

**Crater Lakes Area (Volcanic Complex)
Conservation Management Plan
Prepared for the City of Mount Gambier
24 May 2004**

**HASSELL Pty Ltd 007 711 435
70 Hindmarsh Square Adelaide SA 5000 Australia
Telephone 61 8 8203 5222 Facsimile 61 8 8203 5200
Email adelaide@hassell.com.au
Contact: Warwick Keates, Senior Associate, Landscape
© May 2004**

Contents

Section	
01 Executive Summary	1
02 Introduction	3
03 Why a Conservation Management Plan?	5
04 The Study Area	7
05 Historical Context	17
06 Historical Archaeological Investigations	53
07 Identification of Indigenous Cultural Heritage Values	62
08 Management Context	83
09 Management Strategies	90
10 Conclusion	135

Appendices

Appendix A:	References for Crater Lakes Area Conservation Management Plan
Appendix B:	Article from Border Watch
Appendix B:	Sources of Historical Information
Appendix C:	References for Indigenous Cultural Heritage Report

Goals

The Crater Lakes Area (Volcanic Complex) Conservation Management Plan has been prepared to provide clear direction and guidance to the City of Mount Gambier, other land managers, conservation and community organisations and the wider Mount Gambier community regarding the future use and management of the Crater Lakes area.

The Management Plan is based on a preliminary assessment of Indigenous Cultural Significance, an archaeological survey and site field work of the Nurseryman's Shed, a detailed investigation of the places and items of heritage significance within this State Heritage Area and an assessment of the landscape, vegetation and visual characteristics of the different areas within the Crater Lakes complex.

The Plan sets out seven key goals that provide vision and a sustainable direction for the Crater Lakes area. These include:

- 1 Recognise and protect all of the heritage values of the Crater Lakes Area.
- 2 Identify opportunities and implement actions to restore, enhance and interpret the heritage landscape values of the area.
- 3 Protect the quality of the natural environment.
- 4 Provide appropriate levels of infrastructure, facilities and services to support appropriate, safe and enjoyable community access and use of the area.
- 5 Establish a management approach that responds to the desired landscape character and activities identified for specific precincts.
- 6 Retain and enhance views and vistas into and out of the Crater Lakes Area.
- 7 Ensure that funds are sourced from all spheres of Government to enable the protection and enhancement of the Crater Lakes Area.

These goals in turn are reinforced by policy areas that further define and guide management strategies identified within the Plan.

Policies

- Built Form and Development (Area Wide);
- Statutory Context (Area Wide);
- Protection of Water Resources (Area Wide);
- Access and Traffic Management (Area Wide);
- Operations and Management (Area Wide and Precinct);
- Heritage and Conservation (Area Wide);
- Signage and Interpretation (Area Wide);
- Managing Landscape Character (Area Wide and Precinct);
- Managing Activities (Precinct);

These over-arching goals and policies provide a robust framework within which to develop detailed approaches that achieve the objectives of the Conservation Management Plan. Through landscape assessment, historical survey and archaeological investigation, 14 distinct precincts have been identified. These precincts respond to

Strategies

characteristics such as volcanic topography, landscape character, land use, historic value, cultural significance and recreational value.

Within each precinct are defined actions and management objectives.

- Desired future character.
- Maintaining landscape character.
- Managing activity.
- Access and circulation.
- Heritage, conservation and interpretation.
- Operational management.
- Key precinct actions.

The key precinct actions state what needs to be done, by whom and when over the next 10 years.

Together, the setting of goals, development of policy and identification of specific management objectives become a series of tools by which the Crater Lakes area can be progressively managed for future generations.

02 Introduction

2.1 Background

In September 2002, the City of Mount Gambier engaged HASSELL, in association with McDougall and Vines Heritage Consultants and Austral Archaeology, to prepare a conservation management plan for the Mount Gambier Crater Lakes Area (Volcanic Complex). The study seeks to provide a management plan to supersede the existing Mount Gambier Lakes Area Management Plan, which was prepared by Kinhill Engineers in June of 1988.

The Kinhill report has formed the basis for the management and development of the Crater Lakes Area since it was prepared. However, in the time since the Kinhill report was prepared there have been significant shifts in understandings of strategic management, particularly in respect of an increased emphasis on environmental sustainability, and preservation of features of cultural or built form heritage significance.

The Mount Gambier Volcanic Complex was gazetted as a State Heritage Area on 11 June 1992. The area is also included on the Register of the National Estate gazetted on 28 September 1992 and contains a number of State Heritage Places that are individually identified.

2.2 Project Goals

The broad goals of the Conservation Management Plan were identified in the brief for the project:

- The Conservation Management Plan and Master Plan should guide the future ongoing conservation, improvement, development and maintenance of the Crater Lakes Area;
- The Conservation Management Plan should complement the designation of the State Heritage Area within the City of Mount Gambier Development Plan, and provide appropriate planning policies; and
- The Conservation Management Plan should examine the history of the Crater Lakes Area, address its current situation and identify issues, and provide a future vision for the area.

2.3 Project Methodology

The project methodology has been designed to manage the various facets of the project simultaneously, whilst providing stakeholders and the community with adequate opportunity to contribute to, and provide feedback on, the development of the Conservation Management Plan and Landscape Master Plan. The project is overseen by a Working Party comprised of Elected Members and a Reference Group consisting of Elected Members, Council Staff and key stakeholders in the area.

The purpose of the Working Party is to provide specific advice and make decisions on the composition and direction of the management plan project. The Reference Group has been established to review and provide feedback on outputs including discussion papers and draft plans, however it is not a decision making body.

02 Introduction

A site visit of the area was conducted in November of 2002, which involved the majority of the study team visiting the site simultaneously. During this visit a detailed landscape analysis of the site was undertaken, cultural and built form heritage investigations were commenced, and consultation with stakeholders and the wider community was undertaken.

Following the site visit a discussion paper was prepared for distribution to the reference group. This discussion paper sought to distil and present the information that was collected during the site visit, present the key issues that were identified and also to present some preliminary management directions based on this early understanding of the area. The discussion paper was distributed in January of 2003 and comments were received from the majority of members of the Reference Group.

Following the preparation of the discussion paper, a supplementary document was prepared for the Working Party, which sought to outline the management directions proposed in more detail and articulate more clearly the objectives that would be contained in the draft management plan.

After comment was received on this document, drafting of the Conservation Management Plan and Landscape Master Plan was commenced and has culminated in the production of this document.

2.4 Future Management

The successful future management of the Crater Lakes Area is reliant on all groups with an interest in the area working towards the attainment of common goals. This plan attempts to clearly set out those goals, and provide a reference against which any actions can be tested.

The plan seeks to operate at a higher level than a statutory document such as the Development Plan, in that it actively seeks to set the direction in which development should proceed, rather than providing prescriptive policies for development to be tested against. The wording of the plan is designed to be accessible, in order to allow multiple stakeholders to use the document to guide their involvement in the development and maintenance of the Crater Lakes Area.

03 Why a Conservation Management Plan?

3.1 The Role of a Conservation Management Plan

An area of significance such as the Crater Lakes Area has the potential to create complex issues and become a site of significant contention. Not only does the day-to-day management of the area consume a significant amount of Council resources, but there is also the potential for modifications to the physical environment to generate debate if people feel that such works are not consistent with their expectations for the area.

The goal of a Conservation Management Plan (CMP) is to define and clearly articulate a broad strategic direction for the management of an area over a specified timeframe. Whilst a management plan may not always operate at the level of describing individual actions, it provides the framework against which proposals for actions can be tested. It can also assist in ensuring that expenditure is targeted towards priority areas and that the funds available are channelled into the areas that will lead to significant gains.

3.2 Plan Components

The Conservation Management Plan for an area such as the Crater Lakes Area will be comprised of three discrete components:

- Contextual research and information

This section of the management plan aims to set out the significance of the area, and define what it is about the area that makes it important and requires a dedicated management plan. These reasons can be physical, environmental, cultural, historical, anthropological or a combination of these elements. These need to be clearly documented within the CMP as a record and basis upon which management strategies and actions are developed.

- Strategic Vision

This section forms the most critical component of the plan, in that it sets out the Vision for the future of the area. This is of great importance as it is the Vision upon which the management strategies are built. It is a common mistake when developing strategic actions to do so on a platform where no clear vision has been articulated. Strategies developed in the absence of a clear vision tend to lack focus and often divert funding to areas that may not be appropriate. Achievement of the Vision is the fundamental test that must be undertaken when preparing and implementing the CMP.

- Management Strategies and Actions

The management strategies are developed on the basis of the strategic vision and should be consistent with the vision for the area. In a practical sense it is often required to break the vision down into discrete and tangible goals that will work towards the attainment of the vision. Beneath the goals will sit actions, which can have timeframes, responsibilities and budgets assigned to them.

03 Why a Conservation Management Plan?

The Crater Lakes Area is significant for all of the contextual reasons outlined above. The area is a dominant physical feature in the landscape, it is of critical environmental importance, particularly as the principle water supply for the City of Mount Gambier, and it is of cultural and historical significance to both Indigenous and European communities. It is felt that the definition of the document as a Conservation Management Plan rather than just a Management Plan, will focus attention on the environmental, historical and cultural significance of the area, and the need to balance development and management with those elements that people feel are significant.

04 The Study Area

4.1 Introduction

The Crater Lakes Area is located to the South of the City of Mount Gambier, with the vast majority being located in the City of Mount Gambier Council area. A small portion of the land at the south eastern edge of the study area is located within the boundaries of the District Council of Grant. The study area is shown highlighted by the red outline on Figure 4.1.

The precise study area has been determined by the project Reference Group and is based, in part, on boundaries set out in:

- The City of Mount Gambier Development Plan;
- The Blue Lake Management Plan;
- Land Zoned as Reserve;
- Land included in the State Heritage Area listing; and
- Natural Topography.

4.2 Key Features of the Study Area

The area is roughly rectangular in shape and runs in an east west direction, delineating the southern edge of the City of Mount Gambier. The area is characterised by precincts of various character, with the most significant feature being the Blue Lake at the eastern end of the study area. To the west of the Blue Lake, Bay Road runs through the area along the ridge that separates the Blue Lake from the Leg of Mutton Lake.

The Leg of Mutton Lake, whilst presently containing no water, is characterised by dense vegetation. The Valley Lake and Browne's Lake are characterised by such features as the open grassed areas of the crater floor, the playground and picnic areas, the wildlife park, and the vistas provided around the rim of the crater.

To the south of the study area is the Blue Lake Holiday Park and the Blue Lake Golf Links. The Blue Lake Holiday Park has recently changed from being operated by a committee under the Council to being leased to a private operator. The operator of the Blue Lake Holiday Park has recently completed a Master Plan for the area of the park which will guide future development and seek to manage pertinent heritage issues in this area. The study area shown also includes the Carinya Gardens cemetery, however the inclusion of this area in the management plan is limited to policies concerned in a broad sense with the relationship to the remainder of the area. This document does not seek or attempt to be a management plan for the cemetery itself.

To the north of the study area, the land is characterised by its relationship to the Tenison Woods College and the Marist oval, which whilst sometimes used by the college, is managed by the Council and made available for use by the community.

The vast majority of the land in the study area is Crown Land that has been dedicated for use as a 'public pleasure resort' and is placed under the care and control of Council by the State Government. The exception to this is the Blue Lake and the area immediately



STUDY AREA

Legend

— STUDY AREA

Date: February 2003

Scale 1:10000

0 500 Metres

SUGARLOAF

POTTERS POINT

PLAYGROUND

GORDONS MONUMENT

NURSES LANDING

BLUE LAKE WALL

BROWNE'S LAKE

VALLEY LAKE

LEG OF MUTTON LAKE

BLUE LAKE

CENTENARY TOWER

GOLF COURSE

BLUE LAKE HOLIDAY PARK

BOAT RAMP

PUNCHBOWL

WILDLIFE PARK

04 The Study Area

surrounding it, which is dedicated as a 'Water Resource' and is under the control of SA Water.

4.3 Subdivision of the Study Area

For the purpose of this project the study area has been divided into a number of smaller 'precincts' each of which respond to commonalities within these areas, such as vegetation, historical contexts, landscape character, land use or geomorphology. The division of the study area into precincts allows the character of the area to be described more accurately and allows for management actions to be focussed on one or more precincts in cases where they are not appropriate to the whole of the study area.

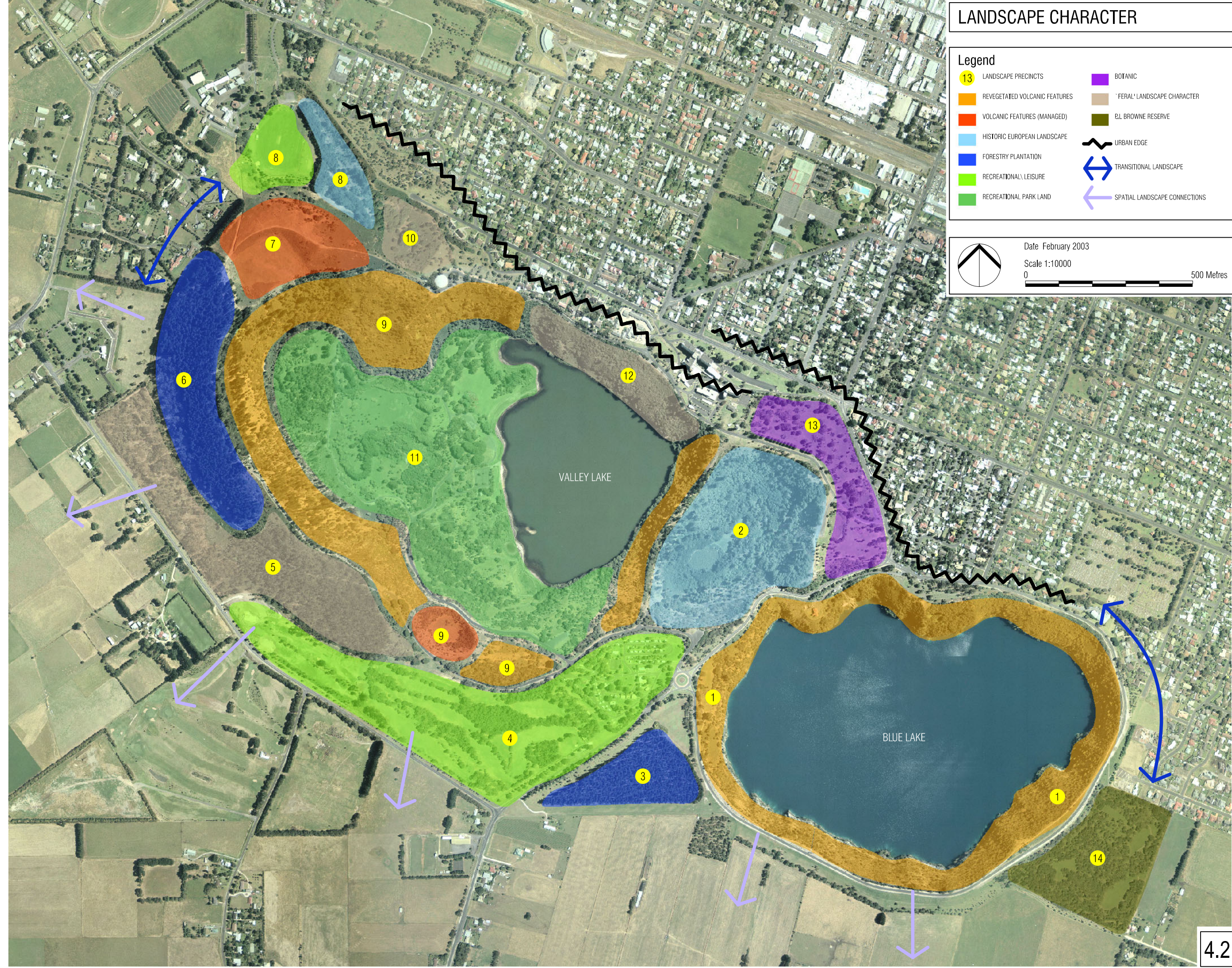
The following precincts are shown on Figure 4.2 showing existing landscape character. The following statements describe the existing character of each of the Precincts of the study area.

LANDSCAPE CHARACTER

Legend

13 LANDSCAPE PRECINCTS	 BOTANIC
 REVEGETATED VOLCANIC FEATURES	 'FERAL' LANDSCAPE CHARACTER
 VOLCANIC FEATURES (MANAGED)	 B.J. BROWNE RESERVE
 HISTORIC EUROPEAN LANDSCAPE	URBAN EDGE
 FORESTRY PLANTATION	TRANSITIONAL LANDSCAPE
 RECREATIONAL, LEISURE	SPATIAL LANDSCAPE CONNECTIONS
 RECREATIONAL PARK LAND	

Date: February 2003
 Scale 1:10000
 500 Metres



04 The Study Area

4.3.1 Precinct 1 – The Blue Lake



Looking southeast over Blue Lake, showing pump house in foreground

The Blue Lake is the central iconic feature of the Crater Lakes System, a geological monument that was designated a State Heritage Area in 1992.

The Blue Lake was created as a result of volcanic activity. The colour of the Blue Lake changes from grey to deep blue in November each year, and back to grey again in March.

The Lake is edged with a landscape of native and pest plants that has progressively colonised the volcanic crater. A managed programme of weed removal is gradually removing pest species, at the same time encourage native recolonisation.

4.3.2 Precinct 2 – Leg of Mutton Lake



Looking northwest over Leg of Mutton Lake

04 The Study Area

The character of the Leg of Mutton Crater is dominated by an historic European tree planting originating from the 1870s when the first nursery man Charles Beale carried out trial plantings in the Leg of Mutton Lake area. Original species consisted of eucalyptus from all areas of Australia, and European hardwoods including oaks, elms, ash, sycamore, poplar and willows. A range of softwoods including European and North American pines were also planted.

Seasonal changes affect the visual character of this area with autumn foliage, spring bulbs and the combination of deciduous trees and pines in winter.

The Lake itself is now dry and the former 'Leg of Mutton' shape difficult to distinguish.

4.3.3 Precinct 3 – Pine Plantation

South of the Blue Lake Holiday Park, this area is comprised of a forestry plantation of *Pinus Radiata* planted in the 1930s. It provides an edge to the Crater Lakes Precinct and a buffer to adjoining rural land uses.

4.3.4 Precinct 4 – Blue Lake Holiday Park and Golf Course

The Blue Lake Holiday Park represents one of the few commercial ventures within the Crater Lakes Complex. The specific landscape character is a combination of built form, open space, lawned areas, exotic plantings and native vegetation. The Blue Lake Holiday Park has recently completed a Management Plan Document, which outlines management processes and actions for this area.

The Mount Gambier Golf Course represents a managed recreational landscape with a combination of remnant nature vegetation, forestry and exotic plantings.

4.3.5 Precincts 5, 10 and 12 – Landscaped Edges

Precinct 5 abuts the golf course and completes the southern edge to the Crater Lakes Precinct. Precincts 10 and 12 form part of the northern edge flanking the rim of the Valley Lake Crater. Pest or weed plants infest these areas, which has a negative impact on adjoining landscape character of historic pine plantations to the southwest and the oaks in the north. The survival of these vegetation types is threatened by pest or weed species and volcanic landscape features are currently obscured.

4.3.6 Precinct 6 – Historic Pine Plantation

This plantation represents some of the early established forestry within Mount Gambier. This plantation has historic and cultural significance. It also provides a striking visual backdrop to the precinct and when viewed from the west is an extremely prominent element in the landscape.

04 The Study Area

4.3.7 Precinct 7 – The Sugar Loaf



Looking west towards the Sugar Loaf

The Sugar Loaf is one of two managed volcanic features. It was a product of the earliest volcanic activity that preceded the creation of the Blue Lake. A progressive programme of clearance and vegetation management has allowed this feature to be interpreted as a significant volcanic site. The Sugar Loaf has historic value as the site of the 'Forces Rifle Range' which operated until 1929 when the Marist Brothers opened the nearby school.

4.3.8 Precinct 8 – Tenison Oval and the Oaks



Looking north over Tenison Oval and Tenison Woods College

Tenison Oval, also known locally as Marist Park Oval, is a well managed open space within an attractive landscape setting. The oak grove to the east was planted by Colonel P J Browne in 1900, while he was a resident in Moorak Station, which is now part of the Tenison College complex. This oak plantation makes a significant contribution to the cultural landscape of the Crater Lakes area.

04 The Study Area

4.3.9 Precinct 9 – The Valley Lake Crater Rim and Devil's Punchbowl



Looking west towards Centenary Tower

The crater edge of Valley Lake is largely comprised of a landscape of native and pest or weed planting that has taken over and obscured the volcanic features. Previous management practices may have supported this as early documents describe the edge of the craters as "rather barren ridges".

The exception is the Devil's Punchbowl, a small crater to the south of Valley Lake formed towards the end of all volcanic activity in the Mount Gambier area. Steam discharged under high pressure caused blow holes to form. The Devil's Punchbowl is a notable example of this being perfectly shaped. Clearance and vegetation management have enabled this site to be clearly interpreted as a volcanic landscape feature.

04 The Study Area

4.3.10 Precinct 11 – Valley Lake and Browne's Lake Crater Floor



Looking onto Valley Lake Crater from Centenary Tower

This large precinct contains the recreational parkland that surrounds the crater floor of Valley Lake and Browne's Lake. The landscape includes open lawned areas with picnic facilities and a children's playground of an exceptionally high standard. This area adjacent to the Valley Lake is an extremely popular recreation area for local residents, an attraction for tourists and the site of significant civic and community events.

The Lake continues to be used for a range of aquatic activities although declining water levels have restricted some activities and concerns about water quality now prevent swimming in the Lake.

The Valley Lake Wildlife Park provides a number of habitats for kangaroos, emus and other Australian animals. The boardwalk system provides opportunities to view water birds and the native animals.

This area also provides a number of walking trails including access to Centenary Tower, which provides an excellent outlook over the Crater Lakes precinct. The vegetation around the tower includes a stringy bark woodland and access to the open blue gum woodland and thicker blue gum forest between the golf course and the cemetery.

04 The Study Area

4.3.11 Precinct 13 – Botanic Park



Looking south from car park

East of the Leg of Mutton Crater this area is described as the Botanic Park. Dominated by a collection of exotic trees the area provides a strong reference to the plant collections of the Victorian era that can be found in Botanic Gardens in Adelaide, Mount Lofty and other cool temperate Australian towns and cities.

4.3.12 Precinct 14 – P J Browne Reserve

The P J Brown Reserve represents the potential native landscape character that may have existed on the outer slopes of the Crater Lakes complex. The reserve is named after Colonel P J Browne who planted the oaks at Moorak Station in the 1900s.

This reserve on the south eastern slope of the Blue Lake has been planted with species considered likely to have been present in the 1860s – largely low shrubs such as Banksia, Boxwood, Wattle and Melaleuca.

04 The Study Area

4.4 Surrounding Landscape Character



Looking north showing former hospital in middle and City of Mount Gambier in background



Looking south showing rural character to south of Crater Lakes Area

Surrounding the Crater Lakes Complex are a number of distinct landscape characters. To the north is the urban edge of Mount Gambier. Development pressure has resulted in both physical and visual impact. The development of Mount Gambier Hospital impacts on the northern rim of Valley Lake reducing the geological significance of this area. Issues relating to the effect of proposed developments on the skyline and future development pressure will need to be considered in respect to the surrounding landscape character within these areas.

04 The Study Area

To the east and west are transitional zones between the urban fringe and the surrounding agricultural areas to the south. These transitional zones are characterised by large lot developments and substantial areas of open space. This combination reduces the potential for physical and visual impact.

The agricultural landscape to the south reinforces the dominance of the Crater Lakes Complex from views in and out of the area, as well as its connection to other volcanic formations within the local area.

05 Historical Context

5.1 Geological Background

The geology of the Crater Lakes has formed a significant natural landscape. The history of this was assessed when the area was first included on the State Heritage Register in 1992.

Extract from State Heritage Register Assessment:

"The volcanic areas of south eastern South Australia and central and western Victoria are associated with the final separation of Australia from Antarctica approximately 65 million years ago, and the formation of the depression known as the Otway Basin which commenced some 70 million years earlier. Within South Australia two distinct groups of volcanos are evident, the northern Mount Burr group comprising some seventeen eruptive centres, and the more isolated, singular Mount Schank together with the multi-headed Mount Gambier Complex, the latter being the most recent. Carbon -14 dating and palaeo-magnetic results agree that eruptions occurred as late as 4,000 to 4,300 years ago at Mount Gambier making it the youngest volcanic feature on mainland Australia.

In 1862 the Rev. J E Tenison Woods published *Geological Observations in South Australia* containing descriptions of the geology of Mount Gambier. He recognised most of the significant geological features but believed that the craters were calderas formed by collapse of the country rock. It is now known that the craters are explosion structures consisting of a rim of rejected material resting directly on the underlying Gambier Limestone.

Initial eruptions at Mount Gambier occurred at the present sites of the Tenison College Oval and the Leg of Mutton Lake crater. Small low, open explosion craters called maars were produced, covering the countryside with ash and lapilli (pea-shaped droplets of solidified lava). Next, lava flowed from fissures near the present day Browne Lake and from a vent near the present day Leg of Mutton Lake. A scoria (basaltic pumice) cone, now partly exposed in the crater walls west of Browne Lake, completed the first stage of the eruptions. Activity ceased temporarily allowing time for lava flows to cool and crystallise.

The next period of eruptive activity took place on a much larger scale. During quiescence, ground water percolated into the volcanic conduits and mixed with the hot and possibly molten rocks at depth. The resultant explosive vulcanism precluded the large craters we see today containing the Blue, Valley and Browne Lakes.

During these later eruptions many large blocks, known as 'bombs', some weighing many tonnes, were thrown out of the craters. One of the best examples can still be seen in the road cutting on the south-west corner of the Crouch Street and Gwendoline Street intersection in the Mount Gambier.

The Leg of Mutton Lake crater is a late stage feature and lava fountaining in the Browne Lake crater was the last magmatic event. Activity ended with steam venting through blowholes, such as the Devil's Punchbowl and the Blowhole in Boandik Terrace. Active volcanism within the entire complex is believed to have lasted over a period of two to three centuries.

05 Historical Context

It is highly likely that Aboriginal people saw the eruptions at Mount Gambier. Dreamtime legends of the local Boandik Tribe tell of the giant Craitbul and his family who moved to Mount Gambier after being frightened away from Mount Muirhead and Mount Schank. Here they built four ovens but each time water came up from below and put out their fire.

Since European settlement tectonic activity in the area has been restricted to earthquakes. Two of the State's largest recorded earthquakes occurred near Kingston and Robe in May 1897 and August 1949 respectively. Between 1975 and late 1976 several small tremors have shaken areas closer to Mount Gambier. The Mount Burr Range provides evidence of an extended period of interrupted volcanic activity of many styles. The younger complex at Mount Gambier may be following a similar pattern.

The reason for the annual spectacular colour change of the water in the Blue Lake is still somewhat of a mystery. There is evidence that the water level within the lake is governed by the level of water in the unconfined aquifer in the Gambier Limestone surrounding the lake. The lake is thermally stratified each summer with the development of a thermocline beginning in November and becoming progressively deeper. In April-May the lake undergoes complete mixing and remains isothermal until renewal of stratification. Increased precipitation of minute calcite crystals during the period of thermal stratification over the summer is thought to account for the change in colour. The finely divided calcite crystals are believed to be the appropriate size to absorb all visible light except blue."

This, coupled with recent studies, suggests that tannins, thermoclines and the associated seasonal biomass also contribute to the blue colour of the lake.

The study area is within the region that forms part of the Gambier Embayment of the Otway Basin centred in Victoria. The embayment is an acute structure deposited on an elongate downwarp extending from Robe in a south-easterly direction into the Otway Ranges of nearby Victoria. The major sediments are Upper Cretaceous and Cainozoic marine limestone. Quaternary sediments formed under marine and estuarine conditions dominate the overlying sequence of mainly Aeolian dunes and beach formations (Wood 1995: 4).

The south east province is characterised by a unique assemblage of landforms which are associated with Pleistocene sea fluctuations and progressive beach progradations. Along the coastline a narrow belt of active parallel dunes can be seen rising steeply from the beach. These are interrupted by occasional blowouts and extensive lagoons with narrow inlets to the sea have developed behind these dune formations.

The above mentioned dune ridges are prominent landscape features and are locally referred to as ranges. They run broadly parallel with the present coastline and rise approximately 20 to 50 m above the surrounding flatter plains.

The Mount Gambier volcanic region is a distinctively higher relief and altitude than the surrounding regions. It consists of slightly uplifted limestone plain above which rise several volcanic cones. Mount Gambier and nearby Mount Schank which erupted approximately 1,500 years ago are the youngest of these cones. Less well known of the volcanic activity of this region is the Mount Burr complex which contains 15 eruptive centres dated occurring from 10,000 to 2 million years ago. Thus, there is evidence in separate locations of two different periods of volcanic activity, with the Mount Gambier area being the most recent. Lakes Leake and Edward are water bodies present within

05 Historical Context

the volcanic craters which are yearly recharged with rainfall. The Mount Gambier Blue Lake, Little Blue Lake, Ewens Ponds and Piccaninnie Ponds are a few locations which provide a window into the underground water system (www.mountgambiertourism.com.au; Minerals and Energy Resources 2001: 1).

The eruptions caused the dispersal of volcanic ash around the cones. Uplift is greatest in the north west where a hilly landscape has developed. Calcaranite dunes extend into this region and add to its variability. Numerous sinkholes (dolines) and caves have developed over time in the permeable limestone. The combination of permeable limestone rock, deep sands, and ash soils in an elevated position have given rise to intensive forms of land use consisting of pine plantations on the sand and agriculture on the ash soils.

5.2 State Heritage Area

The Mount Gambier Volcanic Lakes Complex was gazetted as a State Heritage Area on 1 June 1992 (State Heritage Register File: 14113).


















Within the State Heritage Area other structures are separately included on the State Heritage Register including the Pumping Station, the Adam Lindsay Gordon Memorial Obelisk, the Centenary Tower and the Blue Lake Embankment (Rook Walk).




A circa 1910 photograph of the 1861 road through the Crater Lakes between the Blue Lake and Valley Lake (Source: *Les Hill Collection*)

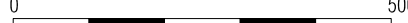
VOLCANIC FEATURES

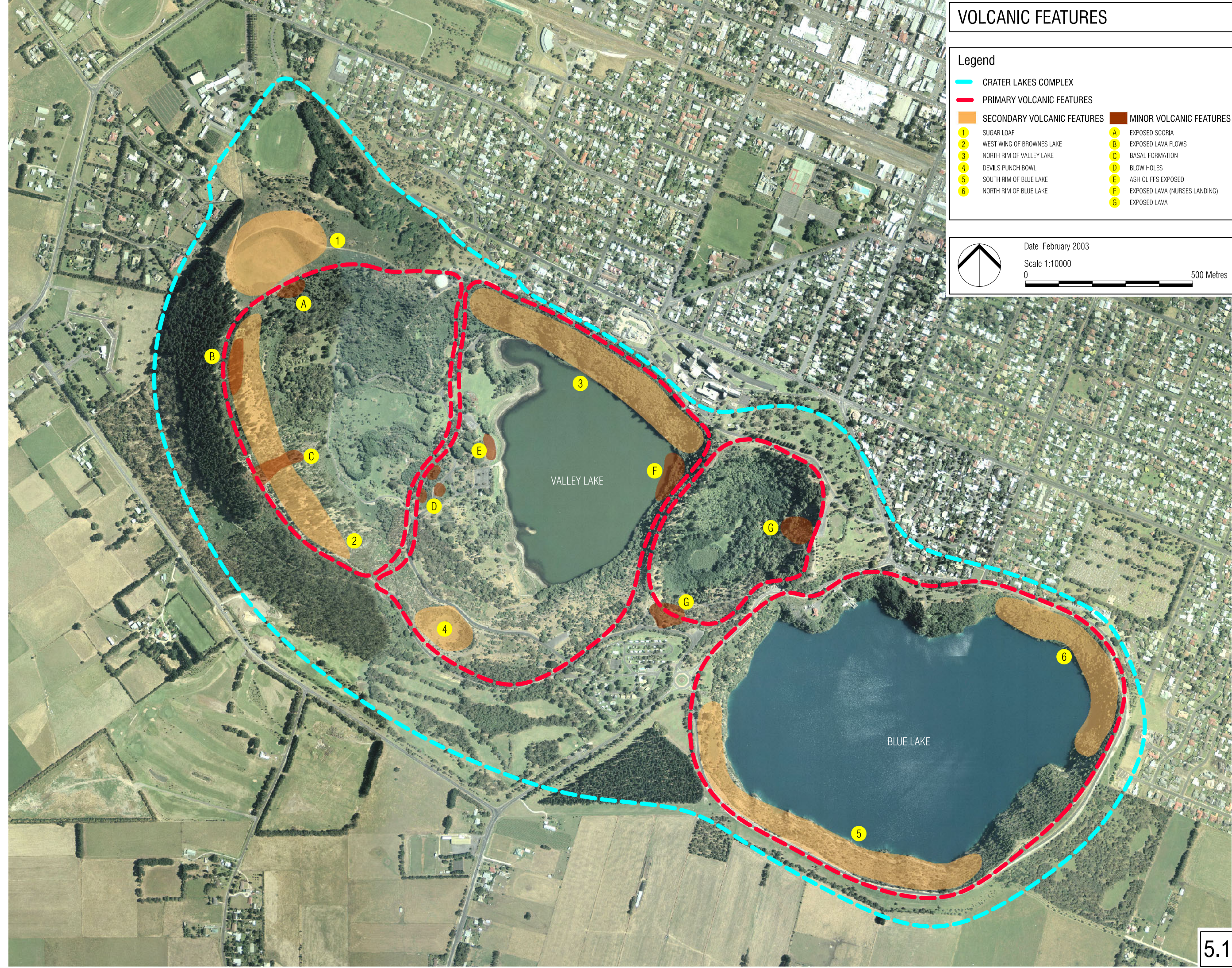
Legend

 CRATER LAKES COMPLEX	 MINOR VOLCANIC FEATURES	
 PRIMARY VOLCANIC FEATURES	 1 SUGAR LOAF	 A EXPOSED SCORIA
 SECONDARY VOLCANIC FEATURES	 2 WEST WING OF BROWNES LAKE	 B EXPOSED LAVA FLOWS
	 3 NORTH RIM OF VALLEY LAKE	 C BASAL FORMATION
	 4 DEVILS PUNCH BOWL	 D BLOW HOLES
	 5 SOUTH RIM OF BLUE LAKE	 E ASH CLIFFS EXPOSED
	 6 NORTH RIM OF BLUE LAKE	 F EXPOSED LAVA (NURSES LANDING)
		 G EXPOSED LAVA

 Date: February 2003

Scale 1:10000

 0 500 Metres



05 Historical Context

5.3 European Settlement

The cultural landscape of the Crater Lakes area is as significant as the geological landscape, as it has been fashioned by subsequent man-made changes including the introduction of access roads and tracks, planting of non-indigenous species of trees, shrubs and groundcovers, and other alterations which serve as a chronicle of European activity in the region.

The Lakes area was one of the first sites of the European pastoral settlement in the South East. Steven Henty, bringing stock from Portland, Victoria, built a hut on a rise near Brownes Lake in 1841 and stockyards which covered part of the dried bed of the lake. The stone chimney of Henty's Hut had been discovered in 1915 at the Lakes site. This hut existed into the early years of the twentieth century and a stone memorial was built in 1918 by the Old Residents Association to commemorate this place. Part of this original monument, a simple stone plaque, was later incorporated into the more substantial memorial which was constructed on the same site in 1938.

During 1854 general land sales took place in Mount Gambier and the Lakes area at that time was reserved by the Government and remained as Crown Land. The first owner of the pastoral property which accessed the area which included Brownes Lake was David Power, and in 1859 he sold his property, then known as Mount Gambier Station, to other pastoralists.

The value of the Lakes area as a public recreation area was first mooted in 1860 when there were rumours the Government was to sell the Reserve around the Lakes. The *South Australian Register* at the time noted that the area was a public beauty spot and should be set aside as parklands.

The first road along the ridge between the Blue Lake and the Leg of Mutton Lake was opened in 1861 and provided a more direct link from the Mount Gambier township to Port MacDonnell. Over time the section of this road between the lakes became an important focal point for visitors to the area and is the location of a number of important monuments and structures. The first fencing of the Blue Lake was also needed once the road through the Lakes area was constructed.

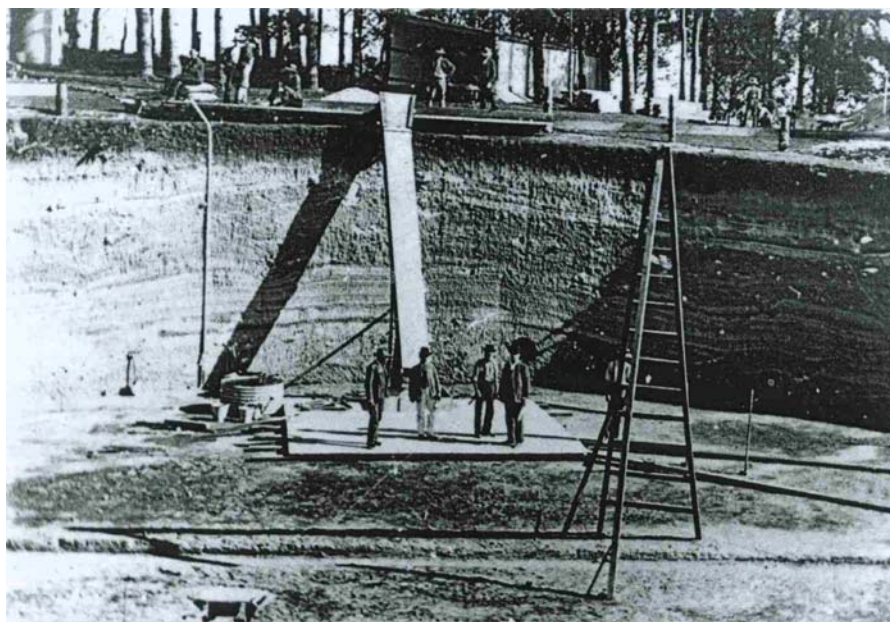
During 1866 the Lakes Reserve was vested in the West Gambier District Council but no grazing licences were issued, as was suggested at the time. However, travelling stock were allowed to rest for 48 hours in the Reserve, on the flat area which now incorporates the Blue Lake Holiday Park.

The possibility of the lakes within the area providing a water supply for the town was first mooted in 1867. In 1878 various town water supply schemes were proposed which included both the Blue Lake and Lake Leake. These were assessed with estimates given for the capacity of both. The Blue Lake itself became the source of Mount Gambier's water supply, with reticulated water from 1883, after the construction of the pumping station. Access was then prohibited to the Blue Lake, and it was fenced with a four foot rabbit and cattle proof fence with stiles and gates constructed by the Hydraulic and Engineering Department of the State government. This new fence replaced the earlier wooden post and rail fences on the high banks. The Superintendent of Water Works at the time was C Jobson.

05 Historical Context



The Pumping Station in 1890
(Source: *Les Hill Collection*)



The reservoir on Keegan Drive above the Pumping Station, circa 1905
(Source: *Les Hill Collection*)

05 Historical Context

The Pumping Station was extended in 1909 with additions to both the north and south side in order to house two new boilers. Later additions to the Pumping Station, including the new limestone power-house on the eastern side of the original Pumping Station, were completed in 1922, and it was extended again in 1936. The Pumping Station was then completely revamped in 1971 for the cost of \$1 million. Interestingly in June 1971 the Blue Lake water level was recorded as the lowest on record at that time.



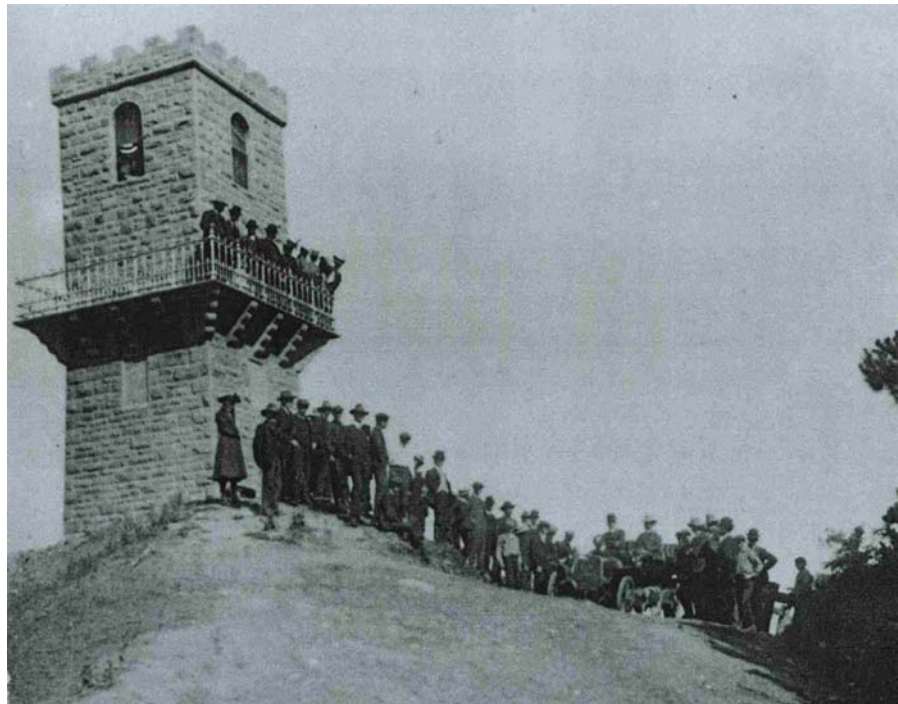
The Pumping Station and boiler house extensions in 1925
(Source: *Les Hill Collection*)

The changing level of the Lakes has been of some concern to the Mount Gambier community and a report was written in 1888 and published in *The Border Watch* which indicated the rise and fall of the Lakes over time. During 1895 the Lakes levels rose sufficiently to encroach on the Forestry nursery in the Leg of Mutton Lake and the path around the edge of the Lake was covered in water at this time. Measurements have been collated at different times which track the rises and falls of the water level. In 1948 there was an article in *The Border Watch* setting out the fact that the Lakes water level had risen two feet in two years. Brownes Lake and Leg of Mutton Lake have appeared and disappeared with some regularity, but both are now dry.

Late in the nineteenth century, it was determined to mark the Centenary of the first siting of Mount Gambier in 1800 with the construction of a Centenary Tower. The design provided by Karl Seigmun was selected by the Centenary Tower Committee in November 1880, and in December, the foundation stone was laid by Sir Samuel J Way, the Chief Justice at the time. The Centenary Tower took more than two years to build

05 Historical Context

and was finally completed in February 1904 and Sir Samuel Way also formally opened the tower. The Tower provides an important vantage point for viewing the whole of the Crater Lakes Area and the City of Mount Gambier.



The first car to reach Centenary Tower in 1907
(Source: *Les Hill Collection*)

5.4 Establishment of Mount Gambier Forest Reserve

Leg of Mutton Lake is a volcanic crater within the Mount Gambier Crater Lakes system, but it is also significant as the site of the first State Government forestry activities in the South East in 1876, when two hectares of the crater's area were fenced off to use as a tree nursery.

05 Historical Context



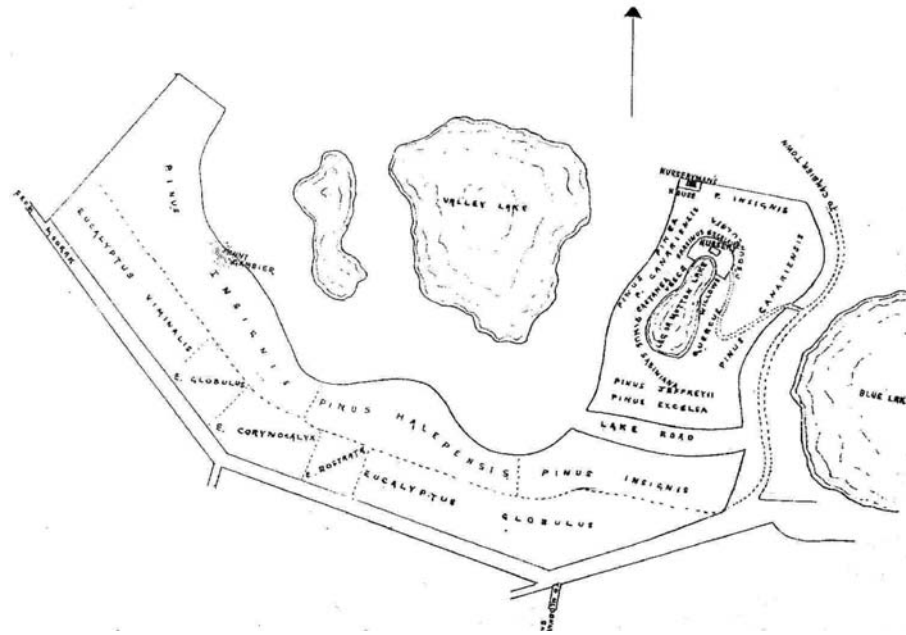
Leg of Mutton Lake in 1969
(Source: *Les Hill Collection*)

Planting in the Lakes Reserve was first proposed when Charles Goyder visited the area with the express purpose of selecting spots for planting with forest trees. Goyder apparently also selected a site for a nursery. (*The Border Watch*, 3/9/1873).

Forest reserves were developed in South Australia during the period 1876 to 1882. It was intended that supplies of hardwood would be grown in South Australia to provide a replacement for the wood that was cleared in the early days of the colony when any suitable timber was used for firewood, fencing, building and mining timbers. A Forest Board was appointed in 1875 and a Conservator of Forests was appointed. The Forestry's Act of 1878 formalised the government's support for forest planting and development. The 1878 Act was superseded by the Woods and Forests Act of 1882, under which the Woods and Forests Department was created.

The most significant of the early Conservators was John Ednie Brown who was appointed in September 1878 and served until June 1890 as the head of the Department. It was during that period that most of the Department's nurseries and plantations were established or planned, and the experiment with *Pinus radiata* as a plantation timber was undertaken. From 1876, the nurseryman for the Mount Gambier Forest Reserve was Charles Beale and a 'good stone cottage' was erected for his use. This was located on the ridge above the northern end of the Leg of Mutton valley. This was a substantial stone house with verandahs, which survived until 1969-70. At the lake's edge, in association with the nursery enclosure, a stone work shed was built for the nurseryman's assistants. The form of this building is clearly visible in early photographs of the nursery and has also been determined by archaeological investigation.

05 Historical Context



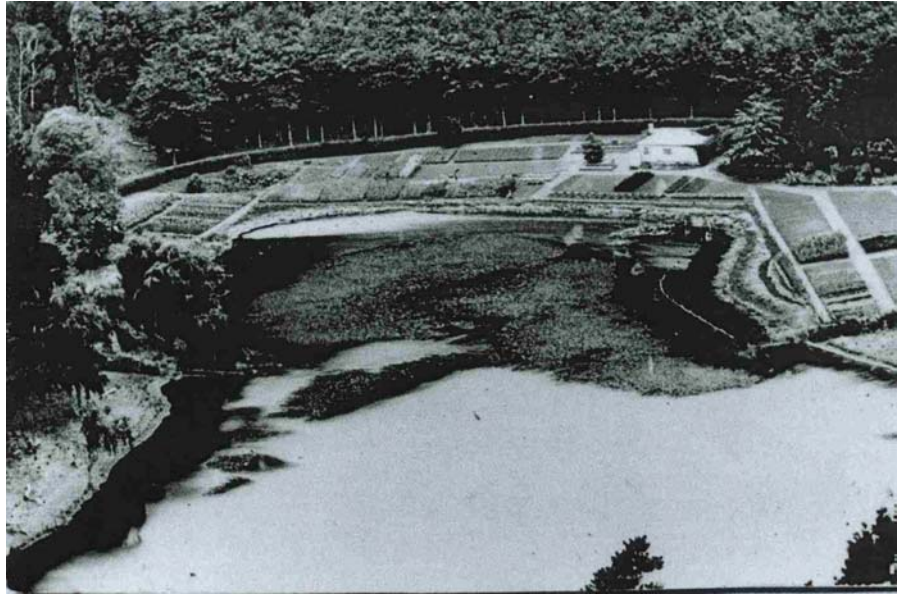
Extract from Conservator of Forests Report, 1878-9
(Source: South Australian Parliamentary Papers)

In November 1878 *The Border Watch* reported that some acres of land around the Leg of Mutton Lake were being cleared for planting of forest trees. The Mount Gambier Forest Reserve covered most of the mountain area and the nurseryman's job was to care for the nursery and the extensive plantings. Trial plantings of exotic and native trees were carried out in the Leg of Mutton Nursery for many years. The principles of forestry had been established under the Forest Board, which were soundly based and involved the planting of 'useful timber' with 'rapid growth' and continuous staged planting.

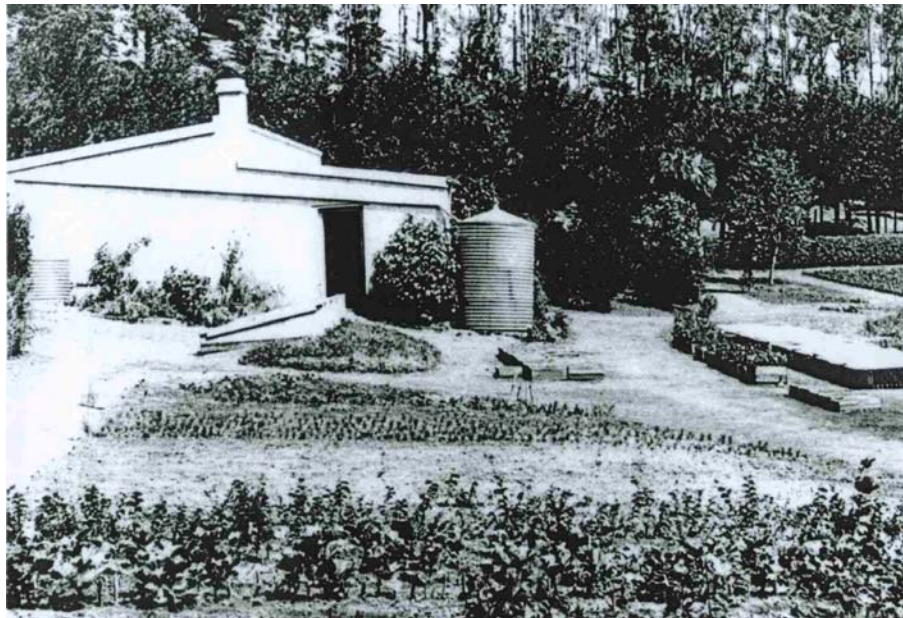
By 1881 plantings were made annually in the Mount Gambier Forest Reserve and consisted of eucalypts from all areas of Australia including Sugar Gums, Red Gums, Manna Gums and Blue Gums. European hardwoods, Oak, Elm, Ash, Sycamore, Poplar, Chestnut and Willow were also planted, as were a range of softwoods, principally European and North American pine species. Following Mr Beale's retirement in 1905, Mr A R Lucas was in charge of the nursery and plantation for about twenty years. He later became the first Forester in charge of the Forest Reserve in 1923.

It is significant that *Pinus radiata*, then known as *Pinus insignis*, which now dominates forestry in the South East was first introduced to the Leg of Mutton plantation in the mid 1870s and plantation cultivation methods developed there. The Conservator of Forests Annual Report of 1878-9 discusses the best methods of plantation growth after trials at Mount Gambier's Leg of Mutton Lake Nursery. The Leg of Mutton area is therefore significant as the site of the genesis of the timber industry in the South East of the State.

05 Historical Context

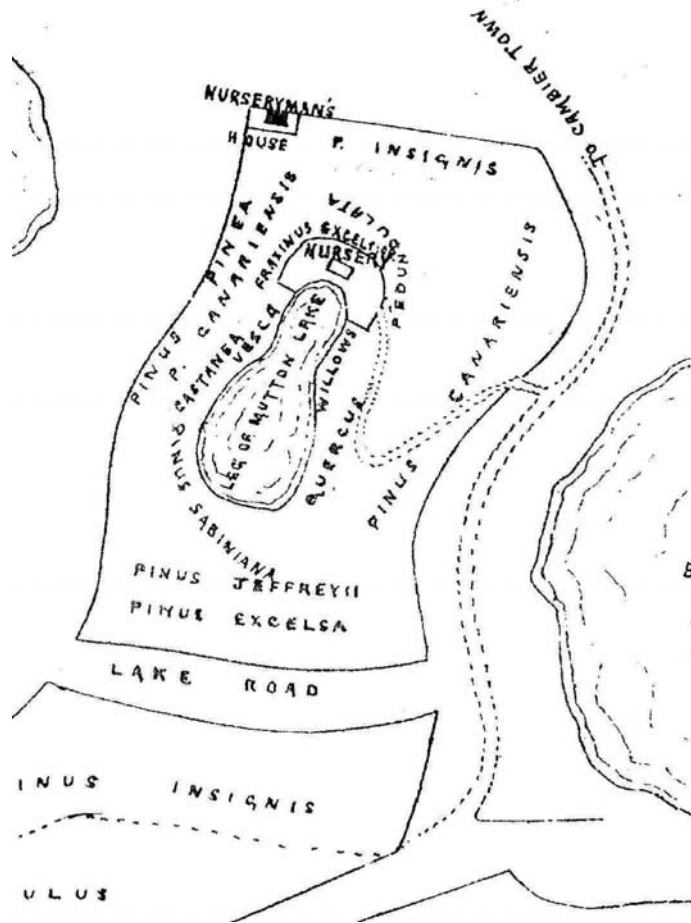


The Nursery in 1913
(Source: *Les Hill Collection*)



The Nurserymen's workshed, 1896
(Source: *Les Hill Collection*)

05 Historical Context



Extract from Conservator of Forests Report, 1878-9
(Source: South Australian Parliamentary Papers)

The nursery itself was a semi-circular area at the northern end of Leg of Mutton Lake, and its outline can be seen on the plan accompanying the first Annual Report (1878-9). Early photos also show the appearance and organisation of the nursery, which was enclosed by a post and wire fence backed by box thorn planting. Nursery beds were enclosed by hawthorn hedging, meticulously kept.

There was also a low basalt stone wall at the water's edge at the nursery end of the lake (remnants of this wall are still extant on site). In 1905 Charles Beale, the first Nurseryman appointed to the Leg of Mutton Forest Nursery, retired after 28 years of service and A R Lucas was appointed.

05 Historical Context

The form of the early plantations can be seen from the ridge above Leg of Mutton Lake, where mature *Pinus canariensis* still exist in discernible rows from the 1880s, plantings on the sides of the valleys, and as was noted on the plan accompanying the 1878 report by the Conservator of Forests.

A Forestry Department mill was constructed on Moorak Estate, at the edge of the Lakes reserve in the 1920s and the nursery continued in operation until the late 1920s, when the nurseryman (Lucas) moved to the Caroline Forest Reserve (which had become the headquarters for Forestry in the SE). The Mount Gambier Council took over the control of the reserve at the Leg of Mutton lake in December, 1927 although the forestry activities had been removed some months earlier.



The track down to Leg of Mutton Nursery in 1913. Note *Pinus canariensis* planting.
(Source: Les Hill Collection)



The Nurseryman's 'good stone cottage' in 1959, with the water tower under construction.
(Source: Les Hill Collection)

05 Historical Context

5.5 Beautification of the Lakes Reserve

Residents of the Mount Gambier area were well aware of the unique character of the crater lakes and attempted at various times to improve on nature and impose some sense of order on the area, to provide a pleasant recreational resource for the district. In 1890 the Old Colonists association, conscious of the importance of the Valley Lake as the site of first European settlement, held a working bee to plant trees in the Valley Lake (see photo). Unfortunately, half of these were pulled out and destroyed by vandals soon after, but they were replanted again a month later. Vandalism of plantings continues to be a problem to this day.



Planting at Valley Lake by the 'Old Colonists', 1890
(Source: *Les Hill Collection*)

05 Historical Context



Arbor Day at Valley Lake in 1939
(Source: *Les Hill Collection*)

It is interesting to note that many of the early photographs prior to around 1965 show much of the slopes on the south sides of the lakes as bare of vegetation. Most of the 'beautification' took place on the flat floors of the craters around the lakes.

In 1918 the Mount Gambier Progress Association led by Charles Rook determined to beautify the entrance to the Lakes area by construction of a walk along the road embankment. The 'Big Working Bee' was held on Wednesday 27 November 1918 and 800 men participated assisted by 300 women. The end result was a sloping dry stone wall embankment with an elegant circular rest house at the end which overlooked the Blue Lake and Leg of Mutton Lake, and faced the Adam Lindsay Gordon Memorial further along the ridge. Monuments and look outs form an important part of the cultural landscape of the Crater Lakes State Heritage Area.

05 Historical Context



Working bee on the Blue Lake Embankment, 1918
(Source: *Les Hill Collection*)

05 Historical Context

5.6 Botanic Park

The Mount Gambier Council first considered the creation of a Botanic Gardens for the city in the 1870s when the forest nursery in the Crater Lakes was being established. A suitable site within the Lakes Reserve, above Leg of Mutton Lake between Bay Road and the hospital, was identified and the State Government was petitioned. A Botanical Garden Reserve at Mount Gambier was approved by the State Government in 1872, although little progress was made initially. It was not until 10 years later that specific plans were drawn up for a Botanic Gardens and Arboretum. The plan for the area, dated 1882 and signed by the Conservator of Forests, J Ednie Brown, is held by the Mount Gambier Council and this shows that a formal traditional layout was proposed for the area.

The Plan for the reserve (which is a flattened 'V' shape running around the edge of the forest Reserve and bounded by Bay Road and the access road to the Hospital) contains two separate areas. The wing along Bay Road was to be planted as an arboretum with sections divided up geometrically and continuous avenue planting along straight paths leading to circular sections along the central axis. The small trees drawn on the plan appear to indicate changes of species and include a range of native and exotic trees including conifers and deciduous species. In some areas these are mixed, while other sections were intended to have dense planting of a single species.

In this 1882 plan, the other wing of the V was set aside as a Botanic Garden, and while this area was also edged with continuous avenue planting with both conifers and deciduous trees, the central oval section was intended to be planted out in garden beds in a parterre form. All of these areas were linked by serpentine paths leading to features such as statutory, a rotunda, a fountain and various forms of garden planting. Around this central garden section more open areas were to be planted with trees in a similar planting pattern to the arboretum. Interestingly the original plan also shows the Nurseryman's house to the south of what is now the western end of Keegan Drive, close to the 1950s water tower.

During the early 1880s Mount Gambier Council was concerned with establishing the Botanic Park. Some eucalypts were planted initially which were apparently damaged in 1884, and plants ordered for the gardens arrived in Mount Gambier in the same year. Planting up of the area continued slowly.

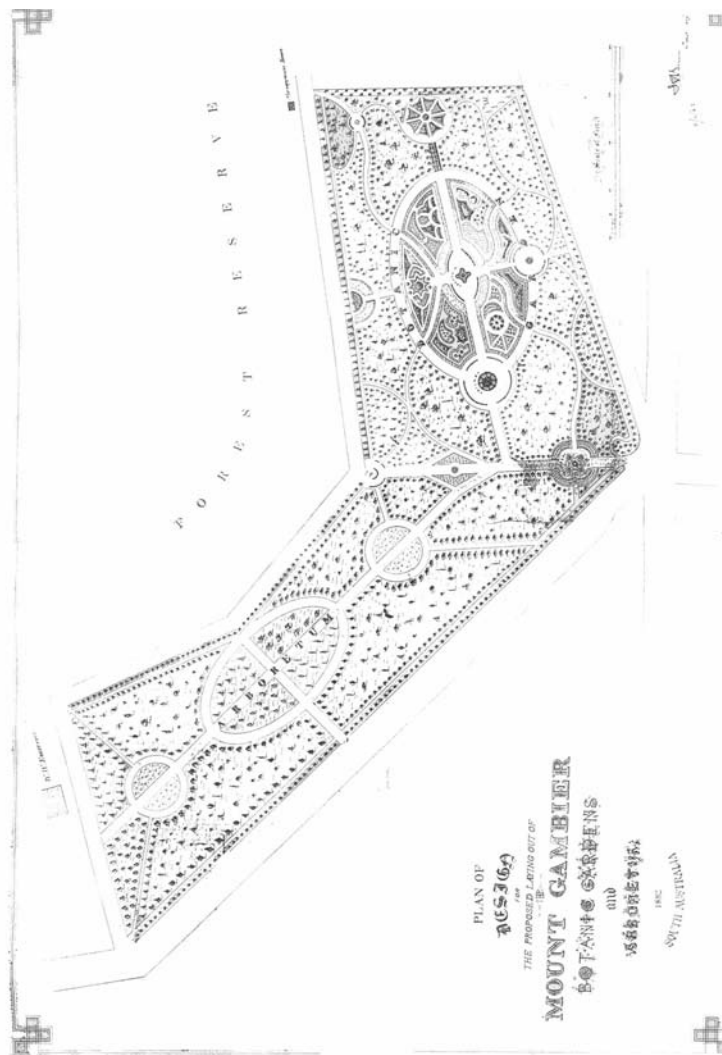
In 1904 a memorial to those who were killed in the South African (Boer) War (1899-1901) was proposed, and Council approved its location at the bottom corner of the Botanic Reserve at the junction of Bay Road and Lake Terrace. This was commenced and completed in 1906. Photographs of memorial ceremonies taken in the early twentieth century show a perimeter fence around the Botanic Gardens which was constructed of timber post and wires. Tall conifers and eucalypts are also visible in the photographs.

In 1936, the Council Parks and Gardens Committee undertook a clean up of the Botanic Gardens area. While there is no record of exactly what work took place, it is assumed that the mature trees already in the Park were retained. The sloping nature of the site down from the rim of the Crater Lakes has made maintenance of the area over time relatively difficult. Currently there is little on the ground, apart from the overall shape of the Botanic Park, which reflects the original planting intent of the plan. Some mature conifers remain along Keegan Drive which may be part of the original perimeter planting

05 Historical Context

of the 1880s, but new eucalypts have been planted along Bay Road as edge planting in that position.

The notable flowering gums along Lake Terrace West do not form part of the original Botanic Gardens, but are of a substantial age and are significant in their own right. None of the original proposed paths to the area are evident, and the whole of the Reserve is maintained as a park with regularly mown lawns under the trees. There have been some new block plantings of trees, some of which are part of the Hoo Hoo Club initiative, and form part of their 'Forest Trees of the World' program'.



1881 Plan of Botanic Gardens and Arboretum
(Source: Mount Gambier City Archives)

05 Historical Context

5.7 Care and Responsibility 1927-1970s

Once the Forestry Department had passed the Leg of Mutton Lake Nursery and Reserve over to the Council, the level of care was reduced and invasive weeds such as Scotch Thistle began to gain ground. Council recognised the problem and sought advice from the State Government. Walter Scott Griffiths, the Government Town Planner, visited Mount Gambier in September, 1926, and provided council with a plan and report on the improvement of the Lakes. In July 1927, Council determined to 'commence the tracks at Valley Lake as set out by Mr Scott Griffiths plan'. From then on the activity was reported to Council by the Town Surveyor and recorded in Council Minutes. The 1931 Border Watch Almanac noted:

"The Town Council is now engaged in carrying out an extensive programme of beautification at the Lakes, in accordance with a plan prepared by the Government Town Planner (Mr Scott Griffiths). The construction of drives, walks, and planting of native trees in accordance with the plan, is in progress."

Unfortunately the plan prepared by Walter Scott Griffiths has now been lost, but a report on lake beautification proposals of Scott Griffiths' plan in *The Border Watch* some thirty years later (refer Appendix Two: *The Border Watch* 15/8/1963) notes that he recommended a wide range of planting, including flowering gums, willows, jacarandas, pepper trees, Cape chestnuts, palms and walnuts. He recommended 'planting trees in strictly informal settings ... plant in clumps with a few scattered single trees here and there.'

In 1935, Council asked Mr D W Robinson to submit plans for tree planting and improvements specifically for a tree planting scheme on the south and west slopes of the Mount. The report prepared by Robinson strongly recommended replanting the Mount with coniferous trees. Council decided early in 1936 to implement Robinson's plan and appoint him part time curator of the lakes reserve. Apart from tree planting, the earliest works were to include 'the establishment of a new entrance plantation at the camping ground, new cypress hedge around the area, a bitumen road from the entrance to the turn off to the Tower and necessary alteration to hedging'. Interestingly, the Parks and Gardens Committee of Council advised that 'the axe should be kept out of the Lakes area for at least five years'. However, in March of 1936 a fire at the back of the Mount swept through Valley and Brownes Lake banks and burned most of the vegetation.

Council was actively planting *Pinus insignis (radiata)*, and the plantation to the south of the Blue Lake Holiday Park dates from this time.

During 1939 and 1940, in association with the centenary of the first use of the lakes area by a white settler (Henty), Arbor Days were held at Valley Lake and thousands of seedling trees were planted on the West and north slopes of the Valley Lake crater by Mount Gambier School children. Early photos show this area as relatively treeless prior to these planting days.

The last community arbor day was held in 1963, when some 500 trees were planted by the community, and reported in *The Border Watch*.

Currently, around the Valley Lake recreation area there is evidence of specimens of the early forestry, particularly the conifers, and also some 1930s and 40s plantings from

05 Historical Context

Arbor Day celebrations which are mostly eucalypt species, significant for their representation of the Arbor Day planting process, and 'beautification' of the area.

5.8 Recreation and Tourism in the Mount Gambier Lakes Area

The Mount Gambier Lakes area, especially the Blue Lake, has been an important tourist destination for South Australians and Victorians, particularly since the 1880s. Various structures which have been erected in the Lakes area indicate the recreational facilities that the Lakes provide for both local residents and visitors to Mount Gambier.

But even earlier, the Lakes were recognised as a site for exciting adventure, when the Governor of South Australia visited the South-Eastern District in 1856, he took a boat trip on the Blue Lake.

As early as 1861 a day for rifle shooting and practice was advertised in *The Border Watch*. This was undertaken at Brownes Lake, at the foot of Dr Browne's Station, although at that time the Lakes did not have individual specific names apart from the Blue Lake. There was also boating on the Valley Lake during 1862 when a Boat and Punt Club was established. This was possibly because a footpath had been cut down from the crater edge to the water of Valley Lake. The boats on the Lake were taken advantage of by school children during 1863 when the National School Picnic was held at Valley Lake.



Boating on Valley Lake in 1905
(Source: *Les Hill Collection*)

05 Historical Context

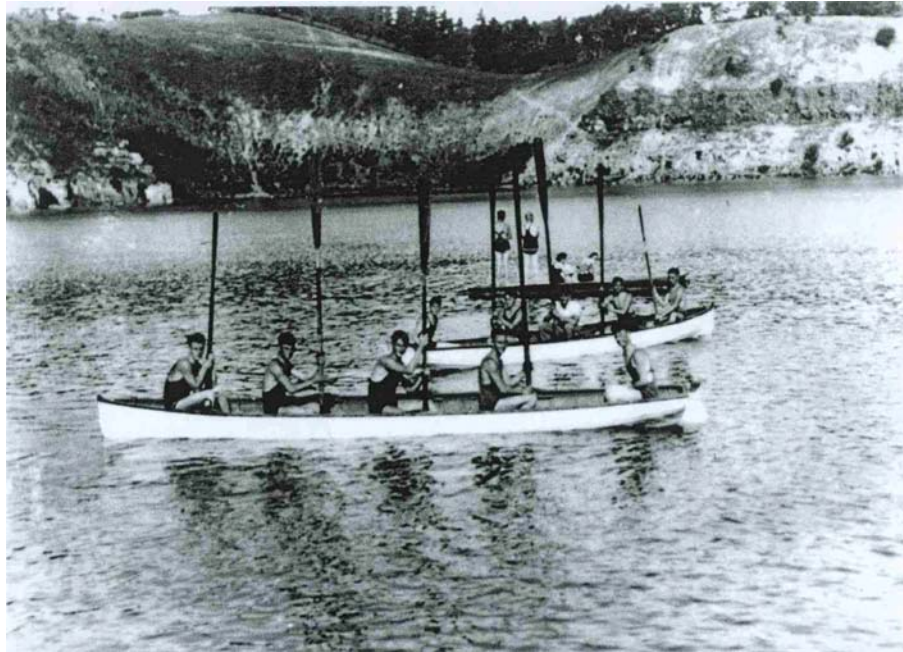
The first evidence of stocking the Lakes with fish occurred in 1868 when Dr Peel placed sixteen carp in the Valley Lake and during that year there were various reports on the fish in *The Border Watch*. The 1870s were also an important time for recreation in the area with a large pleasure paddle-boat being launched on the Valley Lake in 1875. Associated with this was a large boat shed on the south side of the Lake. However, the police had to ban all swimming in Valley Lake between the hours of 6.00 am and 8.00 pm due to larrikinism early in 1876. During 1876 the water level fell and the Lakes were not pleasant places for recreation. It was reported that the Leg of Mutton Lake was a 'bog' and a watering place for stock, Brownes Lake was a stagnant pool and Valley Lake was too exposed and covered in reeds and rushes at this time.

More fish were placed in the Valley Lake in 1882 by Dr Peel, this time fourteen Perch. In 1900 seventy Rainbow Trout were released into the Valley Lake. In 1886 a large bathing stage was completed at the Valley Lake to provide facilities for swimmers in the Lake. The access to Valley Lake was made easier in 1890 when a road was made down into the valley.

Another period of active swimming functions in the Valley Lake occurred during the 1930s when a dressing shed was erected and a swimming club formed in 1932. Early photographs indicate the rowing regattas and swimming carnivals which were held during this time.

In 1931 *The Border Watch Almanac* reported that '...The establishment of a camping ground at the Lakes has been welcomed by many tourists who enjoy outdoor life. The Town Council has made it the most comfortable and convenient camping site imaginable, and hundreds of campers take advantage of it during the summer months.' In 1954, during the Royal Visit to Mount Gambier, the queen planted a Rowan tree near the entrance to the Blue Lake Holiday Park and after the Royal Visit, formal entrance gates were installed to this park. In 1964, the Queen Elizabeth Park Trust was formed to manage the park and adjacent golf course, taking over this responsibility from Council.

05 Historical Context



Boating on Valley Lake, 1933
(Source: *Les Hill Collection*)

Mount Gambier and the natural wonders of the Blue Lake were well established on the tourist itinerary, and in 1936, the Tourist Officer for the area was C W Potter.

During the celebration of the State's Centenary in 1936 various memorial structures were erected in the Lakes area including the RSL Rest House and Potters Point Look out which was the official Centenary Look out constructed by the Mount Gambier Committee for the South Australian Centenary and opened in 1937.

In 1952 three hundred tons of sand from Port MacDonnell were carted in to create a sandy beach at the Valley Lake indicating the popularity of this area as a recreational space for the local community. Many family picnics and barbecues were held on the banks of Valley Lake during the 1950s and 60s.

Mount Gambier Council has continued to manage the landscape and recreation facilities of the Lakes area. A series of walks have been established and the Pumping Station is open for guided tours. With the formal delineation of the State Heritage Area in 1992, appreciation of the environment and history of the Crater Lakes continues today.

However, the issue of balancing visitor needs with the retention of the natural and cultural heritage of the area of the craters continues to be of concern to Council, and it is recognised that this must be handled sensitively in the future.

05 Historical Context

5.9 Statement of Cultural Significance

The heritage value of a State Heritage Area is unavoidably many layered. In 1992 the Mount Gambier Volcanic Complex was declared a State Heritage Area and was cited as an example of recent geological and in particular volcanic activity in South Australia. The Mount Gambier Lakes Area, and in particular the Blue Lake, was also considered significant because of its role as an important tourist destination for South Australians since the 1880s.

The following analysis of the heritage value of the Crater Lakes State Heritage area seeks to expand and provide greater breadth to the Statement of Cultural Significance formulated in the original citation as noted above. There are further important elements in the cultural value of the area which must be acknowledged so that they can be appropriately managed.

The Crater Lakes State Heritage Area meets the following criteria for State Heritage Value, as set out in Part 4, Section 16 of the *Heritage Act 1993*:

(a) *it demonstrates important aspects of the evolution or pattern of the State's history*

The Mount Gambier Crater Lakes State Heritage Area demonstrates several important aspects of the evolution of the State's history:

- Its volcanic and geological prehistory.
- Its role as the subject of Aboriginal dreamtime.
- Its representation of the initial pastoral settlement of the South East during the 1840s.
- Its significance as one of the first Forest Reserves established under the *Forest Act* of 1875.
- Its representation of the process of State Government provision of water supply for major rural communities during the 1880s.
- Its significance as a major site in the development of tourism in the South East district attracting visitors from within the state and nationally.

(b) *it has rare, uncommon or endangered qualities that are of cultural significance*

Mount Gambier Crater Lakes is a rare, intact volcanic complex which contains evidence of the final phase of volcanic activity in very recent geological time. Elements of this activity include the craters (maars) and steam vents or blow holes.

The landscape of the area is distinctive and since the 1880s has drawn large numbers of visitors to the area to appreciate its qualities, particularly the notable 'blueness' of the water in the main crater during the summer period.

(c) *it may yield information that will contribute to an understanding of the State's history, including its natural history*

05 Historical Context

Continued scientific research into the volcanic activity of the area will provide valuable information on the history and potential for future activity in the volcanic province of south eastern Australia.

The investigation of the location of the plant nursery of one of the State's first Forest Reserve will contribute to an understanding of the development of the Forestry industry in South Australia. Close analysis of existing vegetation and the identification of remnant planting will identify some of the first trees to be planted for commercial forestry production.

The Nurseryman's Cottage and site shed sites have a high degree of archaeological potential, both within the building footprints and surrounding areas. Archaeological investigations of the sites may provide information on the development of the forestry industry, the lives of the inhabitants, the European approach to surviving in such an environment, and their relationship and interaction with the local Aboriginals.

(d) *it is an outstanding representative of a particular class of places of cultural significance*

The Mount Gambier Crater Lakes contains a range of structures which are memorials to various stages of South Australia's and the region's history, including

- the Centenary Tower which commemorates the centenary of the sighting of 'Gambier's Mountain' from sea by Lieutenant James Grant on the *Lady Nelson* in 1800.
- The RSL Rest House (built by returned servicemen) and the Potter's Point Look Out, both constructed as part of the celebrations of the State's Centenary in 1936.
- The obelisk dedicated to the memory of poet Adam Lindsay Gordon.
- The memorial to Stephen Henty on the site of his 1841 hut.
- The South African War Memorial.

In recognition of this value the Centenary Tower and the Adam Lindsay Gordon obelisk have been separately included on the State Heritage Register.

(e) *it demonstrates a high degree of creative, aesthetic or technical accomplishment or is an outstanding representative of particularly construction techniques or design characteristics*

The establishment of the water supply for Mount Gambier from the Blue Lake is representative of the development of water supply schemes throughout the state by the E&WS. The pump house and associated reservoir system incorporates a high degree of technical accomplishment and construction techniques related to reticulated water supply during the early 1880s.

In recognition of this value the Blue Lake Pumping Station has been separately included on the State Heritage Register.

05 Historical Context

(f) *it has strong cultural or spiritual associations for the community or a group within it*

The land forms of the Lake are the subject of the dreamtime of the Boandik Aboriginal tribe who lived in the Lower South East area of South Australia.

The road between the Blue Lake and Leg of Mutton lake was the site of a 'monster working bee' in 1918, which involved more than one thousand local residents. This major community event created the walk and rest house at the entrance to the area.

In recognition of this value, the Blue Lake Embankment has been separately included on the State Heritage Register

(g) *it has a special association with the life or work of a person or organisation or an event of historical importance*

The Mount Gambier Crater Lakes is associated with the research of the Reverend J E Tenison Woods who published '*Geological Observations in South Australia*' in 1862, based on his analysis of the area. He was an amateur geologist, palaeontologist, botanist and malacologist, and was typical of the British tradition of the scientist/priest which flourished during the 1850s and 60s.

The Crater Lakes State Heritage Area is also associated with the poet Adam Lindsay Gordon and his legendary 'leap' in 1864, and this is represented in the monument erected to him on the prominent ridge between the Blue Lake and Leg of Mutton Lake.

As the site of one of the first nurseries established by the newly formed forestry commission (later the Forestry Department, and SA Woods and Forests) in 1875, the Crater Lakes SHA is associated with the development of the forestry industry in the south east of SA, and also with the departmental employees who were responsible for its continued functioning and success. The nursery site, in the valley which contained Leg of Mutton Lake, retains physical evidence of this significant use.

5.10 Inventory of Significant Elements

There are a number of elements within the Crater Lakes State Heritage Area which have cultural significance in their own right, as well as forming part of the area. Each of these sites should be conserved and maintained as integral parts of the State Heritage Area. These elements include:

- 1 Forestry Nursery relics.
- 2 Adam Lindsay Gordon Obelisk.
- 3 Pumping Station.
- 4 Centenary Tower.
- 5 Blue Lake Embankment.
- 6 South African War Memorial.
- 7 Pioneers Memorial.
- 8 Potters Point Lookout.

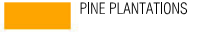


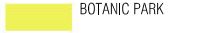
05 Historical Context


- 9 RSL Rest House.
- 10 Henty's Monument.
- 11 Various Lookouts.
- 12 Nurseryman's Cottage site.
- 13 Nurses landing.
- 14 QE2 gates.

Figure 5.2 gives an indication of the location of these elements.

HISTORICAL FEATURES

Legend

HISTORICAL FEATURES		HISTORICAL VEGETATION	
1	FORESTRY NUSERY RELICS		PINE PLANTATIONS
2	ADAM LINDSAY GORDON MONUMENT		OAKS
3	PUMPING STATION		LEG OF MUTTON LAKE
4	CENTENARY TOWER		BOTANIC PARK
5	BUSY BEE EMBANKMENT		
6	SOUTH AFRICAN WAR MEMORIAL		
7	PIONEERS MONUMENT		
8	POTTERS POINT		
9	RSL REST HOUSE		
10	HENTYS MONUMENTS		
11	VARIOUS LOOKOUTS		
12	NURSERY MANS COTTAGE SITE		
13	NURSES LANDING		
14	QE2 GATES		

Date February 2003
Scale 1:10000
0  500 Metres



05 Historical Context

5.10.1 Remnants of the Forest Nursery at Leg of Mutton Lake

History and Description

A tree nursery was established within the Mount Gambier Forest Reserve, at the north eastern end of Leg of Mutton Lake. The 'good stone cottage' erected in 1876 for the first Nurseryman of the tree nursery and noted in the 1878-9 Conservator of Forests Annual Report, was located on the ridge above Leg of Mutton Lake. It was also known as the Caretaker's Cottage for some time, after the Council took over the Forest Reserve in 1927. This building was demolished in 1969-70. There is photographic evidence of the appearance of this cottage, as the water tower on Keegan Drive was built nearby in 1959 and photos taken of the tower include the Nurseryman's house.

There was also a nurseryman's work shed close to the then bank of the lake (refer plan SAPP 83, 1879) and it is the ruins of this shed that remain in the valley now. The shed was open at the rear and there was at least one fully enclosed room with a fireplace for the comfort of the nurserymen. All that remains of this building are some stone footings and rubble from the walls.

A curved section of low dry stone basalt wall is also visible at the point where the shore line of the lake was in the 1880s. The Leg of Mutton Lake has essentially disappeared although its outline can be discerned from vegetation patterns.

Statement of Heritage Significance

The ruin of the shed and the stone wall are the last physical remnants of the tree nursery and the location of the beginnings of the forestry industry in the SE. The shed ruin should be recognised as a place of archaeological significance.

Current Condition

The ruins of the building and adjacent trees are covered in invasive ivy and subject to some vandalism. The wall remains intact although vegetation has covered sections of it.

Conservation Requirements

The conservation requirements for the various elements of this site are included in the recommendations of the archaeological investigations.

05 Historical Context

5.10.2 The Gordon Monument

History and Description

The foundation stone of this monument was laid on 8 July 1887. A granite obelisk was built to commemorate Adam Lindsay Gordon, both for his talents as a poet and for his famous leap on horseback in July 1864. This leap was over an old guard fence onto a narrow ledge on the side of the Blue Lake and then back again.

Statement of Heritage Significance

The Adam Lindsay Gordon Memorial Obelisk is included on the State Heritage Register (13901). It is representative of monuments erected to commemorate the life and exploits of significant notable South Australians.

Current Condition

This monument was erected in 1887 to mark the 'leap' by the poet. It is an obelisk constructed on a dressed rock faced pink dolomite base built on a prominent ridge above the Blue Lake Road. The obelisk is a single piece of unpolished grey granite which has been precisely cut and dressed. The monument generally is in good condition. There is minor evidence of deterioration of mortar due to water penetration. No inappropriate repairs have been undertaken to this monument, so it retains its physical integrity.

Conservation Requirements

Maintain the obelisk in current good condition. Ensure any repairs are undertaken using materials and methods compatible with the original structure.

5.10.3 Pumping Station

History and Description

In the early 1880s a Bill was passed in both houses of South Australian Parliament providing funding for a water supply for Mount Gambier. The Hydraulic Engineer for the project was Oswald Brown and the project included a Reservoir, Waterworks and a Steam Pumping plant. The Reservoir was erected between the Blue Lake and the Leg of Mutton Lake, and took the form of an underground concrete tank which was completed by October 1882. Excavation for the tank was 60 feet in diameter and the tank had a storage capacity of 270,000 gallons. A shaft was sunk to the water at Blue Lake waters edge and pipes laid throughout the streets of Mount Gambier late in 1882. Water was first available in the town on 17 January 1883. The pumping station was completed in October 1884.

05 Historical Context

This dolomite and limestone building was constructed in 1884 to pump the Mount Gambier water supply out of the Blue Lake into holding tanks within the Lakes area. The pumping system has been upgraded over time.

Statement of Heritage Significance

The Pumping Station is included on the State Heritage Register (10233). It is indicative of the provision of major utilities to substantial South Australian rural communities such as Mount Gambier in the 1880s, and the technological standards of the infrastructure required for such services.

Current Condition

External Assessment

The pumping station is constructed of rock face limestone with dressed pink dolomite quoining and window and door surrounds. It is a cruciform building with timber framed roof with projecting eaves. Each gable end has an elaborate timber acanthus finial. The concave verandah faces the east, and this has been renewed recently and large doors installed in the east elevation. The doors have wire mesh safety glass. The opening has been widened and the wall above supported on a large (ugly) concrete lintel.

The original plans show three windows replacing the inserted door and an entrance door where the large window has been placed. There is no verandah shown on the original drawings and it would seem it was a later idea as the concave verandah roof crosses the original entrance door.

The stonework is in excellent condition and the building retains some original joinery to the other elevations. The original windows were vertically divided fixed pane windows and side hung casement windows. The fixed pane windows have been replaced with casements windows, and all have had their glass replaced. The west elevation has semi-circular windows which light the pump room inside.

Rising damp work is being undertaken to the westernmost elevation and holes have been drilled through the base of the plinth. As yet these holes have not been filled with siloxane. Rising damp is due to the cementing over of the base course. There is some lichen encrustation on the southern face, but this is not serious and could easily be removed by a gentle wash with an appropriate biocide if necessary.

Timberwork is generally in good condition and well maintained. The roof has recently been reclad in Heritage Red Colorbond.

Some inappropriate stone repair has been undertaken in isolated places and the stones reset with cement mortar. This has been allowed to spill over onto the adjacent stones. This stands out in stark contrast to the fine stonemasons work on the rest of the building.

Adjacent to the pump house is a later limestone structure now enclosing the high voltage transformers. The transformer building was originally the 1922 extensions to pumping station.

05 Historical Context

There is a bituminised access road to the pump house at the north-east corner and the majority of the grounds around the pump house are grassed. There is a small amount of planted garden and a cyclone mesh fence at the Lakes edge.

Internal Assessment

The internal walls of the main pump house have been painted and the end wall lined with timber. The upgrading of the pump house and the installation of electric pump controls incorporated a range of changes including laying of ceramic tiles to the floor. The interior of the roof structure is boarded timber trusses. The second room of the pump house contains excellent interpretation. The floor of this second room is covered in slate slabs and this room retains a lined timber ceiling, timber and iron roof joists and timber architraves to windows. The lift shaft has been installed in the centre, closed in and painted. Mount Gambier stone blocks and other timber partitions have been installed. Toilets in the western-most wing of the building. Internal joinery and wall surfaces have been altered for conversion to these toilets.

The lift down to the 1962 power station is set within the original water pumping shaft constructed in 1882. This shaft is limestone lined and in excellent condition.

Conservation Requirements

The history, condition, conservation and management requirements of the building and site should be documented in a full Conservation Management Plan, undertaken in consultation with the current operator of the tours to the Pumping Station. Drawings of the original form of the structure are held in the building.

5.10.4 Centenary Tower

History and Description

The Centenary Tower was constructed on the summit of Mount Gambier between 1900 and 1904 to commemorate the naming of both Mount Schank and Mount Gambier. These two peaks were first sighted in December 1800 by Lieutenant Grant on the HMS Lady Nelson. The Tower project took some time to come to fruition, but was officially opened by Chief Justice Sir Samuel Way on 27 April 1904. The Tower is square in plan and constructed of rock-face dolomite. It is an important landmark within the Lakes area. Within the Tower an historical display of photographs and maps indicate the changing conditions within the Lakes area.

Statement of Heritage Significance

The Centenary Tower is included on the State Heritage Register (13859). It is representative of monuments erected to commemorate significant events in the early European exploration of South Australia, and the desire of local communities to reinforce such associations.

05 Historical Context

Current Condition

The Centenary Tower erected in 1903/4 (foundation stone laid in 1900) is constructed of rock faced dolomite and is square in plan. The building sits in a prominent position on the highest point of the Crater Lakes complex. It has a castellated top, round headed windows to the first level, and a projecting slate balcony supported on dolomite bracketing enclosed by a cast iron balustrade. The slate balcony slabs are of approximately 50 mm thickness and are extremely stable.

Internally there are three levels with a flag pole on the roof. Access to the first level is by a small cast iron spiral staircase and there is a simple timber winder stair to the second level.

The building generally is in good condition, however there is evidence of damp penetration in the western wall. This deterioration of the plaster wall finish is visible from the wooden staircase which accesses the second level. External re-pointing has been undertaken in an inappropriate mortar for the dolomite stone and this stands out in contrast to the original fine mortar jointing. The slate balcony shows some delamination beneath, but is in good condition above.

Conservation Requirements

The water penetration should be carefully investigated to ensure there is no further damage done to the internal finishes of the walls and that there is no deterioration to the stonework on the exterior.

Replace inappropriate mortar joints with mortar which matches the original finish. Any further pointing to the stonework must be undertaken in a matching mortar mix and finished to the original stonework.

Monitor the condition of the slate balcony floor.

5.10.5 Blue Lake Embankment (Rook Walk and Pepper Pot)

History and Description

This walk was constructed on 27 November 1918 when well over two thousand people were involved in the project of constructing the wall and walk. Constructed by a huge community working bee in 1918, along the Blue Lake embankment, was the construction of a walking terrace along the main Port MacDonnell Road above the Blue Lake. It was finished with a small octagonal rest house on a circular base. The base section was constructed in rough cut limestone with central banding of dressed stone. The balustrade of the rest house is curved and square columns hold up the simple timber roof. Along the walk there are regular spaced pylons of square cut limestone to act as buttresses for the embankment wall. The walk is overhung by mature Ashes and some Poplars. The pylons have rough pink dolomite bases and rough dressed limestone top sections. Various repairs have been undertaken to the pylons over time in inappropriate hard cement mortar.

05 Historical Context

It has more recently become known as Rook Walk because of the involvement of Mr Arthur Rook in the organisation of the Monster Working Bee. The walk was completed soon after this community working day and the rest house and nearby gardens were also constructed.

Three associated Look Outs were built to view the craters of Valley, Blue and Leg of Mutton Lakes.

Statement of Heritage Significance

The Embankment is representative of the pride and value the Mount Gambier community placed on the Blue Lakes area as an important place for recreation and appreciation of the volcanic landscape.

Current Condition

Generally the Embankment is in good condition. The roof of the rest house has been rebuilt in recent years and the roof clad in tile profiled metal sheeting. The interior surfaces of the columns have been coated with render which is concealing some deterioration of mortar joints in the support columns. Some of the stones in the columns show some deterioration on their external face also. The base of the tower has been disfigured by a large amount of graffiti and letters incised in the stone.

A new post and rail and wire fence was constructed by the Lions Club in 2001. This replaced the original safety fence of similar design and materials. The town end of the Embankment walk is accessed from Keegan Drive and there are also access steps from Blue Lake Drive car park.

Conservation Requirements

Some repairs are necessary to some of the new timber fence rails which have dislodged from the posts.

Remove later rough render from the internal faces of the rest house and repair stonework and pointing as necessary with mortar to match the original finishing used.

5.10.6 The South African War Memorial

History and Description

This monument stands at the junction of Bay Road and Lake Terrace within the proposed Botanic Park. The foundation stone was laid in 1904 and the structure was completed in 1906 as a memorial to the soldiers who fought in the war in South Africa (1899-1901). The was initially a fence around the Park and the memorial sat inside this perimeter fence. This fence was later removed.

05 Historical Context

Statement of Heritage Significance

The monument is an important element in the Mount Gambier community's commemoration of significant events in the world history and individuals participation in them. It is a focal point at the end of Bay Road and marks the entrance to the Crater Lakes area, and the proposed Botanic Park.

Current Condition

The War Memorial is a small memorial of approximately 4 metres in height, constructed on steps of pink faced dolomite with a plinth of pink dolomite and marble faces, surmounted by a canopy with a tall finial. The canopy is a combination of limestone, grey polished granite columns and pink dolomite carved roof structure. The monument is in good condition. The foundation stone in the second step states that it was laid on 14 December 1904, and the monument itself was unveiled on 13 June 1906. There is some evidence of minor lichen encrustation on the lower steps of the monument, but the upper section of the monument appears to have recently been cleaned.

Conservation Requirements

Careful washing with gentle biocide and brushing to remove lichen when necessary.

Some leaded letters have fallen out and these have been re-filled with some form of putty or glue. In the long term this foreign material should be removed and individual lead letters recut and installed by an experienced monumental mason.

5.10.7 Pioneer's Memorial

History and Description

The Pioneer's Memorial sits at the beginning of the Blue Lakes Drive and was unveiled on 16 October 1967. It is a plinth of undressed red dolomite, red and pink pointing sitting on a concrete base. There is a pillar of dressed limestone block with a brass plaque stating 'in honour of the pioneer's of Mount Gambier and surrounding districts'. The limestone block is surmounted by a slab of stone on which sits a single furrow plough symbolic of pioneering activities.

Statement of Heritage Significance

One of the many monuments in the Crater lakes area which commemorates aspects of the settlement of the Mount Gambier region, in this case the pioneers involved in the development of agriculture.

05 Historical Context

Current Condition

As it is constructed of simple design and basic materials the monument is in good condition although the surface of the brass near the base of the limestone block seems to be deteriorating a little.

Conservation Requirements

Clean back and refinish the brass plaque section of the monument.

5.10.8 Potters Point Look Out

History and Description

This is a simple masonry walled platform overlooking Valley Lake and constructed by the City of Mount Gambier in 1936 to celebrate South Australia's Centenary.

Statement of Heritage Significance

One of the look outs around the rim of the Crater Lakes which also serves as a memorial monument, in this case commemorating SA Centenary.

Current Condition

The look out consists of a wall of rough cut basalt rock, circular in construction and crenellated to the top, standing 1.5 metres high. The tops of the basalt crenellations are covered with rough aggregated black render to protect the mortar. In the centre of the look out is a low concrete column with a directional plaque on top. In the three steps up to the look out floor are the words 'SA Centenary, 1836 - 1936'. This structure looks down over the banks of Valley Lake although the view is obscured by Oaks, Olives and other vegetation.

The structure is generally in good condition, and is of solid and basic construction.

Conservation Requirements

General monitoring of condition is required.

5.10.9 RSL Rest House

History and Description

The foundation stone for the RSL Rest House, or AIF Hut as it is also known, was laid on 3 November 1936. It was designed by S F Boothey and built by returned soldiers. The formal opening was on 20 February 1937. The stone for the building was donated by R F White and the construction cost £132.

05 Historical Context

The Rest House sits on a projecting promontory on a ridge between Browne's Lake and Valley Lake and has a clear view west to the Centenary Tower. This small pavilion is constructed of rock face limestone pillars surmounted by square cut limestone columns holding up a pyramidal roof and linked by curved concrete joists. The roof is clad in timber strips as overlapping weatherboards with later galvanised hipped flashings. The low walls on three sides are backed by concrete seats facing out in three directions with beautiful views over the lakes.

Statement of Heritage Significance

This look out, described as the 'Returned Soldiers' fine gesture' serves as both a war memorial and resting place for visitors to the Crater Lakes.

Current Condition

The Rest House is in deteriorating condition and there is evidence of much graffiti including names scratched in the stone and painted graffiti on the walls. There has been a large amount of rubbish dumped around the rest house. Again, the views of the Lakes are obscured by small pines and other vegetation. The path to the rest house from Potter's Point is overgrown and the whole site has a neglected appearance.

Conservation Requirements

A full assessment of the structure and a schedule of works for its conservation should be prepared immediately. Council does undertake basic site work but more maintenance is required.

5.10.10 Monument to Henty's Hut

History and Description

This obelisk adjacent to Valley Lake was erected to commemorate the site of Henty's Hut which was built in 1841 in approximately this location. The monument consists of a base of rough basalt with concrete cast caps, a small dome of rough cut pink dolomite and an obelisk of concrete blocks approximately six metres high. In the basalt base is inscribed 'S E Henty, June 1839, Henty's Hut, 1841', which may have come from the earlier marking of this spot.

Statement of Heritage Significance

The interpretation sign adjacent to the monument reads:

In 1839 Stephen Henty, a stockman from Merino Downs, near Portland, explored this district to the west of his Station. In 1841 they returned with 400 cattle, and two houses were constructed for his men, one close to the cave in the present city centre and the other one on this site. Stockyards were assembled on the dry bed of nearby Brownes Lake, and Henty then left his men in charge. This land was later claimed by Evelyn Sturt in 1844, a younger brother of Captain Charles Sturt, as it

05 Historical Context

was not part of the Port Phillip District as Henty had believed. In 1918 members of the Old Resident's Associated decided to mark the location of one of the first huts in the area built by white men. W S Henty, a grandson of S G Henty laid the commemoration stone over the original fireplace of the hut in January 1918. In 1939, during the centenary of Henty's arrival, it was suggested a more permanent memorial should mark the site and in 1940 this six metre high obelisk was erected above a cairn of dolomite set over the foundations of the original marker. On Arbor Day in June 1940 the unveiling was conducted before a large crowd, including school children, who had assembled to plant trees for that special day.

Current Condition

The various elements of the monument have been repaired over time and it is currently surrounded by weeds. The repairs have been undertaken in high cement content concrete mortar and are very obvious. There have been sections of the base of the obelisk repaired with non-matching concrete elements and there is evidence of repairs to cracking on the upper blocks also.

Conservation Requirements

Remove all weeds around the structure, and investigate the removal of inappropriate concrete repairs and repairing with appropriate mortar which matches the obelisk in composition, colour and texture.

5.10.11 Look Outs

History and Description

The Crater Lakes area contains a number of Look Outs constructed to allow views of the spectacular scenery of the area. More recent look outs include the Rotary Club and Lion's Club Look Outs and the Hoo Hoo Club Look Out.

Conservation Requirements

These look outs should continue to be maintained as required.

5.10.12 Botanic Park

History and Description

Botanic Park was first delineated in 1882 and subsequently planted with a range of tree species as Mount Gambier's Botanic Gardens. It remains an important public park with mature trees and lawned areas. The Hoo Hoo Club has established planting reflecting Forest Trees of the World.

05 Historical Context

Conservation Requirements

The park area should continue to occupy the full extent of the intended reserve and be maintained for public use and recreation.

5.11 Interpretation and Signage

Current Situation

Over the past few years, there has been a program of installing interpretation signs in appropriate locations around the Crater Lakes State Heritage Area to assist the visitor to understand the significance of the whole of the area and individual elements within it. These signs have been produced and erected by Council with assistance from the Mount Gambier Heritage Society. Each sign contains carefully considered text and some illustrations, usually historic photographs.

There are also signs marking the various walks and trails through the area. These are linked to a series of small booklets which set out the history and significance of the sites along the recommended trails, and highlight important views and vistas.

These signs are in a variety of conditions and some have been severely damaged by vandals. Paint has deteriorated on the frames and rust has occurred where the paint has been removed from the steel plates.

Interpretation Policy

Interpretation of all aspects of the natural and cultural values of the Crater Lakes is an important aspect of the management of the State Heritage Area. The area would benefit from a detailed consistent and staged interpretation program, building on the interpretation already in place. This program should establish a consistent and durable form of signage, which can be adapted for all signage and interpretation requirements within the SHA.

Recommendations

- A comprehensive inventory of all signs erected in the Crater Lakes area to date should be prepared.
- Any further elements of the area which require interpretation should be determined.
- All signs should be integrated with other interpretive material, including pamphlets and books.
- All published material should be well distributed and easily obtainable from Council, sites within the SHA and in Mount Gambier generally.
- The interpretation program should be strategically linked with marketing and possibly sponsorship.

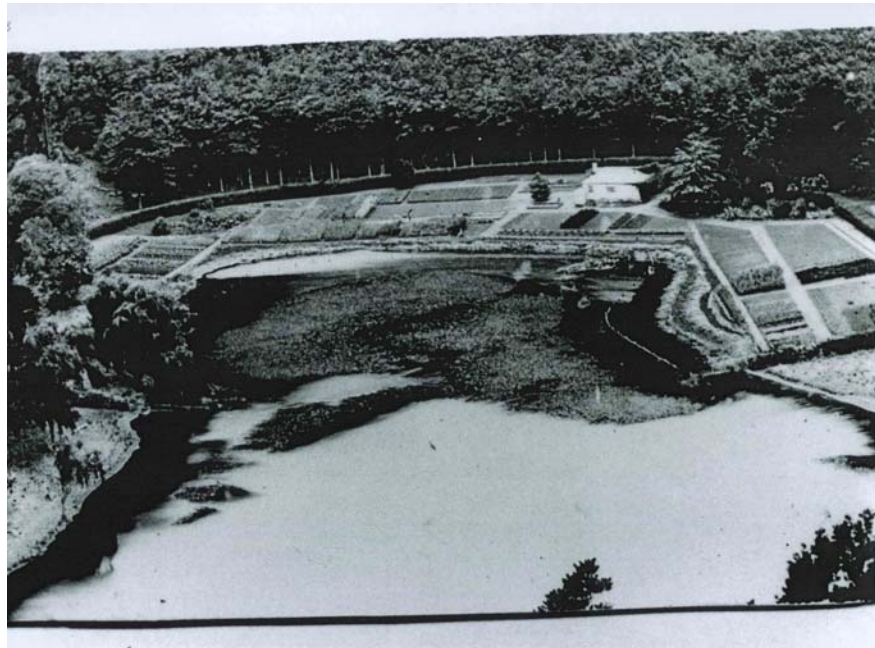
06 Historical Archaeological Investigations

6.1 Background to Archaeological Investigations

Austral Archaeology Pty Ltd (Austral) was commissioned to investigate what was thought to be a Nurseryman's Cottage. Identified remains turned out to be a nurseryman's site shed (covered in ivy). This was cleared off enough to reveal the form of the structural remains and investigated. Using historic photographs and aerial photographs, the real site of the Nurseryman's Cottage was identified and inspected. It is located off Keegan Drive on top of the ridge (near the 1959 water tower).

Mapping and archaeological investigation generally confirmed the historical information but revealed further insights about the layout and structure of the building:

- The floor area on the north side is the higher of the two parts of the building. Archaeological investigation confirmed that this was open to the north i.e. did not have an end (north) wall, but had at least two (and possibly three) internal wall divisions (running north-south); it therefore probably had three or four internal spaces.
- The easternmost of those may have been enclosed. These appear to have been used as a machinery / tool storage areas. The area on the south side appears to have had a single internal wall division (again running north-south) dividing it into two rooms.
- The smaller of these at the west side is in the area where, according to the historic photos, the chimney was located. No evidence of the chimney was sighted; this area however, has a jumble of displaced stone blocks from the former walls covering it.



View of Leg of Mutton Lake to the north northeast c.1895. Note the Nurseryman's Site Shed at upper right and low stone wall retaining wall around the lake margin.

06 Historical Archaeological Investigations

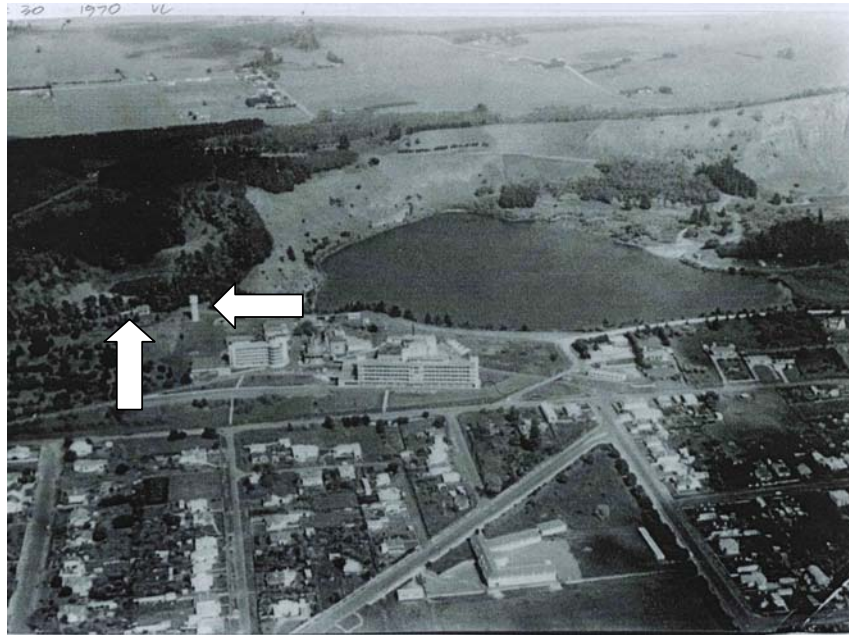


View of Leg of Mutton Lake to the south c.1885. Note that the Nurseryman's Site Shed in the foreground is open to the north.



View of Nurseryman's Site Shed to the east c. 1896. Note the skillion roofs, doorway, rainwater tanks and position of chimney.

06 Historical Archaeological Investigations



View of Valley Lake to the southwest c.1960. Note the Nurseryman's Cottage and the Water Tower (both arrowed) at centre left with (dry) Leg of Mutton Lake behind.



View from the hospital to the south of the Nurseryman's Cottage and the Water Tower under construction in 1959.

06 Historical Archaeological Investigations

6.2 Physical Analysis

The Nurseryman's Site Shed

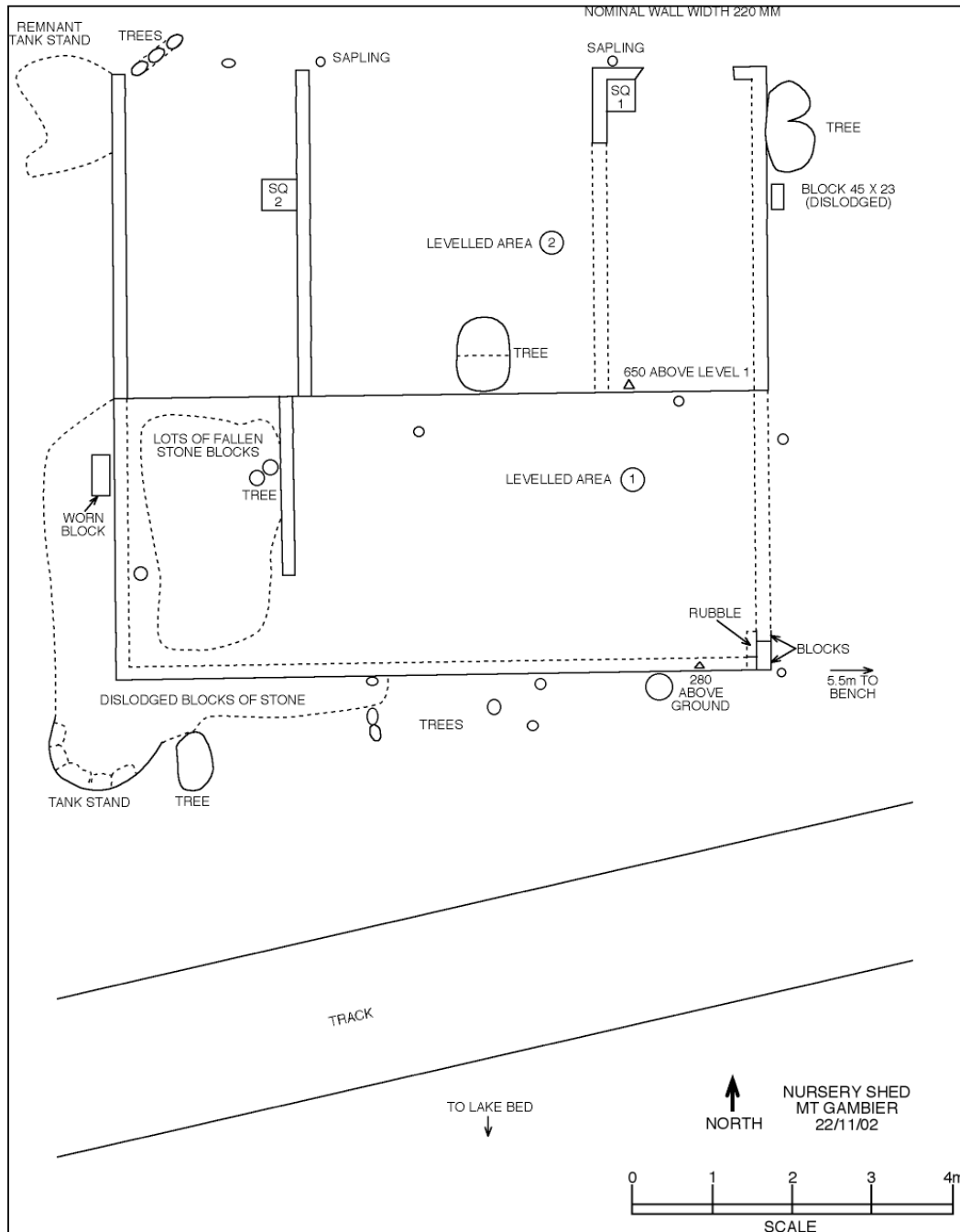
Historic photographs show that the Nurseryman's site shed had a central east-west wall with what was essentially two skillion roofs at different levels on the north and south sides. The northern half of the building had no end wall and was thus an open shed. The southern half appears to have been an enclosed room. The building had a centrally placed chimney in the west wall. It is not clear from the photograph if this served the northern or southern halves of the structure but it presumably served the southern 'enclosed' room. Low tank stands were located at the northwest and southwest corners of the building.

On-site inspection revealed that Nurseryman's site shed was a rectangular, split level building measuring approximately 8m x 11m. The footprint of the building is still extant in the form of low walls constructed of local limestone. They are generally two or three courses high at their highest point and stand proud of the surrounding natural ground level. The two floor levels are a result of the building being constructed on the slightly rising shore of the lake. The areas within the walls are covered with ivy growing in soil. Some large ash trees have established themselves within and around the structural remains.



Centre east-west wall at east end showing wall height and construction and split level nature of building.

06 Historical Archaeological Investigations



Site plan showing the layout, main features and trenches (squares) excavated at the Nurseryman's Site Shed.

06 Historical Archaeological Investigations

Many of the loose and displaced limestone blocks have been engraved or carved with names and dates. Some of these may have been carved onto the building while it was still standing or in use.



An example of carved graffiti on a stone block.

One of the displaced stones has a wear pattern consistent with it having been used as a doorstep – possibly to the doorway at near the south western corner of the building. Another piece has a curved profile indicating it has had some structural purpose.



Wear pattern on stone block consistent with it having been used as a doorstep.

Two test pits were dug in the northern half of the building. The first was dug to a depth of about 340 mm near the northeast corner. No floor was revealed. There were three courses of limestone revealed and they were continuing to a greater depth. Only the surface course was faced stone. This indicates that the stonework represents footings rather than upper parts of the wall and the ground or floor level was roughly at the level

06 Historical Archaeological Investigations

of the current ground surface. Artefacts noted included a crown seal beer bottle cap, a circular, metal washer (16 mm diameter), 1 fragment of window glass, and 4 flakes of grey coastal flint (possible indigenous origin). The artefacts were bagged and tagged with the date and reburied at the bottom of the excavated pit.

The second pit was dug along one of the apparent dividing walls toward the western side of the northern room. At a depth of about 60 mm beneath the humic and root layer (which contained many shards of brown beer bottle glass), numerous pieces of flaked grey coastal flint were noted. Excavation was terminated at this point with the artefacts being bagged and tagged and reburied in the backfill.

The Nurseryman's Cottage Site

This site was located on the southern side of Keegan Drive on top of the ridge (opposite the 1959 water tower) and was identified from historic photographs and plans provided by Kate McDougall. The water tower and one of the pine trees apparent in a 1960 photograph are both still extant and can be used to place the building.

Oral history gathered by McDougall and others indicates that the building, which was constructed of limestone, was demolished in the 1960s or 1970s following construction of the water tower. It was apparently dismantled by the members of the Mount Gambier service clubs as it was said to be in poor condition and considered to be a safety hazard.

The area where the building was located is grassed and ground visibility was not good. However, deflation and erosion caused by wheel ruts of a vehicle track created by tourists pulling up to look at the view over Leg of Mutton Lake, provided a corridor to inspect the site. No definite foundations or *in situ* structural evidence was sighted although there are some displaced pieces of squared limestone that may have been part of the structure. Numerous artefacts of both (probable) indigenous and European origin were noted. The indigenous artefacts were similar to those noted in the excavations on the lake shore i.e. flakes of grey flint, as well as light brown fine grained chert.

The European items were shards or fragments only and included the following:

- pieces of cast iron (i.e. from cook ware);
- plain white earthenware (a plate fragment as well as some unidentified);
- white earthenware with blue sprigged decoration and moulding;
- window glass 2 mm;
- clay smoking pipe bowl;
- a lead washer;
- olive green bottle glass;
- light amber bottle glass;
- clear glass (jar);
- brown glazed stoneware;
- a wood screw;

06 Historical Archaeological Investigations

- terracotta;
- plaster;
- a brad (square cut nail).



Showing location of the former Nurseryman's Cottage revealed by deflation and erosion caused by wheel ruts of a vehicle track that runs off the south side of Keegan Drive almost opposite the water tower.



Detail of possible stone foundation remains of the former cottage and associated artefact scatter revealed in the wheel ruts.

Stone Retaining Wall on Lake Margin

Historic photographs show the presence of a low stone retaining wall around the lake margins. Historic photographs show that the level of water in the lake fluctuated

06 Historical Archaeological Investigations

considerably at different times. It is now dry. The wall would have contained the water in flood or fill episodes so that cultivated areas would not have been inundated.

Remains of this wall are still largely intact around the tree-line on the margin of the lake bed. It consists of a line of stones up to about 300 mm in height (where able to be inspected). The area of the lake bed itself is heavily covered by grasses and so visibility in most places is poor.



Detail of stone retaining wall on lake margin. Note the line of the wall between the trees and marked by the differential ground heights.

Relevant Criteria (Under Section 16 of the *Heritage Act 1993*):

- (a) *The sites demonstrate important aspects of the evolution or pattern of the State's history.*
- (c) *The sites may yield information that will contribute to an understanding of the State's history, including its natural history.*

07 Identification of Indigenous Cultural Heritage Values

7.1 Introduction

7.1.1 Background

This study draws primarily from the work of Wood (1995) and will identify in subsequent sections, the necessary tasks required in the future to rectify any gaps in the archaeological and Aboriginal cultural heritage knowledge of the Mount Gambier Crater Lakes study area. The identified tasks will influence the management of the archaeological and Aboriginal cultural heritage values of the study area. These constraints and opportunities will assist in the overall management of natural, Aboriginal, and European heritage values of the Crater Lakes study area.

7.1.2 Objectives

The objectives of this report are as follows:

- 1 To examine previous archaeological documentation as it relates to the current study area.
- 2 To identify and consult with the relevant Aboriginal organisations and/or stakeholders for the duration of the project.
- 3 To relocate previously recorded sites or places of Indigenous cultural and/or archaeological value.
- 4 To record newly discovered sites or places of Indigenous and/or archaeological heritage value.
- 5 To assess the cultural heritage value of any new sites or places located during this study based on the assessment criteria prescribed by the Australian Heritage Commission Act, 1975 and the principles of the Australia ICOMOS Burra Charter.
- 6 To facilitate the relevant Aboriginal organisation and/or stakeholders in the management of the Indigenous heritage values of the study area.
- 7 To provide the client with practical management recommendations that facilitate the short and long term management of known archaeological sites and places of contemporary Indigenous cultural importance.

7.1.3 Consultation

Prior to the commencement of the project, the South East Nungas Community Organisation (SENCO) which formally represents the Aboriginal custodians of the Mount Gambier region was approached. SENCO were contacted by Austral Archaeology Pty Ltd (Austral) in regards to including a scoping study or identification of Aboriginal heritage values for the landscape management plan currently being undertaken for the Crater Lakes area, Mount Gambier. The landscape management plan is being produced by HASSELL for the City of Mount Gambier. This report will contribute to the holistic management of the natural and cultural values of the Crater Lakes area.

07 Identification of Indigenous Cultural Heritage Values

Consultation between Justin McCarthy (Principal, Austral Archaeology) and Roselea Millard (Heritage Officer, SENCO) took place May 2003. As a result of this initial consultation, two field days were organised for the 2nd and 3rd June 2003. The objective of the field days was to relocate previous recorded sites and to discuss any other heritage matters relating to the study area.

A copy of the draft report will be forwarded to Roselea Millard where it will be reviewed and then distributed to the relevant Aboriginal Elders and stakeholders for review and comments. The feedback from this review process will be incorporated into the final document.

Consultation also took place with Heidi Crow (archaeologist) Aboriginal Cultural Heritage Unit, Division of State Aboriginal Affairs (DOSAA).

7.1.4 Author Identification

The report was prepared by Lori Sciusco (qualified archaeologist) with input from Roselea Millard (Heritage Officer, SENCO). Justin McCarthy (Director, Austral Archaeology) reviewed the report and provided guidance on the management recommendations. The project was managed by Justin McCarthy.

7.1.5 Statutory Controls

Indigenous cultural heritage in Australia is protected and managed under the following Commonwealth and State Legislation.

Australian Heritage Commission Act, 1975

The *Australian Heritage Commission Act 1975*, established the Australian Heritage Commission (AHC), to identify places of importance to the National Estate. The AHC maintains a register (the Register of the National Estate) of places which are significant in terms of their association with a particular community or social groups for social, cultural or spiritual reasons.

A search of the Register of the National Estate (RNE) to identify listed indigenous items in the vicinity of the study area was undertaken on 15/06/2003. Mount Gambier is identified as an Indicative Place of Indigenous heritage value (Database Number 016843). The Mount Gambier Volcanic complex is also listed on the RNE for its Natural values (Database Number 008181). The volcanic complex is also recognised for its social and scientific value, attracting many interstate and international visitors as a focal tourist attraction since the 1880s.

07 Identification of Indigenous Cultural Heritage Values

Aboriginal and Torres Strait Islander Heritage Protection Amendment Act 1987

The *Aboriginal and Torres Strait Islander Heritage Protection Amendment Act of 1987* is a federal act administered by the Aboriginal and Torres Strait Islander Commission, and provides blanket protection for Aboriginal heritage in circumstances where such protection is not available at a state level. This Act comes under Commonwealth jurisdiction which means that it can override state and territory provisions where required (Pearson & Sullivan 1999: 52-53).

Aboriginal Heritage Act 1988

The *Aboriginal Heritage Act 1988* is a state act administered by the Aboriginal Heritage Branch of the Division of State Aboriginal Affairs, Adelaide. The Act provides protection to items, places, and sites of Aboriginal heritage. The Act recognises the need to protect objects, sites and places which are of '*significance according to Aboriginal tradition...Aboriginal archaeology, anthropology, or history*'. A significant feature of the Act is that it provides blanket protection for all Aboriginal sites and objects regardless of whether they are registered for legal protection.

The Act requires the notification of newly recorded or identified sites, and permission must be sought from the Minister to excavate an Aboriginal site or to:

'damage, disturb or interfere with any Aboriginal site; or damage any Aboriginal object'.

Penalties may be incurred under Section 23 of the Act where any Aboriginal objects or remains are found disturbed, damaged, or interfered with. Section 35 of the Act makes provision for the protection of traditions through the control of the divulgence of information relating to Aboriginal sites, places, and customs (Pearson & Sullivan 1999: 65-67).

A request placed for the confirmation of recorded sites within the study area was lodged with DOSAA with support from SENCO. A description of the condition and nature of these two sites were obtained from Wood (1995). The sites within the current study area include two artefact scatters, Valley Lake Campsite 1 and Blue Lake Campsite 1 (see Section 7.4.3).

It should be noted that all conservation programmes must meet DAARE Standards, archaeological excavations and collections of artefacts need to be compliant with Section 21 of the Aboriginal Heritage Act 1988, and indigenous sites should be interpreted in consultation with local Aboriginal people.

7.1.6 Acknowledgements

Information provided by the following people has contributed to the preparation of this report.

- Roselea Millard (Heritage Officer, SENCO).

07 Identification of Indigenous Cultural Heritage Values

- Marina Millard (Community Representative, SENCO).¹
- Heidi Crow (Archaeologist, Aboriginal Heritage Branch, DOSAA).
- Caroline Wilby (Archaeologist)
- Library Staff, Mount Gambier City Library

7.1.7 Abbreviations

The following abbreviations are used within this report:

AHC	Australian Heritage Commission
DAARE	Department for Aboriginal Affairs and Reconciliation
DOSAA	Division of State Aboriginal Affairs
LEP	Local Environmental Plan
LGA	Local Government Area
NT	National Trust
RNE	Register of the National Estate
SENCO	South East Nungas Community Organisation

A list of References is provided in Appendix C.

¹ Marina has undertaken some formal training as a site officer with Kerry Hunt.

07 Identification of Indigenous Cultural Heritage Values

7.2 Background

7.2.1 Introduction

It is beyond the scope of this study to undertake primary research. Although the study area has not been subject to recent detailed archaeological research, it has been included in the project parameters of the South East Site Recording Project carried out in 1995 by archaeological consultant Vivienne Wood. The objective of the Wood study was to collate and review previously undertaken archaeological studies and to compile a representative record of Aboriginal sites in the region. The project was funded by the Australian Heritage Commission through a National Estate Grant.

This study draws primarily from the work of Wood (1995) and will identify in subsequent sections, the necessary tasks required in the future to rectify any gaps in the archaeological and Aboriginal cultural heritage knowledge of the Mount Gambier Crater Lakes study area. The identified tasks will influence the management of the archaeological and Aboriginal cultural heritage values of the study area.

7.2.2 Environmental Context

The following information is derived primarily from Wood (1995), as it presents the most comprehensive study for the south east region to date. The reader is directed to Woods 1995 for the complete body of works. Other primary and secondary documents cited have been used to verify and identify any gaps in the archaeological and contact history for the Mount Gambier region. This report does not purport to be a comprehensive overview of the archaeological or Aboriginal history of the study area. Instead, the objective of this document is to present a summary of the available data and to identify potential future work prudent to the short and long term management of historic and contemporary Aboriginal cultural heritage values of the study area.

7.2.3 Volcanic Activity and Connection to Aboriginal Legend

It is well recorded in Aboriginal stories and legend of the volcanic activity of the Mount Gambier region. The volcanic activity that took place in the Mount Gambier region took place relatively recent in geological time. The outbursts that occurred took place along the edge of main activity zone located between southern and western Victoria and south-eastern South Australia (Minerals and Energy Resources 2001: 1). Mount Gambier and Mount Schank are the youngest volcanoes in Australia.

Aboriginal legend recounts of the volcanic activity through creation stories, particularly in the vicinity of Mount Schank and Mount Gambier:

"Craitbul was the name of the great giant or ancestor of the tribe, and his first camping ground was Mount Muirhead. The great desire of Craitbul and his wife and two sons was to find some place on which to settle and live in peace, free from all fear of an evil spirit called "Tennateona", or "Woor". They came from Wenger. They lived at Mount Muirhead for a considerable time in peace. They made their

07 Identification of Indigenous Cultural Heritage Values

oven, gathered their roots, roasted and ate them, and lived happy. At length, one day, they made up their oven, put their roots on the stones, covered them up with earth, and went to rest; but during the night they were suddenly roused out of their sleep by a bird called "bullin". In great fear they fled, for fear of the evil spirit. They say that if anyone disbelieves this story they may dig at the top of Mount Muirhead, and there they will find the evidence to prove its truth. Mount Muirhead was the oven. They then set out travelling again in search of a new home, and camped at Mount Schank, where they thought Tennateona would not come near them. They put up their wurlas, built their oven, and began to enjoy themselves; but one night, when the oven was empty, the voice of the bullin (mooning) came to them a second time, and they got up and left in great fear. They determined this time to strike inland, away from water (the sea), for it appears that this evil spirit could not exist far away from the sea. They left their camping ground at Mount Schank, with its empty oven, and travelled to Mount Gambier (called Berrin), and there pitched their camp. They were now at rest from Tennateona, and they lived here a long time. Hey, as usual, made an oven here; but one day water came up from the bottom of it and put out their fire. They then made another, with the same result-and so on, till they had four ovens. Their last home was in the cave on the side of the peak. There they had a view of all the land."

(Smith 1880: 14-15)

The story above is taken from the published work of Christina Smith, a Scottish immigrant who arrived in Melbourne with her brothers in 1839. Two years after her arrival Christina married James Smith, school master (O'Connor, P & B 1988: 272-280). Following their marriage, James continued to teach while Christina immersed herself in church and charity work. In 1845, James took the position of teacher at a predominantly Scottish farming community in Keilor. By 1855, the Smith family had once again moved, this time taking a sea voyage to Rivoli Bay where James acted as agent on behalf of Captain Underwood and Postmaster and agent for the South Australian Company (O'Connor, P & B 1988: 276). It was these early days spent in the township of Southend (formerly Grey), that the Smith family became acquainted with the local Buandik tribe. During the next nine years the family became well acquainted with the local Aboriginal community. Christina was actively involved in 'Christianising' the local community. However, the exchange of cultural ways also extended to the Smith family becoming familiar with the language and customs of the Buandik people. One of Christina's children, Duncan, learnt the language of the Buandik.

The fortunes of the Smith family waxed and waned with the changing economic circumstances of Rivoli Bay. By the end of 1854, life had become unbearable with the demise in importance of Rivoli Bay as a port in favour of Robe and Portland in Victoria. Duncan, the eldest child found employment on Leake's Station. Shortly after, James too sought a job but the manager felt James was capable of more and suggested opening a school at Mount Gambier. By 1855, the Smith family had once again moved and

07 Identification of Indigenous Cultural Heritage Values

managed to secure some land on the western side of Gambierton, at Roseville. Here they built their new home.

The school was operating at the foot of the crater shortly after their arrival to Mount Gambier. A year later, James had approximately 30 pupils in his school. However, the demands of the farm meant James had to give up his teaching position. He did however; continue to teach at night school with a class of adults, both black and white. James and Christina were active in the establishment of the towns' first Protestant church groups. In the late 1850s the Methodists held their first service in the Smith home. James had always supported Christina's charity and efforts to help the Buandik people, not surprising given the family's Christian outlook. In early 1860, James Smith died leaving Christina a widow with seven children. This did not deter Christina. She continued on the work she had started when her husband was alive. In 1865, she set up a school and home for Aboriginal children with the support of Dr. Short, Lord's Bishop of Adelaide. The school was erected in Commercial Street West. The home is listed on the Register of the National Estate as 'Mrs Smiths Aboriginal Home' (Identifier 8213).

The home was built of stone and known as Bon Accord Villa. The home was financed primarily from funds provided by an English Lady, Mrs Burdett-Coutts and distributed by the Bishop for the improvement of the Aborigines of South Australia. The home was run by Christina with the help of her family. By 1867, it was reported that there were over 16 occupants living at the home. They received an allowance from the government, food, and medical assistance. Approximately two and half years later, the funds had diminished and the school was forced to close its doors. By this time, it is recorded that *"diseases, stresses and cruelties inflicted upon them, the once large and powerful Booandik tribe was rapidly declining to a few weakened and sickly individuals"* (O'Connor, P & B 1988: 280).

The condition of the Buandik people affected Christina greatly. She felt it her duty to ensure that the lives, customs, and language of the Buandik tribe she had spent a great deal of her life alongside, were not forgotten. With the assistance of her eldest son, Duncan, Christina produced a book titled 'The Booandik Tribe of South Australian Aborigines: A sketch of their Habits, Customs, Legends and Language'.

7.3 Archaeological Overview

7.3.1 Archaeological Background

The first detailed archaeological research in the region is noted as being undertaken by Tindale in the early 1930s (Wood 1995; Wilby 2001). Many early collectors had taken an interest in the stone artefacts (lithic material) from this and other regions early this century. The work of Tindale followed on from the work carried out by McCarthy (1938), who in his initial work identified and subsequently labelled these stone tool types as the Gambieran industry, after Mount Gambier. McCarthy described the lithic assemblage from this area as being characterised by large flake tools, including a variety of retouched scrapers and knives. McCarthy also makes a distinction between the Buandik biface and the Gambieran blade (McCarthy 1976:96). This body of work was built upon by the

07 Identification of Indigenous Cultural Heritage Values

efforts of Stapleton (1945) who put together a collection of bifacial stone implements from Coastal Zone between Cape Banks to Green Point. Further researches continued on in extending investigations into the archaeological record of this region (refer to Wood 1995: 9-27). The cumulative results of research in the south eastern region has resulted in the development of a predictive model, which is being updated and modified as further research is undertaken.

These models are based on a combination of recorded Aboriginal archaeological sites and data from archaeological excavations. In short, the archaeological work carried out thus far has identified a correlation between sites with coastal resources such as shellfish and flint occurring in coastal regions and associated with microlithic or small stone artefact assemblages. In contrast, larger stone tool assemblages have been noted to occur in association with inland resources in locations such as the periphery of lagoons and the slopes of ranges. It was also noted that the intensity and range of sites increased further inland leading to inference that occupation of the landscape was influenced by seasonal factors (Wood 1995: 10).

Several archaeological excavations have provided radiocarbon dates for levels containing assemblages that fit into the Gambieran industry, all supporting an early Holocene age: Cape Martin, 8700±200 BP, Wylie Swamp, 10,200-8,000 BP and Koongine Cave 11,000-9,000 BP (Wilby 2001:4). Gambieran artefacts are scarce in coastal sites where microlithic assemblages predominate. Inland sites have also yielded microlithic assemblages at higher stratigraphic levels and this has been interpreted as the reuse of older sites by later populations. Radiocarbon dates for deposits containing microlith artefacts from sites such as Karremarter (Piccaninnie Ponds) provide basal dates of 3,000 BP, Bridgewater Caves, basal date of 450±40 BP and Wylie Swamp 5,88-1,300 BP (ibid). These dates support the later date of the microlithic industry in this region.

Further archaeological research undertaken by Luebbers (1978) enabled the identification of what Luebbers interprets as two major phases of occupation which occur both at the coast and in the inland areas. Luebbers describes these phases as the Early and Late Horizons with the latter further subdivided into early and late phases (Wood 1995:11; Luebbers 1978).

The Early Horizon occurs between c.10, 200- c.6, 000 BP and is characterised by Gambieran stone implements associated with terra rossa soils and the exploitation of a wide range of resources. The Late Horizon is characterised by drier environmental conditions and an increase in the number of coastal sites in the dunes extending around 2 km inland. Luebbers argues that this increased aridity and thus reduced productivity of the wetlands forced populations towards riverine and coastal areas.

The Late Horizon is divided into two further subgroups and is described as follows:

- The Early Phase (5,800-1,300 BP) is characterised by small middens composed of mainly one species such as sand dwelling pipis (*Plebidonax deltoides*) or the small rock mussel (*Brachidontes rostratus*). The predominance of one shell species is seen to

07 Identification of Indigenous Cultural Heritage Values

reflect a much localised economic focus of shellfish resources. Small numbers of stone artefacts, predominantly microlithic artefacts are associated with these early phase sites.

- The Late Phase (<1,300 BP) is characterised by large shell middens on cliff headlands, cliff tops and in sand hills. Sites have also been recorded up to 12 km inland. The shell species identified in these sites include reef gastropods such as limpets (Patellidae & Lottidae). Sites further inland occur between the coastline and lakes and comprise a mix of reef dwelling shellfish species and are described by Luebbers as representing a diverse functional range of tool assemblages. Luebbers interprets these changes in the site contents between the different Horizons and the Phases are a response to environmental changes. These changes took place during the early Holocene and approximately 15 km of the continental shelf was inundated when the sea reached its present level (approximately 6,000 years BP). The present coastline began to take shape at this time and water gradually accumulated between the Pleistocene dune ranges restricting drainage this in turn contributed wetter conditions and the formation of swamps (10,200-8,000 BP). The swamps rapidly increased and became permanent between 8,000-3,000 BP. The Early Horizon sites therefore reflect a strong association or reliance with the swamp resources.

Late Horizon sites are seen to reflect a change in subsistence activities in response to environmental changes. These changes are reflected in the lithic assemblages of sites. Luebbers however recognises that the swamps remained an important feature of the subsistence economies of the Buandik people, who inhabited the areas throughout the Holocene period.

7.4 Results: Archaeological Survey and Community Consultation

7.4.1 Introduction

The following section presents the results of the field visit and consultation with Roselea Millard (Heritage Officer, SENCO). The field visit took place between the 2nd and 3rd of June and was attended by Roselea Millard, Marina Millard (SENCO), Justin McCarthy and Lori Sciusco (Austral Archaeology). The objective of the field visit was to relocate any existing sites, assess their condition and record any newly discovered sites. An important part of the field visit was consultation with SENCO regarding the cultural heritage value of the study area, and in particular the cultural landscape of the Crater Lakes area.

7.4.2 Approach

There are two known sites recorded within the boundaries of the study area. These sites are recorded and described in Wood 1995. The field visit involved relocating these known sites, assessing their current condition and providing management recommendations for their preservation.

07 Identification of Indigenous Cultural Heritage Values

The site visit also involved targeting areas with good ground surface visibility in order to determine whether other sites or areas with archaeological potential existed within the boundaries of the study area.

Ground Surface Visibility

Surface surveys for archaeological remains requires that transects (or areas designated for survey) are judged on surface visibility. Ground surface visibility (gsv) refers to the amount of ground surface which can be observed during the survey. Visibility can be influenced by natural processes such as erosion or the character of native vegetation (such as seasonal die back). Visibility can also be influenced by land use practices such as ploughing or grading. Visibility is expressed in terms of percentage of the ground surface that is visible to the observer on foot. An assessment of the surface visibility is useful in describing the general conditions of the area surveyed.

Obtrusiveness is used to describe to how conspicuous a site is within a particular landscape, and thus the chances of finding a particular site. For example, an artefact scatter is generally not obtrusive, especially in areas of high vegetation or scrub cover, yet a scar tree or chimney generally is obtrusive.

The following table provides a guide to the assessment of ground surface visibility based on a percentage rating. It is by no means an objective method of assessment, and it is open to the assessment and interpretation of the field observer. However, it can be regarded as simply a guide to describing the ground surface visibility in a standard format.

Ground Surface Visibility (GSV)	Percentage Rating
Very Poor – heavy vegetation, scrub, foliage or debris cover, dense tree or scrub cover. Soil surface of the ground difficult to see.	0-9% ground surface visible
Poor – moderate level of vegetation, scrub, and/or tree cover. Some small patches of soil surface visible in the form of animal tracks, erosion, scalds, blowouts etc, in isolated patches. Soil surface visible in random patches.	10-29% ground surface visible
Fair – moderate levels of vegetation, scrub, and/or tree cover. Moderate sized patches of soil surface visible, possibly associated with animal /stock tracks, unsealed walking tracks, erosion, blowouts etc. Soil surface visible as moderate to small patches, across a larger section of the study area.	30-49% ground surface visible
Good – moderate to low level of vegetation, tree, or scrub cover. Greater amount of areas of soil surface visible in the form of erosion, scalds, blowouts, recent ploughing, grading, or clearing.	50-69% ground surface visible

07 Identification of Indigenous Cultural Heritage Values

Ground Surface Visibility (GSV)	Percentage Rating
Very Good – low levels of vegetation/scrub cover. Higher incidence of soil surface visible due to past or recent land-use practices such as ploughing, grading, mining etc.	70-89% ground surface visible
Excellent – very low to non-existent levels of vegetation/scrub cover. High incidence of soil surface visible due to past or recent land use practices, such as ploughing, grading, mining etc.	90-100% ground surface visible

7.4.3 Archaeological Survey Results

The field visit resulted in the relocation of the two sites noted by Wood (1995). The information regarding the sites is taken directly from Wood.

Relocated Sites

Site Name	Previous Co-ordinates	Updated Co-ordinates	Site Condition
Valley Lake Campsite 1	478800E 5811350N	478847E 5811641N	Artefact Scatter exposed over a road verge and walking trail. There is an exposed section along the road cutting with in situ artefacts evident in the section and eroding out near the concrete footpath. It is in a deteriorated condition and in need of stabilisation.



View of setting and location of Valley Lake Campsite 1.

07 Identification of Indigenous Cultural Heritage Values

Site Name	Previous Co-ordinates	Updated Co-ordinates	Site Condition
Blue Lake Campsite 1	480800E 5810800N	480574E 5810516N	Artefact scatter of an exposed area or road verge. The cutting of the road has subsequently exposed the artefacts and activated erosion. It is in a deteriorated condition and in need of stabilisation.



Setting and location of Blue Lake Campsite 1.

07 Identification of Indigenous Cultural Heritage Values

New Sites and Areas of Archaeological Potential

Site Name	Co-ordinates	Description	Site Condition
Leg of Mutton Lake Potential Archaeological Deposit	479743E 5811322N	Consists of in situ artefacts, sparse amount of visible diagnostic lithic material. Exposed cutting as a result of road construction has exposed a section not dissimilar to that evident at the Blue Lake Campsite 1.	The section is intact in most places, but erosion is visible. Artefacts appear to be contained within the darker soils of the top horizon. Artefacts were not removed as they were safely lodged into the section. Some diagnostic features evident such as bulbs of percussion, or ventral surfaces but further analysis would be required to confirm exact nature of deposit.



View of section of road cutting with exposed *in situ* lithic material.

07 Identification of Indigenous Cultural Heritage Values

Site Name	Co-ordinates	Description	Site Condition
Keegan Drive - Water Tower site Artefact Scatter and Potential Archaeological Deposit	479893E 5811796N	Site consists of a sparse scatter of cultural lithic material mixed in with road gravel, glass, and modern rubbish debris. The site has been exposed as a result of the use of the informal dirt track. Artefacts may be eroding and washing into the wheel tracks from the slightly higher flat on either side. The artefact scatter extends approximately 3m (the width of the track) and 16m in length. Artefact density is estimated at approximately 8 artefacts per m ² .	Site has been compromised through the use of the informal dirt track and is in danger of being crushed and displaced further. Collection and stabilisation of surrounding landscape may be required to slow down further damage to the site.



General view of location of artefact scatter.



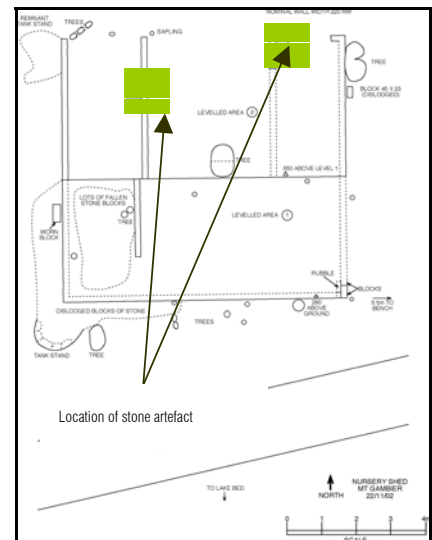
Sample of lithic artefacts recorded at site.

07 Identification of Indigenous Cultural Heritage Values

Site Name	Co-ordinates	Description	Site Condition
Nurseryman's store shed site Artefact Scatter and Potential Archaeological Deposit	479917E 5811590N	Aboriginal lithic material was uncovered during the historic archaeological test excavations of the Nurseryman's store site. A test trench was dug along one of the apparent dividing walls toward the western side of the northern room. At a depth of about 60 mm beneath the humic and root layer (which contained many shards of brown beer bottle glass), numerous pieces of flaked grey coastal flint were noted. Excavation was terminated at this point with the artefacts being bagged and tagged and reburied in the backfill.	Artefact have been reburied, however, it was beyond the scope of the historic test excavations to assess the Aboriginal heritage of the site. However, further investigation of this area when ground surface visibility is greater, may be required to determine extent of Aboriginal artefacts in this area.



Location of historic site where artefacts were recovered.



Location of historic test trenches & Aboriginal stone artefacts.

07 Identification of Indigenous Cultural Heritage Values

7.4.4 Constraints and Opportunities

The community members of SENCO have expressed a great deal of enthusiasm for the ongoing use of the place by all people. They have expressed that the most appropriate medium for access to the cultural values of the Crater Lakes area is through interpretation. The interpretation of the study area should be carried out in partnership with SENCO and should explain the importance of the Crater Lakes to the Aboriginal people of the area. They would like to be able to see this information passed on to all people that visit the site, local, interstate and international visitors. It is important that the SENCO are actively engaged by the Mount Gambier City Council in the process of interpretation to ensure that their views are presented correctly and sensitively.

The management of the study area will need to include visitation and care taking of known and registered Aboriginal sites and places of importance by members of the SENCO community. During on-site consultation, SENCO stressed the importance of their organisation to be notified by Council of activities that may impact or have an effect on the Aboriginal values of the study area.

The role of the Aboriginal community in the management and care taking of important sites and places within the Crater Lakes study area should be an active one. It is prudent for both SENCO and Council to establish a formal protocol between the two organisations to ensure the exchange of information regarding activities and management of the Aboriginal cultural heritage values of the study area. There are many benefits to establishing a formal protocol of communications between the two organisations. One of these benefits will be that it will promote an integrated and holistic approach to transferring the many layers of cultural importance of the Crater Lakes region, whether natural, Aboriginal or historic, to the local and broader community, such as tourist, school groups, etc.

7.5 Indigenous Cultural Heritage Values

7.5.1 Introduction to the Heritage Assessment Process

An assessment of significance seeks to determine and establish the importance or value that a place, site or item may have to the community at large. The concept of cultural significance is intrinsically connected to the physical fabric of the item or place, its location, setting and relationship with other items in its surrounds. The assessment of cultural significance is ideally a holistic approach that draws upon the response these factors evoke from the community. These standardised aspects of significance assessments are generally applied to sites, places or items that have tangible historic structures or relics visible at the site, and where there is a general understanding of the extent of the historic resources.

Archaeological sites require a different approach to significance assessment because the extent of the heritage resource and the degree to which it can contribute to our understanding of history is not fully known at the outset. It is the significance of the potential of the site to reveal information about the past that needs to be assessed when

07 Identification of Indigenous Cultural Heritage Values

establishing the cultural significance of archaeological deposits. Similarly, it is the significance of the type of information that can be revealed by the archaeological deposits, especially where the information is not available through any other source and the contribution it can make to our understanding of a place, which may also be of cultural heritage significance.

Despite these differences the same general set of criteria are used to assess cultural significance of different types of heritage resources.

7.5.2 Basis for Assessment of Indigenous Sites

The Cultural Heritage Branch, DOSAA assessment criteria for archaeological significance is based on the criteria established by the AHC for assessment of items for inclusion on the RNE. The following criteria are detailed in Section 4 of the Australian Heritage Commission Act 1975. These criteria may be applied to natural, Indigenous or historic places and subclauses within each criterion apply to these different classes of heritage. The full listings of the criteria are as follows:

Criterion A: Its importance in the course, or pattern of Australia's natural or cultural history.

- A1. Importance in the evolution of Australian, flora, fauna, landscapes or climate.
- A2. Importance in maintaining existing processes or natural systems at the regional or national scale.
- A3. Importance in exhibiting unusual richness or diversity of flora, fauna, landscape or cultural features.
- A4. Importance for association with events, developments or cultural phases which have had a significant role in the human occupation and evolution of the Nation, State, region or community.

Criterion B: Its possession of uncommon, rare or endangered aspects of Australia's natural or cultural history.

- B1. Importance for rare, endangered or uncommon flora, fauna, communities, ecosystems, natural landscapes or phenomena, or as a wilderness.
- B2. Importance in demonstrating a distinctive way of life, custom, process, land-use, function or design no longer practised, in danger of being lost, or of exceptional interest.

07 Identification of Indigenous Cultural Heritage Values

Criterion C: Its potential to yield information that will contribute to an understanding of Australia's natural or cultural history.

C1. Importance of information contributing to a wider understanding of Australian natural history, by virtue of its use as a research site, teaching site, type locality, reference or benchmark site.

C2. Importance for information contributing to a wider understanding of the history of human occupation of Australia.

Criterion D: Its importance in demonstrating the principal characteristics of:
(i) a class of Australia's natural or cultural places; or
(ii) a class of Australia's natural or cultural environments.

D1. Importance in demonstrating the principal characteristics of the range of landscapes, environments, ecosystems, the attributes of which identify them as being characteristic of their class.

D2. Importance in demonstrating the principal characteristics of the range of human activities in the Australian environment (including way of life, philosophy, custom, process, land use, function, design or technique).

Criterion E: Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.

E1. Importance for a community for aesthetic characteristics held in high esteem or valued by the community.

Criterion F: Its importance in demonstrating a high degree of creative or technical achievement at a particular period.

F1. Importance for its technical, creative, design or artistic excellence, innovation or achievement.

Criterion G: Its strong or special associations with a particular community or cultural group for social, cultural or spiritual reasons.

G1. Importance as a place highly valued by a community for reasons of religious, spiritual, symbolic, cultural, educational, or social associations.

07 Identification of Indigenous Cultural Heritage Values

Criterion H: Its special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history.

H1. Importance for close association with individuals whose activities have been significant within the history of the Nation, State or region.

These criteria have been designed to deal specifically with the archaeological resource; however they do not provide a framework for the assessment of social significance to the Indigenous community. For this reason, the criteria for assessment provided in the Australia ICOMOS charter for the conservation of places of cultural significance (the Burra Charter) are sometimes also used to assess significance as they provide a framework for a more holistic assessment of significance.

7.5.3 Assessment of Cultural Significance

The natural values of the Crater Lakes region are well documented and appreciated as demonstrated by its listing on the RNE as a place of Natural importance (Database Number 008181). However, the importance of the area is multilayered and interconnected. The Crater Lakes complex is significant for its natural, Aboriginal and historic values. It is still a place of contemporary value and importance, a place where visitors and locals are drawn by its natural beauty and its history, both Aboriginal and European.

The following assessment of significance is based on both the archaeological importance of the study area, but also its cultural importance as a 'Place' to the contemporary Aboriginal community for its connection with the past.

Criterion C: Its potential to yield information that will contribute to an understanding of Australia's natural or cultural history.

The Crater Lakes area of Mount Gambier is a site that has the potential to yield a great deal of information relating to the Aboriginal occupation of the region during the Holocene period. It is an important landscape feature that is noted in the Legend of the Buandik people of the southeast.

Criterion G: Its strong or special associations with a particular community or cultural group for social, cultural or spiritual reasons.

07 Identification of Indigenous Cultural Heritage Values

The Crater Lakes area of Mount Gambier is of importance to the local Aboriginal community of the southeast area for its spiritual and cultural value. It is a place that has both historic and contemporary value to the local Aboriginal community.

7.5.4 Statement of Heritage Significance

The Crater Lakes area of Mount Gambier is able to fulfil several criteria based on the evaluation of Aboriginal values. It is a place of demonstrable State significance. In its ability to demonstrate its natural importance, the site is significant for its geological volcanic process. It is important for its connection to the Legend of the Buandik people. It is an important place to the Aboriginal community for both its historic and contemporary values. It is a place of great social and aesthetic appeal. Its Aboriginal values are intrinsically connected to the natural and spiritual landscape – a landscape that also now has important educational qualities. Of equal importance to the Aboriginal community is that it is a place that provides a tangible link with the past.

7.6 Recommendations

The following recommendations have been developed in light of the results of the field visit and consultation with the SENCO community representatives, the archaeological context of the region and the cultural heritage value of the study area.

The following recommendations are proposed:

- 1 A protocol for communication between SENCO and the Mount Gambier City Council be developed and fostered for the long term management and care of the archaeological and cultural heritage values of the Crater Lakes area. Any site conservation programme should meet the Department of Aboriginal Affairs and Reconciliation Standards.
 - 2 An extensive archaeological research and survey programme is commissioned to determine the existence, integrity and condition of all archaeological sites within the Crater Lakes area, Mount Gambier.
 - 3 Once the survey information has been updated and re-lodged with DAARE, that SENCO lodge a permit application to collect artefacts that are eroding or in danger of being destroyed at the following sites:
 - Valley Lake Campsite 1;
 - Blue Lake Campsite 1;
 - Keegan Drive – Water Tower.
- Any proposed archaeological excavations or artefact collection programme need to comply with Section 21 of the Aboriginal Heritage Act.
- 4 Mitigative action be undertaken to prevent further damage to the previously recorded site known as Valley Lake Campsite 1 and newly recorded site Keegan Drive – Water Tower. This should be undertaken in consultation with the SENCO community and DOSAA. The

07 Identification of Indigenous Cultural Heritage Values

current vehicle access tracks are adversely impacting these sites. Mitigative actions might include:

- closing the tracks if access is no longer required,
 - rerouting the tracks around the recorded sites,
 - resheeting the tracks with appropriate road base or fill to build them up above the current ground level.
- 5 Revegetation with appropriate native flora is carried out at all the known sites and areas of archaeological potential to retard the negative effects of erosion. In particular, along road cuttings such as Blue Lake Campsite 1 and Leg of Mutton. This should be undertaken in consultation with the SENCO community.
 - 6 Interpretation of the study area be carried out in partnership with SENCO and should explain the importance of the Crater Lakes to the Aboriginal people of the area. It is important that the SENCO are actively engaged by the Mount Gambier City Council in the process of interpretation to ensure that their views are presented correctly and sensitively.

08 Management Objectives

8.1 Primary Vision

The overarching vision for the management of the Crater Lakes Area (Volcanic Complex) Conservation Management Plan is as follows:

Recognising the cultural and community values of the Crater Lakes Area we will protect and enhance its geological, natural and historic features for the use and enjoyment of present and future generations.

The vision seeks to recognise the importance of the Crater Lakes, not just to the City of Mount Gambier, but also to the wider region, and to South Australia and Australia as a whole. This vision also seeks to encapsulate the heritage significance of the area, both physical and cultural. The vision seeks to highlight the importance of free and equitable access to the area, and recognise the dedicated purpose of the area as a 'Public Pleasure Resort'.

As part of the study process a critical examination was undertaken of whether this dedication was still appropriate to the area, having regard to present uses. The consultation process with Council Staff, the Working Party, Reference Group, stakeholders and the wider community revealed that perception of the area is still very much aligned with the dedication. Accordingly, it is recommended that this dedication is maintained. It is, however, acknowledged that there are significant resource implications associated with managing an area of State and National significance. Accordingly, it is appropriate that Council accesses relevant sources of grant funding from both Commonwealth and State Governments to assist in protecting, maintaining and interpreting the Crater Lakes Area.

8.2 Goals

Seven key goals have been developed, which seek to define the outcomes required to achieve the vision that has been detailed. These goals are broad in nature, and apply to the whole of the Crater Lakes Area.

- 1 Recognise and protect all of the heritage values of the Crater Lakes Area.
- 2 Identify opportunities and implement actions to restore, enhance and interpret the heritage landscape values of the area.
- 3 Protect the quality of the natural environment.
- 4 Provide appropriate levels of infrastructure, facilities and services to support appropriate, safe and enjoyable community access and use of the area.
- 5 Establish a management approach that responds to the desired landscape character and activities identified for specific precincts.
- 6 Retain and enhance views and vistas into and out of the Crater Lakes Area.
- 7 Ensure that funds are sourced from all spheres of Government to enable the protection and enhancement of the Crater Lakes Area.

08 Management Objectives

8.3 Key Policies

Ten key policies have been developed, under which strategies and actions have been developed. Seven of these are applicable to the entire Crater Lakes Area, whilst five are applicable at a precinct level. Operations and Management is the one area which comprises policies that are both area wide and focussed at a precinct level. Heritage and Conservation is analysed both at an area wide level and where significant elements exist, at a precinct level also. There is a degree of interrelationship between the policies, and strategies and actions may be pertinent to more than one of the key policies.

The ten key policy areas identified include:

- Built Form and Development (Area Wide);
- Statutory Context (Area Wide);
- Protection of Water Resources (Area Wide);
- Access and Traffic Management (Area Wide);
- Operations and Management (Area Wide and Precinct);
- Heritage and Conservation (Area Wide);
- Signage and Interpretation (Area Wide);
- Managing Landscape Character (Area Wide and Precinct);
- Managing Activities (Precinct);

The following section covers the Area Wide policies. The Precinct policies are addressed under each of the precincts where relevant.

8.3.1 Built Form and Development

- Restrict development of a nature that is inconsistent with the vision and purpose of the area.
- Ensure that built form is of a high design standard and quality appropriate to the context of its location.
- Give careful consideration to the provision of limited commercial activities at appropriate locations to support tourist and visitor use and enjoyment of the area.
- Recognise the need to modify and refurbish existing buildings and structures over time in a way that is sympathetic to the desired future character of the area.
- Protect views and vista by managing development to avoid skylining and adverse impacts on visual amenity.
- Reinforce the rural context to the south.

08 Management Objectives

8.3.2 Statutory Context

- Review and amend the Development Plan to ensure that it supports the vision and goals of the Conservation Management Plan.
- Ensure that uses and activities are consistent with the dedicated purpose of the area as a Public Pleasure Resort.
- The Heritage Act 1993 provides direction regarding development within the Crater Lakes as a State Heritage Area.
- Development and Management needs to be consistent with environmental protection and water resource management policies as these are expressed in legislation.

8.3.3 Protection of Water Resources

- Seek to maintain a detailed understanding of the water quality and ensure uses and activities do not contribute to water quality decline.
- Manage risk where it has the potential to directly impact upon the water resources or humans using these resources.
- Have due regard to the objectives and strategies of the Blue Lake Management Plan.

8.3.4 Access and Traffic Management

- Maintain and improve access to the Crater Lakes Area for visitors and the local community.
- Retain a logical hierarchy of access appropriate to the desired character and activities of each precinct.
- Provide safe and easy access for pedestrians, cyclists, cars and buses supported by appropriately located car parks.
- Provide parking for larger vehicles including buses in car parks associated with the Blue Lake and Valley Lake.
- Consider the establishment of a tourist bus loop to provide access and connect the town, the Crater Complex and the precincts.

8.3.5 Operations and Management

- Clearly define the roles, functions and responsibilities of custodians and stakeholders.
- Ensure that management of landscape and visitor amenities is cost effective and sustainable over time.
- Review the ongoing management, refurbishment and replacement of capital assets to ensure that facilities are maintained at the highest level.

08 Management Objectives

- Develop progressive weed control management programmes concentrating on protecting the areas of best native vegetation and biodiversity, and use minimum disturbance techniques to protect the fragile crater environment.
- Maintain an ongoing programme of pest fauna control such as rabbits, foxes, cats and fish. Monitor in conjunction with boundary fencing repair and water quality.

8.3.6 Heritage and Conservation

Geological Value

- The geological value of the Crater Lakes Heritage Area should be retained and be visible in any developments undertaken within the area.
- Areas, which are significant in a geological sense, should be highlighted and interpreted clearly to visitors.
- No work should be undertaken in the Lakes area which damages in any physical way the remnant geological elements, particularly the craters, lakes and blow-holes.
- Install and maintain interpretation signs.
- Ensure no physical damage occurs to any geological sites by providing suitable barriers to unacceptable access.
- Consider adding blowholes/caves to the listing of the State Heritage Area as identified as part of ongoing surveys of the site.

Natural Landscape Value

- The remnant native vegetation which remains within the Crater Lakes area should be carefully protected and retained intact.
- Full identification, delineation and assessment of biodiversity of such areas should be undertaken.
- All available evidence of the development of introduced planting in the Lakes area should also be retained on the basis of historic and cultural value.
- Introduce development control provisions for the protection of native vegetation in the development plan.
- Identify on site important areas of natural landscape for interpretation by visitors.

Indigenous Heritage Value

- An extensive archaeological research and survey programme is required to determine the existence, integrity and condition of Aboriginal sites within the Crater Lakes area, Mount Gambier.

08 Management Objectives

- A protocol for communication between the local indigenous organisation, SENCO and Mount Gambier City Council should be developed and fostered to enable the long term management and care of archaeological and cultural heritage values of the Crater Lakes area.
- Artefacts that are eroding or are in danger of being destroyed at identified sites (see Section 6) should be collected.
- Actions to mitigate further damage to identified sites be taken particularly with respect to closing or rerouting tracks and building up road bases to prevent erosion.
- Revegetation with appropriate indigenous species should be carried out at all known sites and areas of archaeological potential, especially along road cuttings such as Blue Lake Campsite 1 and Leg of Mutton.

Cultural Landscape

- The development of access into the Lakes area by European settlers, the use of the Lakes as the site of the beginning of the pastoral industry in the South East of South Australia and evidence of the development of tourism and recreation over time should be carefully identified, documented and retained.
- Continue an appropriate form of interpretation for these sites.
- Manage visitor access and ensure that access to the sites does not degrade the heritage values of the cultural landscape.
- Implement the management plan for the Blue Lake Holiday Park to retain the heritage and amenity values of the area.

Forestry Heritage Value

- The Forestry Nursery at Leg of Mutton Lake, the relics of the construction associated with this including the lake wall, the work shed and the site of the nurseryman's cottage on the ridge above the lake should be retained and protected. Appropriate interpretation should be used at each site.
- Identification of introduced species which were associated with the original nursery plantings should be identified and protected, and appropriately interpreted.
- Clearly establish significant trees and clumps of trees which must be protected .
- Draw up a tree management plan for retention of tree health and longevity.
- Implement recommendations of the Archaeological report resulting from the dig in the Leg of Mutton Lake area.

08 Management Objectives

Memorials

- All memorials erected within the Crater Lakes area to commemorate various historical events should be retained and conserved, and appropriately interpreted to present full recognition of community involvement in the installation of these memorials.
- A Conservation Plan should be written for those structures which require further conservation and care.
- Follow the recommendations for conservation and maintenance included in Section 5 of this report.

SA Water

- All structural elements associated with the introduction of Mount Gambier's Water Supply infrastructure from the 1880s should be protected and maintained.
- A Conservation Plan should be written for elements of infrastructure as required.
- Commission a Conservation Management Plan for the Pumping Station.
- Investigate further the physical remains of the first tanks above the Pumping Station.

8.3.7 Signage and Interpretation

- Build upon existing interpretation and develop a detailed consistent and staged interpretation programme.
- Maintain and replace signage regularly as required.
- Provide clear and consistent signage in durable materials to assist with way finding.
- Develop and distribute published materials to support walking trails and key geological and historical features.

8.3.8 Managing Landscape Character

In order to retain the unique qualities and character of the Crater Lakes vegetation, a policy of seed collection and propagation is required to provide suitable plant stock for the revegetation and re-establishment of important landscape areas under the Conservation Management Plan. Provenance refers to plant material that has become specifically adapted to the local area. The collection of seeds ensures that the ecological and historical context of species is maintained, while allowing these areas to be regenerated and trees replaced as part of an ongoing landscape management process.

The establishment of a provenance nursery is crucial to the successful establishment of mixed age woodlands and plantations within the Crater Lakes Complex.

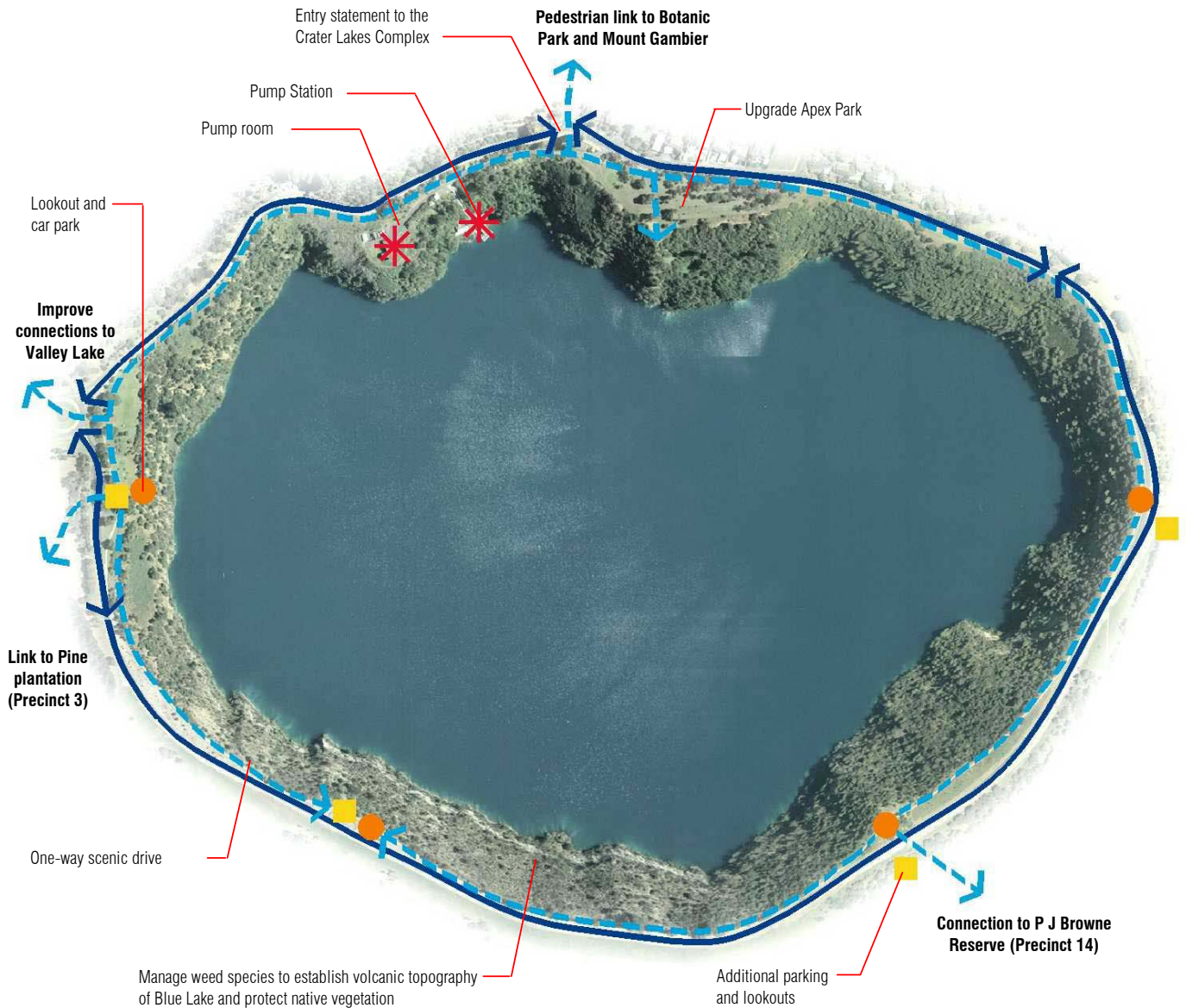
08 Management Objectives

8.3.9 Managing Activities

- Review existing activities and assess impact on the physical, cultural and social aspects on the study area.

09 Management Strategies

9.1 Precinct 1 – Blue Lake



Legend

- Vehicular access
- Pedestrian access
- Car park
- Bike trail
- Lookouts
- Point of interest
- Seating areas

09 Management Strategies

9.1 Precinct 1 – Blue Lake

9.1.1 Desired Future Character

- Retain its iconic significance.
- Protect its role as the public water supply for the City of Mount Gambier.
- Further expose its volcanological features.
- Retain cultural heritage buildings and structures.
- Improve access and amenity for visitors.
- Control and limit future development within the precinct.

9.1.2 Maintaining Landscape Character

- Remove and manage existing vegetation to expose volcanic features.
- Protect endangered Drooping Sheoak vegetation community to south west side of crater.
- Retain mature landscape character to northern edge to prevent skylining of future urban development and around Pump House to reinforce its setting.
- Manage Apex Lookout as public park/open space.
- Establish landscape setting to new developments that minimise visual and physical impact.
- Retain Canary Island Pines at the Pioneers Memorial as part of the historical landscape.

9.1.3 Managing Activities

- Improve visitor access to lookouts, walking paths and the Blue Lake Aquifer Tours that operate from the historic Pump House.
- Provide additional viewing areas with seating and lookouts to south east section of circulation road adjacent P J Browne Reserve.
- Interpretation of volcanic and karst features as part of viewing areas and signage.

9.1.4 Access and Circulation

- Develop a one-way, counter clockwise scenic drive between the roundabout and TV Station access.
- Retain two-way road on the north side of the lake.
- Use redundant carriageway created by one-way system to provide car parking bays on the southern side for local walkers and visitors.
- Improve pedestrian access around the lake.

09 Management Strategies

9.1.5 Heritage Conservation and Interpretation

- The following items are located in the Blue Lake Precinct.
 - > The Gordon Monument
 - > The Pumping Station
 - > The Pioneers Memorial
- Stabilise and record as necessary road embankment to preserve artefacts from Blue Lake Camp Site 1 (see Section 7.4.3, page 73).

9.1.6 Operational Management

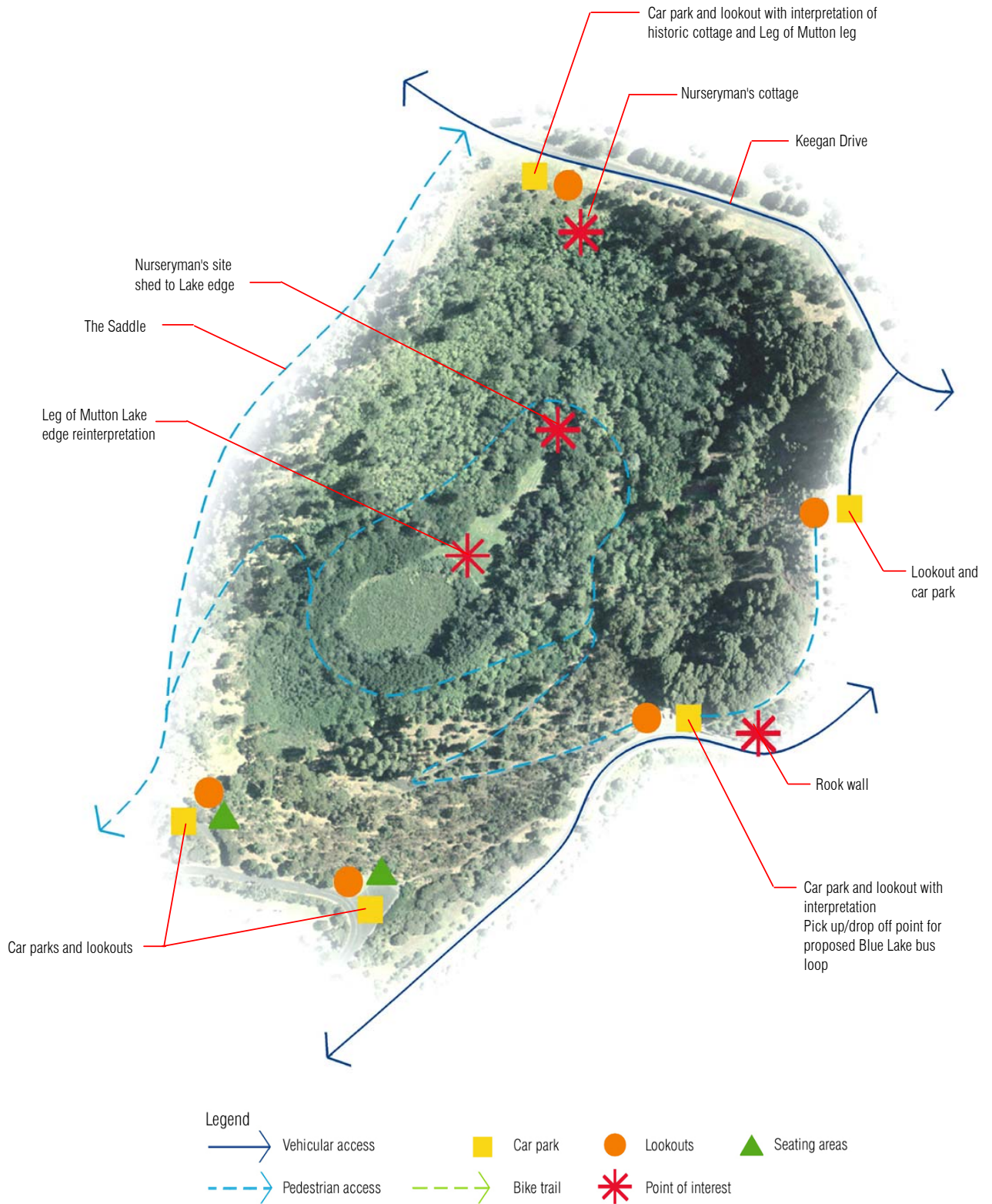
- Liaise with SA Water regarding the implementation of vegetation management strategies.
- Management and maintenance of fences and perimeters to assist in pest animal control and unauthorised access.
- Liaise with the District Council of Grant to ensure that adjacent management practice of reserves and open space complements the objectives of the precinct.

9.1.7 Key Precinct Actions

	Description	Resp.	Date
1	Remove and manage pest plants and weed species to south west side of the Blue Lake crater to expose volcanic features and protect endangered Drooping Sheoak.	SA Water Mount Gambier Council	2004-2006
2	Stabilise and record artefacts from Blue Lake Camp Site 1.	DEH	2004
3	Develop one-way scenic drive to improve access to the Blue Lake and activity within the precinct.	Mount Gambier Council	2005

09 Management Strategies

9.2 Precinct 2 – Leg of Mutton Lake



09 Management Strategies

9.2 Precinct 2 – Leg of Mutton Lake

9.2.1 Desired Future Character

- Retain European landscape character.
- Interpret and maintain Leg of Mutton Lake form and shape.
- Maintain and manage existing trees.
- Remove recent colonising native and weed plants.
- Conserve archaeological features.
- Review access and car parking arrangements at top of crater.
- Establish clearly defined walking trails and access paths to reduce circulation pressure within the crater.
- Maintain passive recreation focus.

9.2.2 Maintaining Landscape Character

- Maintain the existing European planting within the Leg of Mutton Lake crater.
- Remove all vegetation not associated with recognised forestry plants within the crater. Replace forestry tree and shrub species as part of a progressive management plan to establish a mixed age woodland. Replant with provenance plant material to ensure that the original landscape character and species are maintained within the precinct.
- Develop an appropriate understorey to limit soil erosion to the crater rim.
- Establish the edge of the Leg of Mutton Lake and maintain as open grass to improve open space character and interpretation of the lake.

9.2.3 Managing Activities

- Maintain and encourage passive recreational pursuits such as walking, sitting and bird watching.
- Increase the provision for seating and provide appropriately designed bins to remove the potential of litter within the area.
- Rationalise the Leg of Mutton car park to improve both vehicular and pedestrian access and in turn facilitate access to the lake.
- Provide bicycle racks within the car park and at the base of the main access road to encourage cyclists to use the area.
- Review restrictions on dog walking within the Leg of Mutton Lake.

9.2.4 Access and Circulation

- Limit access to crater rim. Close or discourage informal access points into the Leg of Mutton Lake. Reinforce formal walks to encourage passive recreation.

09 Management Strategies

- Retain restrictive road access (steep slope) to limit visitor numbers and maintain established tranquillity within the Leg of Mutton Lake.
- Provide 'pick up and drop off' point for the proposed tourist bus loop, increasing access to all parts of the complex for less mobile users.

9.2.5 Heritage Conservation and Interpretation

The Nurseryman's Site Shed

Conservation Policy

The Nurseryman's Site Shed should be conserved and interpreted as a site of cultural significance.

Management Strategy

Note: Some works will require supervision by an appropriately qualified archaeologist and/or other cultural heritage specialist.

— Vegetation Control

The site should be cleared of ivy via cut and poison methods as it is currently adversely impacting the structural remains of the building.

Specified trees should also be removed via cut and poison methods.

No excavation should be undertaken within the confines of the building footprint. Any excavation required for conservation or interpretation purposes should be supervised by a qualified archaeologist.

— Physical Conservation

The loose stone blocks with graffiti should be documented and stockpiled under supervision of a qualified archaeologist.

The tops of the walls should be revealed and displayed. The excavation should be undertaken by a qualified archaeologist.

The walls will probably need to be capped off with a suitable lime mortar. A qualified conservation architect should supervise this work.

Any excavation required for conservation or interpretation purposes should be supervised by a qualified archaeologist.

— Interpretation

The site should be appropriately interpreted as part of the greater interpretation scheme of the Crater Lakes area. If structural remains are proved to exist, they should be interpreted.

Consideration should be given to appropriately displaying and interpreting the graffitied stone blocks and artefacts from the site.

09 Management Strategies

- Aboriginal Artefacts

Further investigation of the area to determine extent of Aboriginal artefacts in the area (see Section 7.4.3, page 76).

The Nurseryman's Cottage Site

Conservation Policy

The Nurseryman's Cottage Site should be conserved and interpreted as a site of cultural significance.

- Site Identification

The precise location of the building could be established by using historic plans and photographs and modern surveying techniques. This work should be undertaken and then the site further investigated by an archaeologist to ascertain if structural remains survive.

Implementation Strategy

Note: Some works will require supervision by an appropriately qualified archaeologist and/or other cultural heritage specialist.

- Physical Conservation

The track running through the site should be closed off to prevent further impact upon possible archaeological resources.

Any excavation required for conservation or interpretation purposes should be supervised by a qualified archaeologist.

- Interpretation

The site should be appropriately interpreted as part of the greater interpretation scheme of the Crater Lakes area.

Stone Retaining Wall on Lake Margin

Conservation Policy

The stone retaining wall around Leg of Mutton Lake should be conserved and interpreted as a site of cultural significance.

Management Strategy

- Vegetation Control

Consideration should be given to removing vegetation from a section of the wall and conserving it for interpretive purposes. The remainder of the vegetation may be left as is.

09 Management Strategies

— Physical Conservation

If a section of the wall is to be revealed for interpretive purposes it should be excavated and exposed under supervision of a qualified archaeologist.

If a section of the wall is to be revealed for interpretive purposes it should be conserved under the direction of a qualified conservation architect.

— Interpretation

The site should be appropriately interpreted as part of the greater interpretation scheme of the Crater Lakes area.

— Other Sites

Undertake further investigation of archaeological sites to confirm exact nature of deposits in these areas.

9.2.6 Operational Management

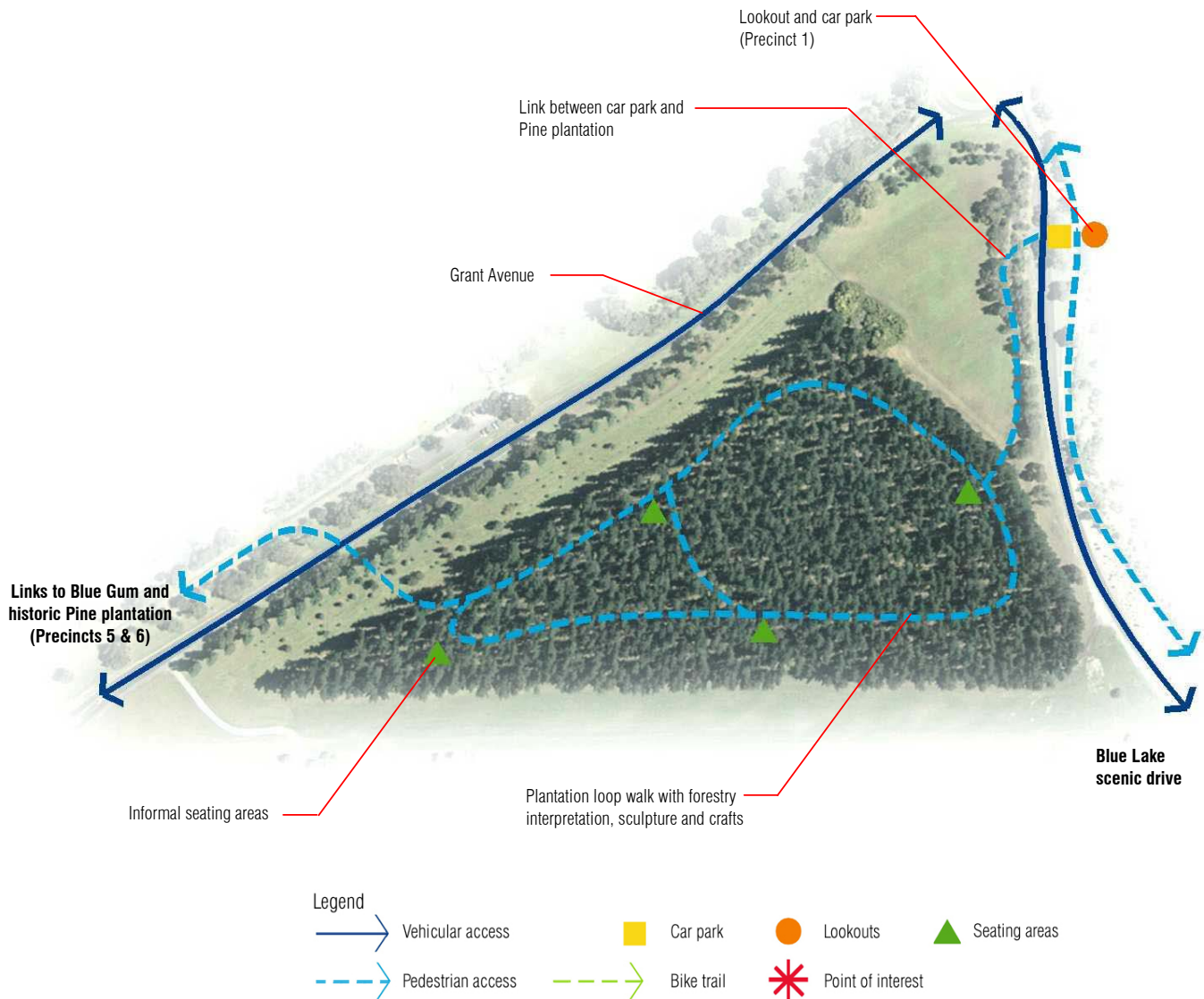
- Liaise with Heritage SA to ensure that the area is managed in a way that enhances the conservation significance of the site.

9.2.7 Key Precinct Actions

	Description	Resp.	Date
1	Record, protect and manage existing European forestry character.	Mount Gambier Council	2004-2005
2	Undertake archaeological investigation of Nurseryman's Site Shed and Cottage. Remove vegetation, alter track running through area (see Section 6) and document artefacts.	DEH	2004
3	Rationalise and redevelop Leg of Mutton car park including new parking arrangements and with white lining, signage, bike racks, bins and seating. Make allowance for collection point for tourist bus loop.	Mount Gambier Council	2005-2006

09 Management Strategies

9.3 Precinct 3 – Pine Plantation



9.3.1 Desired Future Character

- Retain existing historical forestry focus.
- Manage as a radiata pine plantation.
- Manage small scale 'timber felling' operations in association with businesses, where appropriate (timber posts or mulch production).
- Progressive replanting to maintain radiata plantation long term.
- Maintain public access to area.

09 Management Strategies

- Maintain existing community use (archery clubs).
- Expand state fauna planting as contrast to forestry plantation.

9.3.2 Maintaining Landscape Character

- Maintain as an example of commercial forestry practices. Continue small scale forestry operations to maintain the condition and health of the Radiata Pines.
- Replant felled trees as part of plantation regeneration to create a mixed age area of forestry, maintaining historic significance and landscape edge to Crater Lakes complex.
- Undertake additional planting of native species to increase impact of the State fauna area as an entrance to Precinct 3.

9.3.3 Managing Activities

- Increase activity within the area through the development of walks and recreational trails.
- Increase connectivity with existing car park and Blue Lake Lookout.
- Establish commercial connections with small scale timber and joinery businesses to develop the demand for a local supply.
- Consider the development of a sculptural trail and other exhibits using the plantation timber.
- Develop a forestry exhibition as part of the Blue Lakes forestry experience. Provide interpretation of timber production and the establishment of forestry within the Leg of Mutton Lake as well as the historic plantations to the south west of Browne's Lake (Precincts 5 and 6).
- Maintain existing use by archery clubs through managed timing and location of activity to avoid conflict.

9.3.4 Access and Circulation

- Improve links to the existing Blue Lake car park.
- Establish a series of circular walks within the plantation.
- Establish footpath connections to Precincts 2, 5 and 6 as part of the 'forestry trail'.

9.3.5 Heritage Conservation and Interpretation

- Provide interpretation of the forestry production and a detailed explanation of how timber is used locally and regionally. Interpret and illustrate the walks and location of sculptural pieces within the area.

09 Management Strategies

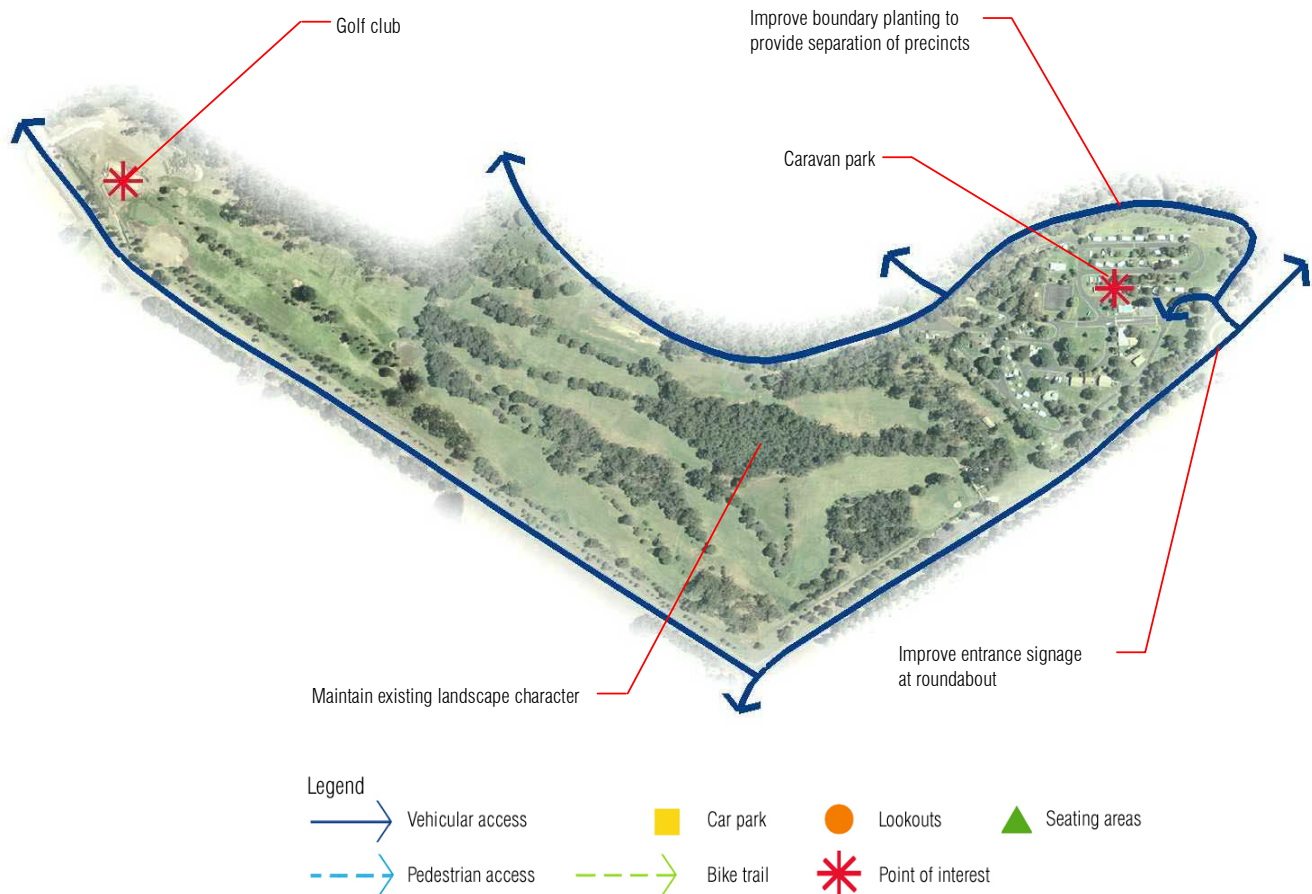
9.3.6 Operational Management

- Establish a structured programme of replanting to achieve a mixed age forestry plantation to improve the overall condition of the plantation.
- Facilitate the mixed use of the area and regulate activities to allow walking and archery to occur.

9.3.7 Key Precinct Actions

	Description	Resp.	Date
1	Establish forestry practices to maintain health and structure of the plantation.	Mount Gambier Council	2005-2010
2	Develop sculpture trail and interpretation of forestry techniques.	Mount Gambier Council Arts SA Forestry SA	2006-2009
3	Reinforce State fauna area as contrast to forestry plantation.	Mount Gambier Council	2004

9.4 Precinct 4a – Blue Lake Holiday Park



9.4.1 Desired Future Character

- Additional landscaping undertaken within the park, as recommended in the Blue Lake Holiday Park Management Plan.
- All mature significant trees should be retained and maintained as part of the development of the Blue Lake Holiday Park.
- Avenue planting is recommended within the Blue Lake Holiday Park to create an attractive landscape quality.
- The Blue Lake Holiday Park requires additional planting around the perimeter to provide visual containment from the surrounding Crater Lakes area.

09 Management Strategies

9.4.2 Maintaining Landscape Character

- Maintain and reinforce original forestry planting character to provide a landscape structure within the Blue Lake Holiday Park.
- Create a landscape focal point to the swimming pool and other important facilities.
- Upgrade perimeter fencing with reference to the design and materiality of adjoining precincts.
- Establish perimeter planting of native species to screen the Blue Lake Holiday Park facilities from the visually sensitive surroundings and in turn provide an appropriate setting to both views into and out of the park.
- Reinforce the 'parkland' character of the roundabout as a point of difference to other landscape areas within the Crater Lakes complex.
- Encourage seasonal variation and diversity of planting to provide interest to visitors to the Blue Lake Holiday Park.

9.4.3 Managing Activities

- Maintain and manage activities within the existing site boundary. Explore the potential for additional development and upgrade of the Blue Lake Holiday Park facilities.
- Restrict expansion of the Blue Lake Holiday Park into adjoining areas in order to limit potential development pressure and visual impact on existing landscape character.
- Renew perimeter fencing.

9.4.4 Access and Circulation

- Rationalise existing road system within the Blue Lake Holiday Park.
- Provide suitable pedestrian access and connection to surrounding precincts.

9.4.5 Heritage Conservation and Interpretation

- Upgrade signage to entrance roundabout to provide a legible point of entry to Valley Lake, Browne's Lake and Blue Lake Holiday Park.
- Conserve existing arch and boundary walls.
- Retain and enhance heritage characteristic of stone entrance gates and view lines through the Blue Lake Holiday Park.

9.4.6 Operational Management

- Adopt and implement recommendations of the Management Plan for the Blue Lake Holiday Park which establish the desired future character for this precinct.
- Encourage revenue generated from the lease of the Blue Lake Holiday Park to be allocated for park improvements.

09 Management Strategies

9.4.7 Key Precinct Actions

	Description	Resp.	Date
1	Reinforce native perimeter planting to visually contain the Blue Lake Holiday Park for the surrounding Crater Lakes area. Reduce visual impact of the Blue Lake Holiday Park's facility of scenic beauty of the area.	Mount Gambier Council	2004-2006
2	Adopt and implement recommendation of the Management Plan for the Blue Lake Holiday Park.	Mount Gambier Council/current operators and Queen Elizabeth Park Trust Inc	2004-2010

9.5 Precinct 4b – Golf Course

(See 4a)

9.5.1 Desired Future Character

- Establish and maintain traditional golf course landscape character.
- Increase, where appropriate, native tree planting.
- Retain existing mature trees.
- Consider boundary interfaces with other precincts and surrounding areas.
- Limit further expansion of golf course clubrooms or ancillary facilities.

9.5.2 Maintaining Landscape Character

- Encourage the landscape development of the golf course. Native tree species to be selected to establish landscape continuity between the Crater Lake complex and the surrounding landscape.
- Small areas of exotic species should be used to create focus or provide seasonal variation within the landscape structure of the golf course.
- Develop a tree and shrub treatment to the car park service areas and building facades to provide an appropriate landscape context.

9.5.3 Managing Activities

- Maintain existing activity.
- Limit extent of future development associated with the club house to ensure that any future built form does not impact on the landscape character of the area.

09 Management Strategies

9.5.4 Access and Circulation

- Limit general public access to avoid conflict with users.

9.5.5 Heritage Conservation and Interpretation

(Not applicable in this precinct.)

9.5.6 Operational Management

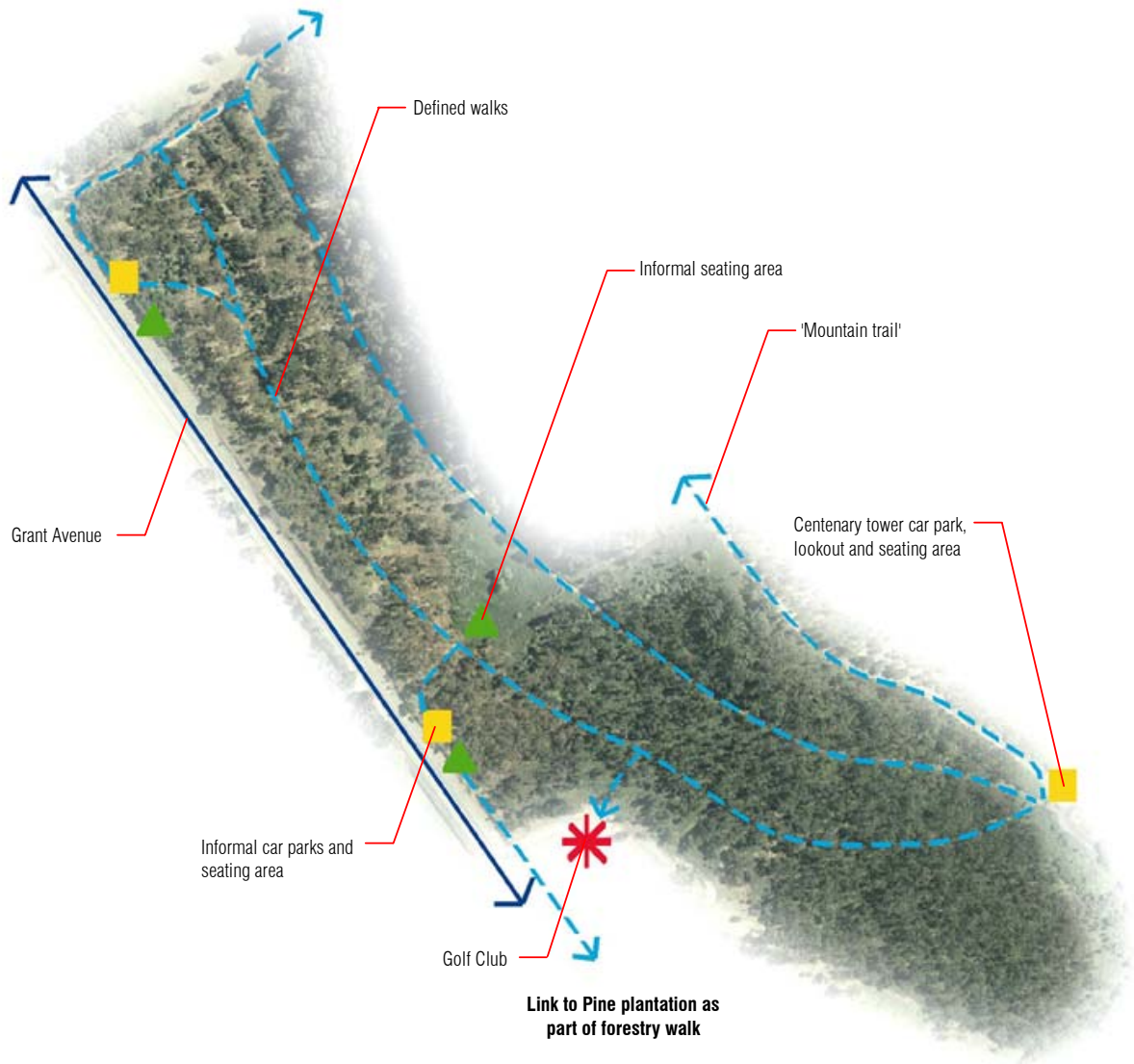
- Maintain management structure for golf course.

9.5.7 Key Precinct Actions

	Description	Resp.	Date
1	Encourage the landscape development of the golf course using native trees, exotic species to create seasonal focus and tree and shrub treatments to the car park.	Golf Club	2005-2010
2	Manage future development to ensure built form does not visually impact on the landscape character of the outer crater slopes.	Mount Gambier Council (Review of Development Applications)	Ongoing

09 Management Strategies

9.6 Precinct 5 – Blue Gum Plantation



Legend							
	Vehicular access		Car park		Lookouts		Seating areas
	Pedestrian access		Bike trail		Point of interest		

09 Management Strategies

9.6 Precinct 5 – Blue Gum Plantation

9.6.1 Desired Future Character

- Retain and manage existing forestry plantation character.
- Remove and manage pest or weed plants.

9.6.2 Maintaining Landscape Character

- Maintain existing forestry character and allow establishment of an old age timber plantation.
- Employ forestry practices to increase aged diversity of the plantation area.
- Collect and propagate Blue Gum seeds to establish a local 'Mount Gambier Blue Gum' provenance.
- Remove and replant dead, dying or dangerous trees to encourage a mixed age woodland using provenance plant material.
- Remove pest or weed plants to improve plantation condition and limit competition.
- Encourage native understorey regrowth to reduce soil erosion.

9.6.3 Managing Activities

- Develop walks and bike trails as part of the recreational activities within the area.
- Establish designated walks and links to other precincts as part of the 'forestry trail'.
- Provide informal lookouts and seating areas to cater for passive recreational pursuits.
- Establish commercial connections with small scale timber and joinery businesses to develop a local demand for Blue Gum timber.

9.6.4 Access and Circulation

- Reinforce connections between the Centenary Tower car park and existing walks and trails.
- Increase signage to improve connectivity and circulation within the area.
- Provide informal parking opportunities along Grant Avenue with connections to the crater rim through the Blue Gum plantation.

9.6.5 Heritage Conservation and Interpretation

- Interpret the area as part of the 'forest trail', include the historical development of forestry species within the Leg of Mutton Lake, historical commercial plantations (Precinct 6) and current plantations (Precinct 3).

09 Management Strategies

9.6.6 Operational Management

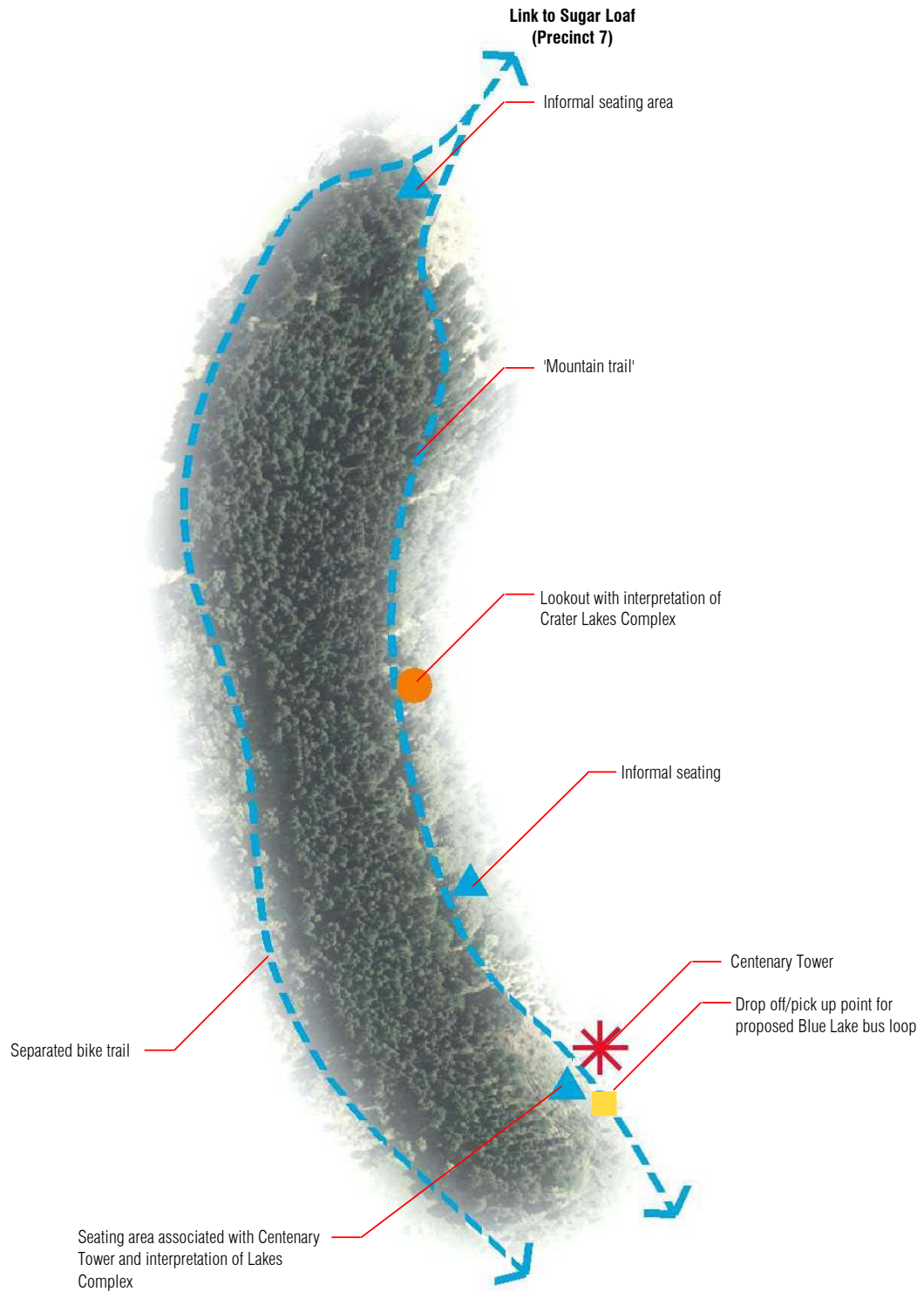
- Maintain and repair existing boundary fences.
- Establish and maintain walks and bike trails.
- Monitor the health, development and removal of trees within the plantation as part of the proposed management of the plantation.
- Remove weed and pest plants.

9.6.7 Key Precinct Actions

	Description	Resp.	Date
1	Manage existing Blue Gum forestry plantation, remove pest or weed plants.	Mount Gambier Council	2006-2008
2	Develop informal parking areas along Grant Avenue with walking and bike trails connections.	Mount Gambier Council	2009
3	Develop walking and bike trails within the precinct with connection to other areas.	Mount Gambier Council	2006-2008
4	Rationalise existing car park, improve access points, disabled parking, signage, seating and bins.	Mount Gambier Council	2006-2007

09 Management Strategies

9.7 Precinct 6 – Historic Pine Plantation



Legend

- | | | | |
|-------------------|------------|-------------------|---------------|
| Vehicular access | Car park | Lookouts | Seating areas |
| Pedestrian access | Bike trail | Point of interest | |

09 Management Strategies

9.7 Precinct 6 – Historic Pine Plantation

9.7.1 Desired Future Character

- Retain and manage existing forestry plantation character.
- Remove and manage plants that impact on the desired character of the precinct.
- Improve and formalise access to the crater rim, providing links to the Sugar Loaf, Browne's Lake and the Centenary Tower.

9.7.2 Maintaining Landscape Character

- Retain historic significance of plantation to western rim of Browne's Lake.
- Retain visual significance of Pine plantation to western rim of Browne's Lake.
- Establish seed collection and propagation to provide provenance plant material to maintain and regenerate Pine plantation.
- Remove dead, dying or dangerous trees, or create log piles to increase habitat potential of the area.
- Replant with provenance plant material as part of a progressive management programme.
- Retain Pine plantation within designated precinct boundaries to reduce impact of Pines as a pest plant within other precincts.
- Remove weed and other pest plants not associated with the historic Pine plantation.

9.7.3 Managing Activities

- Encourage passive recreational pursuits.
- Improve walks and bike trails within the area and encourage connection to the wider trail network to maintain the 'Mountain trail'.
- Provide separate bike trails to avoid the potential conflict within the area.
- Increase the provision of seating areas to cater for more passive recreation.
- Manage the landscape surrounding lookouts to maximise the potential aspect and views, while minimising the visual impact of structures on the crater rim.

9.7.4 Access and Circulation

- Improve links to and from Centenary Tower and encourage people to use the wider walks and trail networks.
- Upgrade the 'mountain trail' within Precinct 6 to provide a well defined link between Centenary Tower and the Sugar Loaf.
- Separate bike trails to remove the potential for conflict.
- Introduce tourist bus stop point as part of a wider scheme (see Section 8.3.4).

09 Management Strategies

9.7.5 Heritage Conservation and Interpretation

- Interpret the area as part of both the 'forestry trail' and 'mountain trail'.

9.7.6 Operational Management

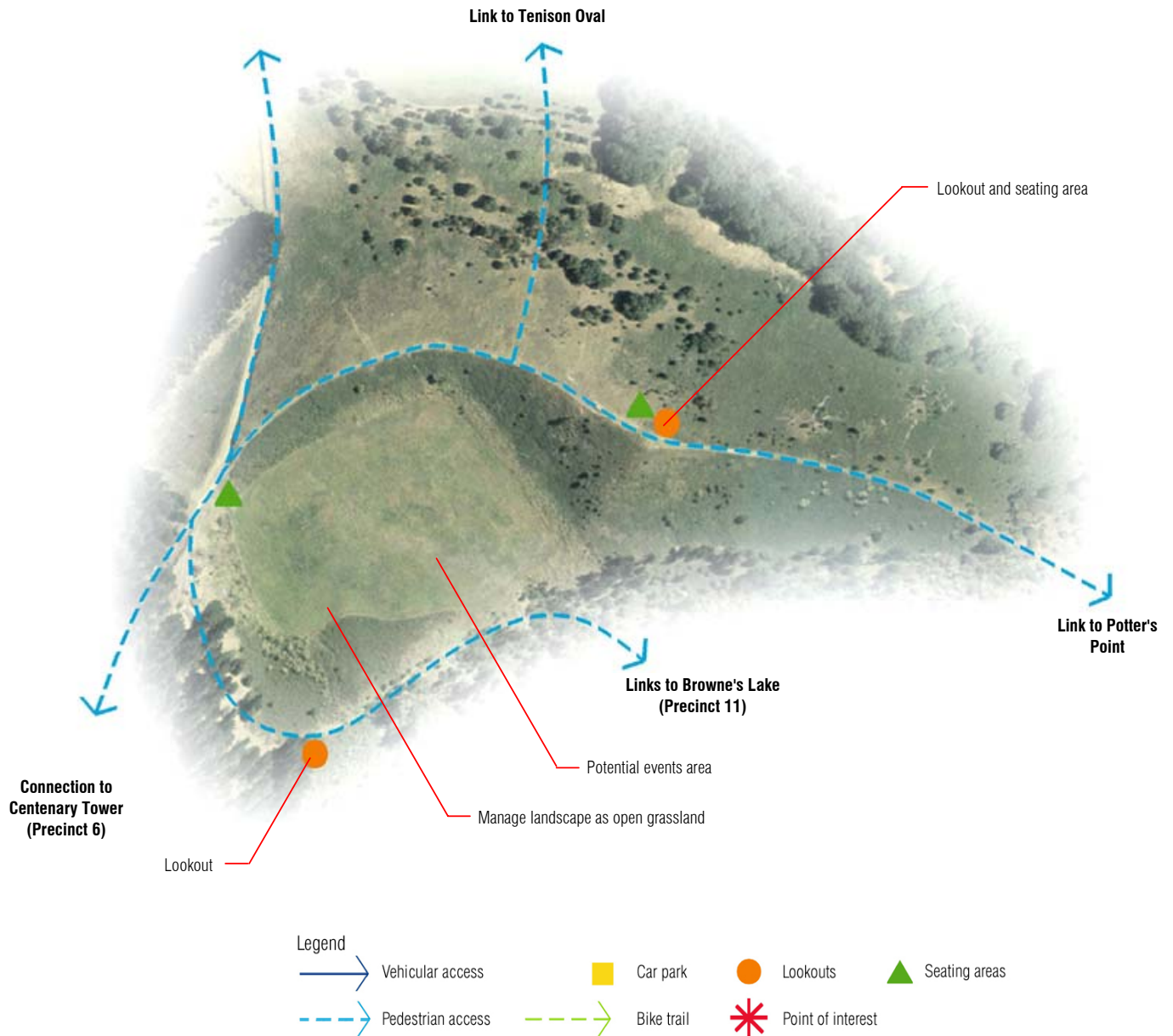
- Maintain and repair boundary fencing to restrict access and encourage appropriate use within the area.
- Monitor and undertake planting operations to maintain historic Pine plantation.
- Remove all pest or weed plants.
- Remove dead, dying or dangerous Pine trees and replant.

9.7.7 Key Precinct Actions

	Description	Resp.	Date
1	Manage existing Radiata Pine plantation to retain historic plantation to western rim of Browne's Lake.	Mount Gambier Council	2006-2008
2	Reinforce walking trail connections, improve surface treatments, signage and the provision of seating and bins.	Mount Gambier Council	2007
3	Develop drop off and collection points for tourist bus loop.	Mount Gambier Council/Tourism SA (funding)	2006

09 Management Strategies

9.8 Precinct 7 – The Sugar Loaf



09 Management Strategies

9.8.1 Desired Future Character

- Retain volcanic significance.
- Continue to remove pest or weed plants.
- Provide access down into Browne's Lake Crater.

9.8.2 Maintaining Landscape Character

- Establish grassland character to maximise the interpretation of the volcanic topography.
- Remove all trees and shrubs within the centre of the precinct. Allow the establishment of a woodland edge in response to the landscape characters of Precincts 6 and 9.

9.8.3 Managing Activities

- Encourage walking and mountain bike access within the Sugar Loaf precinct.
- Encourage informal recreational activities in response to the natural open space created by the removal of trees and shrubs.
- Develop informal picnic and seating areas to complement recreational activities.
- Explore the potential for small scale music and drama events, staged within the natural amphitheatre of the Sugar Loaf. Development of any events should be reviewed in the context of access and infrastructure requirements.
- Provide additional seating and lookouts to the north side of the Sugar Loaf, capitalising on the connectivity to Potter's Point and Tenison Oval and views to Mount Gambier.

9.8.4 Access and Circulation

- Improve connections between the historic Pine plantation, Potter's Point and Tenison Oval. Develop the precinct as a north/west nodal point, providing orientation and interpretation to and from the surrounding areas.
- Establish walks and bike trails to Browne's Lake, improving the wider connectivity of this area.

9.8.5 Heritage Conservation and Interpretation

- Develop signage and interpretation of the volcanic nature of the area. Use the elevated open aspect to provide a visual link to the Valley Lake Rim, the Devil's Punchbowl and other volcanic features.

09 Management Strategies

9.8.6 Operational Management

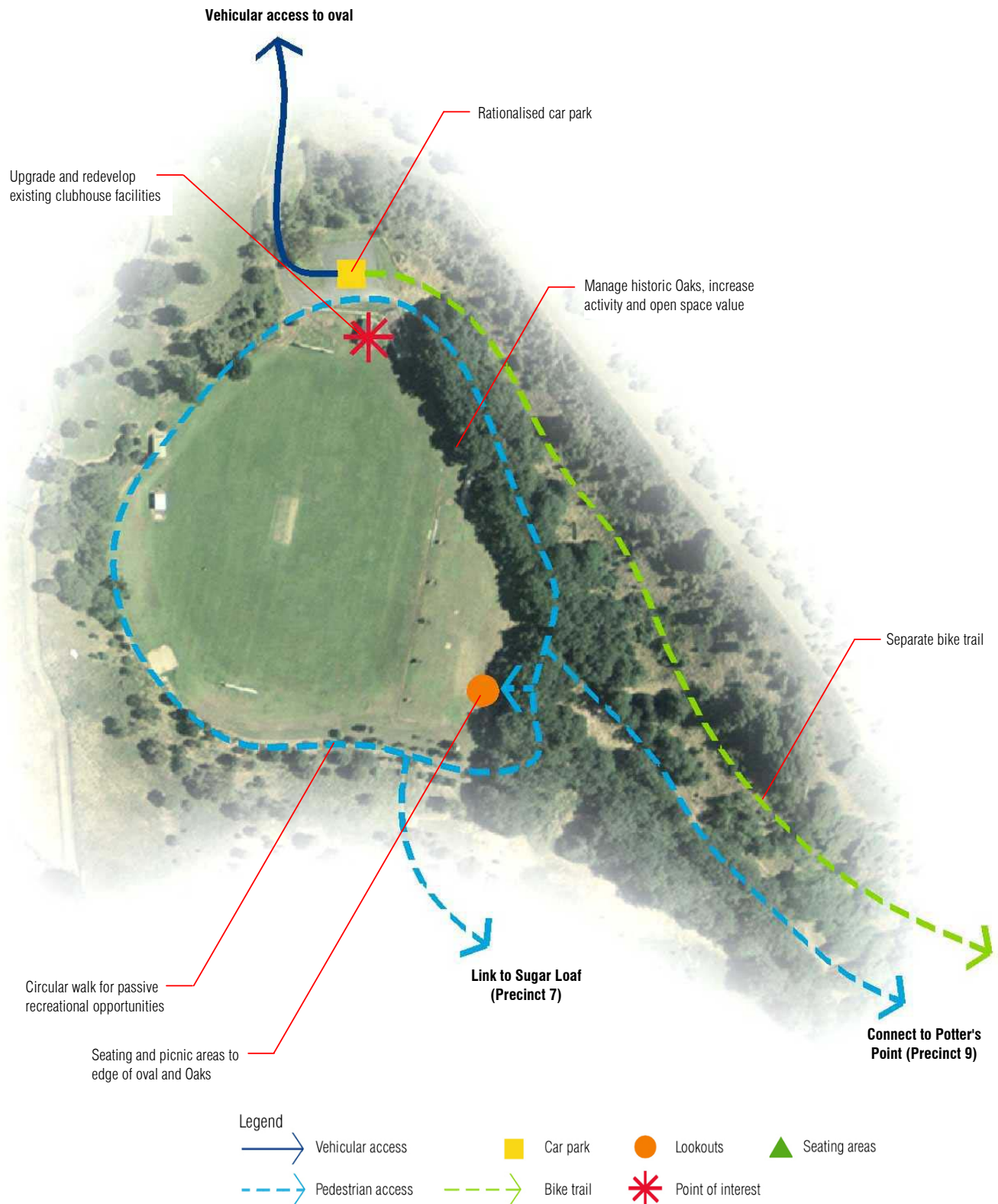
- Maintain open grassland and remove all tree and shrub species.
- Control encroachment of vegetation from adjoining areas while maintaining a suitable woodland edge.
- Maintain walks and trails.

9.8.7 Key Precinct Actions

	Description	Resp.	Date
1	Maintain grassland character to provide open space and interpretation of the volcanic topography.	Mount Gambier Council	Ongoing (bi-annual mowing regime)
2	Develop and improve connections to Browne's Lake, Potter's Point and other precincts.	Mount Gambier Council	2008-2009

09 Management Strategies

9.9 Precinct 8 – Tenison Oval and The Oaks



09 Management Strategies

9.9 Precinct 8 – Tenison Oval and The Oaks

9.9.1 Desired Future Character

- Retain existing managed character of the precinct.
- Retain open landscape character to Oval.
- Maintain pedestrian access whilst restricting vehicular access.
- Develop improved links to the Sugar Loaf and other precincts.

9.9.2 Maintaining Landscape Character

- Maintain existing open landscape character associated with the oval. Continue existing management programme.
- Develop perimeter planting with a mixture of native and exotic species to improve the local amenity and provide a physical connection with the surrounding urban fringe. Consider the use of Oak trees as part of the perimeter planting to reinforce the character of the area.
- Manage the historic Oaks and improve existing condition through the removal of pest or weed plants and other undesirable vegetation, and the selective felling to create areas of open space between trees allowing Oaks to mature.
- Establish a parkland setting of Oaks within grass to provide picnic areas and opportunity for passive recreational pursuits.
- Reinforce the importance through management operations of the Oaks as the eastern boundary to the Tenison Oval.

9.9.3 Managing Activities

- Encourage pedestrian access and activity within the precinct.
- Maintain existing mix of passive and active recreation.
- Discourage the development of additional buildings and facilities in order to maintain the informal character of the area.
- Limit vehicular access.
- Increase connectivity of the oval to the surrounding areas and Valley Lake.
- Review the requirement to upgrade and redevelop existing clubhouse facilities as demand within the area increases.
- Rationalise ancillary buildings within the precinct.

09 Management Strategies

9.9.4 Access and Circulation

- Maintain existing vehicular access. Provide informal overspill parking in association with existing car park.
- Increase walks and bike trails between the oval and the surrounding landscape areas.

9.9.5 Heritage Conservation and Interpretation

(No specific strategies apply to this precinct.)

9.9.6 Operational Management

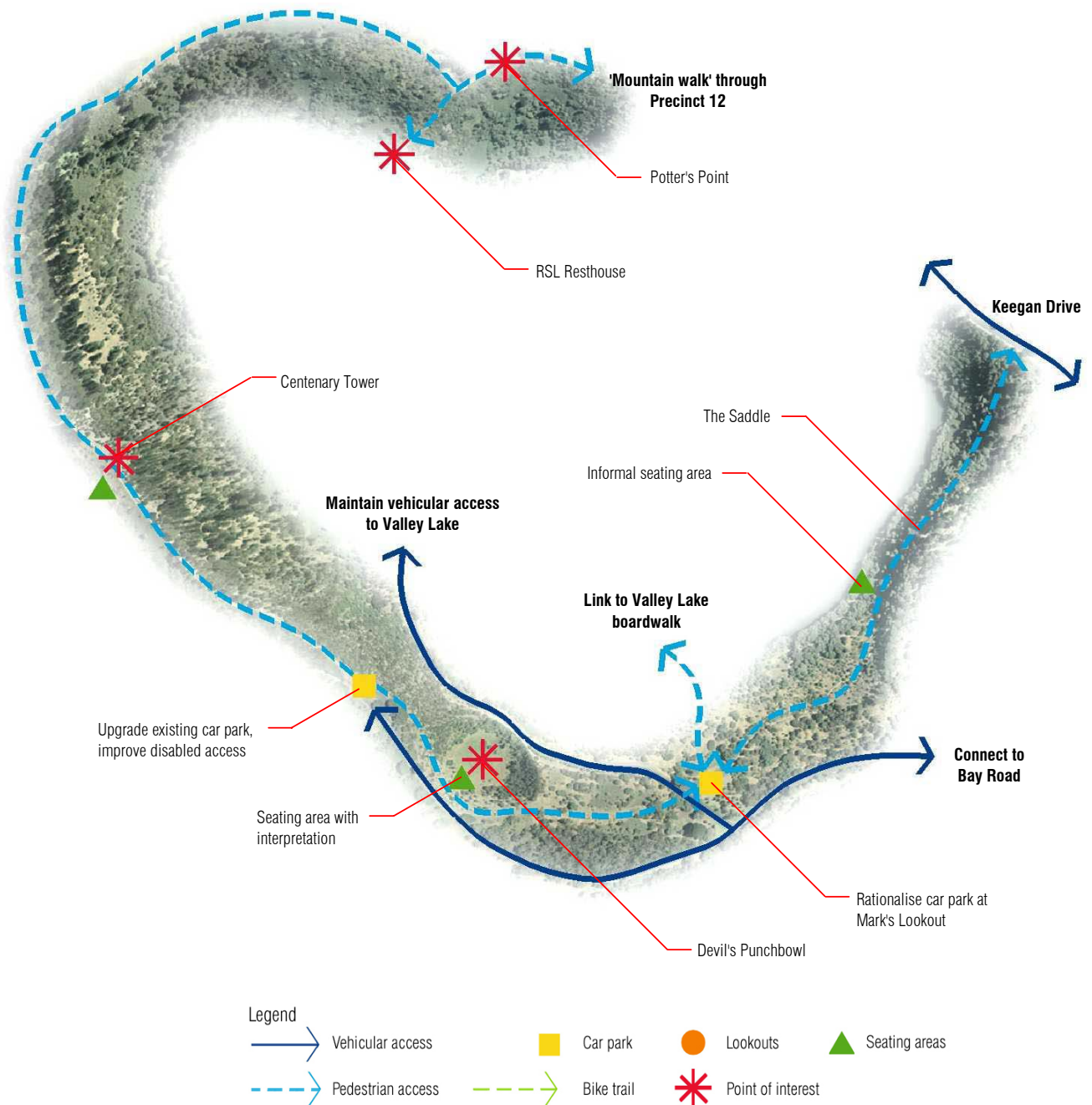
- Maintain existing function and activities.
- Rationalise car park areas to allow adequate parking and bus access to the precinct.
- Maintain walks and bike trails.

9.9.7 Key Precinct Actions

	Description	Resp.	Date
1	Review existing facilities and requirements for additional buildings. Explore the potential to redevelop the existing club house.	Mount Gambier Council	2005-2008
2	Develop perimeter planting to improve local amenity of the area.	Mount Gambier Council	2005-2006
3	Manage and protect historic Oaks to eastern boundary of Tenison Oval.	Mount Gambier Council	Ongoing
4	Encourage the preservation of existing recreational activities.	Mount Gambier Council	Ongoing

09 Management Strategies

9.10 Precinct 9 – The Valley Lake Crater Rim and Devil's Punchbowl



09 Management Strategies

9.10 Precinct 9 – The Valley Lake Crater Rim and Devil’s Punchbowl

9.10.1 Desired Future Character

- Reinforce the significance of the area as the crater rim to Browne’s Lake and Valley Lake craters.
- Manage and remove pest or weed plants around lookouts to enhance sightlines.
- Re-expose RSL Resthouse.
- Based on our experience in other sensitive areas, a chairlift to the centenary tower would be inappropriate due to visual impact, poor financial feasibility and the risk to the proponent and Council. Should Council wish to further explore this proposal, it would need to undertake:
 - > a detailed business plan and financial feasibility assessment based on tourism and visitor statistics;
 - > a visual assessment including photomontage representation of the chairlift insitu;
 - > risk assessment with regard to liability issues associated with user safety and operator experience.
- Alternative forms of access to the centenary tower in the form of land based transport should be explored.
- Manage the Devil’s Punchbowl as a significant landscape feature.
- Reduce the amount of car parking at Mark’s Lookout.
- Maintain access to the Saddle.
- Manage landscape on the Saddle to provide views into the Valley Lake and Leg of Mutton Lake Craters.
- Develop mobile kiosk or appropriate small scale café or food service outlet at Potters Point and to provide a community gathering point and discourage anti-social behaviour.

9.10.2 Maintaining Landscape Character

- Retain existing landscape character to the Saddle. Encourage regeneration of existing trees and shrubs to create a mixed species woodland.
- Maintain the landscape setting to the crater rim of the Leg of Mutton Lake and the Saddle.
- Manage the landscape areas adjacent to Mark’s Lookout to maximise the views and aspects, while minimising the potential visual impact to the crater rim.
- Reinforce boundary planting to the Blue Lake Holiday Park to reduce the impact of development of the Valley Lake.
- Remove all trees and shrubs from inside the Devil’s Punchbowl and manage as an open grassland area.
- Maximise the interpretation of the volcanic topography.

09 Management Strategies

- Encourage native revegetation of the crater rim surrounding the Devil's Punchbowl. Supplement with plant material from seeds collected and propagated locally.
- Continue planned programme conducted over past 18 months involving the removal of Pine trees from around Centenary Tower to improve the volcanic interpretation of the crater rim and increase the physical and visual significance of the tower.
- Manage the removal of trees to limit the erosion of soils or volcanic features.
- Establish a native woodland edge to Browne's Lake and the Sugar Loaf.
- Remove and manage trees and shrubs obscuring the RSL Resthouse.
- Maintain the crater rim to Valley Lake and Browne's Lake as a series of landscape areas responding to topographical, volcanic or historic landscape characters.

9.10.3 Managing Activities

- Rationalise the amount of car parks at Mark's Lookout. Establish areas of landscape within the car park to reduce the impact of this facility on the surrounding landscape.
- Increase picnic and seating areas at Mark's Lookout to provide additional leisure opportunities.
- Improve parking and disability access to the lookouts at the Centenary Tower car park.
- Improve the seating, signage and interpretation of the Devil's Punchbowl.
- Provide 'drop off and pick up' point for the proposed tourist bus loop and improve access to Centenary Tower.
- Improve access to the RSL Resthouse.
- Improve car park and security lighting within Potter's Point area. Explore the potential of a mobile, small scale commercial development (café) to be located at Potter's Point.
- Maintain the historical significance of Potter's Point.

9.10.4 Access and Circulation

- Reinforce the continuous access around the crater rim (mountain trail) by improving existing trails and footpaths and providing additional connections. Provide a link between Keegan Drive, the Saddle, Mark's Lookout, Devil's Punchbowl, Centenary Tower, the Sugar Loaf and Potter's Point.
- Rationalise existing car parks at Mark's Lookout, Centenary Tower and Potter's Point. Reduce large areas of bitumen and establish planting within car parks to reduce visual impact.
- Provide additional walks and bike trail connections between Mark's Lookout and the Valley Lake boardwalk.
- Provide adequate bike access to the Saddle while avoiding conflict with other users.
- Restrict access from the Saddle into the Leg of Mutton Lake.

09 Management Strategies

- Maintain existing vehicular access within the Precinct.
- Consider specially designed vehicular signage to provide adequate orientation and interpretation to points of interest around the crater rim.

9.10.5 Heritage Conservation and Interpretation

- Reinforce the significance of volcanic, forestry and heritage features as part of the 'mountain trail'.
- Prepare a full assessment of the structure of the RSL Resthouse and develop a schedule of works for its conservation as a matter of some urgency.
- Continue to monitor the condition of the Potter's Point Look Out.
- Undertake conservation requirements identified in Section 5.10.4 for the Centenary Tower.

9.10.6 Operational Management

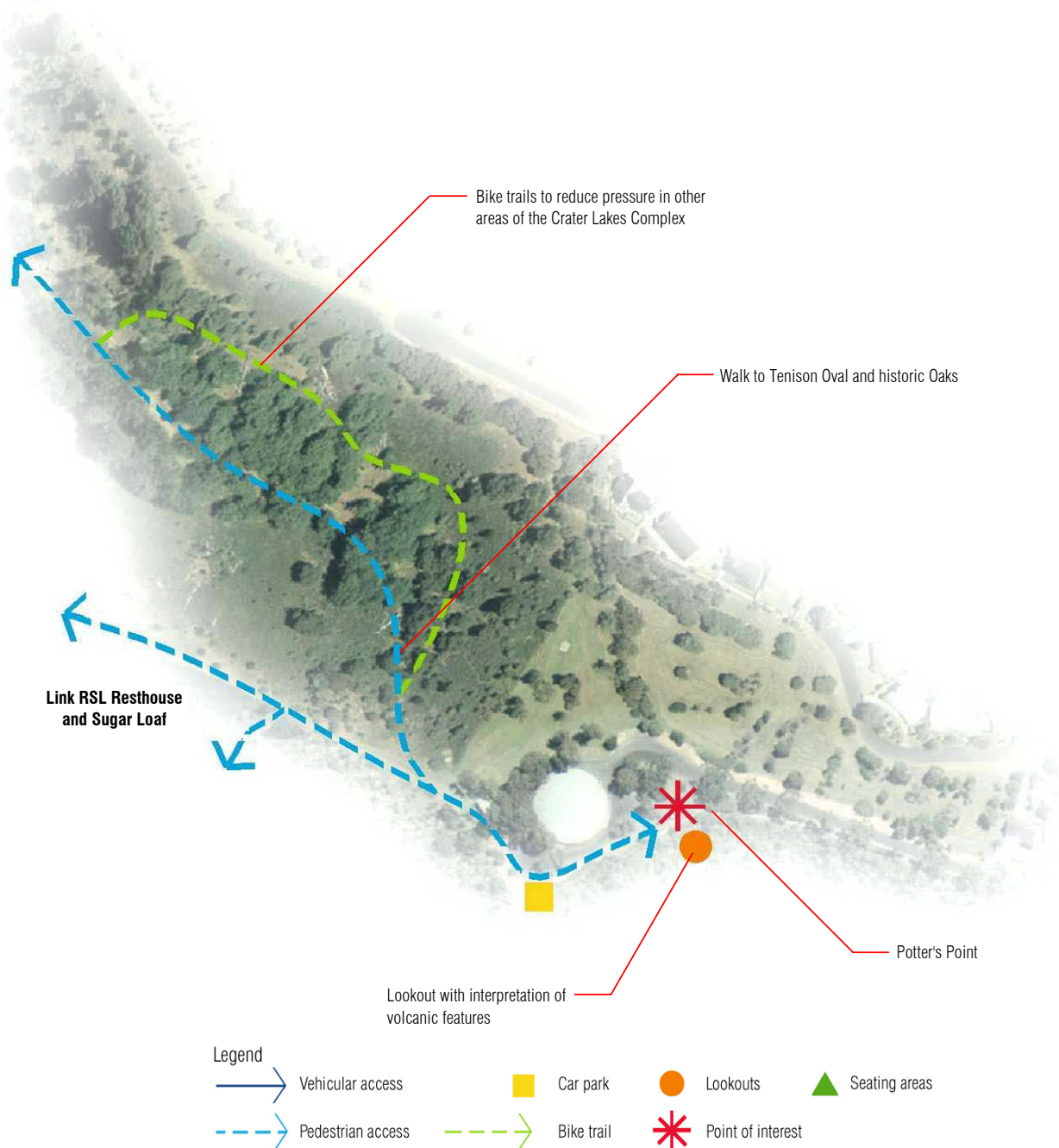
- Apply landscape management operations to establish and define the landscape characters as described in Section 9.10.2.
- Maintain seating areas and existing facilities. Upgrade as part of a progressive asset replacement programme.
- Develop seating, benches, tables and fencing using locally produced material, sourced from small scale forestry operations within the Crater Lakes Complex. (Timber treatment and preservation should be in accordance with Council Regulations.)

9.10.7 Key Precinct Actions

	Description	Resp.	Date
1	Rationalise existing car park at Mark's Lookout. Reduce area of bitumen, replant and provide additional seating, signage and fencing.	Mount Gambier Council	2004-2005
2	Improve pedestrian and bicycle access to Saddle. Develop separated paths where possible.	Mount Gambier Council	2006
3	Manage and conserve Centenary Tower and the RSL Resthouse including assessing existing structure. Remove trees and shrubs to improve views to and from these features.	Mount Gambier Council/DEH	2004-2005

09 Management Strategies

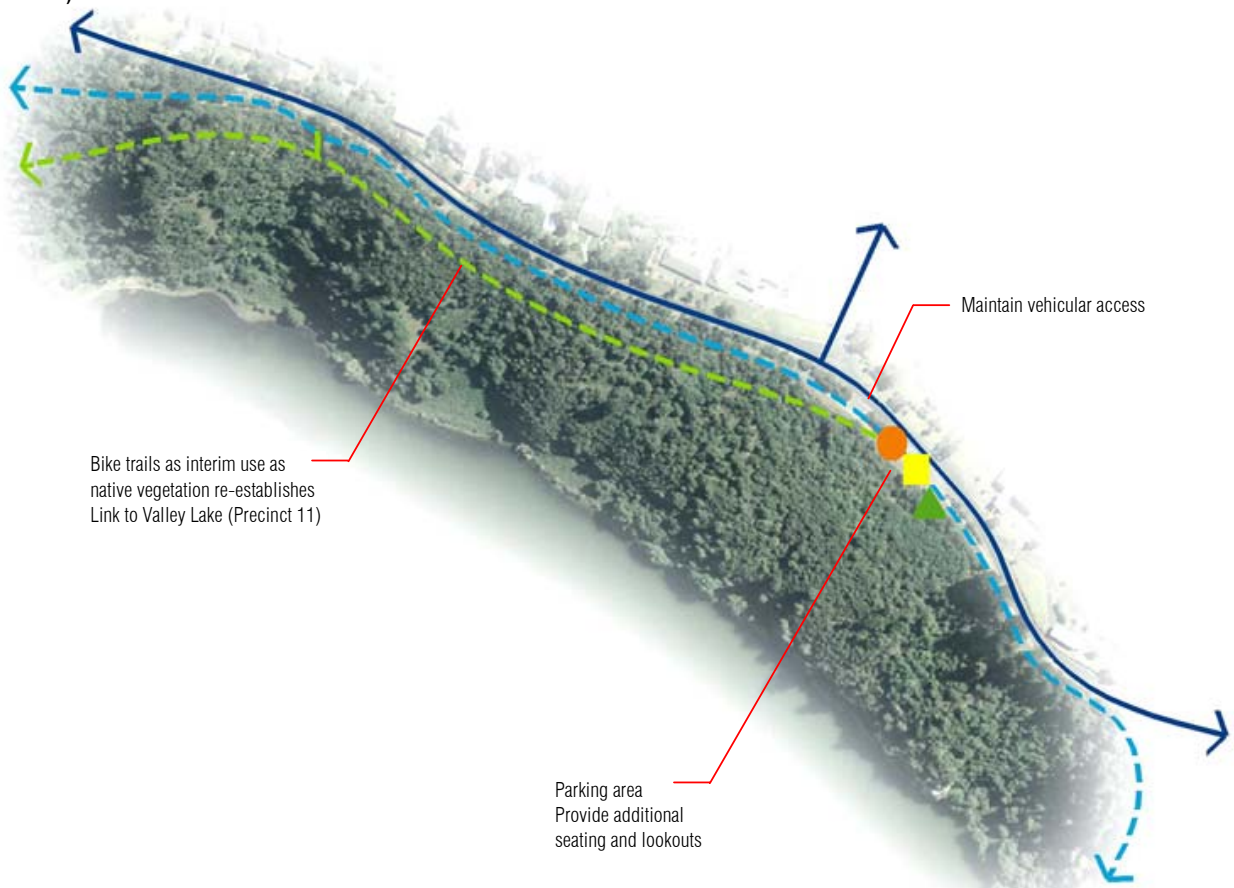
9.11 Precincts 10 & 12 – Pest and Weed Plant Areas (Precinct 10)



09 Management Strategies

(Precinct 12)

Link to Potter's Point
(Precinct 9)



Bike trails as interim use as native vegetation re-establishes Link to Valley Lake (Precinct 11)

Maintain vehicular access

Parking area
Provide additional seating and lookouts

Continuation of the mountain trail
Link to crater rim (Precinct 9)

- | | | | |
|-------------------|------------|-------------------|---------------|
| Vehicular access | Car park | Lookouts | Seating areas |
| Pedestrian access | Bike trail | Point of interest | |

09 Management Strategies

9.11 Precincts 10 & 12 – Pest and Weed Plant Areas

9.11.1 Desired Future Character

- Progressively manage and improve biodiversity.

9.11.2 Maintaining Landscape Character

- Remove all weed or pest plants. Apply progressive management operations to all areas to encourage native vegetation regrowth.
- Establish a native mixed age woodland.

9.11.3 Managing Activities

- Develop new trails and walks within each area.
- Improve passive recreational pursuits throughout areas. Provide seating and lookouts to other precincts.

9.11.4 Access and Circulation

- Maintain and improve existing walks and trails. Increase connections to other precincts.

9.11.5 Heritage Conservation and Interpretation

(No specific strategies apply to this precinct.)

9.11.6 Operational Management

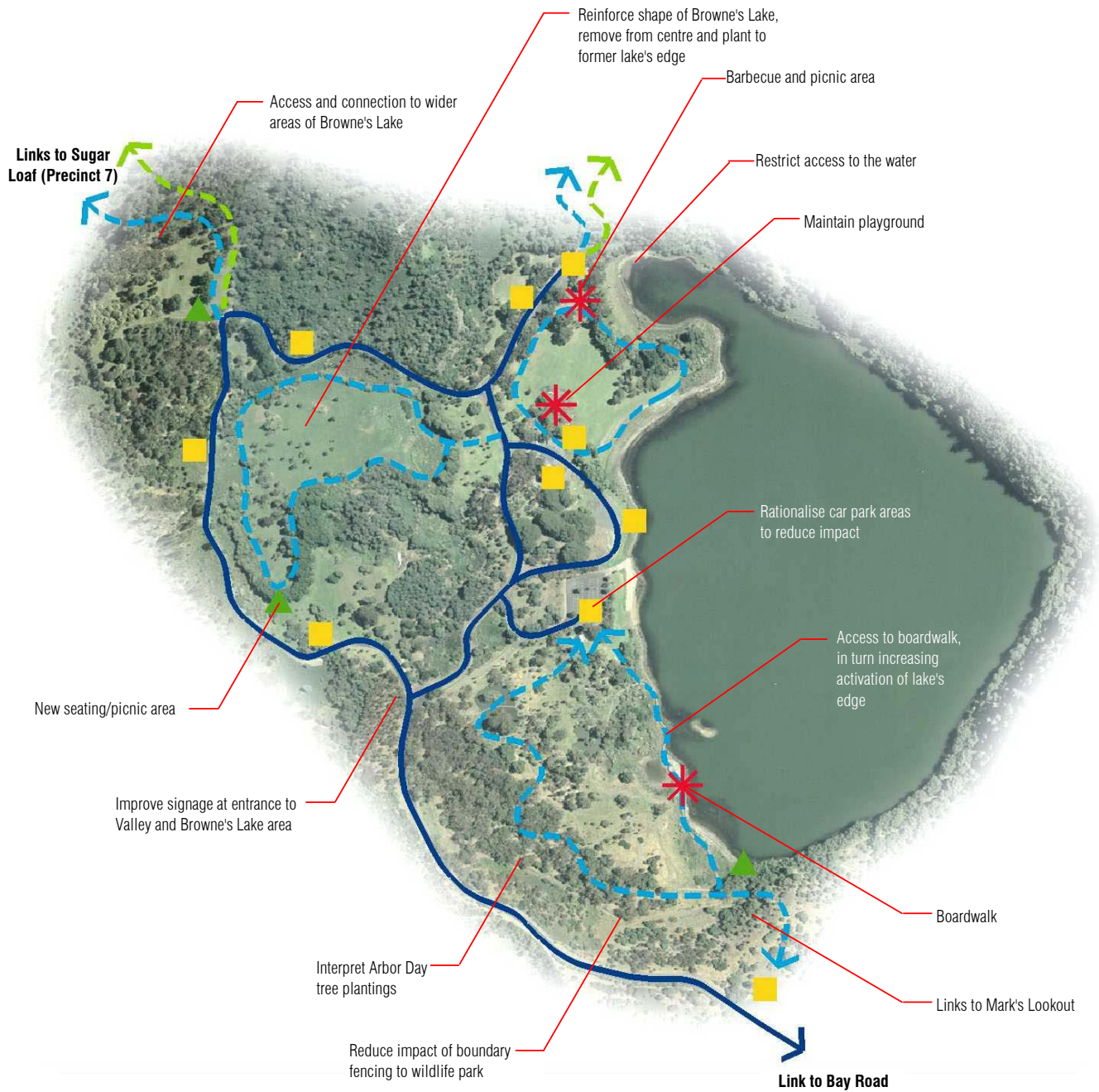
- Remove all pest or weed trees and shrubs. Provide ongoing management of the area to prevent further colonisation by weed or pest plants.

9.11.7 Key Precinct Actions







	Description	Resp.	Date
1	Remove all weed or pest plants and improve biodiversity and native species.	Mount Gambier Council	2005-2009
2	Improve walking and bike trails within the precinct.	Mount Gambier Council	2007-2009

09 Management Strategies

9.12 Precinct 11 – Valley Lake and Browne's Lake Crater



Legend

 Vehicular access	 Car park	 Lookouts	 Seating areas
 Pedestrian access	 Bike trail	 Point of interest	

09 Management Strategies

9.12 Precinct 11 – Valley Lake and Browne’s Lake Crater

9.12.1 Desired Future Character

- Modify entrance and improve signage at wildlife park to clarify that entrance to the park is free.
- Maintain the open landscaped lawns next to the Valley Lake.
- Maintain advisory restrictions for swimming and water contact in Valley Lake.
- Maintain and upgrade playground as required.
- Retain Browne’s Lake as open space.
- Establish appropriate vegetation to form a perimeter to Browne’s Lake.
- Modify wildlife park boundaries, while maintaining predator exclusion, to increase public access to Valley Lake edge and connectivity to Mark’s Point.
- Review car park facilities and orientation as part of ongoing management operations.
- Retain and manage significant exotic plantings.
- Retain Arbor Day eucalyptus plantings to south west of Wildlife Park and rationalise park fencing to highlight plantings.
- Upgrade toilet facilities adjacent wildlife park to provide modern facilities.

9.12.2 Maintaining Landscape Character

- Recognise varied landscape characters within the precinct. Reinforce specific vegetation types and create suitable transitional landscape areas between character zones. These include:
 - > Arbor Day tree plantings;
 - > native vegetation to base of crater and crater wall;
 - > open grass and lawn areas (associated with lake edge and playground);
 - > European parkland landscape;
 - > pockets of open grassland associated with Browne’s Lake;
 - > Browne’s Lake edge;
 - > wildlife park landscape;
 - > open water of Valley Lake.
- Manage Arbor Day tree planting area. Remove understorey and weed plants. Re-establish significance of historic planting area and interpret accordingly.
- Encourage native regeneration and supplement with additional planting to provide a transitional landscape area between the crater rim (Precinct 9) and the Valley Lake.

09 Management Strategies

- Maintain existing areas of open lawn. Provide open space areas for active and passive recreation.
- Recognise European woodland character. Increase diversity and seasonal variation through the introduction of additional exotic species.
- Remove weed and pest plants such as Elder, Periwinkle, Blackberry and Pittosporum species.
- Identify the edge of Browne's Lake and manage as open grassland to increase the significance of the area. Remove all tree and shrub species.
- Manage existing vegetation to Valley Lake edge.
- Increase vegetation diversity within wildlife park. Establish small scale representation of animal habitats.
- Maintain existing open water character of Valley Lake. Remove trees from sand bar and around boardwalk.
- Remove European Carp and aquatic weeds from Valley Lake.

9.12.3 Managing Activities

- Improve opportunities for passive recreation within Browne's Lake. Develop informal circular walk around reinterpreted lake edge.
- Maintain existing playground. Review future demands and needs for expansion and consider the development of separate age grouped facilities to reduce potential conflict.
- Retain access to Valley Lake for active water sports. Restrict swimming and scuba diving to limit contact with water.
- Increase access to wildlife park. Promote the facility as part of the Valley Lake experience and as a free attraction.
- Rearrange wildlife park boundary fencing to increase access to the boardwalk, water's edge and Mark's Lookout. Implement 'airlock' gate arrangements to prevent predator access to the park.
- Review location and distribution of barbecue areas. Rearrange and supplement to provide a diversity of facilities catering for individuals, families and large groups.
- Refurbish existing toilet block.
- Consider the establishment of a designated events area. Consider future infrastructure requirements necessary to stage regular events and activities.

9.12.4 Access and Circulation

- Maintain existing vehicular access within Browne's Lake and Valley Lake.
- Rationalise main entrance to present a legible point of arrival for visitors.

09 Management Strategies

- Provide informal parking areas to the Browne's Lake loop road to increase opportunities to explore the area.
- Review and rationalise the number and arrangement of car parks. Consider opportunities to reduce car park areas and replace with informal, overspill parking areas. Reduce visual impact of parking areas within Valley Lake from surrounding crater rim lookouts through the introduction of additional planting areas within car parks.
- Improve access to the wildlife park.
- Monitor condition of the boat ramp and consider maintenance and long term access issues with user groups.
- Increase access to boardwalk.
- Implement additional walks around Browne's Lake.
- Increase connections to the Sugar Loaf and Mark's Lookout.
- Increase bike access to and from the surrounding precincts.
- Develop a 'drop off and pick up' point as part of a possible tourist bus loop.

9.12.5 Heritage Conservation and Interpretation

- Provide interpretation of activities and facilities within Browne's Lake and Valley Lake.
- Provide interpretation of small scale volcanic features within the area.
- Provide adequate interpretation of the entire Crater Lakes Complex.
- Stabilise road cutting and artefacts located within archaeological site, Valley Lake Campsite 1 (see Section 7.4.3, page 72).

9.12.6 Operational Management

- Retention of advisory restrictions on swimming and water contact in Valley Lake.
- Management and maintenance of existing planting through selective removal of understorey and pest plants.
- Review car parking provision and implement programme to reduce their visual impact.

9.12.7 Key Precinct Actions

	Description	Resp.	Date
1	Rationalise Mark's Lookout. Reduce car park areas, increase landscape treatments, improve lookout, signage and trail links to other precincts.	Mount Gambier Council	2004-2006
2	Improve entry statement to Valley and Browne's Lake area.	Mount Gambier Council	2005

09 Management Strategies








	Description	Resp.	Date
3	Redevelop entrance to the wildlife park to increase presence within precinct. Consider modification of fencing to increase aspect to the entrance and boardwalk.	Mount Gambier Council	2006-2007
4	Upgrade toilet facilities.	Mount Gambier Council	2006-2007

09 Management Strategies

9.13 Precinct 13 – Botanic Park



Legend

 Vehicular access	 Car park	 Lookouts	 Seating areas
 Pedestrian access	 Bike trail	 Point of interest	

09 Management Strategies

9.13 Precinct 13 – Botanic Park

9.13.1 Desired Future Character

- Maintain 'Park' character.
- Retain relationship to urban area as contrast to the Crater Lakes area.
- Respect and retain existing exotics and natives.
- Recognise area as an interface/transition between the city and various features of the Crater Lakes area.

9.13.2 Maintaining Landscape Character

- Manage area as a botanic park. Establish tree exhibits in mown grass. Produce a formal landscape character.
- Develop the concept of 'forest trees of the world'. Add to the existing exhibits to provide a diverse range of species. (Review concept with the Botanic Gardens of Adelaide and local forestry groups.)
- Retain recreational open space as part of the Keegan Reserve.
- Review the introduction of understorey planting and flower beds. Avoid the potential of losing the Botanic Park character and creating a civic garden.

9.13.3 Managing Activities

- Encourage passive recreation, walking, sitting and watching within the Botanic Park
- Maintain a mixture of passive and active recreation in Keegan Reserve.
- Provide barbecues and seating areas within the park to increase activity and time spent by visitors in this precinct.
- Establish the 'forest trees of the world' walk with the north, south, east and west sections of the walk representing the trees from associated continents and regions.
- Encourage access to the Rook Walk, surge tank and Hoo Hoo Lookout.
- Ensure suitable identification of all significant forest trees within the Botanic Park.

9.13.4 Access and Circulation

- Maintain existing vehicular access.
- Improve small scale car parking and lay-by facilities around the Botanic Park.
- Identify disabled car parks and provide acceptable access to local facilities.
- Develop a drop off and pick up point along Keegan Drive as part of the potential Blue Lake bus loop.

09 Management Strategies

9.13.5 Heritage Conservation and Interpretation

- Establish signage and labelling of trees within the Botanic Park.
- Provide signage to surrounding areas and points of interest, as well as the city.
- Collect and stabilise the archaeological site between Keegan Drive and the water tower to reduce the erosion of the site.

9.13.6 Operational Management

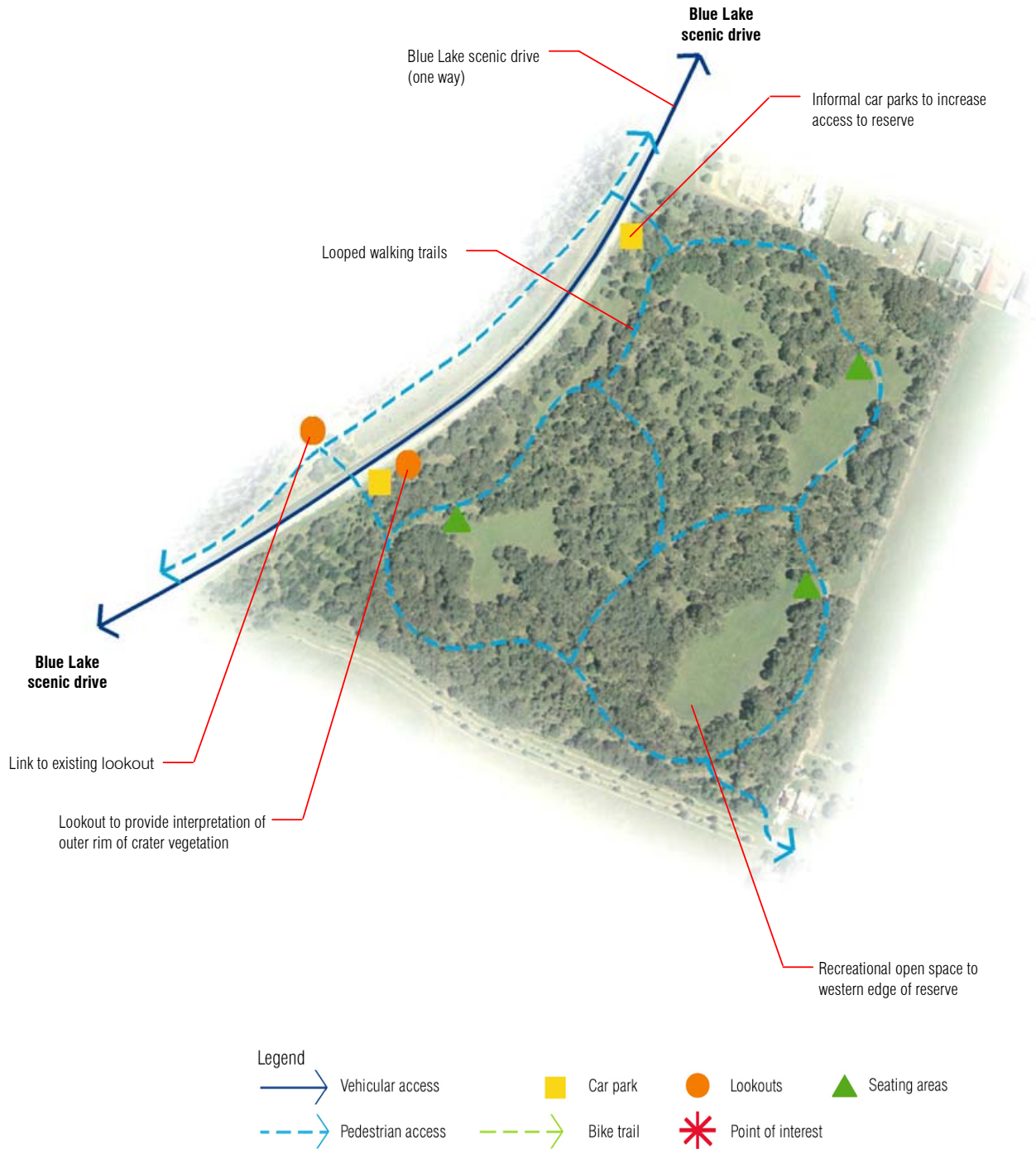
- Manage the area as a formal botanic landscape of large trees in mown grass.
- Review the introduction of understorey planting and flower beds against the desired future character for the precinct.

9.13.7 Key Precinct Actions

	Description	Resp.	Date
1	Improve access within the precinct. Develop new footpaths linking the Botanic Park with surrounding areas and precincts.	Mount Gambier Council	2005-2008
2	Improve plant collection and develop the 'forest trees of the world' programme with associated interpretation.	Mount Gambier Council Hoo Hoo Club	2004-2007

09 Management Strategies

9.14 Precinct 14 – P J Browne Reserve



09 Management Strategies

9.14 Precinct 14 – P J Browne Reserve

9.14.1 Desired Future Character

- Maintain and manage as a public reserve.
- Re-establish a 'complex of indigenous native vegetation, pre-European, for aesthetic and education purposes'.

9.14.2 Maintaining Landscape Character

- Maintain recreational open space to western edge of the reserve.
- Encourage revegetation of other areas of the reserve to increase the diversity and extent of tree and shrub species.

9.14.3 Managing Activities

- Maintain the mix of passive and active recreation within the reserve.
- Increase connections to the Blue Lake Grand Circuit to provide additional walks and points of interest.
- Provide seating areas to facilitate passive recreation.
- Provide a lookout in association with the new car park areas (part of the Blue Lake Scenic Drive loop road) to create an accessible area from which to interpret the landscape character of the outer rim vegetation.

9.14.4 Access and Circulation

- Improve connectivity between the Blue Lake Grand Circuit and P J Browne Reserve.
- Develop informal car parks to increase activity in the area.

9.14.5 Heritage Conservation and Interpretation

- Implement suitable interpretation of tree and shrub species within the reserve. Locate interpretation and signage as part of the development of the lookout.

9.14.6 Operational Management

- Routine removal of pest plants.
- Revegetation with a broader range of species as specified in the original proposals for the reserve and develop management plan (building on 1997 report) to increase diversity.

09 Management Strategies

9.14.7 Key Precinct Actions

	Description	Resp.	Date
1	Continue ongoing management of the Reserve. Ensure that the tree and shrub species reflect the original objectives of the Reserve.	Mount Gambier Council	Ongoing
2	Introduce lookouts and boardwalks to improve access.	Mount Gambier Council	2006-2008

10 Conclusion

The Draft Conservation Management Plan for the Crater Lakes area provides a basis for consultation with Council, the Reference Group, key stakeholders and the community.

It will be important to confirm that the Conservation Management Plan will effectively guide the future ongoing conservation, improvement, development and maintenance of the Crater Lakes area.

The Plan establishes a Vision and seven overarching goals for the Crater Lakes area that seek to protect and enhance the geological, natural and historic features of the site while enabling continued access by residents and visitors wishing to use and enjoy the attributes of the area.

Detailed management strategies identify necessary improvements to the management and maintenance or restoration of specific vegetation types and plantings, and opportunities to upgrade pedestrian access and increase the links between different precincts. The implications of these proposed actions for community use and on Council's management and operations need to be carefully reviewed prior to finalising a Plan that will be both practical to implement and acceptable to the community.

Appendices

Appendix A

References for Crater Lakes Area
Conservation Management Plan

Appendices

Publications

Haywood, B. 2003 *Terrestrial Biodiversity Report for the Blue Lake, South Australia*, Department of Environment and Heritage.

McDougall & Vines 2003, *Blue Lake Holiday Park, Mount Gambier Heritage Master Plan*.

Appendices

Appendix B

Article from Border Watch

Appendices

ARTICLE FROM BORDER WATCH, 15/8/1963, PGS 7, 11 & 12

Lakes Schemes are not New

We've been 'going to' act for years

Enthusiastic tree plantings and plans for making Mount Gambier's Lakes more beautiful are not new: there have been many plans in the past.

The community effort in planting 500 trees a few weeks ago was the biggest planting for a number of years.

In past years, the Town Council and later the City Council, debated Lakes improvements and tree planting plans on many occasions.

In 1927 the South Australian Government Town Planner, Mr W Scott Griffiths, drew up a plan for the Lakes.

In 1935 the Council asked the late Mr W D Robinson (father of the present Curator, Mr R W Robinson) to submit plans for tree planting and improvements.

Another plan discussed by the Council in the 1940s was by Mr Bone, the Curator of Parks and Gardens in Adelaide.

Practically all trees previously planted at the Valley and Brownes Lakes were put there in accordance with Mr Robinson's plan.

Many were planted by school children on arbor days. These included the big grove of gums on the southern bank of the Valley Lake, the adjacent pine trees and the golden willows closer to the shore.

Good Advice

Scott Griffiths' words of advice are as true today as in 1927, and his plea for informal plantings should be heeded today by any committee drawing up a new plan for the Lakes. A close study of his plan might be helpful to future planners.

He introduced his report by saying, 'The treatment should not be too formal, but should harmonise with nature as close as possible, and for this reason, much will depend on your landscape gardener, who should be given a fairly free hand in the development, subject to adherence to the general scheme.'

Tracks should be as narrow as safety for traffic permitted; he suggested 20 feet. Where corners had to be cut to bring the track to this width, he suggested every care be taken to preserve the natural features. On each cutting should be planted a suitable plant which would produce a spray or shower effect over the face of the cutting.

'The treatment of the landscape must be discretely carried out' Scott Griffiths said.

Appendices

Fern Beautiful

'Viewing the landscape immediately surrounding the Lakes from the Tower on the heights, the contrast of the deep toned green of the mass of bracken or brake-fern against the lighter tone in these parts cleared is very beautiful, to the extent that one hesitates to disturb the existing beauty, but we have to consider the aspect from the lower and closer view, and the necessity of sufficient cleared area for picnic parties.'

He suggested areas on the low lying parts close to the shorelines be cleared, and on the peninsular dividing Brownes and Valley Lakes, gracefully curving footpaths and roads formed of varied coloured purple and warm sienna lava from Mount Schank, would be the most effective when viewed from the Tower.

Rockery

At the point where the drive meets Brownes Lake, Scott Griffiths suggested a rockery built around a rustic shelter with suitable plant treatment. Plants he suggested for this rockery were *Jasminum primulinum* (yellow flowers), *budlier[sic]* (spraying blue flowers), *Cantua dependens* (drooping clusters of rosey carmine flowers), *echevarias*, *mesembryanthenums* and *aloes*.

At that time, Valley and Brownes Lakes were joined and a bridge over the narrowest part was projected. Since then, both Lakes have receded many feet.

At the northern point of Brownes Lake, Scott Griffiths suggested a smaller inner lake or children's swimming pool could be made by excavating and levelling up the sides and raising the level of the Lakes drive. Willows, palms, red flowering gums and perhaps walnuts, could be planted around the banks, he said.

Swimming Pool

The plan provided for a children's playground and safe swimming pool on the northern shore of the Valley Lake where the shoreline was comparatively long and level with an outer barrier to prevent children getting out of their depth.

Around this pool, Scott Griffiths would have planted willows, cabbage tree palms and Cootamundra wattles.

Along the shorelines of the Lakes, he suggested 'planting trees in strictly informal settings. It is preferable to plant in clumps with a few scattered single trees here and there'.

Creation of a miniature lake with an island centre in the swampy area on the southern side of Valley Lake was suggested to remedy the swampy appearance at this spot.

Scott Griffiths preferred footpaths on the higher levels, rather than vehicular roads, to induce the visitor to ramble and take in the 'varied and beautiful vistas', which would more than compensate for the exertion needed. But he did suggest parking bays for cars.

Appendices

Seats should be provided for rest purposes along the pathways and where the best views were.

He thought the motor track should be terminated near the Devil's Punchbowl.

Scott Griffiths said he knew of no view of its kind of greater magnificence in any part of the Commonwealth than that from the Tower.

Removal of aquatic weeds from the edges of the Lakes was advocated so that waterlilies could be introduced.

Trees suggested for plantings were red flowering gums, jacarandas (because they were quick growers) Cape chestnuts, pink flowering gums, pepper trees, Norfolk Island pines, feather palms (Phoenix Canariensis), dwarf cotton palms.

For moist areas, he suggested weeping willows on eight foot stems, golden willows, flame trees, tea trees, Moreton Bay figs, spireas, cabbage tree and phoenix palms, tulip wood trees, Norfolk Island pines, pepper trees and agapanthus.

He said fireplaces should be provided to prevent the risk of fires.

In July, 1935, a tentative plan for replanting the slopes of the Mount with trees was placed before the Town Council, and following criticism of some of the Parks and Gardens Committee's proposals, it was decided to seek expert advice before proceeding further.

Chairman of the Parks and Gardens Committee of that time, the late Ald. R M Haig, told the Council there were enough ash trees in the nursery to plant the lower slopes. Cr. J H Marks thought it would be a waste of money to plant ash trees on the western slopes, and the late Cr. J D F Harbison said hardy natives would be most suitable.

Artistic Base

Cr. W E Pyne thought it an opportunity for effective grouping of native trees, and said 'the Mount could be made an artistic base for a most magnificent achievement in tree planting'.

Two months later, Cr. Pyne said he had inquired in Adelaide and the City Curator there had stated that Mount Gambier had the best man available in the State in Mr W D Robinson.

Cr. Pyne proposed that the Parks and Gardens Committee be asked to submit a plan for beautification of the whole area from the Moorak side to the Blue Lake.

Plans for the improvements became the subject of heated debates in Council. at one meeting the late Ald. Haig and Cr. Pyne were at differences and there was mention of fisticuffs.

Later, Ald. Haig resigned from the Parks and Gardens Committee.

Appendices

Curator's Plan

The Committee recommended that Mr W D Robinson's offer to prepare a comprehensive plan of the improvements at the Lakes be accepted at a fee of £25, and of that sum an amount of £5/5/- be made available forthwith for a tree planting scheme on the south and west slopes of the Mount.

The late Cr. Harbison, moving its adoption, said the plan prepared by Mr W Scott Griffiths, would be the basis of Mr Robinson's scheme. It did not mean that all would be done in one year, or that Mr Robinson should be retained to supervise the whole of it, but it meant Mr Robinson would decide what trees were the most suitable and other inaugural details.

The work intended to be carried out in that year was the planting of the slopes of the Mount.

The Council was told that Scott Griffiths' plan was mainly from the viewpoint of engineering construction. Although useful as a ground plan, it was incomplete from the point of view of landscape gardening.

Scott Griffiths recommended that the Council employ its own landscape gardener to round off the plan for landscape layout, types of trees, their grouping and colour scheme, planning entrance gates, and the drive from Bay Road.

Long Range

Cr. Pyne said all could not be done in one year. It would be the beginning of a consummated scheme to work upon from year to year until ultimately fulfilled.

He believed future Councils would see the wisdom of the plan and adhere to it.

Nature had been so lavish that it seemed that 'we accept it without recognition', he said. 'But the hand of man can complement nature and Scott Griffiths and Robinson together should supply a scheme under which this and future Councils, knowing they have the best that can be got, can go to work with complete confidence'.

Cr. Pyne said that 'if the citizens of this town had the propulsive voice, this scheme would have been afoot long ago'.

Ald. Haig said Council had an excellent scheme for beautification of the Lakes and now it wanted to spend money on another. He agreed to spending £5/5/- for a report on the best type of trees to be planted at the back of the Mount, but he strongly opposed spending another £25 for a further report on the whole area. If the Council had £20 to spend, it should spend it on some of the works in accordance with the Scott Griffiths plan.

The late Ald. Spehr regarded the Scott Griffiths plan as excellent and one which could not be improved on. He wished to see Mr Robinson employed to set the scheme going.

He said hundreds of £'s had been wasted at the Lakes.

Appendices

The Council had another long debate in November of the same year, and accepted Mr Robinson's offer to draw up a complete plan for a fee of £25 and to give immediate attention to tree planting on the slopes of the Mount.

As an outcome of discussions on the subject, Ald. Haig resigned from the Parks and Gardens Committee.

The Mayor at this time was the late Mr L A deGaris. The year of 1936 was South Australia's centenary, and the executive of the local Centenary Celebrations Committee approved the Council's decision to make beautification and improvements at the Lakes a centenary objective.

Tourist Officer of that period, the late Mr C W Potter, advocated new drives at the Lakes.

Mr Robinson's plan and report came before Council in February 1936.

The report, contained in 12 closely typewritten pages, gave details of his proposals for all parts of the Lakes, including the Camping Ground and back of the Mount.

Cr. Pyne referred to excellent aerial photographs of the Lakes sent by the Minister for Defence.

Mr Robinson's report strongly favoured replanting the Mount with coniferous trees, which were resistant to the dry lava gravel and strong winds that lashed the western slope.

He said coniferous trees could be grown in many varieties with little trouble. It was not a case of planting what was wanted, but what would grow.

Appointment

At the meeting of 20 February 1936, the Council adopted the Parks and Gardens Committee's report, decided to proceed immediately, with the most urgent works set out in Mr Robinson's report and appointed Mr Robinson part time Curator at a salary of £100 a year.

Works, estimated to cost £400, included reforestation of areas from which pines had been taken at the back of the Mount in recent years, and the inauguration of a complete improvement plan for the camping ground.

Apart from tree planting, the earliest works were to include the establishment of a new entrance plantation at the camping ground, new cypress hedges around the area, a bitumen road from the entrance to the turn-off to the Tower, and necessary alterations to fencing.

Mr Robinson was to supervise the carrying out of his own Lakes improvement plan.

The program for 1936 was to be undertaken as a special centenary effort.

Cr. Pyne announced that the RSL would build a rest hut on an outcrop below Hay Drive, and that it would be officially opened during the centenary celebrations.

Cr. Harbison told Council that carrying out of a large scheme of beautification would be extended over a period of years.

Appendices

It would include the 'layout of that most dilapidated and neglected spot known as the Leg of Mutton Lake'.

Creepers were to be planted on the slopes of the Mount above Brownes and Valley Lakes to prevent erosion. Two unsightly sheds near the Valley Lake were to be removed immediately.

Keep Out Axe

The Parks and Gardens Committee said the axe should be kept out of the Lakes area for at least five years.

Following adoption of the recommendations, Cr. Pyne suggested that subsidiary schemes contained in Mr Robinson's report be put forward for consideration by various public bodies as individual centenary efforts.

The RSL agreed to erect the shelter below Hay Drive and the Rotary Club undertook work at the Leg of Mutton Lake.

A proposal for the Leg of Mutton Lake was for a footpath at the north end of the Lake through the oaks to Keegan Drive and then to the South African War Memorial.

A walk around the Leg of Mutton Lake and building up the edges with rock were other suggestions.

Disastrous Fire

On March 31 of the Centenary year a willy willy swept up sparks from a fire, which had been burning at the back of the Mount, and sent flames through the Valley and Brownes Lake blackening almost every inch of the banks.

Another fire burnt out the area a few years later.

In the winter of 1936 the Council bought 3,000 *Pinus insignis* for planting the back of the Mount, and decided to raise Aleppo and Stone pines from seed for the following year's planting.

Botanic Park

Cr. Harbison reported that Botanic Park had been inspected and was found to be an 'even better site than they had realised.' It was hoped to make an early start on laying it out; it had already been cleaned up.

Since then there has been little tree planting activity at the Lakes until this winter.

Several arbour days were held there before World War II. Arbor days were resumed a few years ago when native wattles, gums and hakeas were planted along Keegan Drive. These trees are providing brilliant splashes of colour at present.

Appendices

Another Arbor Day planting was made on the high bank overlooking the Blue Lake, south of Gordon's Monument, two years ago.

Last century, the Government had a tree nursery at the Leg of Mutton Lake and the oaks, elms, poplars and conifers on its banks were planted at that time.

These trees still provide one of the most colourful autumn scenes in South Australia.

Appendices

Appendix C Sources of Historical Information

Appendices

Historic Photos

The Les Hill Historic Photograph Collection, Mount Gambier City Library

Publications

Allison, C.B., and Harvey, P.D. (1983): Freshwater Lakes in *Natural History of the South East*, Royal Society of South Australia Inc. 49-59

Brasse, Lothar, *Bundaleer and Wirrabara Forest Reserves Conservation and Management Plan*, July 2000

Fenner, C. (1921): The Crater and Lakes of Mount Gambier South Australia. *Trans. R. Soc. S. Aust.*, 45, 169-205.

Kinhill. June 1988: 'City of Mount Gambier. Mount Gambier Lakes Area - Management Plan.'

Sheard, M.J. (1978): Geological History of the Mount Gambier Volcanic Complex South Eastern South Australia. *Trans. R. Soc. S. Aust.*, 102, 125-139.

Sheard, M.J. (1983): Volcanoes in *Natural History of the South East*, Royal Society of South Australia Inc. 7-14.

Smith, J., Mrs. (1880): *Boandik tribe of South Australian aborigines, A sketch of their habits, customs, legends and language*. Gov. Printer, Adelaide

Tamuly, A (1974): Physical and Chemical Limology of the Blue Lake of Mount Gambier, South Australia. *Trans. R. Soc. S. Aust.*, 94, 71-86.

Woods, J.E. (1862): *Geological Observations in South Australia*. (Green, Longman, Roberts and Green, London).

Newspapers and Journals

The Border Watch

The Register

Appendices

Appendix D

References for Indigenous Cultural Heritage Report

Appendices

Publications

Australia ICOMOS. 1999. *Australia ICOMOS charter for the conservation of places of cultural significance [the Burra Charter]*. Australia ICOMOS, Canberra.

DOSAA 1998 *Guidelines for Aboriginal Cultural Heritage Surveys in South Australia* (Information Sheet).

Hill, L. 1972 *Mt Gambier: the city around a cave, a regional history*, Lutheran Publishing House, Adelaide.

McCarthy, F.D. 1976 *Australian Aboriginal Stone Implements*, The Australian Museum Trust, Sydney, NSW.

O'Connor, P & J, Mayell 1997 *A Most Suitable Place, Mt Gambier: From Crater and Cave*, City of Mt Gambier.

O'Connor, P & B. 1972 *Second to None: A story of the rural pioneers of Mount Gambier*.

Office of Minerals and Energy Resources 2001: 'Volcanoes of the Mount Gambier Area', *Resources Information Sheet M14*.

Pearson, M & S. Sullivan 1999 *Looking After Heritage Places: The Basics of Heritage Planning for Managers, Landowners and Administrators*. MUP, Carlton, Victoria.

Smith, C. 1880 *The Booandik Tribe of South Australian Aborigines: A sketch of their Habits, Customs, Legends and Language*, Government Printer, North Terrace, Adelaide.

Wilby, C.R.A 2001 *Deciphering Malangine's Rocky Past: An investigation of the origin and status of the lithic assemblages from Malangine Cave, South Australia*. Thesis submitted to the Department of Archaeology, La Trobe University (BA Hons).

Wood, V. 1995 *South East Site Recording Project: a survey of Aboriginal archaeological sites in South Australia, south of Kingston and Naracoorte*. A report to the South East Nungas Community Organisation and the Australian Heritage Commission.

Acts

Aboriginal and Torres Strait Islander Heritage Protection Amendment Act, 1987

Aboriginal Heritage Act 1988

Australian Heritage Commission Act, 1975

Internet Sites

www.mountgambiertourism.com.au

www.ahc.gov.au/