

1.3 VOLCANIC LAKES

Significant Landscape

| | | |
|----------------|-----|------------------------|
| Character Type | 1 | Western Volcanic Plain |
| Character Area | 1.1 | Paddocks and Cones |

The area defined as the “Lakes & Craters Precinct” in the Kanawinka Global Geopark guide is considered to be one of the most dramatic and exciting volcanic landscapes in Victoria.

Lakes Gnotuk, Bullen-Merri and Keilambete are impressive examples of maar volcanos in this region. Lake Purumbete is a similar landscape to the south of the study area.

A map of the significant landscape area is shown opposite.

Major viewing corridors:

- Keilambete Road
- Sadlers Road

Overall Landscape Significance Rating: State

A detailed significance assessment is provided over the following pages.



Lake Gnotuk

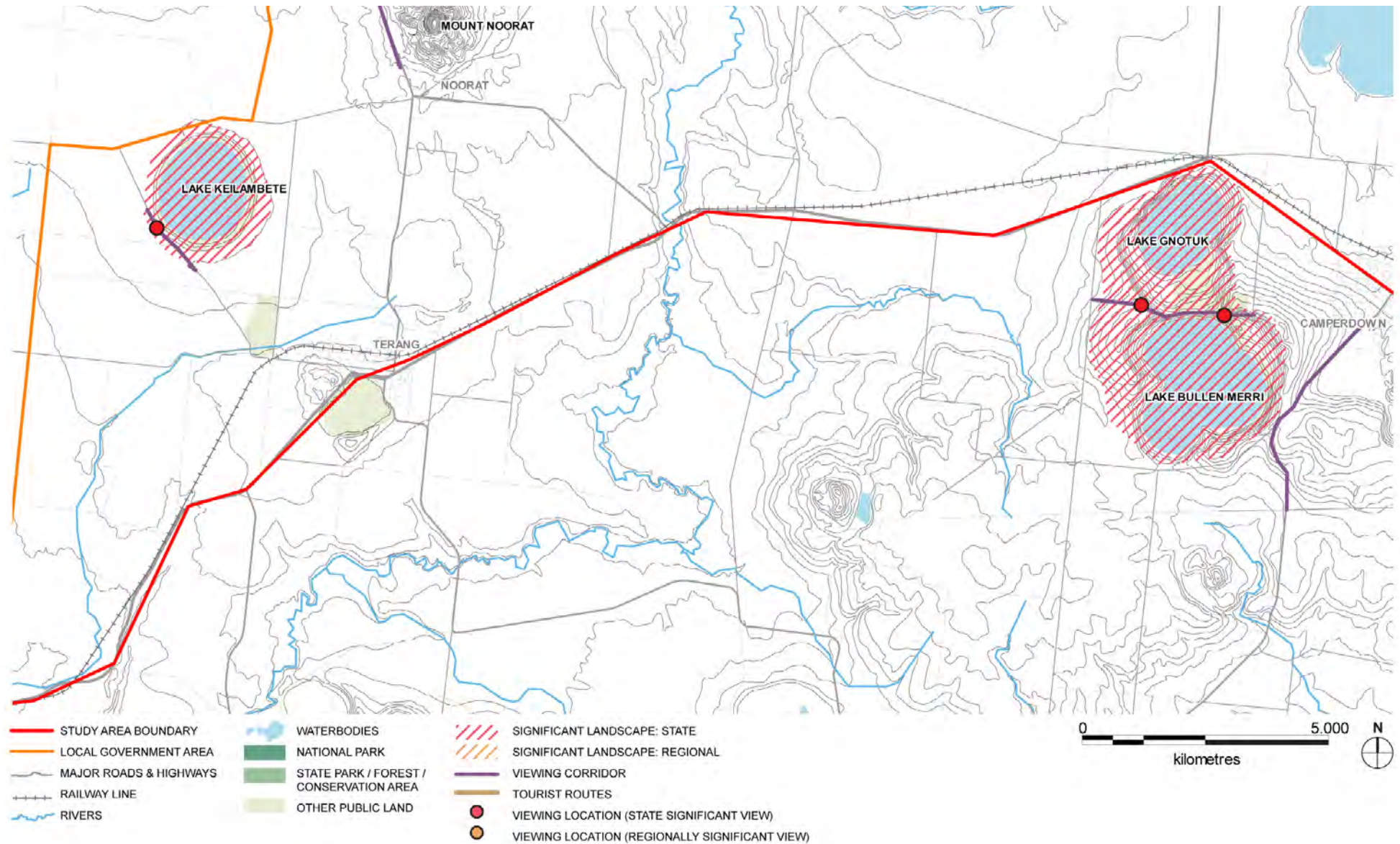


Lake Bullen-Merri



Lake Keilambete

Landscape Significance Map



Aesthetic Values

| AESTHETIC VALUES | | | | |
|---------------------------------------|--------|--|--|-----------------------|
| | Source | Description | Aesthetic Values Rating Considerations (i.e. exemplary, iconic, scarce) | Level of Significance |
| LANDSCAPE FEATURES | Survey | These maars are volcanic lakes formed when rising magma hit the water table. They are shaped into almost perfect circles, with the exception of Bullen Merri which appears as though three circles have joined to make a clover leaf pattern. Lakes Gnotuk and Bullen Merri are twin lakes separated by a high saddle of land. The edges are surrounded by prominent scoria tuff rings, which slope down to form deep craters. Lake Gnotuk and Keilambete are hyper saline (more than twice the salinity of the sea), while Bullen-Merri is brackish. | These lakes are exemplary examples of volcanic maars. Lake Keilambete in particular has a rare, almost perfectly circular formation. | State |
| EDGES OR CONTRASTS | Survey | The rise and fall of the steep tuff rings contrasts with the surrounding flat volcanic plain. The saline waters of Gnotuk and Bullen Merri reflect bright blue colouration. Quarrying has caused deep scarring on the edge of Keilambete. The inside rims of Lakes Bullen Merri and Gnotuk feature a mix of dense vegetation and open, pastoral land. Shelterbelt planting with shelterbelt planting creating straight lines long the edges the edges of paddocks and property boundaries. | The crater lakes are an iconic landscape feature of the region and contribute to the identity of the town of Camperdown. | Regional |
| COMPOSITION | Survey | <p>The edges of the lakes feature the grassy, pastoral landscape of the volcanic plain while the vast water bodies dominate the middle ground. The colour of the water in these lakes may vary from a stunning aqua to a deep blue, which is deeper and richer than many of the shallower lakes in the region. Saline lakes are striped with white lines of salt that are blown up the edges by the constant wind. Background views feature the distant rims of the lakes, and sweeping side to side panoramas across them highlight their circular formations. Mount Noorat rises in the background in the centre of Lake Keilambete when viewed from a gap in the roadside vegetation on the southern edge. Numerous volcanic rises are also visible in the background of views across Bullen Merri and Gnotuk, and the broad flat landscape of the volcanic plain that is broken by large inland lakes and volcanic features opens out at high points on the saddle between them.</p> <p>Views across Gnotuk and Bullen Merri are available from Sadlers Road, the Camperdown Botanic Gardens, the Lake Gnotuk Walking Trail and Camperdown Cemetery. The lakes have been the subject of many artworks, including works by Eugene von Guerard <i>Lake Gnotuk</i>, 1857 and Nicholas Chevalier. An exhibition of artwork inspired by Lake Gnotuk was curated and shown at the Geelong Art Gallery in 2005. In 2012 landscape artist Christine James donated her outstanding large triptych “Still Life at Lake Gnotuk” to the Shire of Corangamite where it is on permanent display in the Council meeting room.</p> | The lakes have outstanding visual qualities which are enhanced by the views to the nearby volcanic rises. | State |
| OVERALL AESTHETIC SIGNIFICANCE RATING | | | | State |

Other Cultural Landscape Values

HISTORIC SIGNIFICANCE

| Source | Description |
|---------------------|--|
| Desktop Research | Aboriginal artefact scatters, earth mounds and scarred trees occur throughout the area. Aboriginal people made use of the stones from the lava flow to construct channels linking the wetlands, weirs, fish-traps, wind breaks and stone huts. |
| SIGNIFICANCE RATING | State |

ENVIRONMENTAL / SCIENTIFIC SIGNIFICANCE

| Source | Description |
|---|---|
| Ramsar List Directory of Important Wetlands in Australia | A number of the lakes are included on the Ramsar List or listed as nationally significant wetlands. |
| National Trust Landscape | The Newer Volcanics Province is the largest homogeneous volcanic plain on earth. |
| Kanawinka Geopark | The features of this area are listed as significant sites within the Kanawinka Geopark, as a part of the 'Lakes & Craters Precinct'. It is described as one of the most dramatic and exciting volcanic landscapes in Victoria. |
| Corangamite Planning Scheme | The volcanic features, lakes and wetlands of this area are protected under the Environmental Significance Overlay (ESO1) and Significant Landscape Overlay (SLO1). |
| Desktop Research Community Feedback | The rising and falling waters of Lake Bullen-Merri and Lake Gnotuk act as rain gauges, measuring levels of precipitation and evaporation. Analysis of pollens and microscopic lake life forms has revealed clues of past climate change, which may be useful in predicting future patterns. |
| SIGNIFICANCE RATING | State |

SOCIAL SIGNIFICANCE

| Source | Description |
|--|--|
| Aboriginal Affairs Victoria | The Volcanic Lakes are the traditional country of the Girai wurrung people to whom it holds social, cultural and spiritual significance. Having inhabited this region for up to 45,000 years, their ancestors would have witnessed the eruptions and as a result they feature prominently in stories of the Dreaming. The waterbodies, distinctive natural features and places of ecological value within this area are likely to have high Aboriginal cultural heritage sensitivity. |
| Desktop Research | The lakes are an important part of the identity of the local region. As noted, they have been the inspiration for many artworks. Alan Marshall told stories of learning to swim in Lake Keilambete in his 1955 novel "I Can Jump Puddles." |
| Kanawinka Geopark Tourist Information | The lakes offer a range of visitor attractions such as enjoyment of views, picnicking, bushwalking, fishing, sailing, appreciation of birdlife, photography, boating and swimming. The abundant wetlands also have a educational value. |
| SIGNIFICANCE RATING | State |

OTHER SIGNIFICANCE

| Source | Description |
|--|--|
| Kanawinka Geopark Tourist Information | The lakes, as visitor attractions for the area, are important contributors to the local economy. |
| SIGNIFICANCE RATING | Regional |

1.4 INLAND LAKES

Significant Landscape

| | | |
|----------------|-----|-----------------------------------|
| Character Type | 1 | Western Volcanic Plain |
| Character Area | 1.2 | Large Shallow & Deep Crater Lakes |

The area defined as the “Lakes & Craters Precinct” in the Kanawinka Global Geopark guide is considered to be one of the most dramatic and exciting volcanic landscapes in Victoria.

While the prominent forms of volcanic rises give visual relief in this open landscape, the lava flows and broad undulations have resulted in the development of numerous lakes of varying sizes, including Victoria’s biggest inland lake, Lake Corangamite.

A map of the significant landscape area is shown opposite.

Major viewing corridors:

- Foxhow Road
- Darlington Road
- Corangamite Lake Road
- Colac - Ballarat Road
- Poorneet Road

Overall Landscape Significance Rating: State

A detailed significance assessment is provided over the following pages.



Lake Milangil



Edges of Lake Corangamite

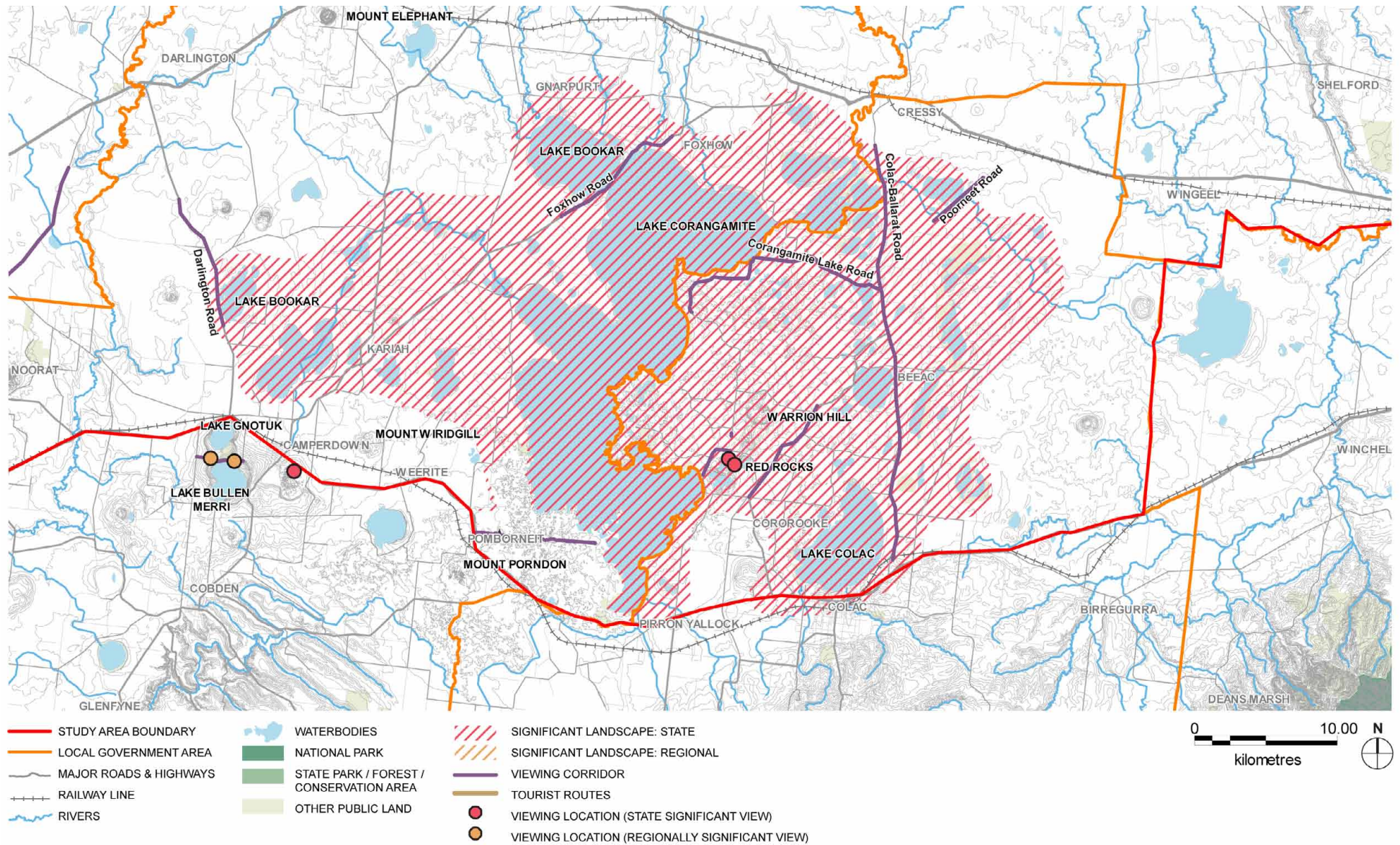


Lake Bookar with Cloven Hills and Mount Koang on the horizon



Lake Gnarpurt

Landscape Significance Map



Aesthetic Values

| AESTHETIC VALUES | | | | |
|---------------------------------------|--------|--|---|-----------------------|
| | Source | Description | Aesthetic Values Rating Considerations (i.e. exemplary, scarce, iconic) | Level of Significance |
| LANDSCAPE FEATURES | Survey | A high concentration of lakes and waterbodies in the flat to undulating landscape of the volcanic plain. This collection includes the expansive water of Lake Corangamite, and numerous other lakes including Lake Weeranganuk, Lake Gnarpurt, Lake Milangil, Lake Colongulac, Lake Martin, Lake Beeac and Lake Colac, as well as many seasonal wetlands and that occur. | The proliferation of and expanse of lakes found in this region is scarce in the Victorian context | High (Regional) |
| EDGES OR CONTRASTS | Survey | The flat surfaces of the lakes stand out in stark contrast with the surrounding pastoral land. The shores are often lined with sedges and reedy water plants with broad sandy banks. Saline lakes often have a crust of white crystals around their edges. | The lakes are an iconic feature of this landscape that contribute to its distinctive identity. | High (Regional) |
| COMPOSITION | Survey | The lakes sometimes appear as glints across broad paddocks, barely noticeable to the eye at ground level, while other times they open up to dominate from the foreground of a view well into the middle distance. They have a tendency to reflect the colours of the sky, sometimes shimmering bright blue or cloudy grey, or reflecting the colours in the sunset. | Lake Corangamite is the largest inland lake in Victoria, making it an exemplary waterbody of this kind. The surrounding lakes are not of the same scale, though the cumulative presence of them in the landscape contributes to the significance of the region generally. | Exceptional (State) |
| OVERALL AESTHETIC SIGNIFICANCE RATING | | | | State |

Other Cultural Landscape Values

| HISTORIC SIGNIFICANCE | |
|-----------------------|---|
| Source | Description |
| Desktop Research | Aboriginal artefact scatters, earth mounds and scarred trees occur throughout the area. |
| SIGNIFICANCE RATING | State |

| ENVIRONMENTAL / SCIENTIFIC SIGNIFICANCE | |
|---|--|
| Source | Description |
| Kanawinka Geopark | The features of this area are listed as significant sites within the Kanawinka Geopark, as a part of the 'Lakes & Craters Precinct'. It is described as one of the most dramatic and exciting volcanic landscapes in Victoria. |
| RAMSAR List | The Western District Lakes are included on the RAMSAR list as internationally significant wetlands which support up to 20,000 migratory birds a year. The listing includes Lakes Beeac, Bookar, Colongulac, Corangamite, Cundare, Gnarpit, Milangil and Terangpom. |
| Colac Otway Planning Scheme | Valleys, hills or plains of geological significance and landscape character are protected under the Significant Landscape Overlay (SLO1). Locally significant lakes, wetlands and watercourses and sites of biodiversity are protected under the Environmental Significance Overlay (ESO2, 4). |
| Corangamite Planning scheme | Volcanic landscapes and features are protected under the Significant Landscape Overlay (SLO1). Locally significant lakes, wetlands and watercourses and sites of biodiversity are also protected under the Environmental Significance Overlay (ESO1, 2). |
| SIGNIFICANCE RATING | State |

| SOCIAL SIGNIFICANCE | |
|-----------------------------|---|
| Source | Description |
| Aboriginal Affairs Victoria | The Inland Lakes are the traditional country of the Djargurd wurrung and Gulidjan people to whom it holds social, cultural and spiritual significance. The waterbodies, distinctive natural features and places of ecological value within this area are likely to have high Aboriginal cultural heritage sensitivity. |
| Kanawinka Geopark | The lakes and other volcanic features of this area are popular tourist destinations. |
| Tourist Information | Lake Corangamite is a popular tourist destination as largest permanent inland lake. All of the lakes in this area are popular for bushwalking, nature study and other recreational purposes such as fishing. |
| SIGNIFICANCE RATING | State |

| OTHER SIGNIFICANCE | |
|--|--|
| Source | Description |
| Kanawinka Geopark Tourist Information | The various cones and volcanic features are visitor attractions for the area which contributes to the local economy. |
| SIGNIFICANCE RATING | State |

1.5 MOUNT LEURA COMPLEX

Significant Landscape

| | | |
|-----------------|-----|------------------------|
| Character Type | 1 | Western Volcanic Plain |
| Character Areas | 1.1 | Paddocks & Cones |

The Mount Leura Complex includes Mount Leura and Mount Sugarloaf and is situated to the south east of Camperdown.

Major viewing corridors:

- Wiridgill Road
- Wire Lane
- Black Rock Road
- Mount Leura Road
- Warrnambool - Melbourne Railway Line
- Princes Highway

Overall Significance Rating: State

A detailed significance assessment is provided over the following pages.



Mount Sugarloaf

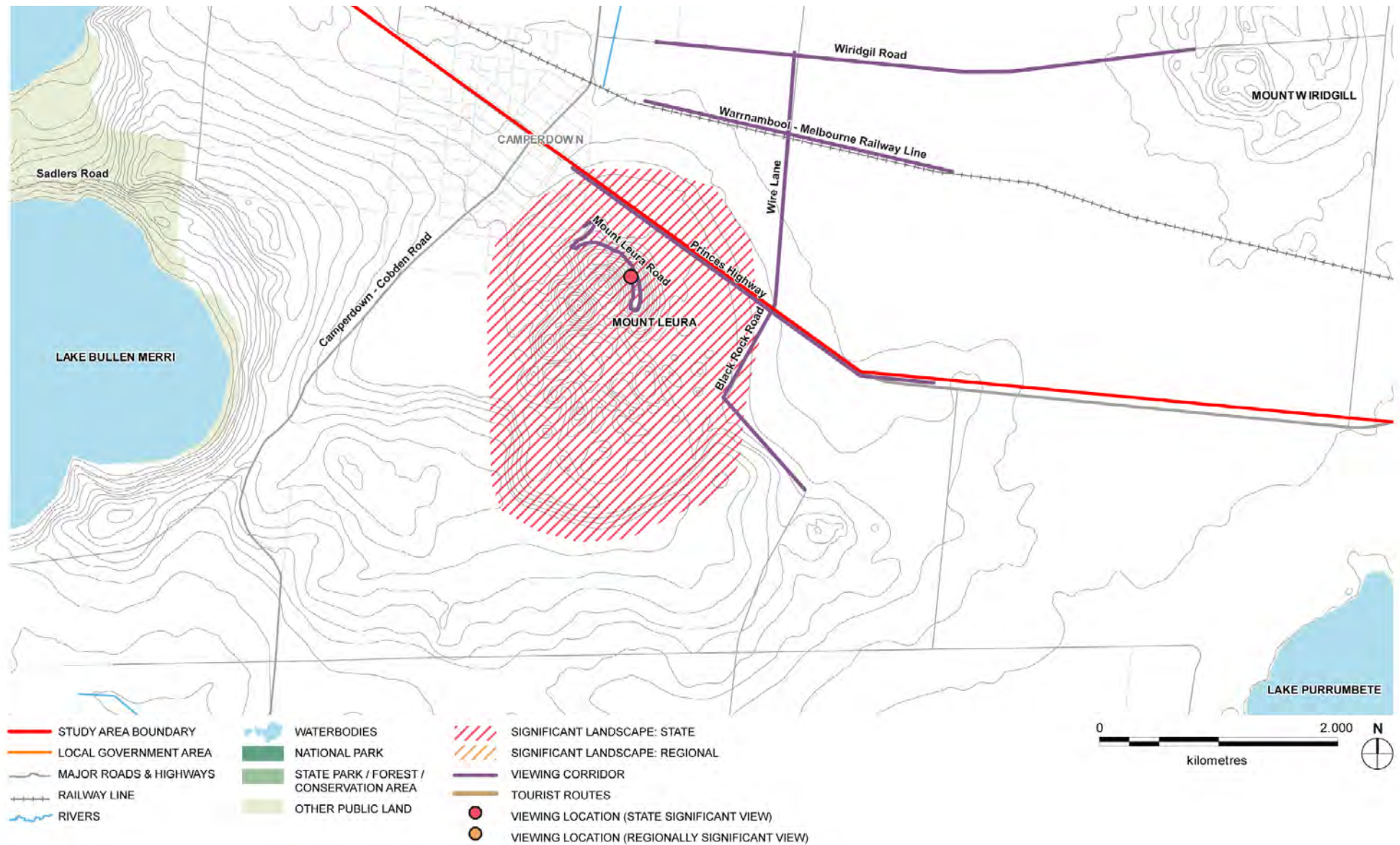


The distinctive hilly landscape of the Mount Leura volcanic complex



View from Mount Leura over Camperdown, towards Lake Colongaluc

Landscape Significance Map



Aesthetic Values

| AESTHETIC VALUES | | | | |
|---------------------------------------|----------------------------|--|--|-----------------------|
| | Source | Description | Aesthetic Values Rating Considerations (i.e. exemplary, iconic, scarce) | Level of Significance |
| LANDSCAPE FEATURES | Survey Desktop Research | Mount Leura is a complex nested maar which includes a series of scoria cones and craters that covers an area of 2.5km by 1.7km. Mount Leura is the largest of these, rising to a height of over 300m and offering panoramic views over the surrounding landscape. Separated from Mount Leura by a deep crater is the distinctive Mount Sugarloaf, an unusually symmetrical volcanic rise with a conical shape and a spiralling path indented into the steep side. | The Mount Leura Complex is an exemplary volcanic feature that displays a series of complex eruption points and volcanic formations. | Exceptional (State) |
| EDGES OR CONTRASTS | Survey | <p>The volcanic complex contrasts in texture with the surrounding flat pastoral plains. The undulating hills and crater depressions form a visually interesting, almost surreal landscape which is punctuated by the rising cones of Mount Leura and Mount Sugarloaf.</p> <p>Cropping on the lower slopes of the hilly complex intensifies the contrast in colour and texture, with lower slopes seasonally enveloped in bright green and giving way to the lighter green steep rises.</p> <p>The landscape is mostly cleared of vegetation with occasional stands of vegetation and low shrubs peppering the summit of Mount Sugarloaf. Dark green exotic shelterbelts feature in the landscape around the base of Mount Leura.</p> | The distinctive cones rising from the surrounding volcanic and pastoral landscapes are an iconic feature of the Western Volcanic Plan. | High (Regional) |
| COMPOSITION | Survey | In the foreground the lower scoria cones rise from the flat agricultural plain to create a visually interesting layering of landscape elements behind which the peaks of Mount Sugarloaf and Mount Leura are visible. | The range of volcanic features set among flat pastoral land create an iconic landscape and an exemplary formation within western Victoria. Mount Sugarloaf is highly recognisable and features in many photographs taken from the summit of Mount Leura. | High (Regional) |
| OVERALL AESTHETIC SIGNIFICANCE RATING | | | | State |

Other Cultural Landscape Values

HISTORIC SIGNIFICANCE

| Source | Description |
|---------------------|--|
| Desktop Research | Aboriginal artefact scatters, earth mounds and scarred trees occur throughout the area. Many of the cones were important meeting and bartering places for Aboriginal tribes. |
| National Trust | The proximity of Mount Leura to Camperdown means that it is a local icon for the town. This also allows a complete view of the township, showing how this important Western District centre was formed around road and rail links. |
| SIGNIFICANCE RATING | State |

ENVIRONMENTAL / SCIENTIFIC SIGNIFICANCE

| Source | Description |
|-----------------------------|---|
| Corangamite Planning Scheme | Mount Leura is included within the Significant Landscape Overlay (SLO1) which protects the Shire's volcanic landscapes and features. |
| National Trust | The Mount Leura Complex is listed as a state significant landscape and nationally significant geological feature. It is an outstanding example of a group of scoria cones within a maar. Given their relatively young age and the lack of weathering, they clearly show their process of formation. |
| SIGNIFICANCE RATING | State |

SOCIAL SIGNIFICANCE

| Source | Description |
|------------------------------------|---|
| Aboriginal Affairs Victoria | The Mount Leura Complex is the traditional country of the Djargurd wurrung people to whom it holds social, cultural and spiritual significance. The waterbodies, distinctive natural features and places of ecological value within this area are likely to have high Aboriginal cultural heritage sensitivity. |
| Desktop Research Parks Victoria | Mount Leura Complex has high value as tourist attraction and for educational purposes. The summit of Mount Leura is easily accessible and a lookout provides extensive panoramic views of the surrounding landscape. |
| Corangamite Shire | Mount Leura and Sugarloaf Reserves have been the focus for extensive community involvement including conservation programs, revegetation, construction of paths and information displays and community events. |
| Desktop Research | The south side of Mount Sugarloaf has been damaged by quarrying, as have parts of Mount Leura. The permanent scar visible on Mount Sugarloaf has been represented in the painting <i>The Once Perfect Cone</i> , by Brigid Cole Adams. |
| SIGNIFICANCE RATING | State |

OTHER SIGNIFICANCE

| Source | Description |
|---------------------|--|
| Desktop Research | The visitation attracted by the Mount Leura Complex has significant economic benefit for the local area. The complex has an active quarry and has already lost two small cones. |
| SIGNIFICANCE RATING | Local |

1.5 MOUNT LEURA COMPLEX

Significant Landscape

| | | |
|-----------------|-----|------------------------|
| Character Type | 1 | Western Volcanic Plain |
| Character Areas | 1.1 | Paddocks & Cones |

The Mount Leura Complex includes Mount Leura and Mount Sugarloaf and is situated to the south east of Camperdown.

Major viewing corridors:

- Wiridgill Road
- Wire Lane
- Black Rock Road
- Mount Leura Road
- Warrnambool - Melbourne Railway Line
- Princes Highway

Overall Significance Rating: State

A detailed significance assessment is provided over the following pages.



Mount Sugarloaf

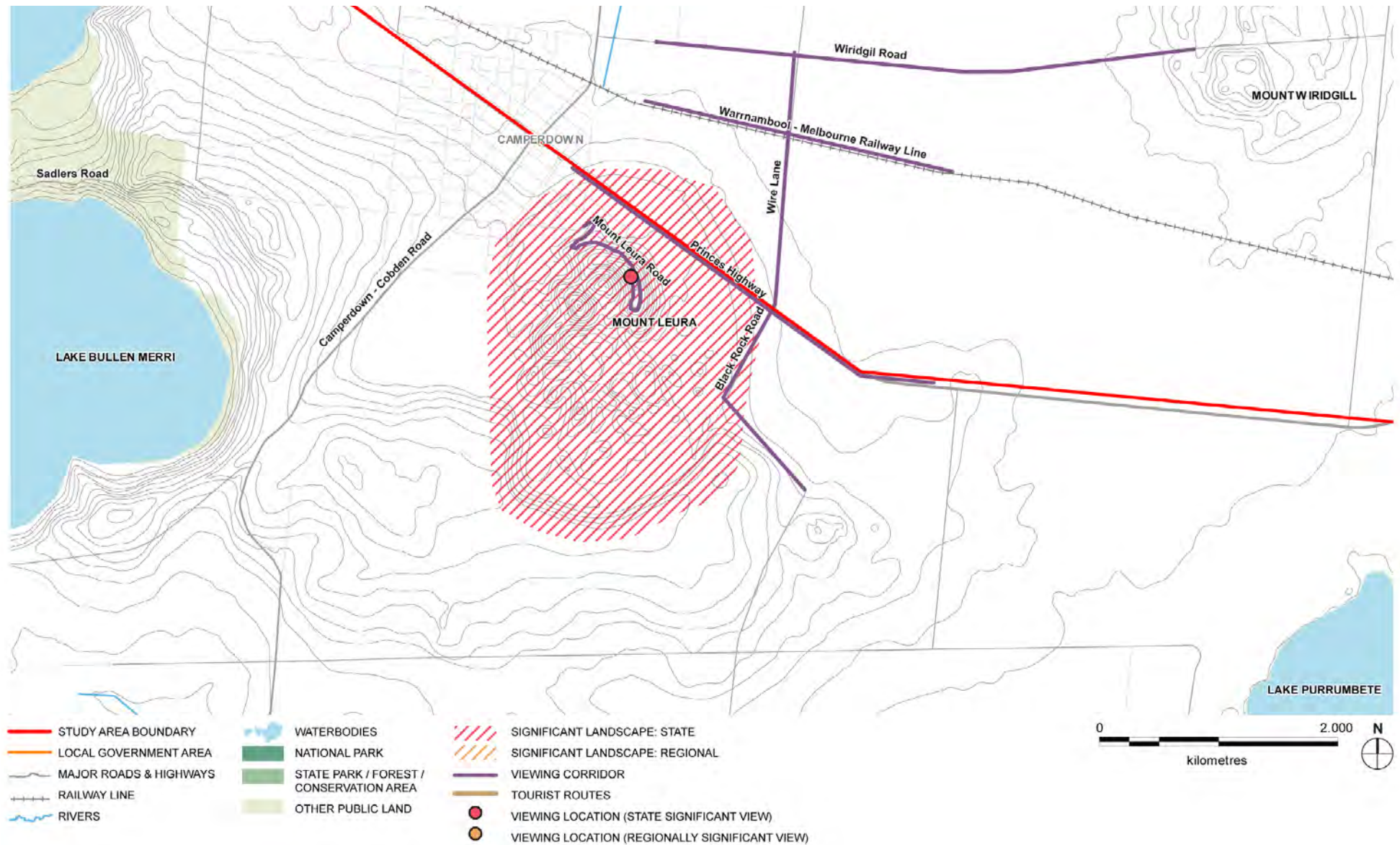


The distinctive hilly landscape of the Mount Leura volcanic complex



View from Mount Leura over Camperdown, towards Lake Colongaluc

Landscape Significance Map



Aesthetic Values

| AESTHETIC VALUES | | | | |
|---------------------------------------|----------------------------|--|--|-----------------------|
| | Source | Description | Aesthetic Values Rating Considerations (i.e. exemplary, iconic, scarce) | Level of Significance |
| LANDSCAPE FEATURES | Survey Desktop Research | Mount Leura is a complex nested maar which includes a series of scoria cones and craters that covers an area of 2.5km by 1.7km. Mount Leura is the largest of these, rising to a height of over 300m and offering panoramic views over the surrounding landscape. Separated from Mount Leura by a deep crater is the distinctive Mount Sugarloaf, an unusually symmetrical volcanic rise with a conical shape and a spiralling path indented into the steep side. | The Mount Leura Complex is an exemplary volcanic feature that displays a series of complex eruption points and volcanic formations. | Exceptional (State) |
| EDGES OR CONTRASTS | Survey | <p>The volcanic complex contrasts in texture with the surrounding flat pastoral plains. The undulating hills and crater depressions form a visually interesting, almost surreal landscape which is punctuated by the rising cones of Mount Leura and Mount Sugarloaf.</p> <p>Cropping on the lower slopes of the hilly complex intensifies the contrast in colour and texture, with lower slopes seasonally enveloped in bright green and giving way to the lighter green steep rises.</p> <p>The landscape is mostly cleared of vegetation with occasional stands of vegetation and low shrubs peppering the summit of Mount Sugarloaf. Dark green exotic shelterbelts feature in the landscape around the base of Mount Leura.</p> | The distinctive cones rising from the surrounding volcanic and pastoral landscapes are an iconic feature of the Western Volcanic Plan. | High (Regional) |
| COMPOSITION | Survey | In the foreground the lower scoria cones rise from the flat agricultural plain to create a visually interesting layering of landscape elements behind which the peaks of Mount Sugarloaf and Mount Leura are visible. | The range of volcanic features set among flat pastoral land create an iconic landscape and an exemplary formation within western Victoria. Mount Sugarloaf is highly recognisable and features in many photographs taken from the summit of Mount Leura. | High (Regional) |
| OVERALL AESTHETIC SIGNIFICANCE RATING | | | | State |

Other Cultural Landscape Values

HISTORIC SIGNIFICANCE

| Source | Description |
|---------------------|--|
| Desktop Research | Aboriginal artefact scatters, earth mounds and scarred trees occur throughout the area. Many of the cones were important meeting and bartering places for Aboriginal tribes. |
| National Trust | The proximity of Mount Leura to Camperdown means that it is a local icon for the town. This also allows a complete view of the township, showing how this important Western District centre was formed around road and rail links. |
| SIGNIFICANCE RATING | State |

ENVIRONMENTAL / SCIENTIFIC SIGNIFICANCE

| Source | Description |
|-----------------------------|---|
| Corangamite Planning Scheme | Mount Leura is included within the Significant Landscape Overlay (SLO1) which protects the Shire's volcanic landscapes and features. |
| National Trust | The Mount Leura Complex is listed as a state significant landscape and nationally significant geological feature. It is an outstanding example of a group of scoria cones within a maar. Given their relatively young age and the lack of weathering, they clearly show their process of formation. |
| SIGNIFICANCE RATING | State |

SOCIAL SIGNIFICANCE

| Source | Description |
|------------------------------------|---|
| Aboriginal Affairs Victoria | The Mount Leura Complex is the traditional country of the Djargurd wurrung people to whom it holds social, cultural and spiritual significance. The waterbodies, distinctive natural features and places of ecological value within this area are likely to have high Aboriginal cultural heritage sensitivity. |
| Desktop Research Parks Victoria | Mount Leura Complex has high value as tourist attraction and for educational purposes. The summit of Mount Leura is easily accessible and a lookout provides extensive panoramic views of the surrounding landscape. |
| Corangamite Shire | Mount Leura and Sugarloaf Reserves have been the focus for extensive community involvement including conservation programs, revegetation, construction of paths and information displays and community events. |
| Desktop Research | The south side of Mount Sugarloaf has been damaged by quarrying, as have parts of Mount Leura. The permanent scar visible on Mount Sugarloaf has been represented in the painting <i>The Once Perfect Cone</i> , by Brigid Cole Adams. |
| SIGNIFICANCE RATING | State |

OTHER SIGNIFICANCE

| Source | Description |
|---------------------|--|
| Desktop Research | The visitation attracted by the Mount Leura Complex has significant economic benefit for the local area. The complex has an active quarry and has already lost two small cones. |
| SIGNIFICANCE RATING | Local |