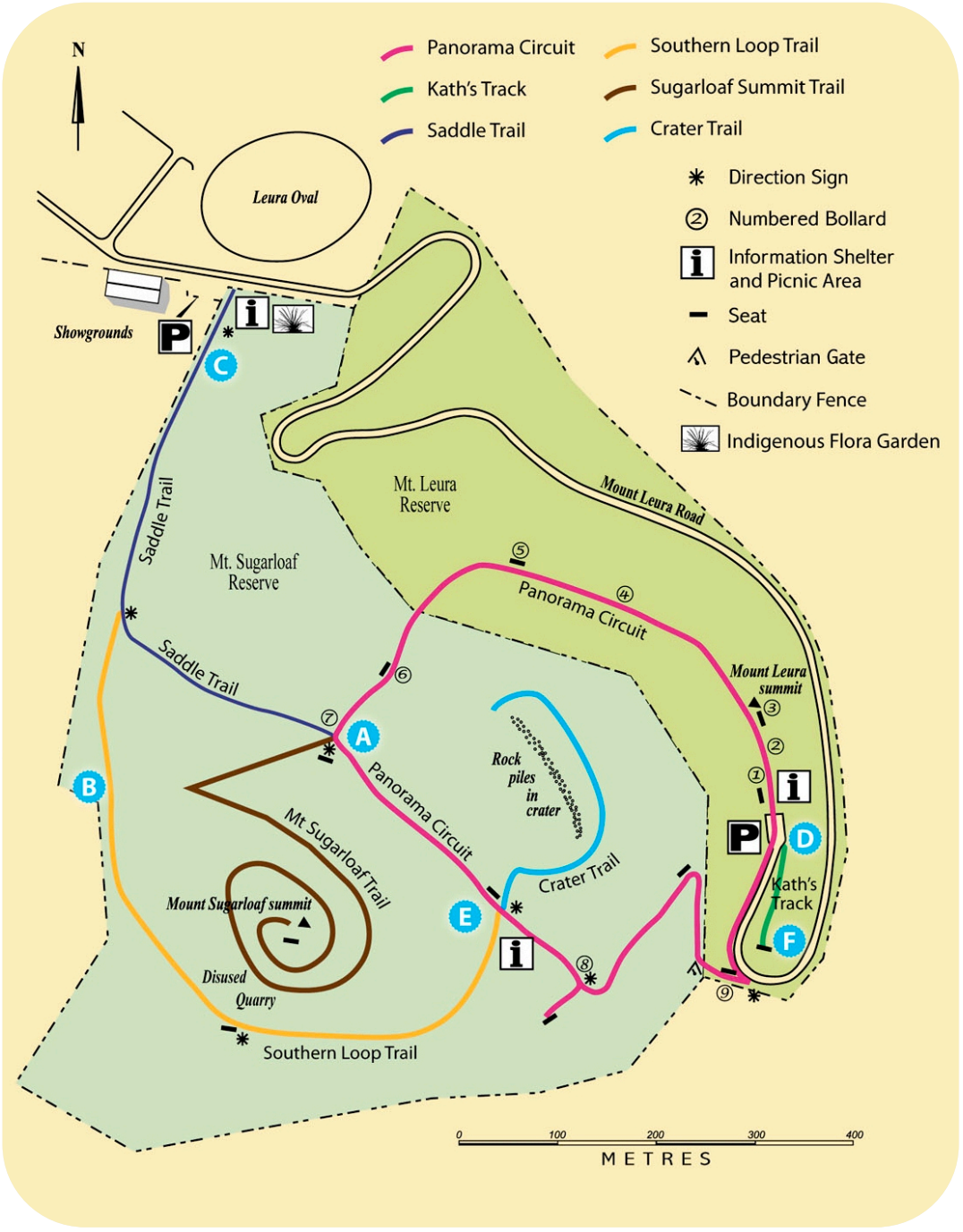


Figure 1. Mt Leura and Mt Sugarloaf walking trails network (courtesy WD News).

4.3 Facilities

Current facilities include interpretive signage, a number of artwork pieces, dry stone walls, visitor shelters at three locations, and amenities such as seating and picnic areas. While community feedback indicated that many people value and enjoy the facilities currently available, some people felt that barbecue and toilet facilities would also be desirable additions to the reserves. Opportunities for the provision of additional small shelters for visitors (with the dual purpose of providing roof catchments to collect rainwater for wildlife) were also identified. Such facilities could serve to bring a new type of visitor to the reserves and encourage visitors to stay longer and explore more widely.

There are currently toilet facilities available at the showgrounds area adjacent to the western boundary of the reserves. These facilities are owned by the Camperdown P&A Society and may represent an opportunity to partner with another community organisation to provide toilet facilities for reserve users.

While a shared-use agreement with the P&A Society is likely to represent the most convenient and cost-effective arrangement for the provision of toilet facilities, there may be opportunities to install toilets within the reserves if this option is not found to be practicable. Consultation identified that toilets at the base of the mounts (i.e. at either the showgrounds or on-site at the lower shelter area) were generally preferable to toilets at the upper carpark area. The provision of signage to advise users of public toilet locations within the Camperdown township could also be beneficial should on-site toilets be found to be unfeasible.

Currently there are no barbecues on the reserves. The lower shelter area at the base of Mt Leura (Figure 1) could be one potential site for barbecue facilities, however further investigation may be required with consideration to fire risk, waste disposal, infrastructure, visitor use, vandalism, planning requirements and ongoing maintenance. Signage to advise users of barbecue locations within the township could be provided should on-site barbecues be found to be unfeasible.

4.4 Amenity

Consultation indicated that unrestrained dogs, uncollected dog faeces, vandalism and littering were important issues for many community members. These incidents impact on the amenity of the reserve and may diminish the quality of the visitor experience.

Council's Local Law services are responsible for issues relating to unrestrained dogs and dog faeces. There are local laws in place that require dog owners to carry a plastic bag whilst walking their dog and to pick up after their dogs. There is also a local law which requires dog owners to restrain their dogs in signed areas. While there is currently some signage requesting people to keep dogs on leads, this signage is not prominent and needs to be reviewed.

Vandalism and littering occur relatively frequently within the reserves (several incidents per week), with most incidents occurring around the upper carpark area. This behaviour may be mitigated by working with police to undertake regular patrols of the Mt Leura Road and surrounding areas, particularly at night.

4.5 Strategies

Accessibility	
1	Construct a sealed path from the Mt Leura upper carpark to the 'Trig. Point' to improve access to look-out points.
2	Construct a sealed path along 'Kath's Track' to improve access to the southern look-out point.
3	Investigate demand for installation of hand rails at key points within the reserves e.g. alongside steps on the Panorama Trail.
4	Implement upgrades of existing walking tracks where demand is identified; e.g. sealing of sections along the Panorama Trail/Saddle Trail.
5	Investigate the demand for and feasibility of new walking trails. Construct new tracks as required e.g. north side of Mt Leura crater.
6	Increase mowing width of grassed paths by 1 – 3m where achievable.
Facilities	
7	Monitor demand for additional small shelters and install where need is identified.
8	Work with Camperdown P&A Society to develop an agreement for shared use of the showgrounds toilet facilities. If feasible, install directional signage to toilets from the reserves.
9	Install signage advising of public toilet locations within the Camperdown township where required.
10	Investigate the feasibility of installation of barbecue facilities at the Lower Shelter area, with consideration of projected costs and proposed maintenance arrangements.
Amenity	
11	Install standardised regulatory 'Dogs On Leads' signage at key points including the Mt Leura upper carpark, lower Saddle Trail entrance and the Mt Leura Road.
12	Continue to consult with Camperdown Police to undertake regular patrols (particularly at night) of the Mt Leura Rd and upper carpark to discourage vandalism and littering.

5. Objective Two

Protect and Enhance Environmental and Landscape Values

Environmental and Landscape Values

The reserves are managed to protect and enhance their environmental values whilst maintaining strategic viewlines within, and where possible, to the reserves.

5.1 Context

Feedback received during the consultation processes identified concern within the community about the density of revegetation and the impact of the trees in obscuring the iconic shape of the mounts, as viewed from within and outside the township. Many people also expressed concern about the loss of viewlines from the Mt Leura Upper Carpark, where tree growth has obscured some views of the surrounding landscape and impacted upon panoramic scenic viewing opportunities.

These issues, in addition to the aspiration for a healthy and self-sustaining open grassy woodland community, have highlighted the need for prescriptions to guide vegetation management and thinning over coming years. Consultation also identified a broad desire to conserve the reserves' biodiversity values by protecting the wildlife which inhabit the site and managing threats from introduced plants and animals.

This objective focuses on balancing the reserves' environmental and biodiversity values with the community's desire to preserve landscape values. It does so by addressing four priority issues as identified overleaf.

5.2 Landscape Values

Mt Leura and Mt Sugarloaf are located at the southern edge of the Victorian Volcanic Plains Bioregion and are highly valued as a scenic lookout point. The summit of each mount provides sweeping panoramic views of the scoria cones which punctuate the surrounding landscape, including Mt Noorat, Mt Elephant and Mt Myrtoon. The Mt Leura summit also offers views of the township of Camperdown and the surrounding agricultural landscape, as well as lakes including Lake Purrumbete, Lake Colongulac and Lake Gnarpurt.

The mounts are also valued for their geological significance as the most dominant and distinctive features within the Leura Maar, a broad flat-floored volcanic crater with steep sides and a low surrounding rim. The maar was formed when fragments of rock material were blown out of the crater during a series of eruptions between 10,000 and 40,000 years ago. The resulting crater is approximately 2.5km x 1.7km wide and is ringed by a low rim of 'tuff', a rock composed of consolidated fine volcanic ash. The scoria cones of Mt Leura and Mt Sugarloaf are categorised as 'nested volcanoes' and are estimated to have formed as the result of scoria build-up within the maar over a period of approximately 20 years.

The ‘Mt Leura Complex’, which includes Mt Leura and Mt Sugarloaf and the crater between the mounts, is listed by the National Trust of Australia as a Nationally Significant geological feature and of State Significance for its landscape value. The site’s entry on the National Trust Register notes its significance as an outstanding example of complex nested maar geology, and that *“the value of the geological feature is enhanced by the fact that much of it lies within a public reserve provided with a network of footpaths, so that the site can be readily accessed by student groups and the community*.”

As the reserves are highly valued as an elevated scenic look-out point, it is also important that vegetation is managed to ensure that viewlines are preserved, both inside the reserves and whilst looking out across the landscape from within. Consultation identified that preservation of viewlines from the Mt Leura Upper Carpark was a key priority for many community members. Some people expressed a desire to view the form of Mt Sugarloaf from the carpark without having to leave the car, while others believed that panoramic views of the township and surrounding landscape had been obscured by revegetation.

Current views from the summit of Mt Sugarloaf are shown in Map 2A. Views from this site have not been affected by vegetation growth due to the limited amount of revegetation undertaken on Mt Sugarloaf. Accordingly, no tree removals have been proposed for the Mt Sugarloaf summit. While intermittent monitoring may be required, it is unlikely that future vegetation growth will impede views at this site given that no further tree plantings are proposed for Mt Sugarloaf.

An assessment of views available from the Mt Leura summit identified a number of current and potential views or ‘view cones’ (shown in Map 2B). Each of these view cones represents either an opportunity for restoration of previously available views or an existing view which is likely to require longer-term monitoring and/or management.

Four priority sites have been identified for selective tree thinning to restore the views from the Mt Leura summit within the short term. These sites are identified for immediate action and are shown in Map 2B:

- View Cone K
- View Cone J
- View Cone L
- View Cone P

Consultation also identified a desire for views of the Camperdown township from the Mt Leura summit, which can be achieved through the construction of a viewing platform near the Panorama Trail’s ‘Trig Point’. There is also a need for ongoing monitoring to identify additional view cones for management or restoration over the medium to long term.

5.3 Indigenous Vegetation

The 1994 management plan outlined strategies to restore indigenous vegetation to the reserves and create a landscape more closely resembling the open-canopy woodlands which covered the reserves prior to European settlement. Over the last 18 years, the Development Committee and local community have undertaken an extensive revegetation campaign to realise this vision. The original plan recommended for trees to be planted at a density higher than that of the original vegetation type in order to shade out *Phalaris* and allow for regeneration of indigenous understorey species. The long term (i.e. 60-year) objective of returning the reserves to the original vegetation type was to be achieved through natural attrition and selective tree thinning.

The revegetation program has brought about a significant change in the character of the reserves. The vegetation community today consists predominantly of an overstorey of Manna Gum, Blackwood and Drooping Sheoak, with understorey comprised predominantly of introduced pasture grasses such as Phalaris, Cocksfoot and Yorkshire Fog Grass. Bracken is also a significant element of the groundstorey in some areas. Non-indigenous native trees also exist at the base of the Mt Sugarloaf quarry where plantings were undertaken in the 1970s in an effort to screen and mitigate erosion of the bare quarry face.

A demonstration garden showcasing grasses and wildflowers of the Victorian Volcanic Plain bioregion has also been established at the Mt Leura Lower Shelter. Tables 1 and 2 (Appendix 2) list some of the indigenous and introduced plant species found on the reserves today.

Today it is apparent that the 'overplanting' of trees has not been effective in shading out exotic pasture grasses in many areas, consequently limiting opportunities for the natural reestablishment of an indigenous understorey. The failure of overplanting to significantly reduce pasture grass now necessitates active management of the understory to help move the site towards a state more closely resembling the original open grassy woodland.

The reserves can be divided up into a number of different 'management zones' based on an assessment of factors such as species composition, tree cover and groundstorey density. From this assessment, seven different management zone types can be identified within the reserves, each with specific management goals to be implemented to facilitate a transition towards a more 'natural state'.

Management zone types are shown in Map 3, while zone descriptions, goals and management prescriptions can be found in Part D of this document. The vegetation management prescriptions outlined in Part D are ongoing management activities which will be undertaken to achieve longer term goals (i.e. outside of this plan's five-year time frame).

5.4 Wildlife

Wildlife monitoring undertaken by volunteers over the years has recorded the presence of native wildlife such as echidnas, swamp rats, lizards and snakes, while more recent monitoring has provided evidence of the return of other species such as koalas and wallabies. Table 3 (Appendix 2) lists some of the native fauna species found within the reserves today. Introduced animals such as foxes and rabbits also occur. Rabbits, which were once thought be in plague proportions, are now considered to be under control.

Over the years the Friends of Mt Leura Inc., in conjunction with the Development Committee and Camperdown College, have undertaken intermittent monitoring of bird, bat and mammal numbers within the reserves, providing important baseline data on the ecological health of the site. Consultation indicated that ongoing monitoring is required to track the recovery of fauna species and identify any limiting factors which may be exerting pressure on populations.
There was also a recognition that the relative scarcity of indigenous vegetation within the surrounding landscape may be likely to present challenges to the long term viability of the reserves' wildlife species. Consultation identified the creation of regional 'biolinks' as a possible solution for enabling wildlife movement in and out of the reserves. Biolinks are habitat corridors or adjacent patches of indigenous habitat that link areas of existing vegetation to facilitate the dispersal of native plants and animals.

There is potential for a regional biolink to be established linking the Mt Leura and Mt Sugarloaf reserves with nearby areas of remnant native vegetation such as the Stony Rises, the Camperdown – Timboon Rail Trail and the Lake Bullen Merri North Beach Reserve. Such an initiative would require careful planning and the establishment of partnerships with other community organisations (e.g. Heytesbury District Landcare Network), as well as the support of landholders adjacent to proposed biolinks.

As this would require the implementation of actions outside of the Mt Leura and Mt Sugarloaf reserve boundaries, local Landcare organisations may be best placed to spearhead this initiative, with the Development Committee and other community groups providing advice and support where required.

5.5 Invasive Plants and Animals

Pines and cypress trees were once planted within the Mt Sugarloaf Reserve and also along the Mt Leura Road as a part of a Returned Soldier's Employment Scheme. Almost all of these, along with other introduced trees and shrubs, have now been removed from the site. The removal of these tall trees has seen the germination of several species of woody and broad-leaved weeds throughout the reserves. While many woody weeds have now been eradicated, control of the remaining weeds presents an ongoing management challenge.

An annual management program is currently in place to control Blackberry, Skeleton Weed, Hemlock, Twiggy Mullein, Thistle, Paterson's Curse, Wild Turnip and Sweet Pea. This program has been developed and modified over the years in response to changes in weed presence, extent and location. However, given that new approaches for integrated weed management have been developed since the project's commencement, it is timely to reevaluate existing weed management practices with regard to current best-practice approaches.

While pest animals such as foxes and rabbits are not thought to occur in high numbers within the reserves, it is nevertheless important to continue monitoring the presence and/or impacts of vermin and implement appropriate control measures as required.

5.6 Strategies

Landscape Values	
1	Identify and address relevant planning requirements to undertake tree lopping/removal in accordance with identified view cones from the Mt Leura summit (Map 2B).
2	Undertake tree lopping/removal to restore view cones at priority sites identified in Section 5.2.
3	Monitor vegetation growth at identified view cones as shown in Map 2B and undertake tree lopping/removal at selected sites as required.
4	Identify additional appropriate view cone sites and implement restoration activities as required.
5	Construct a viewing platform near the 'Trig. Point' to enable views of the Camperdown township from the Mt Leura summit.
Indigenous Vegetation	
6	Undertake limited additional revegetation where required in accordance with Vegetation Management Prescriptions (Part D).
7	Identify and address relevant planning requirements to undertake vegetation thinning in accordance with Vegetation Management Prescriptions (Part D).
8	Undertake vegetation thinning in accordance with Vegetation Management Prescriptions (Part D).
9	Undertake grazing trials where appropriate to assess the technique's efficacy for reducing pasture grass cover.
10	Undertake trials of new techniques for pasture grass suppression and reduction; e.g. nutrient manipulation, seasonal burns, overplanting with indigenous perennial grasses.
11	Develop educational and/or interpretive materials to raise awareness of the reserves' indigenous vegetation and the need for active vegetation management.
12	Progressively remove non-indigenous native vegetation from the Mt Leura quarry site where safe to do so, with follow-up replanting with indigenous species as required.
Wildlife	
13	Continue to deliver wildlife monitoring programs to determine wildlife presence and abundance; e.g. bird surveys, hair traps, harp traps, scat analysis, still/footage cameras.
14	Continue to provide additional habitat and resources as required; e.g. nest boxes, water troughs.
15	Provide advice to adjacent landholders, Friends of Mt Leura, Landcare and other relevant organisations to identify potential biolink sites.
Invasive Plants and Animals	
16	Continue to undertake annual weed control program for managing regionally controlled and environmental weeds.
17	Monitor the reestablishment of weeds following burns to assess the effectiveness of fire as a weed and pasture grass suppression tool.
18	Develop partnerships with adjoining landholders to share knowledge about existing and emerging weed infestations (e.g. elm suckers) and suitable control methods.
19	Monitor the presence and/or impacts of pest animals and implement control measures where required.
Erosion	
20	Monitor new and potential erosion sites and investigate mitigation measures where erosion impacts upon user amenity.

6. Objective Three

Promote Recreational and Educational Values

Recreational and Educational Values

The reserves cater for a range of recreational activities and tourists are attracted to visit the reserve. There are opportunities for visitors to learn about the reserves and educational institutions are actively involved in learning about and managing the reserves.

6.1 Context

The reserves' value as an asset for environmental education has been a keystone factor in promotion of the Mt Leura and Mt Sugarloaf project since its outset. Partnerships developed with local educational institutions have been particularly important, with the establishment of the community nursery at Camperdown College in 1994. Since then there has been continued involvement in the form of volunteer work, propagation and planting, presentations, activities and research with local schools. Local students have also played a key role in installing many of the reserves' facilities, including seating and landscaping at the lower shelter and installation of an interpretive 'geo-cache trail' which takes visitors on a GPS-assisted tour of the reserves.

The Development Committee have also implemented other promotional initiatives such as the development of educational booklet 'The Volcanic Edge', walking trail brochures, bookmarks, and a Mt Leura website. There has also been considerable focus on developing interpretive displays throughout the reserves which provide information about the geological, cultural, environmental and social history of the site. These initiatives have served to build the profile of the reserves at the local, regional and national scale. However, public consultation identified a potential opportunity to broaden the project's profile to visitors from outside of Corangamite Shire, by implementing actions to develop additional educational and recreational opportunities and improve interpretive facilities.

This objective seeks to provide a range of recreational opportunities and events on the reserves, which will in turn attract a greater number of tourists to the reserve and the region. The second component of the objective seeks to provide opportunities for visitors to learn about the reserves, including partnerships with schools and tertiary institutions.

6.2 Education and Interpretation

Consultation indicated strong community support for the work undertaken so far to build educational partnerships and promote the reserves as a hub for environmental and geological education. However, there was also an identified need to reconnect with educational institutions which have had past involvement with the project and to broaden involvement to a state-wide level. This may potentially be achieved by establishing new partnerships with education organisations (e.g. Ecolinc Innovations Centre at Bacchus Marsh) to develop a formal environmental education program. The program would ideally incorporate guided tours of the reserves and extension materials which can be integrated with primary and/or secondary school curricula.

6.3 Promotion

While the Mt Leura and Mt Sugarloaf project is well-known at the local and regional level, there is scope to further capitalise on the project's achievements and attract greater visitation to the local region by marketing the reserves to new and broader audiences. For example, the 2010 Corangamite Shire Tourism Opportunities Study identified an opportunity to strengthen links with the Kanawinka Geopark initiative and with other volcanic features within the region. Development of a formal promotional strategy aimed at raising awareness of the reserves' value as a hub for recreation, nature-based tourism, scenic viewing and environmental/geological education would enable such opportunities to be pursued. The strategy should make use of existing tools (e.g. the Mt Leura website, brochures and booklet) but may also include new and emerging tools such as online social media.

6.4 Recreation and Events

There are a number of events held regularly on the reserves. The oldest and most high-profile of these is the Mt Leura Hill Climb, a time-trial car race hosted by the Ballarat Light Car Club several times a year. Such events bring economic benefits to the region and serve to promote the reserves to a broader national audience.

Community feedback identified a desire for events held on the reserves to be conducted in a way which does not impact upon their environmental and amenity values. This highlights the need for some guidelines to ensure that events address Risk and Occupational Health & Safety requirements and are conducted with minimal impact on the amenity and the environment.

6.5 Strategies

Education and Interpretation	
1	Construct an Educational Resource Centre at the base of Mt Leura to provide an all-weather hub for educational activities
2	Seek to establish partnerships with educational organisations (e.g. Ecolinc Innovations Centre at Bacchus Marsh) to develop a curricular-based environmental education program.
3	Maintain and develop partnerships with educational institutions to provide hands-on learning opportunities that assist with management of the reserves.
4	Revise and reprint the 'Volcanic Edge' booklet and other educational materials as required.
5	Repair, replace, and update existing interpretive and directional signage as required.
6	Develop existing and/or new geo-cache trails with additional educational/promotional materials to increase awareness of the initiative.
7	Develop a new interpretive walk showcasing the Leura Maar's geological history.
8	Work with Port Campbell Visitor Information Centre to identify opportunities to promote and integrate with the Craters to Coast Discovery Program.
9	Develop an interpretive points-of-interest mobile app to provide an interactive educational experience for visitors.
Promotion	
10	Develop a formal promotional strategy to raise awareness of the reserves' value as a hub for recreation, nature-based tourism, scenic viewing and environmental/geological education, with consideration to existing promotional tools and online social media.
11	Work with VicRoads to design and install promotional signage for the reserves on the Princes Highway turn-off to Adeney Street.
12	Work with Council's Economic Development and Tourism Department to identify new opportunities for promoting the reserves; e.g. linking more closely with the Craters to Coast Discovery Program.
Recreation and Events	
13	Continue to support existing events and assist in providing additional infrastructure where required e.g. Hill Climb events, Robert Burns Kilter Dash Fun Run.
14	Encourage new events and uses for the reserves and assist in ensuring safety, amenity and access requirements being met; e.g. foot and bicycle races, field naturalist tours, art exhibitions, open air theatre and music events.
15	Develop a promotional campaign aimed at promoting the reserves as a destination for non-motorised tourism (walkers and cyclists) which considers links to key destinations such as the Camperdown Railway Station, Camperdown – Timboon Rail Trail and the Camperdown Lakes Precinct.

7. Objective Four

Support Long Term Viability of the Reserves

Long Term Viability of the Reserves

The long term viability of the reserves is supported through diversified funding streams and new opportunities for income generation.

7.1 Context

One of the goals of this Management Plan is to identify strategies to facilitate the long term financial viability of the reserves. The Development Committee have managed the reserves on behalf of Council since 1995, with Council providing financial and administrative support and funding for employment of a part-time Project Coordinator.

The Development Committee have also been successful in securing additional funding from State and Federal grants such as through the Corangamite Catchment Management Authority. This external funding has been an important source of income for the project over the years.

It is recognised however, that reliance on government funding in conjunction with Council's annual budget allocation may not be a sustainable model for supporting management and development of the reserves into the future, particularly as most grant funding is offered on an annual basis only and is subject to variation with changes to government priorities and policy.

It is therefore important to consider ways in which additional income may be obtained to support sustainable future management and development of the reserves. Whilst the income opportunities for publicly owned open space are limited, and community consultation indicated a strong desire to maintain free access to the reserves, it is important to consider new ways to attract funding and boost opportunities for supplementary income generation.

This objective seeks to support the ongoing viability of the project by addressing three priority issues as identified below.

7.2 Income Generation

Consultation identified a number of ways in which additional revenue to fund management of the reserves could be generated, without the need for levying regular users. Opportunities identified include charging for guided tours, a series of paid interpretive walks, event packages offered in conjunction with other facilities within the Leura Maar precinct, and the leasing of land for grazing and/or events. Whilst there are a range of ideas and opportunities to explore, each of them will require time and expertise to successfully implement.

7.3 Grants and Fundraising

Over the course of the project, the Development Committee have been successful in attracting more than $250,000 in additional grants funding to support development of the reserves. Due to the previous management plan's focus on revegetation, the majority of these grants have had an environmental focus. The new vision outlined by this Management Plan may provide new opportunities to secure funding through grants programs not previously accessible. For example, Government grants with a focus on tourism, community and cultural development should be targeted to fund the development of capital projects, visitor facilities and programs. Community fundraising events, not necessarily held within the reserves, are another way in which funds for a specific project (e.g. barbecue installation) can be secured. Such events provide additional benefits by fostering a sense of social cohesion and promoting the project within the community.

Corporate and philanthropic sponsorship also presents a new avenue for securing additional funds, with many organisations offering generous sponsorship packages in return for recognition and branding in publicity and on signage. Development of a formal corporate sponsorship package, potentially with varying levels of sponsorship (e.g. Gold, Silver, Bronze), would significantly improve the likelihood of securing funds through this source.

7.4 Resources

The contribution of volunteers such as the Friends of Mt Leura Inc. has been instrumental in the project's success over the years, and there is likely to be an ongoing need for volunteer involvement to assist with implementation of this Management Plan. This highlights the importance of ensuring that volunteer interest is maintained and strengthened into the future. Community consultation indicated that many people valued the existing strong partnership between the Development Committee, the Friends of Mt Leura Inc. and Camperdown College, and felt that this should be maintained through ongoing collaborative events and shared facilities. There is also scope for new partnerships to be developed or existing ones to be strengthened through collaboration on specific projects or initiatives.

7.5 Strategies

Income Generation	
1	Develop a curricular-based education program with a nominal fee charged for participation. At a minimum, cost recovery will be achieved.
2	Implement a series of informal guided walks and formal tours according to demand. Formal tours will be subject to a nominal fee to achieve cost recovery.
3	Establish discussions with other community organisations within the immediate vicinity to identify opportunities for new income generating initiatives and determine where mutually beneficial partnerships may lie.
4	Develop fee structure for organised events such as markets and functions and guidelines to assist event organisers.
5	Develop a grazing policy for the reserves to set out rates and guidelines for the leasing of some land for grazing.
6	Identify opportunities to implement new events within the reserves, with an assessment of the level of potential financial return.
7	Propagate and sell native plants to subsidise the growing of plants for use on the reserves.
8	Where required, host specific fundraising events (not necessarily held within the reserves) to fund particular projects or improvements; e.g. trivia nights, dinner dances, concerts.
Grants and Fundraising	
9	Install donations boxes at the upper and lower shelters accompanied by brief information about the need for ongoing financial support.
10	Target Government grants with a focus on tourism, community and cultural development to fund the development of capital projects, visitor facilities and programs.
11	Identify alternative funding sources such as philanthropic grants and corporate sponsorship to fund capital projects and improvements.
12	Develop a formal sponsorship package with varying sponsorship levels (e.g. Gold, Silver, Bronze) to market the project to potential corporate sponsors.
Resources	
13	Review the Development Committee Instrument of Delegation to ensure it meets the current governance needs and to change the name of the group to 'Mt Leura and Mt Sugarloaf Management Committee'.
14	Continue to maintain strong partnerships between the Development Committee, Friends of Mt Leura, Camperdown College and other organisations through ongoing joint events and shared facilities.
15	Invite potential partners to become involved with specific events, projects or initiatives; e.g. work with Rotary Club of Camperdown to raise funds for barbecue facilities.
16	Maintain part-time Project Coordinator position to undertake and coordinate implementation of this plan at the direction of the Development Committee and Council.

8. Objective Five

Mitigate Risk to Users and Surrounding Residents

Risk to Users and Surrounding Residents

The reserves are appropriately managed so that legislated responsibilities are met and risk to users, the community and adjoining landowners and residents is minimised.

8.1 Context

While the reserves provide many benefits for the local community and region, it is important to recognise that there are inherent risks associated with the reserves' well-vegetated and steep-sided form, particularly given that public access is unregulated. Previously, risk management issues on the reserves were addressed through the *Mt Leura & Mt Sugarloaf Reserve Risk Management Report (May 2005*). This report was developed by the Corangamite Shire Council's Human Resources Department with the Development Committee according to Risk Management Australian Standard (AS/NZS 4360:1999).

Risk inspections were carried out on the reserves, with risks identified and assessed and treatment options for each risk identified. The risks identified during development of the *Mt Leura & Mt Sugarloaf Reserve Risk Management Report (2005*) are now addressed in the *Mt Leura and Mt Sugarloaf Risk Management Plan 2013*, which has been developed in conjunction with this Management Plan and is included as Appendix 3. The new Risk Management Plan incorporates and supersedes the *Mt Leura & Mt Sugarloaf Risk Management Report (2005)*.

Development of the new Risk Management Plan is a key component of this objective. This objective also addresses the two priority issues of 'Emergency and Risk' and 'Fire' which were identified during the consultation period.

8.2 Emergency and Risk

Consultation identified that people hold particular concerns about hazards such as uneven and slippery paths, steep terrain, and snake and insect bites. These risks are currently managed by the Development Committee in accordance with the *Mt Leura Risk Management Plan 2005*, which includes an annual inspection of the reserves to identify and address potential risks to users, employees, volunteers and contractors. This inspection forms the basis of the reserves' risk identification and response procedures.

Maintaining safe emergency access to the site is part of this. Consultation with stakeholders identified that emergency response could be greatly improved through the provision of additional egress points along the reserves' southern boundaries. Existing access points, emergency vehicle tracks and turnaround points are shown in Map 4.

It is important that annual inspections are undertaken prior to the Fire Restriction Period (generally commencing late November) to ensure that emergency access/egress routes and turnaround points are maintained to a safe standard. Procedures for assessing these issues risks are outlined in detail in the *Mt Leura and Mt Sugarloaf Risk Management Plan 2013*.

Construction of a sealed one-way road through the reserves from the Mt Leura summit could potentially address issues of safety and emergency access; however, stakeholder consultation on this option identified prohibitively expensive planning and construction costs and potentially significant impacts to the reserves' environmental, recreational and amenity values. Such an initiative is therefore not considered feasible within the timeframe of this plan.

8.3 Fire

Fire management is important for the safety of reserve users and surrounding residents. This relates to both the risk of fires starting on the reserves and potentially impacting on surrounding areas, and of fires starting in surrounding areas and impacting on the reserves. Concerns about fire were identified through the consultation period. In particular, risks to reserve users and residents on the northern edge of the reserve and landholders on the south and east side were identified as of most concern. There was also concern about the potential impact a fire would have on the reserves' amenity and facilities.

The Development Committee have trialed a fuel reduction burn with the CFA, and also undertake annual fuel management activities along Mt Leura Road and the northern boundary of Mt Leura Reserve adjacent to residences. However, given ongoing community concerns about fire, future management of the reserves will need to have a greater focus on implementing strategies to mitigate this risk.

Consultation identified that the risk of fires starting on the reserves and impacting on surrounding areas was an issue, as was the potential for fires in the surrounding area to spread to the reserves. Reducing fuel loads across the reserves is a priority and there are multiple options to achieve fuel reduction in different areas such as tree thinning, grazing, slashing/spraying and implementation of regular fuel reduction burns. The maintenance of fuel breaks in key areas, such as the Mt Leura Reserve northern boundary, is also an important tool in reducing fire risk. A fuel break is a strip of land where vegetation has been removed or modified to reduce the rate of spread and/or intensity of any fire which may enter the area, and may take various forms such as slashed breaks, vegetative breaks or sprayed breaks.

There were differing views about what constitutes an appropriate level of access to the reserves on Total Fire Ban and Code Red Days. While some feedback indicated a desire to close road access to the upper carpark on both Total Fire Ban Days and Code Red Days, there are likely to be significant safety, amenity and resourcing issues associated with this option. As Code Red Days represent conditions of extreme fire risk, it is important that formal procedures for managing road access during Code Red Days are established.

8.4 Strategies

Fire	
1	Implement trials of various fuel reduction strategies (e.g. burns, grazing) where appropriate to determine and record effects on fuel load, indigenous vegetation and resultant weed growth.
2	Undertake annual inspections with CFA representatives to identify potential sites for undertaking fuel reduction burns with consideration to access issues and minimising environmental impacts.
3	Develop a formal procedure for closing access to Mt Leura Rd on Code Red Days, specifying responsibilities for erecting and removing signage and notifying relevant stakeholders.
4	Continue to undertake annual slashing/spraying of fire breaks along the northern boundary, along the road, at the Upper Carpark and along tracks as required.
Emergency and Risk	
5	Construct additional vehicle egress tracks along southern Mt Sugarloaf Reserve boundaries in conjunction with adjacent landholders.
6	Continue to undertake annual risk inspections in accordance with the Risk Inspection Checklist and action as required.
7	Undertake annual spring inspections of emergency access/egress routes and turnaround points (as per Map 4: Emergency Access Plan) in conjunction with adjacent landholders, CFA and SES.

PART C
SUMMARY OF ACTIONS

List of Acronyms

AP: Council's Assets Planning Department
CC: Camperdown College
CFA: Country Fire Authority
DEECD: Department of Education and Early Childhood Development
E&E: Council's Environment and Emergency Department
ED&T: Council's Economic Development and Tourism Department
F&R: Council's Facilities and Recreation Department
FoML: Friends of Mt Leura Inc.
Governance: Council's Governance Department
HDLN: Heytesbury District Landcare Network
P&A Society: Camperdown Pastoral and Agricultural Society
P&B: Council's Planning and Building Department
RTC: Camperdown – Timboon Rail Trail Committee

Objective One: Enhance the Visitor Experience

No.	Strategy	Partners	Timeframe
Accessibility			
1.1	Construct a sealed path from the Mt Leura upper carpark to the 'Trig. Point' to improve access to look-out points.	P&B, AP	Year 5
1.2	Construct a sealed path along 'Kath's Track' to improve access to the southern look-out point.	P&B, AP	Year 4
1.3	Investigate demand for installation of hand rails at key points within the reserves e.g. alongside steps on the Panorama Trail.		Year 2
1.4	Implement upgrades of existing walking tracks where demand is identified; e.g. sealing of sections along the Panorama Trail/Saddle Trail.		Year 3
1.5	Investigate the demand for and feasibility of new walking trails. Construct new tracks as required e.g. north side of Mt Leura crater.		Year 3
1.6	Increase mowing width of grassed paths by 1 – 3m where achievable.		Ongoing
Facilities			
1.7	Monitor demand for additional small shelters and install where need is identified.		Ongoing
1.8	Work with Camperdown P&A Society to develop an agreement for shared use of the showgrounds toilet facilities. If feasible, install directional signage to toilets from the reserves.	P&A Society	Year 2
1.9	Install signage advising of public toilet locations within the Camperdown township where required.		Year 2
1.10	Investigate the feasibility of installation of barbecue facilities at the Lower Shelter area, with consideration of projected costs and proposed maintenance arrangements.	F&R	Year 1
Amenity			
1.11	Install standardised regulatory 'Dogs On Leads' signage at key points including the Mt Leura upper carpark and lower Saddle Trail entrance.	E&E	Year 1
1.12	Continue to consult with Camperdown Police to undertake regular patrols (particularly at night) of the Mt Leura Rd and upper carpark to discourage vandalism and littering.	Camperdown Police	Ongoing

Objective Two: Protect and Enhance Environmental and Landscape Values

No.	Strategies	Partners	Timeframe
Landscape Values			
2.1	Identify and address relevant planning requirements to undertake tree lopping/removal in accordance with identified view cones from the Mt Leura summit (Map 2B).	P&B, E&E	Year 1
2.2	Undertake tree lopping/removal to restore view cones at priority sites identified in Section 5.2.	E&E	Year 3
2.3	Monitor vegetation growth at identified view cones as shown in Map 2B and undertake tree lopping/removal at selected sites as required.		Ongoing
2.4	Identify additional appropriate view cone sites and implement restoration activities as required.	E&E	Ongoing
2.5	Construct a viewing platform near the 'Trig. Point' to enable views of the Camperdown township from the Mt Leura summit.	P&B	Year 5
Indigenous Vegetation			
2.6	Undertake limited additional revegetation where required in accordance with Vegetation Management Prescriptions (Part D).	FoML	Ongoing
2.7	Identify and address relevant planning requirements to undertake vegetation thinning in accordance with Vegetation Management Prescriptions (Part D).	P&B, E&E	Year 2
2.8	Undertake vegetation thinning in accordance with Vegetation Management Prescriptions (Part D).	E&E	Ongoing
2.9	Undertake grazing trials where appropriate to assess the technique's efficacy for reducing pasture grass cover.	Adjacent landholders	Ongoing
2.10	Undertake trials of new techniques for pasture grass suppression and reduction e.g. nutrient manipulation, seasonal burns, overplanting with indigenous perennial grasses.	Research/land management institutions	Ongoing
2.11	Develop educational and/or interpretive materials to raise awareness of the reserves' indigenous vegetation and the need for active vegetation management.	FoML	Ongoing
2.12	Progressively remove non-indigenous native vegetation from the Mt Leura quarry site where safe to do so, with follow-up replanting with indigenous species as required.	E&E	Ongoing

Objective Two: Protect and Enhance Environmental and Landscape Values (cont.)

No.	Strategies	Partners	Timeframe
Wildlife			
2.13	Continue to deliver wildlife monitoring programs to determine wildlife presence and abundance; e.g. bird surveys, hair traps, harp traps, scat analysis, still/footage cameras.	FoML, educational institutions	Ongoing
2.14	Continue to provide additional habitat and resources as required; e.g. nest boxes, water troughs.	FoML, educational institutions	Ongoing
2.15	Provide advice to adjacent landholders, Friends of Mt Leura, Landcare and other relevant organisations to identify potential biolink sites.	FoML, HDLN, RTC	Year 1
Invasive Plants and Animals			
2.12	Continue to undertake annual weed control program for managing regionally controlled and environmental weeds.	E&E	Ongoing
2.13	Monitor the reestablishment of weeds following burns to assess the effectiveness of fire as a weed and pasture grass suppression tool.	E&E	Ongoing
2.14	Develop partnerships with adjoining landholders to share knowledge about existing and emerging weed infestations (e.g. elm suckers) and suitable control methods.	Adjacent landholders	Ongoing
2.15	Monitor the presence and/or impacts of pest animals and implement control measures where required.	E&E	Ongoing
Erosion			
2.16	Monitor new and potential erosion sites and investigate mitigation measures where erosion impacts upon user amenity	E&E	Ongoing

Objective Three: Develop Promotional and Educational Opportunities

No.	Strategy	Partners	Timeframe
Education and Interpretation			
3.1	Construct an Educational Resource Centre at the base of Mt Leura to provide an all-weather hub for educational activities	P&B, E&E	Year 5
3.2	Seek to establish partnerships with educational organisations (e.g. Ecolinc Innovations Centre at Bacchus Marsh) to develop a curricular-based environmental education program.	Educational institutions	Year 2
3.3	Maintain and develop partnerships with educational institutions to provide hands-on learning opportunities that assist with management of the reserves.	Educational institutions, FOML	Ongoing
3.4	Revise and reprint the 'Volcanic Edge' booklet and other educational materials as required.	FoML	Ongoing
3.5	Repair, replace, and update existing interpretive and directional signage as required.		Ongoing
3.6	Develop existing and/or new geo-cache trails with additional educational/promotional materials to increase awareness of the initiative.	FoML, CC	Year 4
3.7	Develop a new interpretive walk showcasing the Leura Maar's geological history.	E&E	Year 1
3.8	Work with Port Campbell Visitor Information Centre to identify opportunities to promote and integrate with the Craters to Coast Discovery Program.	ED&T	Ongoing
3.9	Develop an interpretive points-of-interest mobile app to provide an interactive educational experience for visitors.	ED&T	Year 4
Promotion			
3.10	Develop a formal promotional strategy to raise awareness of the reserves' value as a hub for recreation, nature-based tourism, scenic viewing and environmental/geological education, with consideration to existing promotional tools and online social media.	ED&T	Year 5
3.11	Work with VicRoads to design and install promotional signage for the reserves on the Princes Highway turn-off to Adeney Street.	VicRoads	Year 3
3.12	Work with Council's Economic Development and Tourism Department to identify new opportunities for promoting the reserves; e.g. linking more closely with the Craters to Coast Discovery Program.	ED&T	Ongoing

Objective Three: Develop Promotional and Educational Opportunities (cont.)

No.	Strategy	Partners	Timeframe
Recreation and Events			
3.13	Continue to support existing events and assist in providing additional infrastructure where required e.g. Hill Climb events and the Robert Burns Kilter Dash Fun Run.	F&R	Ongoing
3.14	Encourage new events and uses for the reserves and assist in ensuring safety, amenity and access requirements being met; e.g. foot and bicycle races, field naturalist tours, art exhibitions, open air theatre and music events.	All relevant stakeholders	Ongoing
3.15	Develop a promotional campaign aimed at promoting the reserves as a destination for non-motorised tourism; i.e. walkers and cyclists which considers links to key destinations such as the Camperdown Railway Station, Camperdown – Timboon Rail Trail and the Camperdown Lakes Precinct.	ED&T	Year 4

Objective Four: Support Long Term Viability of the Reserves

No.	Strategy	Partners	Timeframe
Income Generation			
4.1	Develop a curricular-based education program with a nominal fee charged for participation. At a minimum, cost recovery will be achieved.	DEECD, educational institutions	Year 5
4.2	Implement a series of informal guided walks and formal tours according to demand. Formal tours will be subject to a nominal fee to achieve cost recovery.	F&R	Year 4
4.3	Establish discussions with other community organisations within the immediate vicinity to identify opportunities for new income generating initiatives and determine where mutually beneficial partnerships may lie.	P&A Society, CFC	Ongoing
4.4	Develop fee structure for organised events such as markets and functions and guidelines to assist event organisers.	F&R	Year 4
4.5	Develop a grazing policy for the reserves to set out rates and guidelines for the leasing of some land for grazing.	F&R	Year 4
4.6	Identify opportunities to implement new events within the reserves, with an assessment of the level of potential financial return.		Ongoing
4.7	Propagate and sell native plants to subsidise the growing of plants for use on the reserves.	FoML	Year 5
4.8	Where required, host specific fundraising events (not necessarily held within the reserves) to fund particular projects or improvements; e.g. trivia nights, dinner dances, concerts.	FoML	Ongoing
Grants and Fundraising			
4.9	Install donations boxes at the Upper and Lower Shelters accompanied by brief information about the need for ongoing financial support.		Year 2
4.10	Target Government grants with a focus on tourism, community and cultural development to fund the development of capital projects, visitor facilities and programs.	ED&T, E&E	Ongoing
4.11	Identify alternative funding sources such as philanthropic grants and corporate sponsorship to fund capital projects and improvements.		Ongoing
4.12	Develop a formal sponsorship package with varying sponsorship levels (e.g. Gold, Silver, Bronze) to market the project to potential corporate sponsors.	E&E	Year 3

Objective Four: Support Long Term Viability of the Reserves (cont.)

No.	Strategy	Partners	Timeframe
Resources			
4.13	Review the Development Committee Instrument of Delegation to ensure it meets the current governance needs and to change the name of the group to 'Mt Leura and Mt Sugarloaf Management Committee'.	E&E, Governance	Year 1
4.14	Continue to maintain strong partnerships between the Development Committee, Friends of Mt Leura, Camperdown College and other organisations through ongoing joint events and shared facilities.	FoML, CC	Ongoing
4.15	Invite potential partners to become involved with specific events, projects or initiatives; e.g. work with Rotary Club of Camperdown to raise funds for barbecue facilities.	All relevant groups	Ongoing
4.16	Maintain part-time Project Coordinator position to undertake and coordinate implementation of this plan at the direction of the Development Committee and Council.		Ongoing

Objective Five: Mitigate Risk to Users and Surrounding Residents

No.	Strategy	Partners	Timeframe
Fire			
5.1	Implement trials of various fuel reduction strategies (e.g. burns, grazing) where appropriate to determine and record effects on fuel load, indigenous vegetation and resultant weed growth.	CFA, E&E	Year 2
5.2	Undertake annual inspections with CFA representatives to identify potential sites for undertaking fuel reduction burns with consideration to access issues and minimising environmental impacts.	CFA, E&E	Ongoing
5.3	Develop a formal procedure for closing access to Mt Leura Rd on Code Red Days, specifying responsibilities for erecting and removing signage and notifying relevant stakeholders.	E&E	Year 1
5.4	Continue to undertake annual slashing/spraying of fire breaks along the northern boundary, along the road, at the Upper Carpark and along tracks as required.	E&E	Ongoing
Emergency and Risk			
5.5	Construct additional vehicle egress tracks along southern Mt Sugarloaf Reserve boundaries in conjunction with adjacent landholders.	Adjacent landholders, CFA, SES	Year 1
5.6	Continue to undertake annual risk inspections in accordance with the Risk Inspection Checklist and action as required.	E&E	Ongoing
5.7	Undertake annual spring inspections of emergency access/egress routes and turnaround points (as per Map 4: Emergency Access Plan) in conjunction with adjacent landholders, CFA and SES.	Adjacent landholders, CFA, SES	Ongoing

PART D

VEGETATION MANAGEMENT PRESCRIPTIONS

Zone		Management Goal	Management Actions	Priority
Zone 1	Fuel Breaks	• Maintain as fuel breaks	• Undertake annual slashing and/or spraying. • Undertake fuel reduction burn trials with monitoring to evaluate impacts on fuel load, indigenous vegetation and resultant weed growth. • Implement targeted weed control as required.	• High
Zone 2	Open slopes with significant exotic grass cover and little to no trees	• Reduce density and extent of exotic grasses and broad-leaf weeds • Increase species diversity over time through addition of native herb species	• Trial and implement fuel reduction measures where appropriate (e.g. grazing, burns, carbon addition). • Spot spray exotic grasses and broad-leaf weeds integrated with other methods such as mowing or selective hand weeding prior to revegetation. • Propagate native herbs and plant in gaps created by weed control.	• Medium
Zone 3	Open slopes with significant native grass cover and little to no trees	• Create a Scoria Cone Woodland over time • Protect and enhance native grass cover through weed control and nutrient reduction • Increase species diversity over time through addition of native herb species	• Spot spray exotic grasses and broad-leaf weeds integrated with other methods, such as mowing or selective hand weeding prior to revegetation Propagate native herbs and plant in gaps created by weed control • Trial and implement nutrient reduction measures where appropriate to evaluate effects on native understory	• High - these areas have the most abundant native grasses on site and can be expanded over time
Zone 4	Revegetation Zone: Low Density Indigenous Tree Cover with Minimal Indigenous Groundstorey	• Create a Scoria Cone Woodland over time • Create conditions to facilitate natural regeneration of canopy and understorey species • Improve habitat values and flora diversity	• Thin out overstorey trees by selective thinning, with priority given to older plantings and areas with densities greater than 400 stems/Ha. • Convert thinned trees to coarse woody debris – remove any excess above approximate natural levels • Implement targeted weed control as required • Improve indigenous groundstorey diversity through revegetation or direct seeding where possible	• Medium – this zone contains areas with minimal indigenous groundstorey and will require greater intervention over time. Other zones with greater ecological value have more potential for effective and efficient restoration.

Zone		Management Goal	Management Actions	Priority
Zone 5	**Revegetation Zone: Low Density Indigenous Tree Cover with Indigenous Groundstorey over 25%** There are two significant areas of this zone: the north slope of Mt Sugarloaf where areas of Wallaby Grass *o*ccur; and a patch on western slope of crater where patches of Common Tussock Grass occur	• Create a Scoria Cone Woodland over time • Create conditions to facilitate natural regeneration of canopy and understorey species • Improve habitat values and flora diversity	• Thin out overstorey trees by selective thinning, with priority given to older plantings and areas with densities greater than 400 stems/Ha. • Convert thinned trees to coarse woody debris – remove any excess above approximate natural levels • Implement targeted weed control as required • Improve indigenous groundstorey diversity through revegetation or direct seeding where possible	• High – this zone contains greater ecological value than other areas. Management actions in this zone will bring about restoration of the Scoria Cone Woodland more rapidly than in other zones.
Zone 6	**Revegetation Zone: Moderate to High Density Indigenous Tree Cover with Minimal Indigenous Groundstorey**	• Create a Scoria Cone Woodland over time • Create conditions to facilitate natural regeneration • Improve habitat values and flora diversity	• Thin out overstorey trees by selective thinning, with priority given to older plantings and areas with densities greater than 400 stems/Ha. • Convert thinned trees to coarse woody debris – remove any excess above approximate natural levels • Implement targeted weed control as required • Improve indigenous groundstorey diversity through revegetation or direct seeding where possible	• Moderate – this zone contains areas with minimal indigenous groundstorey and will require significant intervention over time. Other zones with greater ecological value have more potential for effective and efficient restoration
Zone 7	**Revegetation Zone: Moderate to High Density Indigenous Tree Cover with Indigenous Groundstorey over 25%**	• Create a Scoria Cone Woodland over time • Create conditions to facilitate natural regeneration • Improve habitat values and flora diversity	• Thin out overstorey trees by selective thinning, with priority given to older plantings and areas with densities greater than 400 stems/Ha. • Convert thinned trees to coarse woody debris – remove any excess above approximate natural levels • Implement targeted weed control as required • Improve indigenous groundstorey diversity through revegetation or direct seeding where possible	• High – this zone contains areas of higher ecological value. Management actions in this zone will bring about restoration of the Scoria Cone Woodland more rapidly than in other zones.

Appendix 1: Stakeholder Reference Group

Name	Organisation
Dale Alexander	Community representative
Gary Alexander	Community representative
Graham Arkinstall	Mt Leura and Mt Sugarloaf Development Committee
Jamie Atkins	Country Fire Authority
Belinda Bennett	Environment Coordinator (Council)
Juliet Bird	National Trust of Australia (Victoria)
James Castles	Mercy Regional College
Barry Coverdale	Community representative
Grant Coverdale	Friends of Mt Leura Inc.
Greg Farmer	Mt Leura Project Coordinator (Council)
Laura Gleeson	Rotary Club of Camperdown
Fran Grundy	Camperdown College
Ruth Gstrein	Corangamite Shire Councillor (Chair)
Rod Hall	Ballarat Light Car Club
Eddie Harris	Mt Leura and Mt Sugarloaf Development Committee
Errol Harris	Mt Leura and Mt Sugarloaf Development Committee
Bob Lambell	Community representative
Michael McKenzie	St Patrick's Primary School
Peter Molan	Molan & Sons
Sara Napier	Economic Development Officer (Council)
Matt Pollard	Friends of Mt Leura Inc.
Noel Peers	Ballarat Light Car Club
Chris Place	Country Fire Authority
Pat Robertson	Mt Leura and Mt Sugarloaf Development Committee
Bret Ryan	Corangamite CMA
Marni Teal	Mt Leura and Mt Sugarloaf Development Committee
Yonie Tiljak	Heytesbury District Landcare Network
Arno van der Schans	Municipal Emergency Management Officer (Council)
Gail Watson	Corangamite Arts
Jarrod Woff	Recreation Development Officer (Council)

Appendix 2: Flora and Fauna of the Reserves

Table 1. Indigenous plant species found on the reserves today.

	Common Native	Botanic Name
Overstorey	Black Wattle	*Acacia mearnsii*
	Blackwood	*Acacia melanoxylon*
	Drooping Sheoak	*Allocasaurina verticillata*
	Golden Wattle	*Acacia pycnantha*
	Manna Gum	*Eucalyptus viminalis*
	Messmate	*Eucalyptus obliqua*
	Silver Banksia	*Banksia marginata*
	Silver Wattle	*Acacia dealbata*
	Swamp Gum	*Eucalyptus ovata*
Understorey	Dogwood	*Cassinia aculeata*
	Hop Wattle	*Acacia stricta*
	Kangaroo Apple	*Solanum laciniatum*
	Prickly Moses	*Acacia verticillata*
	Sweet Bursaria	*Bursaria spinosa*
	Tree Everlasting	*Ozothamnus* sp.
	Tree Violet	*Melicytus dentatus*
Groundcover	Austral Bracken	*Pteridium esculentum*
	Bidgee Widgee	*Acaena anserinifolia*
	Blushing Bindweed	*Convolvulus erubescens*
	Cinquefoil	*Geranium potentilliodes*
	Jersey Cudweed	*Pseudognaphalum luteoalbum*
	Kidney Weed	*Dichondra repens*
	Native Bluebells	*Wahlenbergia gracilis*
	Native Clematis	*Clematis aristata*
	Native Pennywort	*Hydrocotyle laxiflora*
	Onion Orchid	*Microtis* sp.
	Poa	*Poa labillardieri*
	Running Postman	*Kennedia prostrata*
	Sweet Hound's Tongue	*Cyanoglossum suaveolens*
	Wallaby Grass	*Danthonia* sp.
	Willow Herb	*Epilobium* sp.

Table 2. Introduced plant species found on the reserves.

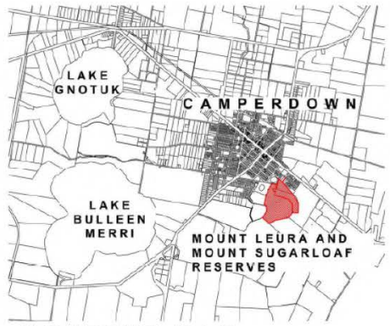
	Common Name	Botanic Name
Trees and Shrubs	Cypress Pine	*Cupressus macrocarpa*
	Mahogany Gum	*Eucalyptus botryoides*
	Pine	*Pinus radiata*
Broad-leaved	Blackberry	*Rubus fruticosus*
	Cape Weed	*Arctotheca calendula*
	Cleavers	*Galium aperine*
	Dandelion	*Taraxacum* sp.
	Hemlock	*Conium maculatum*
	Horehound	*Marrubium vulgare*
	Paterson's Curse	*Echium plantagineum*
	Skeleton Weed	*Chondrilla juncea*
	Twiggy Mullein	*Verbascum virgatum*
	Wild Turnip	*Brassica rapa*
Monocots (grasses)	Cocksfoot	*Dactylis glomerata*
	Phalaris	*Phalaris aquatica*
	Yorkshire Fog Grass	*Holcus lanatus*

Table 3. Native fauna species known to occur within the reserves.

	Common Native	Species Name
Mammals	Brush-tailed Possum	*Trichosurus vulpecula*
	Bush Rat	*Rattus fuscipes*
	Chocolate Wattled Bat	*Chalinolobus morio*
	Eastern False Pipistrelle	*Falsistrellus tasmaniensis*
	Echidna	*Tachyglossus aculeatus*
	Gould's Wattled Bat	*Chalinolobus gouldii*
	Koala	*Phascolarctos cinereus*
	Large Forest Bat	*Vespadelus darlingtoni*
	Lesser Long-eared Bat	*Nyctophilus geoffroyi*
	Little Forest Bat	*Vespadelus vulturnus*
	Ring-tailed Possum	*Pseudocheirus peregrinus*
	Southern Forest Bat	*Vespadelus regulus*
	Swamp Rat	*Rattus lutreolus*
	Swamp Wallaby	*Wallabia bicolor*
	White-striped Freetail Bat	*Tadarida australis*
Birds	Azure Kingfisher	*Alcedo azurea*
	Black-shouldered Kite	*Elanus caeruleus*
	Brown Falcon	*Falco berigora*
	Flame Robin	*Petroica phoenicea*
	Golden Whistler	*Pachycephala pectoralis*
	Kookaburra	*Dacelo novaeguineae*
	Little Eagle	*Hieraaetus morphnoides*
	Nankeen Kestrel	*Falco cenchroides*
	Pardalote species	*Pardalotus* sp.
	Peregrine Falcon	*Falco peregrinus*
	Shrike Thrush	*Colluricincla harmonica*
	Superb Fairy-wren	*Malurus cyaneus*
	Tawny Frogmouth	*Podargus strigoides*
	Thornbill	*Acanthiza pusilla*
	Wedge-tailed Eagle	*Aquila audax*
	White Goshawk	*Accipiter novaehollandiae*
Reptiles and Amphibians	Eastern Brown Snake	*Pseudonaja textilis*
	Common Copperhead Snake	*Austrelaps superbus*
	Blue Tongue Lizard	*Tiliqua scincoides scincoides*
	Striped Marsh Frog	*Limnodynastes peroni*
	Tiger Snake	*Notechis* sp.

LEGEND

- Mt Leura Road
- Reserve Boundary
- Kath's Track
- Panorama Trail
- Southern Loop Trail
- Saddle Trail
- Mt Sugarloaf Trail
- Crater Trail
- Disused Quarry
- Numbered Bollard
- Information Shelter and Picnic Area
- Summit
- Seat



CONTEXT MAP

MAP 1: MOUNT LEURA AND MOUNT SUGARLOAF RESERVES

MOUNT LEURA AND MOUNT SUGARLOAF MANAGEMENT PLAN

CORANGAMITE SHIRE COUNCIL

0 200.0
metres
Scale: 1:4.760

N

VIEW A

VIEW B

VIEW C

VIEW D

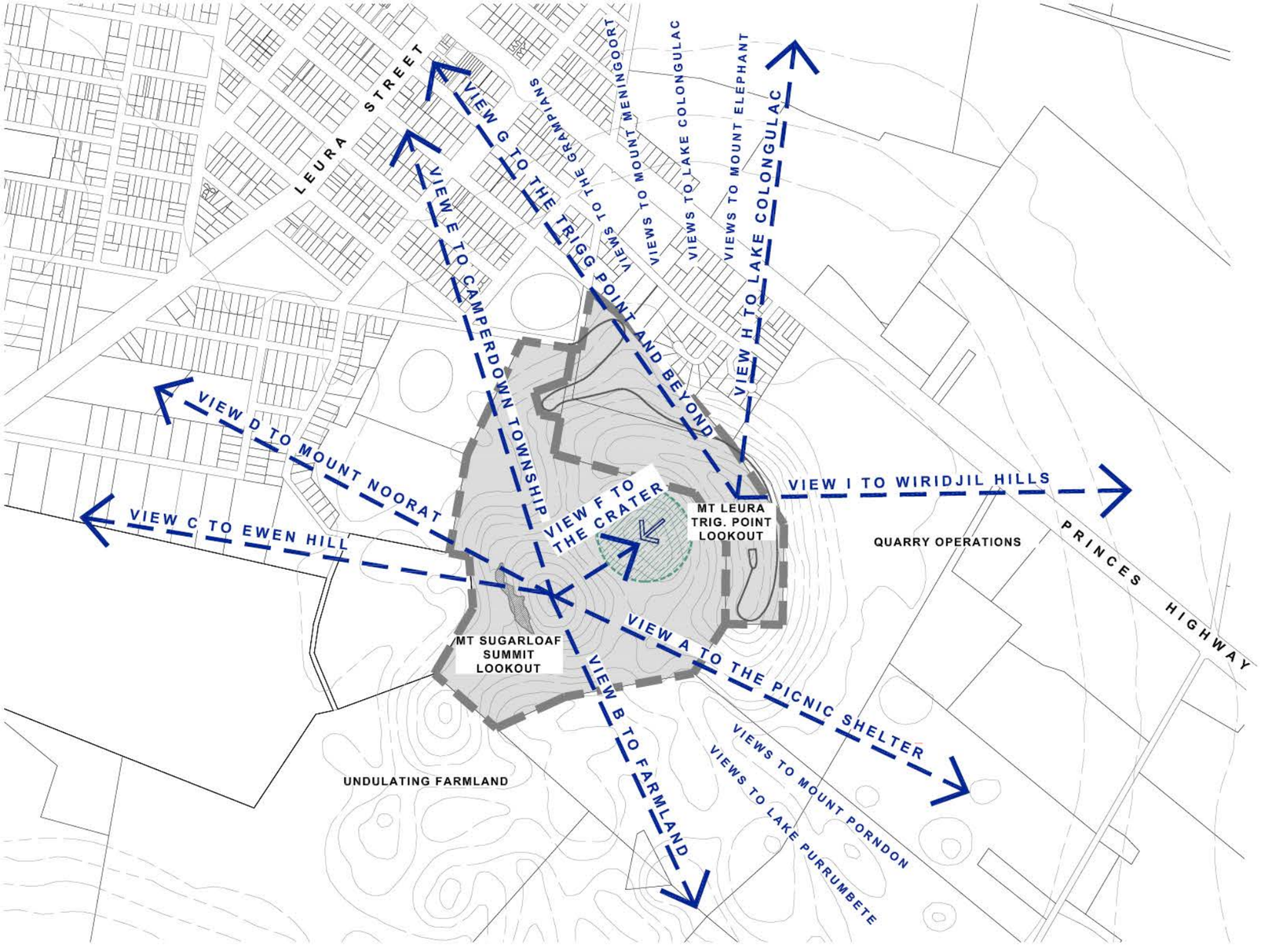
VIEW E

VIEW F

VIEW G

VIEW H

VIEW I

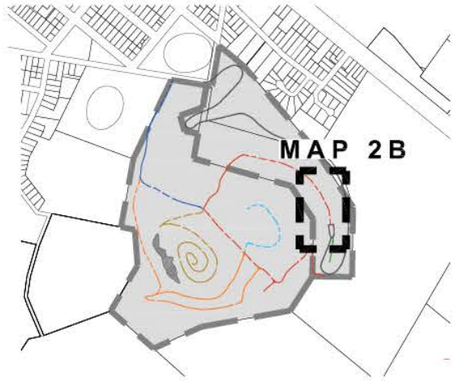


LEGEND

INTERNAL VIEW

SIGNIFICANT LONG DISTANCE VIEW (REFER TO REFERENCE CODE AND CORRESPONDING PHOTO)

RESERVE BOUNDARY



CONTINUATION TO MAP 2B: VIEWS FROM MOUNT LEURA SUMMIT

MAP 2A: KEY EXISTING VIEWLINES

MOUNT LEURA AND MOUNT SUGARLOAF MANAGEMENT PLAN

0 100 200 300 400 700M

N

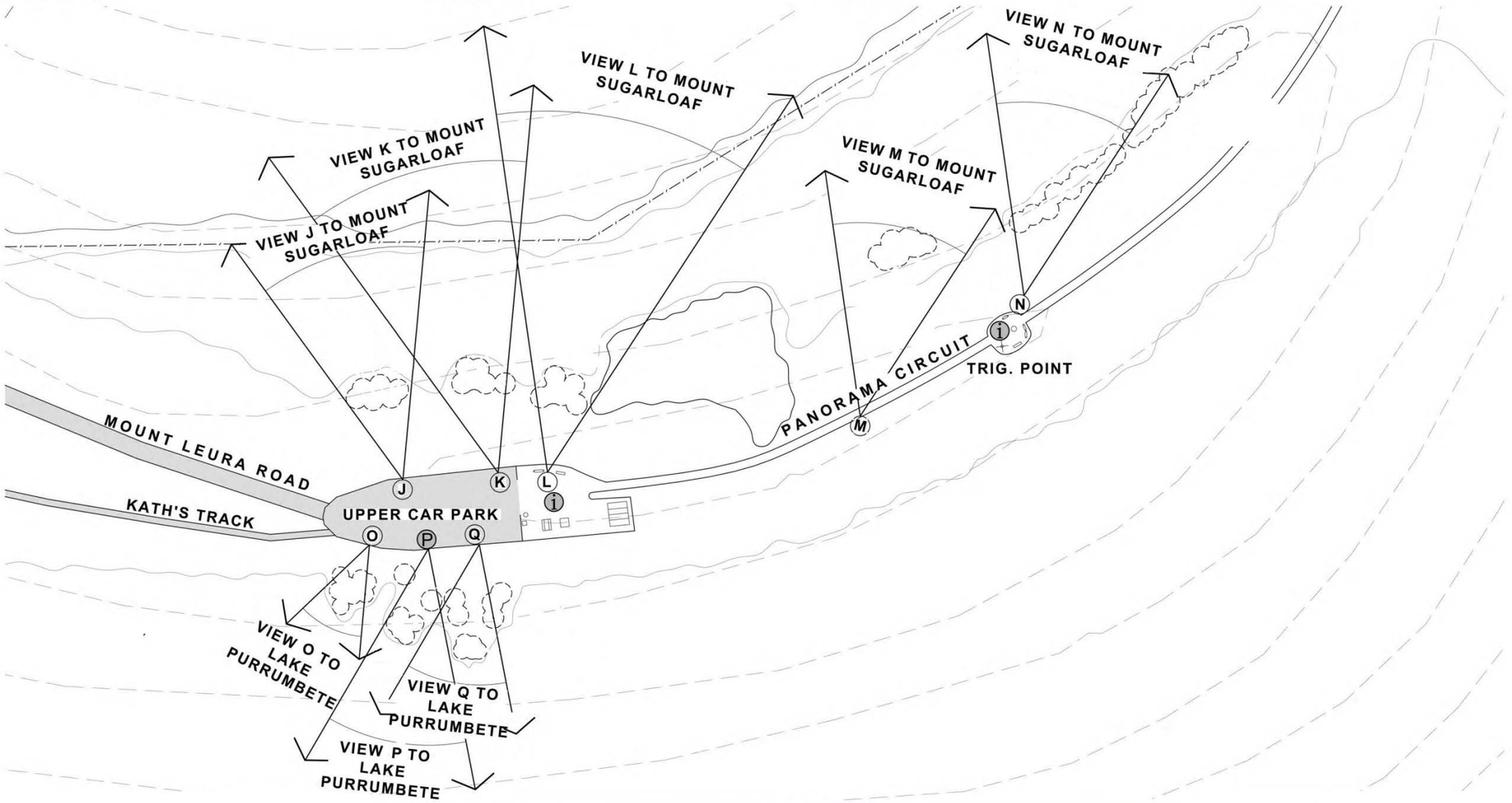
VIEW J

VIEW K

VIEW L

VIEW M

VIEW N



LEGEND

EXISTING INTERPRETIVE SIGNAGE

EXISTING ASPHALT CAR PARK

EXISTING LITTER BIN, PICNIC TABLE AND SEATING

EXISTING INFORMATION SHELTER

CODED (ALPHABETICALLY) VIEW CONE FROM MAIN VIEWING POINTS (Refer to corresponding photograph)

VEGETATION TO BE MONITORED AND/OR REMOVED

EXISTING VEGETATION TO REMAIN (Note in the longer term some trees will need to be removed as they develop)

VIEW O

VIEW P

VIEW Q

CONTEXT MAP

MAP 2B: VIEWS FROM MOUNT LEURA SUMMIT

MOUNT LEURA AND MOUNT SUGARLOAF MANAGEMENT PLAN

GREATER LITHGOW CITY COUNCIL

0 10 20 30 40 70M

SCALE 1:500 (B1 SHEET)

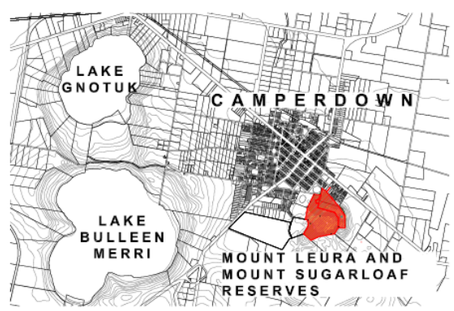
N

LEGEND

- EXTERNAL SITE BOUNDARY
- BOUNDARY BETWEEN MOUNT LEURA AND MOUNT SUGARLOAF RESERVES
- MOUNT SUMMIT
- SADDLE TRAIL
- SOUTHERN LOOP TRAIL
- MOUNT SUGARLOAF TRAIL
- PANORAMA CIRCUIT
- CRATER TRAIL
- KATH'S TRACK
- EXISTING FENCELINE
- EXISTING DISUSED QUARRY
- EXISTING INFORMATION SHELTER AND PICNIC AREA
- EXISTING CAR PARK
- EXISTING INDICATIVE AREA OF POA SPP.
- MIX OF NON-INDIGENOUS NATIVE SPECIES

ZONES

- ZONE 1: FUEL BREAK
- ZONE 2: OPEN SLOPES WITH SIGNIFICANT EXOTIC GRASS COVER AND LITTLE TO NO TREES
- ZONE 3: OPEN SLOPES WITH SIGNIFICANT NATIVE GRASS COVER AND LITTLE TO NO TREES
- ZONE 4: REVEGETATION ZONE - LOW DENSITY INDIGENOUS TREE COVER WITH MINIMAL INDIGENOUS GROUNDSTOREY
- ZONE 5: REVEGETATION ZONE - LOW DENSITY INDIGENOUS TREE COVER WITH INDIGENOUS GROUNDSTOREY OVER 25%
- ZONE 6: REVEGETATION ZONE - MODERATE TO HIGH DENSITY INDIGENOUS TREE COVER WITH MINIMAL INDIGENOUS GROUNDSTOREY
- ZONE 7: REVEGETATION ZONE - MODERATE TO HIGH DENSITY INDIGENOUS TREE COVER WITH INDIGENOUS GROUNDSTOREY OVER 25%



CONTEXT MAP

MAP 3: VEGETATION MANAGEMENT PRESCRIPTIONS

MOUNT LEURA AND MOUNT SUGARLOAF MANAGEMENT PLAN

CORANGAMITE SHIRE COUNCIL

0 20 40 60 80 100 200M

SCALE 1:2000 (B1 SHEET)

N

LEURA OVAL RECREATION RESERVE

WRIGHT STREET

MANIFOLD STREET

RESERVE ENTRANCE AND LOWER CAR PARK

SHOWGROUNDS

SADDLE TRAIL 360M

MOUNT LEURA ROAD 1.6km

MOUNT LEURA RESERVE

MOUNT SUGARLOAF RESERVE

MOUNT LEURA SUMMIT

SADDLE TRAIL 255m

SOUTHERN LOOP TRAIL 430M

PANORAMA CIRCUIT 210M

CRATER TRAIL

ROCK PILES IN CRATER

MOUNT SUGARLOAF TRAIL

MOUNT SUGARLOAF SUMMIT

DISUSED QUARRY

UPPER CAR PARK

KATH'S TRACK

PANORAMA CIRCUIT

SOUTHERN LOOP TRAIL

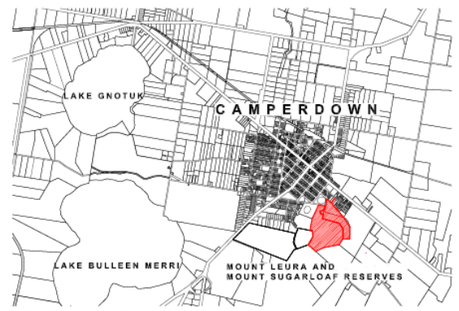
EMERGENCY ACCESS TRACK

LEGEND

- MOUNT SUMMIT
- EXISTING INFORMATION SHELTER AND PICNIC AREA
- EXISTING CAR PARK
- EXISTING SEAT AND TABLE
- EXISTING BIN
- EXISTING INTERNAL GATE
- EXISTING GATE TO ADJOINING PROPERTY
- EXISTING NUMBERED BOLLARD
- DIRECTIONAL SIGN
- EXISTING FENCELINE
- EXISTING DISUSED QUARRY
- SITE BOUNDARY
- PEDESTRIAN/CYCLE TRACK
- EMERGENCY ACCESS TRACK
- EMERGENCY VEHICLE TURN-AROUND

EMERGENCY VEHICLE ACCESS POINTS

1. MOUNT LEURA ROAD (1.6KM TO THE CAR PARK AND TURN-AROUND POINT)
2. ACCESS POINT AT THE ROYCROFT SHELTER AND SADDLE TRAIL AS A GRASSED ACCESS TRAIL (360M FROM POINT 2 TO POINT 3)
3. CONTINUATION OF SADDLE TRAIL AND CONNECTION TO PANORAMA CIRCUIT (465M FROM POINT 3 TO SADDLEBACK TURN-AROUND)
4. NORTHERN SECTION OF SOUTHERN LOOP TRAIL (430M FROM POINT 4 TO TURN-AROUND NEAR QUARRY)
5. EMERGENCY VEHICLE ACCESS THROUGH GATE
6. EMERGENCY VEHICLE ACCESS THROUGH GATE
7. EMERGENCY VEHICLE ACCESS THROUGH GATE
8. EMERGENCY VEHICLE ACCESS THROUGH GATE



CONTEXT PLAN

MAP 4: EMERGENCY ACCESS PLAN

MOUNT LEURA AND MOUNT SUGARLOAF MANAGEMENT PLAN

CORANGAMITE SHIRE COUNCIL

0 20 40 60 80 100 200M

SCALE 1:2000 (B1 SHEET)

N

CORANGAMITE SHIRE

MOUNT LEURA AND MOUNT SUGARLOAF RISK MANAGEMENT PLAN

June 2013

Corangamite Shire

Mount Leura and Mount Sugarloaf Development Committee

MOUNT LEURA AND MOUNT SUGARLOAF RISK MANAGEMENT PLAN 2013

Prepared By:

Mt Leura and Mt Sugarloaf Development Committee

and

Corangamite Shire Council

Adopted by Corangamite Shire Council on 25 June 2013

Acknowledgements

The contribution of the following people in development of this plan is gratefully acknowledged:

- Rebecka McCann
- Anna Carrucan
- Graham Arkinstall
- Errol Harris
- Pat Robertson
- Fiona Morris
- Greg Farmer
- Edward Harris

Date	Amendment

For more information contact Kristie King, Environment Project Officer at the Corangamite Shire on (03) 5593 7100 or email shire@corangamite.vic.gov.au.

Table of Contents

1. Introduction

The Mt Leura and Mt Sugarloaf Reserves are two adjoining parcels of land located at the south-eastern boundary of Camperdown. The Mt Leura Reserve covers an area of 11.3 ha and is owned by Corangamite Shire Council, while the adjoining Mt Sugarloaf Reserve covers an area of 38.8ha and is owned by the National Trust of Australia (Victoria) and leased by Council.

Together the reserves cover an area of 50.1 ha and include the scoria cones of Mt Leura and Mt Sugarloaf and the crater between the mounts. These features, together with a number of smaller cones within the surrounding area, comprise the 'Mt Leura Complex', which is listed by the National Trust of Australia as a Nationally Significant geological feature and of State Significance for its landscape value.

The Mt Leura Reserve is located within the Public Park and Recreation Zone, while Mt Sugarloaf lies within the Farming Zone. Both reserves are subject to a Significant Landscape Overlay for the protection of landscape values and significant volcanic features. Agricultural land abuts the reserves' eastern, southern and western boundaries, with residential development adjoining the northern boundary. The reserves also adjoin the Camperdown Showgrounds and the Leura Oval Recreation Reserve.

The reserves are managed together on behalf of Council by the Mt Leura and Mt Sugarloaf Development Committee (the 'Development Committee'), a Special Committee of Council established under Section 86 of the *Local Government Act 1989*. Management of the reserves has been guided by the *Mt Leura and Mt Sugarloaf Landscape Master Plan, Management Plan and Implementation Plan* (*1994, revised 1997*) for the past 18 years.

Past Risk Management

Previously, risk management issues on the reserves were addressed through the *Mt Leura & Mt Sugarloaf Reserve Risk Management Report (May 2003*). This report was developed by the Corangamite Shire Council's Human Resources Department with the Development Committee according to Risk Management Australian Standard (AS/NZS 4360:1999). Risk inspections were carried out on the reserves, with risks identified and assessed and treatment options for each risk identified. The report also included a checklist which the Committee currently uses to undertake annual risk inspections on the reserve.

The report identified fire management as a high priority risk for the reserves and identified the need for a Fire Management Plan to address this risk specifically. Following this recommendation, the Committee developed the *Mount Leura & Mount Sugarloaf Reserve Fire Management Plan* which was adopted by Council in November 2004. The *Fire Management Plan* was also developed according to the Risk Management Australian Standards (AS/NZS 4360: 1999) with risks identified, assessed and prioritised, and treatment options developed for each risk.

Risks are assessed in each 'management area' and responsibilities and approximate costs for each treatment action are also outlined in the *Fire Management Plan*. In July 2005, the *Fire Management Plan* was amended to include specific fuel management prescriptions for each of the adjoining boundaries and fire access tracks, access points and turn-around-points in the event of a fire incident on or nearby the reserves. This amendment was made with consultation from local and regional Country Fire Authority (CFA) representatives, adjoining landholders, Committee members and Council staff.

The Development Committee have been implementing both of these plans since their development. However it is now necessary to review and update these plans for a several reasons, primarily to:

- Review the effectiveness of the existing plans' implementation;
- Comply with the Risk Management International and Australian Standards (AS/NZS ISO 31000:2009) which have replaced AS/NZS 4360;
- Incorporate changes to the reserves since the previous risk management plans were developed, particularly new facilities (e.g. information shelter) and changed fuel conditions (e.g. removal of grazing in some areas);
- Meet changing expectations and responsibilities for fire management particularly following the 2009 Victorian Bushfire and subsequent Royal Commission; and
- Incorporate other emergency risk management considerations which were not addressed in the original plans.

This plan incorporates and supersedes both the *Mt Leura & Mt Sugarloaf Risk Management Report (May 2003)* and the *Mount Leura & Mt Sugarloaf Fire Management Plan (November 2004, revised July 2005).*

2. Risk Management Process

The Development Committee used the Corangamite Shire Emergency Risk Management Workbook to develop this risk management plan. This workbook is based on risk management Australian Standards (AS/NZS 4360:2004), which have since been superseded by AS/NZS ISO 31000:2009. As these new standards are very similar to the preceding standards, the Committee were able to review the Mt Leura and Mt Sugarloaf Reserve risk assessment to comply with this most current standard.

For the purpose of this document, two types of risk are defined and addressed – i) general risk management and ii) emergency risk management. While fire management is addressed under emergency risk management, it is also addressed in its own section as a high priority risk for the reserves. While both risk types have been addressed separately, both have been addressed according to the same Australian and International Standards for Risk Management (AS/NZS ISO 31000:2009). Figure 1 outlines the risk management process (AS/NZS ISO 31000:2009) used to develop this plan.

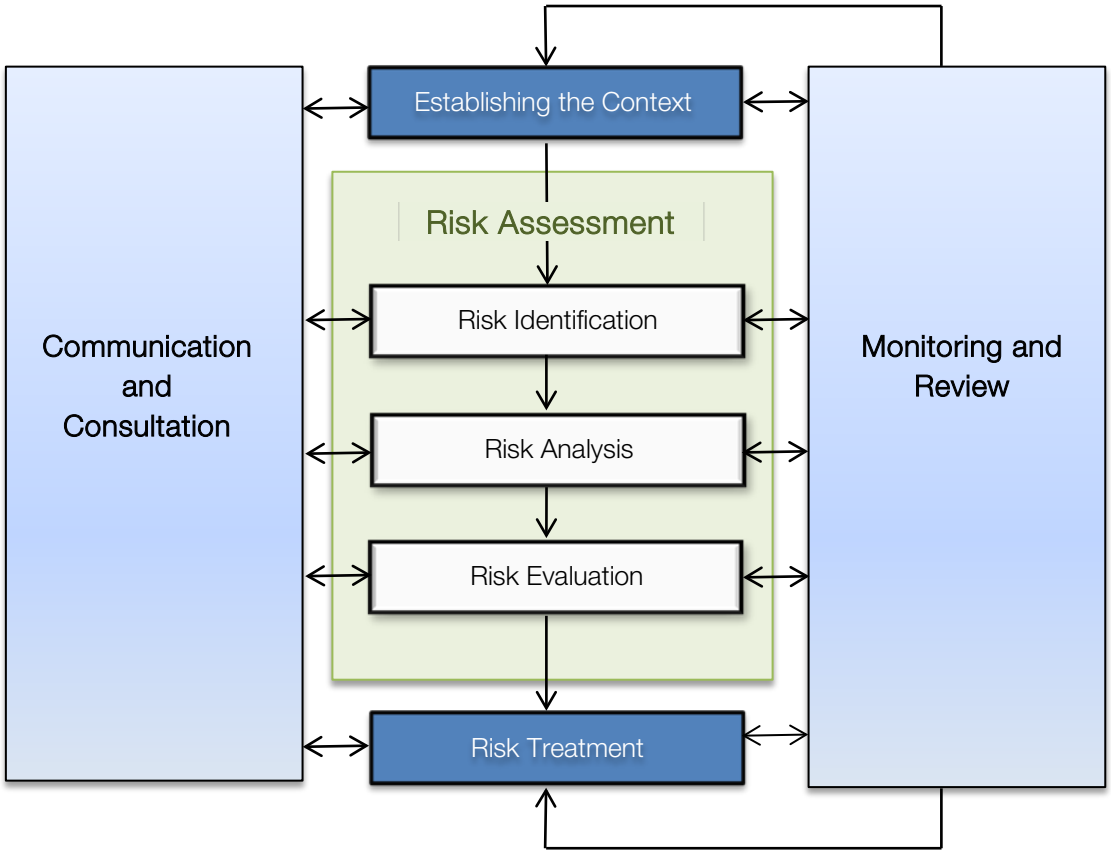


Figure 1. Risk Management Process (AS/NZS ISO 31000:2009).

2.1 Establishing the Context

"The organization articulates its objectives, defines the external and internal parameters to be taken into account when managing risk, and sets the scope and risk criteria for the remaining process" (AS/NZS ISO 31000:2009).

2.2 Communication and Consultation

"Communication and consultation with external and internal stakeholders should take place during all stages of the risk management process." (AS/NZS ISO 31000:2009)

2.3 Risk Assessment

This plan uses the qualitative risk criteria outlined in the Corangamite Shire Emergency Risk Management Workbook to analyse the risk. These criteria are outlined in Tables 1 and 2.

Table 1. Criteria for assessing the likelihood of risk.

Level	Descriptor	Description
A	Almost certain	• The event is expected to occur. • High level of recorded incidents and/or very strong anecdotal evidence. • A strong likelihood event will reoccur. • Great opportunity, reason, or means to occur.
B	Likely	• The event will probably occur. • Regular recorded incidents and strong anecdotal evidence. • Considerable opportunity, reason or means to occur.
C	Possible	• The event should occur at some time. • Few infrequent, random recorded incidents or little anecdotal evidence. • Very few incidents in associated organisations or comparable facilities. • Some opportunity, reason or means to occur.
D	Unlikely	• The event could occur at some time. • No recorded incidents or any anecdotal evidence. • No recent incidents in associated organisations or facilities. • Little opportunity, reason or means to occur.
E	Rare	• The event may occur only in exceptional circumstances.

Table 2. Criteria for assessing the consequence of risk.

Level	Descriptor	Description
5	Catastrophic	• Large number of severe injuries requiring hospitalisation. Significant fatalities General displacement for extended duration. Extensive personal support. • Extensive asset damage. Community unable to function without significant support. • Significant impact on environment and/or permanent damage. • Huge financial loss—unable to function without significant support. • Extensive off-site damage/impact.
4	Major	• Extensive injuries, significant hospitalisation, large number displaced (more than 24 hours duration). Fatalities. External resources required for personal support. • Significant asset damage that requires external resources. Community only partially functioning, some services unavailable. • Some impact on environment with long-term effects. • Significant financial loss—some financial assistance required. • Extensive off-site damage/impact.
3	Moderate	• Medical treatment required but no fatalities. Some hospitalisation. Localised displacement of people who return within 24hrs. Personal support satisfied through local arrangements. • Localised asset damage which is rectified by routine arrangements. Normal community functioning with some inconvenience. • Some impact on environment with no long-term effect or small impact on environment with long-term effect. • Significant financial loss. • May be off-site damage/impact.
2	Minor	• Small number of injuries but no fatalities. First Aid treatment required. Some displacement of people (less than 24 hrs). Some personal support required. • Some asset damage. Some disruption (less than 24hrs). • Small impact on environment with no lasting effects. • Some financial loss. • Confined to reserve
1	Insignificant	• No injuries or fatalities. Small number or nil people are displaced and only for short duration. Little or no personal support required (support not $ or material). • Inconsequential or no damage. Little or no disruption to community. • No measurable impact on environment. • Little or no financial loss. • Confined to reserve.

2.4 Risk Identification

"The organization should identify sources of risk, areas of impacts, events (including changes in circumstances) and their causes and their potential consequences." (AS/NZS ISO 31000:2009).

2.5 Risk Analysis

"Risk analysis involves consideration of the causes and sources of risk, their positive and negative consequences, and the likelihood that those consequences can occur. Factors that affect consequences and likelihood should be identified. Risk is analysed by determining consequences and their likelihood, and other attributes of the risk." (AS/NZS ISO 31000:2009).

2.6 Risk Evaluation

"Risk evaluation involves comparing the level of risk found during the analysis process with risk criteria established when the context was considered. Based on this comparison, the need for treatment can be considered" (AS/NZS ISO 31000:2009).

This plan has used the risk rating matrix taken from the AS/NZS 4360:2004 (Table 3) to evaluate the risk. This will ensure that this Plan is consistent with existing Corangamite Shire Council risk management plans.

Table 3. Risk rating matrix. (AS/NZS 4360:2004)

	CONSEQUENCES				
LIKELIHOOD	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
A (almost certain)	H	H	E	E	E
B (likely)	M	H	H	E	E
C (possible)	L	M	H	E	E
D (unlikely)	L	L	M	H	E
E (rare)	L	L	M	H	H

LEGEND	
Level of Risk	**Recommended Action**
E = extreme risk	Detailed research and management planning required at senior levels. Action must be taken to reduce consequences or likelihood.
H = high risk	Senior management attention required, further research might be required. Some action must be taken.
M = moderate risk	Management responsibility must be specified, specific monitoring or response procedures required.
L = low risk	Managed by routine procedures.

2.7 Risk Treatment

"Risk treatment involves selecting one or more options for modifying risks, and implementing those options. Once implemented, treatments provide or modify the controls." Risk treatment options can include the following:

"

a) avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk;
b) taking or increasing the risk in order to pursue an opportunity;
c) removing the risk source;
d) changing the likelihood;
e) changing the consequences;
f) sharing the risk with another party or parties (including contracts and risk financing); and
g) retaining the risk by informed decision. "

This includes the development of treatment plans for each risk "to document how the chosen treatment options will be implemented." (AS/NZS ISO 31000:2009).

2.8 Monitoring and Review

"The organisation's monitoring and review processes should encompass all aspects of the risk management process for the purposes of:

- ensuring that controls are effective and efficient in both design and operation;
- obtaining further information to improve risk assessment;
- analysing and learning lessons from events (including near-misses), changes, trends, successes and failures;
- detecting changes in the external and internal context, including changes to risk criteria and the risk itself which can require revision of risk treatments and priorities; and
- identifying emerging risks" (AS/NZS ISO 31000:2009).

This Risk Management Plan will be reviewed annually. During this review, the Committee will examine the following;

- Progress towards meeting treatment actions.
- Changes to the sources, likelihood or consequences of risk.
- New knowledge or advice which may impact on treatment strategies or priorities.
- Identification of new or emerging risks.

Any amendments to the plan will be recorded in the amendment table provided at the front of this document. This plan will sunset in 2018-19 when a review of the document will be required.

3. Mt Leura and Mt Sugarloaf Reserves Risk Management

3.1 Risk Identification, Analysis and Evaluation

The Mt Leura and Mt Sugarloaf Development Committee identified a total of 23 risks which may be present on the reserves. The sources and vulnerable elements of each of these risks were identified. The identified risks were analysed against the likelihood and consequence criteria and were then evaluated according to the Risk Matrix. This analysis and evaluation is provided in the Risk Register and Treatment Plans (Section 4). Where a risk had variable consequences, the risk was assessed according to what the consequences would most likely be, although the range of potential consequences is also stated.

Some of the identified risks were excluded from this process because they are not direct risks to public safety, assets or the environment of the reserves or surrounding area. Other risks were also consolidated as the risk analysis process identified that the sources, likelihood and consequences were similar or related. This included personal injury and illness, tripping and slipping and structural failure and collapse. Based on the risk rating matrix, the 17 key risks have been prioritised according to their level of risk (Table 4).

Table 4. Risks present on the Mt Leura and Mt Sugarloaf Reserves, ranked in priority order.

Extreme Rated Risks (E)	
1	Fire
2	Accidents/Incidents - Vehicles
High Rated Risks (H)	
3	Personal Injury and Illness
4	Accidents/Incidents - Workplace
5	Landslides and Falling Objects
6	Severe Weather
7	Incidents - Animals/Insects
8	Accidents/Incidents - Air
Moderate Rated Risks (M)	
9	Falls
10	Electric Shock
11	Disease Spread
Low Rated Risks (L)	
12	Entrapment and Entanglement
13	Hazardous Contamination
14	People getting lost
15	Immersion - Water
16	Earthquake/Tremor
17	Flood

Risk Treatment

Risk Registers and Treatment Plans developed for the 11 risks rated as Extreme, High or Moderate are included in Section 4 below. These plans include a risk description, risk analysis and evaluation, vulnerable elements and treatment strategies.

4. Risk Register and Treatment Plans

4.1 Fire

There have been a few recorded incidences of minor fires on the reserves. A lightning strike in 2007 ignited a small fire in Mt Sugarloaf, which was extinguished before emergency services arrived. In 2004, a fire broke out following a stockpile burn undertaken the week prior. It is believed that the original fire burnt into old tree stump roots, flaring up during warm weather. There has also been evidence of illegal campfires near the Mt Leura carpark.

There are several potential sources of wildfire on the reserves. These include lightning strikes, arson, fire from adjoining areas, equipment use (e.g. mowers, grinders and welders), illegal campfires or barbeques, vehicles, burning of stockpiles, or fuel reduction burning. Cigarette butts are also another potential source of fire on the reserves particularly from vehicles using the Mt Leura Road.

There are various factors influencing the consequences of this risk including the terrain, weather conditions, and fuel loads, particularly elevated fuels such as *Phalaris,* shrubs, and stockpiles of dead vegetation.

Reducing fuel loads across the reserves is a priority and there are multiple options to achieve fuel reduction in different areas such as tree thinning, grazing, slashing/spraying and implementation of regular fuel reduction burns. The maintenance of fuel breaks in key areas, such as adjacent to residences along the Mt Leura reserve northern boundary, is also an important tool in reducing fire risk. Fuel breaks may take various forms such as slashed breaks, sprayed breaks or vegetative breaks.

The *Fire Management Plan (November 2004, revised July 2005)* identified vegetative fuel breaks as a key action to reduce the risk of fires moving across reserve boundaries. Vegetative fuel breaks involve the planting of fire resilient vegetation to minimise the spread and intensity of any fires which may enter the area. Vegetative fuel breaks have been installed along many of the reserves' boundaries in accordance with the 2005 *Fire Management Plan* and should be maintained to provide added fire protection to boundaries.

Risk Analysis: Fire	
Likelihood	Likely (A): The event is expected to occur.
	• Infrequent occurrence. • Few recorded incidences.
Consequence	Major (2): Ranging from insignificant to catastrophic.

	• People: Injuries, fatalities and displacement. • Infrastructure: Ranging from minor to catastrophic. Damage to property and assets on or adjoining the reserve. • Environment: Minor/short term impact to major/long term impact. Damage to vegetation. Wildlife fatalities. • Financial: Minor to significant costs depending on loss of infrastructure.
Risk Rating	Extreme (E)
Vulnerable Elements	• Reserve users • Adjoining residents • Structures on reserve - fences, shelters, seating, signage, roads and tracks • Structures adjoining the reserve- homes, sheds, and community facilities • Stock/animals near the reserve • Fodder supplies and pastures near the reserve • Vegetation and wildlife on the reserve • Emergency services
Can this risk be handled by existing measures and/or will the risk be tolerated? **No**.	
Can the likelihood and/or consequence/vulnerability be reduced? **Yes.**	

Treatment Strategies: Fire			
No.	Action	Responsibility	Timeline
1	Committee, volunteers or contractors must not use equipment such as mowers or angle grinders on Total Fire Ban Days.	Committee	Ongoing
2	Where possible, do not drive vehicles off formed tracks to minimise the potential for ignition from vehicles.	Committee	Ongoing
3	Remove stockpiles of trees and branches as soon as practically possible. Any burning of stockpiles must be done outside of the fire restriction period and must be supervised by project coordinator and CFA.	Committee, CFA	Ongoing
4	Close the reserves on Code Red Fire Danger days in accordance with formal procedures. Install permanent signs to inform visitors of closures.	Committee, Council	2013-14/ Ongoing
5	In accordance with the *Mt Leura and Mt Sugarloaf Management Plan 2-13 – 2018*, investigate and implement fuel reduction trials across reserves according to fire risk assessments undertaken with CFA.	Committee, CFA	Ongoing
6	Develop and implement a community awareness program about fire prevention and management on the reserves.	Committee	2015-16/ Ongoing
7	Provide Project Coordinator with fire extinguisher for vehicle.	Committee	2013-14

4.2 Accidents and Incidents - Vehicles

A large number of vehicles, including cars and coaches, use the Mt Leura Road. The road is also occasionally used by the Ballarat Light Car Club to hold Hill Climb competitions, and is regularly used by walkers and cyclists.

Factors that may contribute to a vehicle accident include vegetation adjacent to road, landslides/erosion, weather conditions, wildlife, driver behaviour (e.g. speeding), unauthorised road/track access and road condition, particularly road width and sight distances. The highest risk is associated with walkers and cyclists using the road, excessive speed, the steep and winding road design, and multiple coaches using the road at the one time.

Risk Analysis: Accidents and Incidents - Vehicles	
Likelihood	Almost Certain (A): The event is expected to occur.
	• Anecdotal evidence indicates that only a few minor incidences have occurred in the past. • Considerable opportunity, reason or means to occur.
Consequence	Moderate (3): Ranging from insignificant to catastrophic.
	• People: Injuries and fatalities. • Infrastructure: Damage to vehicles and assets on the reserve (i.e. road, rails, signs) • Environment: Minor/short term. Damage to vegetation. Wildlife fatalities. • Financial: Minor to major. Costs associated with damage to vehicles and assets.
Risk Rating	Extreme (E)
Vulnerable Elements	• Reserve users - particularly motorists, pedestrians and cyclists. • Structures– roads, guard rails, bollards, signs, etc. • Vegetation and wildlife on the reserve
Can this risk be handled by existing measures and/or will the risk be tolerated? **No.**	
Can the likelihood and/or consequence/vulnerability be reduced? **Yes.**	

Treatment Strategies: Accidents and Incidents - Vehicles			
No.	Action	Responsibility	Timeline
1	Maintain condition of Mt Leura Road and signage according to VicRoads standards[1].	Council	Ongoing
2	Conduct all Hill Climb Events according to CAMS[2] Occupational Health and Safety policy.	Ballarat Light Car Club	Ongoing
3	Regularly inspect vegetation growing along Mt Leura Rd and prune or remove trees as required.	Council	Ongoing
4	Investigate installing sign near lower car park informing coach drivers of a radio frequency they can tune into to determine if other coaches are currently using the road.	Council	2015-16

[1] In 2008, Council reviewed the current advisory signage and 50kmh speed limit on Mt Leura road following a request from the Committee. It was determined that the current speed limit and advisory signage meet VicRoads standards.

[2] Confederation of Australian Motorsport

4.3 Personal Injury and Illness

This includes various events that may cause injury or illness to persons on the reserves, which are not considered in other risk register and treatment plans. Risks may include people becoming ill due to strenuous activity, pre-existing medical conditions, and lack of shelter or lack of rest or shade areas. It includes injuries resulting from vegetation over-hanging the tracks, people going off-track, tripping and slipping, prickly vegetation (e.g. blackberry) or infrastructure or facilities on the reserves. Other events may include allergy attacks, sunburn, sunstroke, dehydration and illness through contact or ingestion of poisonous plants (e.g. hemlock).

Risk Analysis: Personal Injury and Illness	
Likelihood	Almost Certain (A): The event is expected to occur.
	• Numerous minor incidents in the past, but few recorded. • Considerable opportunity, reason or means to occur.
Consequence	Minor (2): Ranging from minor to major.
	• People: Injuries (including minor, first-aid, and hospitalisation) and fatalities • Infrastructure: Minor to major damage to reserve facilities (i.e. information shelters). • Environment: None. • Financial: Ranging from insignificant to major. Includes infrastructure repairs or replacement, medical costs, loss of income and insurance claims to Council.
Risk Rating	High (H)
Vulnerable Elements	• Volunteers and employees. • Reserve users - particularly walkers. • Structures - shelters.
Can this risk be handled by existing measures and/or will the risk be tolerated? **Yes.**	
Can the likelihood and/or consequence/vulnerability be reduced? **Yes.**	

Treatment Strategies: Personal Injury and Illness			
No.	Action	Responsibility	Timeline
1	Regularly inspect tracks and clear trip hazards as required.	Committee	Ongoing
2	Regularly inspect reserve assets for risk issues and address issues as required	Committee	Ongoing
3	Provide volunteers and employees with personal protective equipment (i.e. gloves, safety vests, hats, and sunscreen).	Committee, Council, volunteer supervisors	Ongoing
4	Provide all volunteers with induction prior to commencing work, including an onsite risk assessment.	Committee, Council, volunteer supervisors	Ongoing
5	Remove poisonous plants (e.g. hemlock) as soon as they are identified.	Committee	Ongoing
6	Provide shade and shelter to visitors through the provision of trees and shelters.	Committee	Ongoing
7	Investigate incorporating indications of walking difficulty on track signs and/or track brochures.	Committee	2016-17
8	Investigate appropriate means to prompt visitors to take adequate precautions whilst on the reserve (e.g. wear hat and sunscreen and carrying adequate water). This may be incorporated into brochures, fact sheets and signs.	Committee	2016-17
9	Add recognised location name to existing “000” signage to assist emergency services to locate injured persons.	Committee	2017-18
10	Provide a copy of Emergency Access Plan (in *Mt Leura and Mt Sugarloaf Management Plan 2013 – 2018*) to local emergency services and Committee members.	Committee	2013-14

[1] Other volunteer supervisors (e.g. school teachers and CVA team leaders) also have a responsibility in implementing the indicated actions.

4.5 Accidents/Incidents - Workplace

This risk includes accidents or incidents involving employees, volunteers and contractors. Council employs a project coordinator to manage the reserves, and there are various volunteers that assist with management and restoration of the reserves, including committee volunteers and community volunteers. The Committee occasionally host volunteer teams and school groups, Green Corps teams and CORE workers to undertake activities on the reserve.

Some of these groups have their own team leaders who have the primary responsibility for ensuring workplace safety. For other groups, the Committee have the sole responsibility for supervising volunteers and providing a safe workplace. The Committee also employ contractors at various times to undertake activities such as weed control, mowing and construction.

There are various factors that may contribute to workplace accidents and incidents. There may be a lack of supervision, failure to undertake risk assessment or volunteer induction, or a breach or lack of understanding of Occupational Health and Safety practices. Insufficient personal protective equipment, skills or training and use of faulty or inappropriate equipment may also contribute to this risk. Short deadlines or insufficient budgets may be factors which contribute to workplace accidents on the reserves.

Risk Analysis: Accidents and Incidents - Workplace	
Likelihood	Likely (B): This event will probably occur
	• Some anecdotal evidence of some minor incidents and near-misses. • Considerable opportunity, reason or means to occur.
Consequence	Minor (2): Ranging from minor to major.
	• People: Injuries (including minor, first-aid and hospitalisation) and fatalities. • Infrastructure: Vehicles and equipment. • Environment: None. • Financial: Medical costs, replacement of equipment/vehicles, workcover costs and loss of income.
Risk Rating	High (H)
Vulnerable Elements	• Volunteers • Employees • Visitors
Can this risk be handled by existing measures and/or will the risk be tolerated? **No.**	
Can the likelihood and/or consequence/vulnerability be reduced? **Yes.**	

Treatment Strategies: Accidents and Incidents - Workplace			
No.	Action	Responsibility	Timeline
1	Develop a formal induction for volunteers and CORE workers addressing risk identification and mitigation[1] which aligns with current Council volunteer induction processes. Ensure that this is delivered to all volunteers/workers and all volunteers/workers are registered prior to works starting.	Committee, Volunteer Supervisors[2]	2014-15/ Ongoing
2	Ensure the project coordinator has a first aid kit in their vehicle at all times and another first aid kit is stored in the Camperdown College nursery for volunteer use.	Committee, Project Coordinator	Ongoing
3	Ensure that tasks are only undertaken in appropriate weather/seasonal conditions.	Committee, Project Coordinator	Ongoing
4	Ensure that all volunteers are supervised whilst working on the reserves.	Committee, Project Coordinator	Ongoing
6	Where possible, avoid driving vehicles off the formed tracks.	Committee, Project Coordinator, Contractors	Ongoing
7	Ensure that volunteers/CORE workers do not use mechanical equipment without appropriate training/qualifications and only employ herbicides techniques that minimise the potential for herbicide contact (e.g. cut & paint).	Committee, Project Coordinator, Contractors	Ongoing
8	Inspect all Committee and Friends of Mt Leura tools and equipment for faults, including electrical tagging and testing. Replace or repair equipment as required.	Committee	Annually
6	Ensure that any workplace accidents, incidents or near-misses are recorded and submitted via standard Incident/Hazard Report forms.	Committee, Project Coordinator	Ongoing
9	Develop a site risk assessment form and volunteer register. Ensure that all volunteers are registered and risk inspections are conducted prior to any volunteer activity commencing.	Committee	2013-14
10	Induct Project Coordinator and Committee members regarding Council's risk management policies.	Committee, Council	2013-14/ Ongoing
11	Ensure that first aid kits are inspected and updated annually.	Committee	Annually
13	Provide all employees and committee members who supervise volunteers with accredited Level 2 First Aid training and/or refresher First Aid training.	Committee, Council	2013-14

[1]Currently the Committee has an informal induction process that is provided to most volunteers working on the reserves.

[2] Other volunteer supervisors (e.g. school teachers and CVA team leaders) also have a responsibility in implementing the indicated actions.

4.5 Landslides and Falling Objects

Due to the steep topography, soil and rock material on the reserves, minor landslides and falling of small rocks and to a lesser extent vegetation are a regular occurrence on the reserve. In additional to natural causes (e.g. wind and rain), erosion/falling objects is often caused by human activities such as the dislodging of material whilst walking, driving on the tracks, track maintenance and track constructions.

Sometimes material is deliberately rolled down the reserves, especially from the Mt Leura Upper Carpark. Past activities contribute to this risk; for example the road and track cuttings often experience minor subsidences. The area of Mt Sugarloaf that was quarried in the early 1970s is possibly the area on the reserve that is most vulnerable to landslides and erosion. The top of this quarry has been steadily eroding since quarrying ceased, with a large amount of fallen rock at the base of quarry face. Several tree removals on the reserve have also caused minor landslides and falling rocks and vegetation.

Risk Analysis: Landslides and Falling Objects	
Likelihood	Almost Certain (A): The event is expected to occur.
	• High number of recorded incidents and very strong anecdotal evidence. • A strong likelihood the event will reoccur. • High opportunity, reason or means to occur.
Consequence	Minor (2): Ranging from insignificant to major.
	• People: Injuries, fatalities and displacement. • Infrastructure: Localised damage to facilities, fences, roads, tracks, adjoining residences and vehicles on the reserve. • Environment: Moderate environmental damage, but could be catastrophic. Localised erosion over short to long time frames, particularly at Mt Sugarloaf Quarry. • Financial: Ranging from insignificant to major. Includes repairs to or replacement of infrastructure, remedial works to address erosion issues, medical costs, loss of income and insurance costs.
Risk Rating	High (H)
Vulnerable Elements	• Reserve users - particularly vehicles, walkers using tracks and roads, and people in Mt Sugarloaf quarry area. • Volunteers and employees. • Structures on and adjoining the reserve (e.g. fences, roads, tracks, houses, shelters, and sheds)
Can this risk be handled by existing measures and/or will the risk be tolerated? **Yes.**	
Can the likelihood and/or consequence/vulnerability be reduced? **No.**	

Treatment Strategies: Landslides and Falling Objects			
No.	Action	Responsibility	Timeline
1	Regularly inspect tracks and organise for the removal of any large rocks from the tracks.	Committee	Ongoing
2	Ensure that new structures and facilities are appropriately sited and constructed to minimise soil disturbance.	Committee	Ongoing
3	Temporarily close areas of the reserve (including tracks and the road) to the public that may potentially be affected by falling objects when high risk activities (e.g. tree removals and track construction) are being undertaken. Closures should be advertised in the local newspaper where possible and indicated with temporary signage.	Committee	Ongoing
4	Investigate techniques methods to mitigate erosion in the disused Mt Sugarloaf quarry where erosion impacts on amenity.	Committee	As required

This risk cannot be eliminated as some of the factors associated with this risk, particularly the terrain and geology of the site, cannot be controlled.

The risks associated with erosion at the disused Mt Sugarloaf Quarry and the Mt Leura Road cutting will be tolerated as the impact on users and assets at the Reserves will most likely be minimal. Erosion control measures at these sites will be costly and would not be guaranteed of success due to the topography and geology of the sites.

4.6 Severe Weather

Like the surrounding region, the Mt Leura and Mt Sugarloaf Reserves occasionally experience severe weather. This severe weather may include thunderstorms, strong winds, heavy fog, heavy rain or hail, and extreme high and low temperatures. This may have varying consequences, including injury and illness to reserve users (e.g. dehydration or being struck by falling limbs) and damage to assets such as vehicles or shelters. The most common risks are associated with extreme heat, such as sunstroke, dehydration or sunburn to volunteers and employees.

Risk Analysis: Severe Weather	
Likelihood	Almost Certain (A): The event is expected to occur.
	• Regular occurrence in the past.
Consequence	Minor (2): Ranging from insignificant to major.
	• People: Injuries and fatalities • Infrastructure: Ranging from minor to major. Damage to shelters, signage, seats, roads, and tracks. Damage to vehicles. • Environment: Short term and localised. Damage to vegetation. • Financial: Ranging from insignificant to moderate. Costs associated with repairs and replacement of infrastructure. Some external resources may be required.
Risk Rating	High (H)
Vulnerable Elements	• Reserve users - particularly pedestrians and cyclists • Structures - shelters, roads, signs, tracks etc. • Vehicles • Volunteers and employees
Can this risk be handled by existing measures and/or will the risk be tolerated? Yes.	
Can the likelihood and/or consequence/vulnerability be reduced? Yes	

Treatment Strategies: Severe Weather			
No.	Action	Responsibility	Timeline
1	Develop a formal induction for volunteers addressing risk identification and mitigation, including the severe weather risk[1]. Ensure that this is aligns with Council volunteer induction processes and is delivered to all volunteers prior to works starting.	Committee/ Volunteer Supervisors[2]	2014-15/ Ongoing
2	Develop a policy outlining procedures and triggers for cancelling volunteer and employee activities on reserves during extreme weather.	Committee/ Volunteer Supervisors[2]	2014-15
3	Provide volunteers and employees with protective measures against severe weather (e.g. water, hat, and sunscreen).	Committee/ Volunteer Supervisors[2]	Ongoing
4	Remove hazards (e.g. fallen vegetation) following severe weather events as required.	Committee/ SES	Ongoing
5	Ensure that all new structures (e.g. shelters) are built to meet building standards appropriate for the conditions of the reserves (e.g. materials meet appropriate wind standard).	Committee	Ongoing
6	Inspect facilities annually for hazards which may be caused by, or vulnerable to severe weather events.	Committee	Annually

[1]Currently the Committee has an informal induction process that is provided to most volunteers working on the reserves.

[2] Other volunteer supervisors (e.g. school teachers and CVA team leaders) also have a responsibility in implementing the indicated actions.

4.7 Incidents - Animals/Insects

There are various domestic animals and wildlife that use the Mt Leura and Mt Sugarloaf Reserves. Some of these animals and wildlife may cause injury or harm to reserve visitors. For example dog attack, stings and bites from bees, wasps, insects or spiders, snake bite, swooping birds, stock from adjoining areas and animal-human disease spread. Factors such as the season, habitat, boundary fence maintenance, and the human behaviour (e.g. provoking animals or dogs off leashes) may also influence the likelihood of the hazard occurring.

Risk Analysis: Incidents – Animals/Insects	
Likelihood	Almost Certain (A): The event is expected to occur.
	• Anecdotal evidence suggests there are a few past incidences relating to insect and bee stings, although in all cases the consequences were insignificant.
Consequence	Minor (2): Ranging from insignificant to major.
	• People: Injuries and fatalities • Infrastructure: None. • Environment: Insignificant. Minor, short term damage to vegetation and wildlife. • Financial: Insignificant.
Risk Rating	High (H)
Vulnerable Elements	• Reserve users - particularly walkers. • Volunteers and employees.
Can this risk be handled by existing measures and/or will the risk be tolerated? Yes.	
Can the likelihood and/or consequence/vulnerability be reduced? No.	

Treatment Strategies: Incidents – Animals/Insects			
No.	Action	Responsibility	Timeline
1	Employ qualified contractors to remove bee/wasp hives as soon as identified/reported.	Committee	Ongoing
2	Ensure that tracks are inspected fortnightly and regularly mown to reduce snake habitat near pedestrian areas.	Committee	Ongoing
3	Remove stockpiles of vegetation debris which may provide habitat for snakes as soon as reasonably possible.	Committee	Ongoing
4	During fauna surveying, ensure that all wildlife is handled according to correct practice guidelines.	Committee	Ongoing
5	Undertake annual inspections of boundary fences and repair as required to prevent stock from adjoining areas entering the reserves.	Committee	Ongoing[1]

[1] Reserve boundary fences were replaced in 2011 however there is a need for ongoing monitoring of fence condition.

4.8 Accidents/Incidents - Air

This risk deals with aircraft accidents occurring on the reserve. This may include emergency aircraft, which use the adjacent Leura Oval as landing area, aerial sprayers controlling pest plants or animals on the reserve or adjoining properties, and sight-seeing aircraft flying over the reserves. There may be various factors that contribute to an accident including weather conditions, topography of the reserves, mechanical or pilot error, vegetation or bird strike.

Risk Analysis: Accidents/Incidents – Air	
Likelihood	Unlikely (D): The event is unlikely to occur.
	• No recorded incidents or anecdotal evidence. • Little opportunity, reason, or means to occur.
Consequence	Major (4): Ranging from minor to major.
	• People: Injuries, fatalities and displacement. • Infrastructure: Loss/damage to structures, roads and tracks. • Environment: Loss/damage to vegetation, wildlife fatalities, erosion vulnerability and soil contamination. • Financial: Medical costs, insurance costs, recovery costs- emergency services, repairs/replacement of infrastructure, loss of income.
Risk Rating	High (H)
Vulnerable Elements	• Aerial sprayers • Accident/emergency aircraft • Site-seeing aircraft • Structures on the reserve • Vegetation • Visitors to the reserve
Can this risk be handled by existing measures and/or will the risk be tolerated? **Yes.**	
Can the likelihood and/or consequence/vulnerability be reduced? **No.**	

Treatment Strategies: Accidents/Incidents – Air
As the likelihood or consequences of this risk cannot be reduced and likelihood of an incidence occurrence is unlikely, this risk will be tolerated.

4.9 Falls

Due to the steep terrain and various structures on the reserve, there is a risk of persons falling and potentially causing injury or death. The main risk is associated with people falling from the disused quarry located on Mt Sugarloaf Reserve. There is also a risk of people falling after climbing various structures such as trees, the 'Trig. Point' located on Mt Leura, fences/walls, railings, and shelters. There is also a steep cutting adjacent to sections of the road and tracks, which may be a fall-risk to walkers, particularly where vehicles are using the road.

Risk Analysis: Falls	
Likelihood	Possible (C): The event could possibly occur.
	• The event should occur at some time. • One anecdotal report of a fall incident from Mt Sugarloaf quarry.
Consequence	Minor (2). Ranging from insignificant to major.
	• People: Injuries and fatalities • Infrastructure: None. • Environment: None. • Financial: Ranging from insignificant to major. Includes medical costs, loss of income and insurance costs.
Risk Rating	Moderate (M)
Vulnerable Elements	• Reserve users, particularly children, walkers along road and off-track walkers. • Volunteers and employees.
Can this risk be handled by existing measures and/or will the risk be tolerated? **Yes.**	
Can the likelihood and/or consequence/vulnerability be reduced? **No.**	

Treatment Strategies: Falls			
No.	Action	Responsibility	Timeline
1	Maintain quarry boundary fences and signs to discourage unauthorised access.	Committee	Ongoing

4.10 Electric Shock

Reserve users, volunteers and employees could be exposed to electric shock on the reserve through lightning strike, use of faulty electrical equipment, and inappropriate use of electrical equipment. The most likely cause of electrical shock on the reserve is from the electric fence used to fence grazing stock on the western side of the Mt Sugarloaf Reserve.

Risk Analysis: Electric Shock	
Likelihood	Possible (C): The event could possibly occur.
	• This event should occur at some time. • No recorded incidents. • Some opportunity, reason or means to occur.
Consequence	Minor (2). Ranging from insignificant to major.
	• People: Injuries and fatalities • Infrastructure: None. • Environment: Insignificant. Minor, short term damage to vegetation and wildlife. • Financial: Insignificant.
Risk Rating	Moderate (M)
Vulnerable Elements	• Volunteers, particularly overseas volunteers. • Employees • Visitors, particularly walkers.
Can this risk be handled by existing measures and/or will the risk be tolerated? **Yes.**	
Can the likelihood and/or consequence/vulnerability be reduced? **Yes.**	

Treatment Strategies: Electric Shock			
No.	Action	Responsibility	Timeline
1	Install signs on the electric fence to warn that the fence is electrified. Ensure they are regularly inspected and replaced as needed.	Committee	2013-14/ Ongoing
2	Provide all employees and volunteers with appropriate induction and training regarding the use of electrical equipment.	Committee	Ongoing
3	Testing and tagging of all electrical equipment owned by the Committee and the Friends of Mt Leura.	Committee	Annually

4.11 Disease Spread

The main factors associated with this risk are disease contraction through handling potting mix (e.g. during plant propagation and planting), contact with contaminated rubbish, and contact with infected animals, such as domestic stock or native wildlife (e.g. during wildlife workshops or mammal surveying). Contact with bats in particular presents a higher risk, as they can be carriers of different diseases such as Rabies and Calicivirus. Contact with domestic stock is unlikely, as they are confined to a small fenced area.

Risk Analysis: Disease Spread	
Likelihood	Unlikely (D): This event is unlikely to occur.
	• No recorded incidents or anecdotal evidence. • Little opportunity, reason or means to occur.
Consequence	Moderate (3). Ranging from insignificant to major.
	• People: Illness and fatalities. • Infrastructure: Nil. • Environment: Illness and fatalities from disease or disease control measures. • Financial: Medical costs, quarantine costs, stock losses, disease treatment, insurance costs, and loss of income.
Risk Rating	Moderate (M)
Vulnerable Elements	• Volunteers and Employees • Visitors users • Wildlife researchers.
Can this risk be handled by existing measures and/or will the risk be tolerated? **Yes.**	
Can the likelihood and/or consequence/vulnerability be reduced? **No.**	

Treatment Strategies: Disease Spread			
No.	Action	Responsibility	Timeline
1	Provide gloves and masks to volunteers and employees when handling potting mix and inform them of the potential hazards of handling potting mix.	Committee	Ongoing
2	During wildlife workshops and mammal surveying, ensure that high risk animals (e.g. bats) are handled only by trained persons, with appropriate protection.	Committee	Ongoing

5. Annual Risk Inspection Checklist

CORANGAMITE SHIRE	**MT LEURA AND MT SUGARLOAF RESERVE – COMPREHENSIVE ANNUAL CHECK LIST**		
Persons Completing Inspection:			Date:
Name:	Title:	Name:	Title:
Name:	Title:	Name:	Title:
Name:	Title:	Name:	Title:
Name:	Title:		
Indicate results of inspection in the following manner:	✓ **Acceptable**	✗ **Not Acceptable**	***N/A*** **Not Applicable**

ZONE 1: LOWER SHELTER AREA	✓ ✗ N/A	**Comments** Record details about faults /issues/condition/ repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	**Recommended Control Measures**	**Responsible Person**	**Estimated Completion Date**	**Completion Date**
FURNITURE AND OTHER INFRASTRUCTURE TABLES, SEATS, GATEWAYS ETC.						
Are there any components missing (such as seats, bolts, nuts, rungs, rails, platforms, boards etc.)?						
Are any parts broken?						
Is anything sharp protruding (for example bolts or nails)?						
Are any parts dangerously warped, cracked or bent?						
Are there signs of corrosion at the base or below the ground surface?						
Has crevice or surface corrosion begun?						
Is timber splitting or splintering?						

ZONE 1: LOWER SHELTER AREA	✓ ✗ N/A	Comments Record details about faults /issues/condition/ repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	Recommended Control Measures	Responsible Person	Estimated Completion Date	Completion Date
Has paint deteriorated?						
Are all surfaces free from graffiti?						
Are all vulnerable items e.g.: railing, chains, plastic coating on wire fences etc free from vandalism?						
Has all litter been removed from enclosed spaces?						
Information Shelter						
Is it solid and serviceable -						
➢ Supports						
➢ Ceiling/Roof						
Brochure box – is the lid in good working order, is the timber cracked/splintered. Well attached to wall.						
Note: climbing on the roof is **not** to be undertaken.						
Nearby Walking Tracks / Car Park / Stone Wall						
Are all paths and public areas free of obstacles?						
Are there any personal hazards on site brought in by others (syringes, broken glass etc)?						
Is there a potential/danger of slipping, tripping due to surfaces not being appropriately maintained?						
Are all gates functioning?						
Are fences intact/require repairs?						

ZONE 1: LOWER SHELTER AREA	✓ ✗ N/A	Comments Record details about faults /issues/condition/ repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	Recommended Control Measures	Responsible Person	Estimated Completion Date	Completion Date
Any erosion/washaways on walking tracks?						
Are paths free of areas that may hold water?						
Are paths free of weeds and other obstructive matter? Eg. rocks and branches						
Any dangerous trees or overhanging branches over pathways, car park or other public space?						

ZONE 2: UPPER SHELTER, CARPARK AND LOOKOUT AREA	✓ ✗ N/A	Comments Record details about faults/issues/condition/ repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	Recommended Control Measures	Responsible Person	Estimated Completion Date	Completion Date
FURNITURE AND OTHER INFRASTRUCTURE TABLES, SEATS, RAILINGS, SIGNAGE, ETC.						
Are there any components missing (such as seats, bolts, nuts, rungs, rails, platforms, boards etc.)?						
Are any parts broken?						
Is anything sharp protruding (for example bolts or nails)?						
Are any parts dangerously warped, cracked or bent?						
Are there signs of corrosion at the base or below the ground surface?						
Has crevice or surface corrosion begun?						
Is timber splitting or splintering dangerously?						
Are all wooden guard rails in good condition?						
Are all metallic guard rails in good condition?						

ZONE 2: UPPER SHELTER, CARPARK AND LOOKOUT AREA	✓ ✗ N/A	Comments Record details about faults/issues/condition/ repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	Recommended Control Measures	Responsible Person	Estimated Completion Date	Completion Date
Are all surfaces free from graffiti?						
Are all vulnerable items e.g.: railing, chains, plastic coating on wire fences etc free from vandalism?						
Has all litter been removed from enclosed spaces?						
Information Shelter						
Is it solid and serviceable -						
➢ Floors						
➢ Walls						
➢ Ceiling/Roof						
➢ Windows						
This is not a technical inspection; are they effective or visibly faulty? Note: climbing on the roof is **not** to be undertaken.						
Nearby Walking Tracks and Car Park						
Are all paths and public areas free of obstacles?						
Are there any personal hazards on site brought in by others (syringes, broken glass etc)?						
Are there any unshielded drops or falls?						
Is there a potential/danger of slipping, tripping due to surfaces not being appropriately maintained?						
Are all gates functioning?						
Signs						

ZONE 2: UPPER SHELTER, CARPARK AND LOOKOUT AREA	✓ ✗ N/A	Comments Record details about faults/issues/condition/ repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	Recommended Control Measures	Responsible Person	Estimated Completion Date	Completion Date
Are fences intact/require repairs?						
Any erosion/washaways on walking tracks?						
Are paths free of areas that may hold water?						
Bollards						
Locks						

ZONE 3: GENERAL WALKING TRAIL AREAS	✓ ✗ N/A	Comments Record details about faults/issues/condition/ repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	Recommended Control Measures	Responsible Person	Estimated Completion Date	Completion Date
Are paths free of obstructive matter? E.g. rocks or branches						
Any dangerous trees or overhanging branches over pathways or other public space?						
Steps						
No worn or broken steps?						
Handrails in good repair?						
Clear of obstructions? E.g. clear of debris and spills?						
Non-slip treatments/treads in good condition?						
Kick plates where required?						

ZONE 3: GENERAL WALKING TRAIL AREAS	✓ ✗ N/A	**Comments** Record details about faults/issues/condition/ repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	**Recommended Control Measures**	**Responsible Person**	**Estimated Completion Date**	**Completion Date**
Used correctly?						
Walking Tracks						
Are all paths and public areas free of obstacles?						
Are there any personal hazards on site brought in by others (syringes, broken glass etc)?						
Are there any unshielded drops or falls?						
Is there a potential/danger of slipping, tripping due to surfaces not being appropriately maintained/developed?						
Are all gates functioning?						
Do fences require repairs?						
Any erosion/washaways on walking tracks?						
Are paths free of areas that may hold water?						
Are paths free of obstructive matter? E.g. weeds and rocks						
Any dangerous trees or overhanging branches over pathways or other public space?						
FURNITURE AND OTHER INFRASTRUCTURE TABLES, SEATS, GATEWAYS, SIGNAGE, ETC.						
Are there any components missing (such as seats, bolts, nuts, rungs, rails, platforms, boards etc.)?						
Are any parts broken?						
Is anything sharp protruding (for example bolts or nails)?						
Are any parts dangerously warped, cracked or bent?						
Are there signs of corrosion at the base or below the ground surface?						

ZONE 3: GENERAL WALKING TRAIL AREAS	✓ ✗ N/A	Comments Record details about faults/issues/condition/ repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	Recommended Control Measures	Responsible Person	Estimated Completion Date	Completion Date
Has crevice or surface corrosion begun?						
Are all surfaces free from graffiti?						
Is timber splitting or splintering dangerously?						

ZONE 4: REVEGETATED AREAS	✓ ✗ N/A	Comments Record details about faults/issues/condition/ repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	Recommended Control Measures	Responsible Person	Estimated Completion Date	Completion Date
TREES						
Are all trees within reserves:						
Clear of **all** power lines						
Affecting -						
➢ adjoining properties/buildings?						
➢ shared fences?						
Fire Management/Control						
Are fuel loads at acceptable levels?						
Have all tree prunings/heaps been removed?						

ZONE 4: REVEGETATED AREAS	✓ ✗ N/A	Comments Record details about faults/issues/condition/repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	Recommended Control Measures	Responsible Person	Estimated Completion Date	Completion Date
Are fuel loads at appropriate levels in tree planted areas e.g. phalaris growth, etc.?						
Have firebreaks been cleared and/or maintained as per Fire Plan?						
➢ Reserve Boundaries						
➢ Access Roads i.e. Mt Leura road						
➢ Fire tracks						
➢ Carpark						
Have spraying programs been carried out twice yearly ie: Autumn and pre Summer?						
Is there provision of appropriate receptacles for cigarette butts etc at the carpark and lower shelter?						

ZONE 5: RESERVES IN GENERAL	✓ ✗ N/A	Comments Record details about faults/issues/condition/repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	Recommended Control Measures	Responsible Person	Estimated Completion Date	Completion Date
Public Protection						
Appropriate barricades, fencing, hoarding used?						
Signage in place? (speed and other advisory)						
Traffic control procedures in place?						
Public complaints actioned?						

ZONE 5: RESERVES IN GENERAL	✓ ✗ N/A	Comments Record details about faults/issues/condition/repairs required. For example: all timber seating in good condition, sharp tin edge on west wall requires covering, etc.	Recommended Control Measures	Responsible Person	Estimated Completion Date	Completion Date
Are there any inherent dangers to users/public within the location of the reserve or facility?						
Have users/public been warned about the existence of these hazards?						
Are members of the public advised/informed (eg by signs, leaflets, verbal advice etc) of potential risks to their safety posed by animals?						
Do you use contractors to carry out "specialist" activities? Has this been considered with respect to public safety?						
Do you need to inform or involve government services or other authorities when conducting committee activities?						
Do you regularly inspect your facilities (or areas where you will be conducting committee activities) with respect to public safety?						
Do you have emergency procedures in place in case of fire, animal attack, accident or other events?						
Public Road and other Track Signage						
Are all hazard warning signs in good condition (on walking tracks, carpark, reserve entrance etc)?						
Are all road advisory directional signs in good condition? (on access road, carpark, reserve entrance etc)						

Additional Comments:

Signature(s) (of all parties involved in inspection) **Date:**_____

PART C
SUMMARY OF ACTIONS

Reviewed May 2019

List of Acronyms

AP: Council's Assets Planning Department
CC: Camperdown College
CFA: Country Fire Authority
DEECD: Department of Education and Early Childhood Development
DELWP: Department of Environment, Land, Water & Planning
E&E: Council's Environment and Emergency Department
ED&T: Council's Economic Development and Tourism Department
F&R: Council's Facilities and Recreation Department
FoML: Friends of Mt Leura Inc.
Governance: Council's Governance Department
HDLN: Heytesbury District Landcare Network
P&A Society: Camperdown Pastoral and Agricultural Society
P&B: Council's Planning and Building Department
RTC: Camperdown – Timboon Rail Trail Committee

Objective One: Enhance the Visitor Experience

No.	Strategy	Partners	Timeframe
Accessibility			
1.1	In line with expert advice, construct a sealed path from the Mt Leura upper carpark to the 'Trig. Point, Rotary Shelter and Southern Lookout Point to provide universal access to these locations.	P&B, AP, Rural Access	Year 5
1.2	In line with expert advice, construct sealed paths to provide universal access to the Volcanic Education Centre (VEC) and Victorian Volcanic Plain (VVP) demonstration gardens.	P&B, AP	Year 5
1.3	Investigate demand for installation of safety rails at key points within the reserves e.g. alongside steps on the Panorama Trail.	Council – Risk, Rural Access	Year 3
1.4	Implement upgrades of existing walking tracks where demand is identified.		Ongoing
1.5	Investigate the demand for and feasibility of new walking trails. Construct new tracks as required.		Ongoing
Facilities			
1.6	Monitor demand for additional small shelters and install where need is identified.		Ongoing
1.7	Continue sharing toilet facility arrangements with Camperdown P&A Society. If required, install directional signage to toilets from the reserves.	P&A Society	Ongoing
1.8	Investigate the feasibility of installation of barbecue facilities at the Lower Shelter area, with consideration of projected costs and proposed maintenance arrangements.	F&R, P&B, AP	Year 3
1.9	Undertake upgrades of the Volcanic Education Centre (VEC) and surrounds, eg. Improved lighting, furnishings and storage when required and if possible.	P&B	Ongoing
Amenity			
1.10	Continue to consult with Camperdown Police to undertake regular patrols (particularly at night) of the Mt Leura Rd and upper carpark to discourage vandalism and littering.	Camperdown Police	Ongoing
1.11	Continue to consult Shire Rangers to undertake regular patrols of the Reserves to enforce responsible pet ownership by-laws.	E&E	Ongoing

Objective Two: Protect and Enhance Environmental and Landscape Values

No.	Strategies	Partners	Timeframe
Landscape Values			
2.1	Undertake tree lopping/removal to maintain view cones at priority sites identified in Section 5.2., according to relevant planning requirements.	E&E	Ongoing
2.2	Monitor vegetation growth at identified view cones as shown in Map 2B and undertake tree lopping/removal at selected sites as required.		Ongoing
2.3	Identify additional appropriate view cone sites and implement restoration activities as required.	E&E	Ongoing
Indigenous Vegetation			
2.4	Undertake limited additional revegetation where required in accordance with Vegetation Management Prescriptions (Part D).	FoML	Ongoing
2.5	Undertake vegetation thinning in accordance with relevant planning requirements and Vegetation Management Prescriptions (Part D).	E&E	Ongoing
2.6	Continue to investigate relevance of grazing trials to assess the technique's efficacy for reducing the biomass of introduced pasture grass cover, and its impacts on regenerating native vegetation and other environmental factors.	Adjacent landholders and relevant experts	Year 4
2.7	Investigate and where appropriate, undertake trials of new techniques for pasture grass suppression and reduction e.g. nutrient manipulation, seasonal burns, overplanting with indigenous perennial grasses.	Research/land management institutions	Ongoing
2.8	Develop educational and/or interpretive materials to raise awareness of the reserves' indigenous vegetation and the need for active vegetation management.	FoML	Ongoing
2.9	Complete the removal of relevant non-indigenous native vegetation from the Mt Sugarloaf quarry site where safe to do so, with follow-up replanting with indigenous species as required.	E&E	Year 3

Objective Two: Protect and Enhance Environmental and Landscape Values (cont.)

No.	Strategies	Partners	Timeframe
Wildlife			
2.10	Continue to deliver wildlife monitoring programs to determine wildlife presence, abundance and impact; e.g. bird surveys, hair traps, harp traps, scat analysis, still/footage cameras.	FoML, educational institutions, Field Naturalist Clubs, BirdLife, experts, citizen scientists	Ongoing
2.11	If required, investigate management strategies to control negative impacts of wildlife.	E & E, DELWP	Ongoing
2.12	Continue to provide additional habitat and resources as required; e.g. nest boxes, water troughs.	FoML, educational institutions	Ongoing
2.13	Provide advice to adjacent landholders, Friends of Mt Leura, Landcare and other relevant organisations to identify potential biolink sites.	FoML, HDLN, CCMA, RTC	Ongoing
Invasive Plants and Animals			
2.14	Continue to undertake annual weed control program for managing regionally controlled and environmental weeds.	E&E	Ongoing
2.15	Monitor the reestablishment of weeds following burns to assess the effectiveness of fire as a weed and pasture grass suppression tool.	E&E	Ongoing
2.16	Develop partnerships with adjoining landholders to share knowledge about existing and emerging weed infestations (e.g. elm suckers) and suitable control methods.	Adjacent landholders	Ongoing
2.17	Monitor the presence and/or impacts of invasive animals and implement control measures where/when required and if possible.	E&E, DELWP	Ongoing
Erosion			
2.18	Monitor new and potential erosion sites and investigate mitigation measures where erosion impacts upon user amenity.	E&E, CS Works & Services	Ongoing

Objective Three: Develop Promotional and Educational Opportunities

No.	Strategy	Partners	Timeframe
Education and Interpretation			
3.1	Develop a facility hire and usage agreement for the Volcanic Education Centre (VEC) at the base of Mt Leura.	E&E	Year 1
3.2	Continue partnerships with educational organisations to develop educational activities, including learning opportunities that assist with management of the reserves.	Educational institutions, FoML	Ongoing
3.3	Revise and reprint the 'Volcanic Edge' booklet and other educational and promotional materials as required.	FoML	Year 4
3.4	Repair, replace, and update existing interpretive and directional signage as required.		Ongoing
3.5	Maintain and promote geo-cache trails and work with relevant organisations to produce additional educational materials.	Educational institutions, FoML	Ongoing
3.6	Continue to develop and promote interpretive signage.	E&E, Educational Institutions, Traditional Owners, Historical Society, Tourism Sector, FOML, National Trust	Ongoing
3.7	Develop an interpretive points-of-interest mobile app to provide an interactive educational experience for visitors.	ED&T, App developers, Content Experts, FOML	Year 4
Promotion			
3.8	In conjunction with key partners, assist in the development of a formal promotional strategy to raise awareness of the reserves' value as a hub for recreation, nature-based tourism, scenic viewing and environmental/geological education, with consideration to existing promotional tools and online social media.	ED&T,GORRT, National Trust	Year 5 or as required
3.9	Design and install Brown Tourist Attraction signage for the reserves at appropriate locations.	VicRoads/Regional Roads Victoria, W&S	Year 3

Promotion			
3.10	Work with key stakeholders to identify opportunities to promote and integrate with the Craters to Coast Discovery Program and other tourism initiatives.	ED&T, PC VIC, GORRT, Courthouse Camperdown, National Trust	Ongoing

Objective Three: Develop Promotional and Educational Opportunities (cont.)

No.	Strategy	Partners	Timeframe
Recreation and Events			
3.11	Continue to support existing events and assist in providing additional infrastructure where appropriate e.g. Hill Climb events.	F&R	Ongoing
3.12	Encourage and support compatible events and uses for the reserves, e.g. foot and bicycle races, field naturalist tours, art exhibitions, open air theatre and music events. Assist in ensuring safety, amenity and access requirements are met.	All relevant stakeholders	Ongoing
3.13	Promote the reserves as a destination for non-motorised tourism; i.e. walkers and cyclists which considers links to key destinations such as the Camperdown Railway Station, Camperdown – Timboon Rail Trail and the Camperdown Lakes Precinct.	ED&T, V-Line, Rail Trail Committee, South Beach Management Committee	Ongoing

Objective Four: Support Long Term Viability of the Reserves

No.	Strategy	Partners	Timeframe
Income Generation			
4.1	Develop an education program with a nominal fee charged for participation where appropriate.	Educational institutions	Ongoing
4.2	Develop guidelines to assist with the facilitation and promotion of guided walks and formal. If appropriate, formal tours will be subject to a nominal fee to achieve cost recovery.	F&R	Year 1
4.3	Where appropriate, facilitate discussions with other community organisations to identify opportunities for income generating initiatives and determine where mutually beneficial partnerships may lie.	P&A Society, Council	Ongoing
4.4	Where appropriate, develop guidelines to assist organisers of special events and if applicable, a fee structure.	F&R	Year 1
4.5	Develop a grazing policy for the reserves to set out rates and guidelines for the leasing of some land for grazing if and where appropriate.	F&R	Year 3
4.6	Identify opportunities to implement new events within and/or outside the reserves, with an assessment of the level of potential financial return.		Ongoing
4.7	Where required, host specific fundraising events (not necessarily held within the reserves) to fund particular projects or improvements; e.g. trivia nights, dinner dances, concerts.	FoML	Ongoing
Grants and Fundraising			
4.8	Investigate mechanisms for accepting donations to and on behalf of the Committee.		Year 2
4.9	Target Government grants with a focus on tourism, community, environment and cultural development to fund the development of capital projects, visitor facilities and programs.	ED&T, E&E, CCMA, Regional Development Victoria, other relevant organisations	Ongoing
4.10	Identify alternative funding sources such as philanthropic grants and corporate sponsorship to fund capital projects and improvements.		Ongoing

Objective Four: Support Long Term Viability of the Reserves (cont.)

No.	Strategy	Partners	Timeframe
Resources			
4.11	Review the Management Committee Instrument of Delegation to ensure it meets current governance needs.	E&E, Governance	Determined by Council
4.12	Continue to maintain strong partnerships between the Management Committee, Friends of Mt Leura, schools and other organisations through ongoing joint events and shared facilities.	FoML, CC	Ongoing
4.13	Maintain existing partnerships and where possible develop new partnerships involved with specific events, projects or initiatives.	All relevant groups	Ongoing
4.14	Maintain Project Coordinator position to undertake and coordinate implementation of this plan at the direction of the Management Committee and Council.	E&E	Ongoing
4.15	Continue to build and maintain relationships, volunteer capacity and in-kind contributions which are critical in assisting with projects on the Reserves.	All relevant groups	Ongoing

Objective Five: Mitigate Risk to Users and Surrounding Residents

No.	Strategy	Partners	Timeframe
Fire			
5.1	Implement trials of various fuel reduction strategies (e.g. burns, grazing) where appropriate to determine and record effects on fuel load, indigenous vegetation and resultant weed growth.	CFA, E&E	Ongoing
5.2	Undertake annual inspections with Council and CFA representatives to identify potential sites for undertaking fuel reduction burns with consideration of access issues, minimising environmental impacts and the Municipal Fire Management Plan (MFMP).	CFA, E&E	Ongoing
5.3	Continue to ensure slashing/spraying of fire breaks and access and egress tracks within the reserves as required.	E&E	Ongoing
Emergency and Risk			
5.4	Continue annual risk management and maintenance inspection in accordance with the Risk Inspection Checklist, and action as required.	E&E, FOML	Ongoing
5.5	Undertake annual inspections of emergency access/egress routes and turnaround points (as per Map 4: Emergency Access Plan) in conjunction with emergency services.	E&E, Adjacent landholders, CFA, SES other emergency services	Ongoing
5.6	Ensure Reserves are mapped by the Emergency Services Telecommunications Authority (ESTA) and establish emergency marker points.	E&E, DELWP, ESTA	Year 5