

Emerald Lake Park

50 Emerald Lake Road, Emerald

Conservation Management Plan



Report Prepared for

Cardinia Shire Council

October 2020

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1.0 Introduction

The aim of this study is to prepare a Conservation Management Plan for Emerald Lake Park. The Conservation Management Plan is to provide Council with a clear understanding of the requirements around significant infrastructure and vegetation to assist in guiding all future development and maintenance upgrades.

1.1 Background and Brief

Council has adopted a 2020-2030 Strategic Plan for the Emerald Lake Precinct which includes Emerald Lake Park. A priority action of the Strategic Plan is the development of a Master Plan which will be informed by preparation of the Conservation Management Plan (CMP). The CMP is to take into consideration the history as well as current and future use of the park, including infrastructure and significant vegetation.

Preparation of the CMP is to include review of all data and information available from Council, as well as reference to the Cardinia Shire Planning Scheme Heritage Overlay and other key regulatory requirements. The Local Heritage Study, updated in 2015, is also to be taken into consideration.

Note that a separate CMP has been undertaken for Emerald Lake Park. An associated CMP for the Puffing Billy Railway Corridor (Biosis 2018) has been completed but was not commissioned by Cardinia Shire.

1.2 Aboriginal Cultural Heritage

This Conservation Management Plan focuses on the heritage of Emerald Lake Precinct since European settlement around 1835. But for thousands of years before the arrival of Europeans, the land was home to members of the greater Kulin nations. Across the wider Cardinia Shire the Bunurong, Boonwurrung and Wurundjeri are the Traditional Owner groups. We respectfully acknowledge all Traditional Owners.

For millennia, the traditional custodians have cared for country and water, practicing culture, sharing lore, stories, ritual and passing on crucial knowledge to other generations so they might also care and manage the diverse ecology around them. With European settlement many traditional systems were disrupted, and people forcibly and often violently displaced from their lands. Truth-telling is an important basis to move forward. The Traditional Owner organisations representing the three groups are a terrific source of information for the public to learn from, and we encourage people to engage with them, so that they can learn directly from Aboriginal perspectives, about culture, education, land management, history and more.

The Wurundjeri Woi Wurrung Aboriginal Heritage Council is the Registered Aboriginal Party recognised by the Victorian Government for much of Emerald. At the time of writing this document however, an official determination about which Aboriginal Party represents the land upon which Emerald Lake Precinct is situated, has yet to be made.

More information on the Aboriginal cultural heritage of Emerald Lake Precinct is included in a separate study; *Aboriginal Cultural Heritage – Preliminary Research for Emerald Lake Precinct* and this will also inform actions in the subsequent Emerald Lake Precinct Masterplan.

1.3 Study Area

Emerald Lake Park is approximately 52 hectares in area and was a portion of C.A. Nobelius' Gembrook Nurseries which covered 650 hectares in 1921. The land is owned by Cardinia Shire Council. The park is accessed at its eastern end by Emerald Lake Road which forms the northern boundary. Nobelius Heritage Park abuts the western end of the park. The southern boundary is formed by the Puffing Billy Railway line. The eastern boundary is bisected by the Puffing Billy Railway line.

1.4 Methodology

Assessment of the park and the preparation of a Statement of Cultural Significance have been undertaken with reference to the processes and criteria outlined in *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013*, and its associated guidelines.

It should be noted that the impact of COVID 19 from mid-March 2020 has placed limits on site visits and face-to-face meetings with Council staff and stakeholders.

1.5 Current Heritage Listings and Planning Controls

Cardinia Shire Planning Scheme, BMO: Bushfire Management Overlay

Cardinia Shire Planning Scheme, PPRZ: Public Park and Recreation Zone

Cardinia Shire Planning Scheme, Heritage Overlay HO106: Emerald Lake Park and Landscape

Cardinia Shire Planning Scheme, Significant Landscape Overlay SLO1: Puffing Billy Tourist Railway Scenic Corridor

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Graeme Legge – Emerald historian

Carl Stemp (junior) – son of former assistant curator

Nobelius Land Surveyors

2. History

Part 1: Gembrook Nurseries

Emerald Lake Park and the adjacent Nobelius Heritage Park to the west are remnants of the former Gembrook Nurseries established by C.A. Nobelius in the late nineteenth century. At its peak prior to World War I, the nursery covered more than 1,625 acres (650 hectares), employed over 80 staff, and advertised over three million trees for sale. Fruit trees and ornamental trees were supplied to other wholesalers and orchardists, to municipalities in both Victoria and interstate for parks and streets, and to international customers in many countries.

Carl Axel Nobelius had Swedish parents but was borne in Tampere, Finland, in 1851. The family returned to Sweden shortly afterwards and settled in the port town of Gävle on the Gulf of Bothnia in 1866. Carl's father, Carl Petter Nobelius, was a horticulturist and was a first cousin of Alfred Nobel who bequeathed his fortune to institute the Nobel Prize. Carl Axel Nobelius trained as a gardener.

In 1872 Nobelius migrated to Melbourne. He settled in South Yarra and worked first as a nursery assistant, then later as foreman with the prominent landscaping and nursery firm, Taylor & Sangster of Toorak. The firm had a second nursery at Mt Macedon for growing cool climate exotic trees and shrubs. William Sangster's landscaping projects included Como at South Yarra, Rupertswood at Sunbury and the Carlton Gardens surrounding the 1880 Melbourne International Exhibition; Nobelius assisted in laying out the Exhibition Gardens (Coulsen 1982, p. 225). Nobelius later worked for South Yarra nurseryman, Joseph Harris, and was introduced to other well-known nurserymen and seed suppliers who would prove invaluable to his future wholesale business.

Nobelius married Emily Brightwell in 1877. The couple had 11 children, 8 of whom survived to adulthood. While still employed by Taylor & Sangster, Nobelius explored the hills north of the Narre Warren railway station at weekends looking for land to start his own nursery. The area around Emerald had experienced a gold rush in 1858 but soon petered out. Land was released from State Forest for subdivision in 1877, with the northern part of Emerald divided into 20 acre (8 hectare) holdings. Land costs at this time were rising, due to the 1880s land boom, and cheap land closer to Melbourne was difficult to find. In 1886, Nobelius purchased 63 acres (approx. 25 hectares) of partly-cleared land from an original selector, H.B. Koenig. Nobelius considered that the red-brown volcanic soil would be ideal for growing fruit trees.

The land was described as "hilly, well-timbered, with gum, messmate, peppermint and box scrub". Nobelius visited each weekend to prepare the land for cultivation, leaving work after lunchtime on Saturdays and returning home on Sunday evenings. Preparation included clearing the undergrowth by burning in early summer, ring-barking trees to kill them before felling, then removing the stumps by charring. A hand-operated winch imported from Germany was later used to remove stumps to speed up the process. Local settlers were employed to assist in clearing operations, including Gus Ryberg's father, Fritz. Once cleared, the land was ploughed with a horse-drawn single furrow mould-board plough, harrowed in bands, then left to fallow over winter.

In 1892, Nobelius and his family moved permanently to Emerald, initially living in Koenig's 1880 small house near the corner of (now) Sycamore Avenue and Lakeside Drive; Lakeside Drive was formerly a nursery track.

Nobelius named his business "Gembrook Nurseries", as Emerald was part of the Parish of Gembrook, and commenced growing nursery stock on 15 acres (6 hectares) in 1893. He also leased another 86 acres (35 hectares) immediately to the north which he applied to select in 1891. The nursery operated

as a wholesale business. A packing shed was constructed a short distance west of the house on Poplar Crescent. Nobelius offered employment during the depression to 30 or 40 local settlers and berry farmers. Local councils and Departments of Lands and Public Works were creating jobs during the depression by developing parks and planting street trees. Nobelius took the opportunity to supply large quantities of ornamental trees to municipal councils throughout Victoria and interstate.

In 1898, the Gembrook Nurseries had 50 acres (20 hectares) under cultivation, growing fruit trees, raspberries and strawberries. Adjoining allotments were purchased in 1900 taking the area to 80 acres (32 hectares). Nobelius was able to build a substantial residence, "Carramar", on a hillside overlooking the nursery from the north. He laid out an extensive display garden adjacent to his home which included his own unique tree and plant varieties plus a huge range of imported exotic species. (Winzenried p.94.)

CA Nobelius was one of several local businessmen who provided submissions on a possible narrow-gauge railway line to the Select Committee for Railways in 1896. Prior to this, trees raised by the nursery had to be transported by road some 13 miles (21 km) to the Narre Warren railway station; the unsealed roads were often impassable in winter. The Committee recognised the transport difficulties for local industry. As a result, the narrow gauge railway line was built from Belgrave to Gembrook and opened in 1900.



Original packing shed in the northern section of the nursery with "Carramar" on top of the hill, c.1900.

By 1903, Gembrook Nursery advertised one million trees for sale. Thanks to shrewd business acumen, considerable marketing and overseas visits by Nobelius, markets had been established in other Australian States and overseas with New Zealand, South Africa, India, Japan, Europe and South America. Nobelius imported seeds and plants to grow in his nurseries and experimented with plants to suit local conditions.



Packing Shed and siding 1904

In 1904, the Victorian Railways opened a special siding adjacent to the nursery specifically for the loading of Gembrook Nurseries' plants. Nobelius was given permission to build a packing shed on railway land next to the line for preparing millions of seedlings and stocks for world-wide shipment. New land was acquired to the south of the railway for growing nursery stock with a frontage of more than 1.8 miles (3km) to the new railway line in 1906. The nursery had grown to more than 200 acres (80 hectares) with 2.5 million trees by 1909. Four of Nobelius' sons were involved in the business.



Part of Nursery in 1910 with Packing Shed on the railway line and Cliff Nobelius' house to the rear, remnant vegetation to creek in foreground. Note the loading hatch and ramp to the eastern end of the packing shed.

Emily Nobelius died in 1911, aged only 53, and was buried in the Emerald / Avonsleigh Cemetery (formerly Nangana, Macclesfield Cemetery) on Macclesfield Road in Avonsleigh. CA Nobelius married Mary Louisa Allison (1858-1937) in 1912. There were no children from this marriage.

With the possibility of World War I eventuating, Nobelius was concerned that supply of rope and twine used in the nursery for various purposes would become a problem. He imported flax from New

Zealand in 1913 and established a 100 acre (40 hectare) plantation along the creek to produce rope fibre. The flax area included part of the site of Emerald Lake and to the north of Emerald Lake Road to Old Gembrook Road. A small dam was constructed to treat flax fibre and a two-storey steam-driven mill for processing the fibre was erected beside the dam. The flax plantation operated from 1913 to 1926.

The Dandenong Advertiser reported in 1911 that 100,000 trees were available including 1,000 different species of fruit trees and 120 kinds of ornamental trees; fruit trees included 300 apple varieties, 61 apricots, 78 cherries, 31 nectarines, 107 peaches, 108 pears and 122 plums. (Cuffley p. 110-111.) By 1914, the nursery employed more than 80 workers and three million trees were advertised for sale. Nobelius also grew berries (raspberry, blackberries, strawberries and mulberries) and experimented with lavender and rosemary. Gembrook Nurseries was not the only nursery in the district but it was by far the largest and was said to be the biggest nursery in the southern hemisphere. Nobelius provided employment to many people in Emerald and surrounds, including small nursery business owners who had no work in winter. He encouraged others to grow orchards. He donated land and trees for formation of the local sporting reserve (he was a keen cricketer) and provided a loan to build the local hall. He was also elected to the board of the Monbulk Jam Factory, later taken over by the Australasian Jam Company.

World War I devastated overseas markets and the nursery never recovered. Many trees had to be dug out and burnt or ploughed into the ground. CA Nobelius appeared to lose interest in the business towards the end of his life. Nobelius died on 31 December 1921 and was buried with his first wife in the Emerald Cemetery. He left no will, so disposal of his property was taken over by the National Trustees & Executors. The area covered by the nursery extended from the Emerald-Monbulk Road, Nobelius Street and Emerald-Beaconsfield Road in the west to the (now) Emerald Country Resort, Lawsons Road and Auhl Road in the east. It also extended from the northern end of Poplar Crescent to Paternoster Road in the south. The nursery spread over 1,652 acres (650 hectares).

Part 2: Break-up of nursery property - 1922 to 1981

Some of the nursery became residential properties and other areas reverted to farming. The majority of nursery land was eventually sold to two syndicates in 1922-23:

1. Emerald Pty Ltd (Dr William Bottomley, Cecil Chambers, AG Lawson, GL Allan) purchased 600 acres (240 hectares) north of Gembrook Road and developed the Emerald Country Club Estate; this included a golf course and properties along Lakeside Drive. "Carramar" was used as a temporary clubhouse until a permanent building was constructed in 1929.
2. Nobelius Station Estate (Dr William Bottomley, A Treganowan, BS Stillwell, and later, A Nicholas) purchased some 300 acres (120 hectares) which included the sites of the current Nobelius Heritage Park and Emerald Lake Park.

1924 Arch Nobelius purchased 90 acres (36 hectares) and the nursery continued business as CA Nobelius & Sons. Arch Nobelius was the production manager while Cliff Nobelius acted as business manager. Cliff had studied management and economics at Melbourne University (Ryberg 1998, p. 28)



Gembrook Nurseries Catalogue 1910.

48 catalogues were produced from 1891 to 1939. The catalogues were beautifully produced with cover images featuring apple blossom and included comprehensive information on plants offered for sale. The 1934 catalogue had 54 pages and included the following items and information:

- A tear-out order sheet with an addressed envelope;
- General remarks relating to stock, packing, fumigation, ordering procedure and pricing;
- Description of 37 fruit tree varieties (there were 99 varieties of apple listed);
- Selected colour images of fruit and black & white images of nursery scenes;
- Description of more than 550 species/varieties of ornamental trees, shrubs and conifers;
- Metal garden labels for sale in bulk quantities;
- “A Few Hints to Amateur Planters”: advice on soil preparation, planting, spacing distance and pruning.

This catalogue is available to be viewed on line from the State Library of Victoria (<https://viewer.slv.vic.gov.au/?entity=IE2629172&mode=browse>).



View of packing shed and railway from south-west in 1920s. Cliff Nobelius' house is to the right. Note the height of abandoned nursery trees in the distance and compare tree growth with the 1910 image.

1927 Nobelius station opened on the railway line for passengers.

1928 Cliff Nobelius purchased a share of the business. The nursery was now operating on the site of the current Nobelius Heritage Park as well as land leased to the south of the railway line. Cliff built a home south of the packing shed overlooking the nursery and packing shed. The business office was in the packing shed next to the railway siding and was managed by Cliff Nobelius' wife, Daisy.

1930s Grandsons of Carl Axel Nobelius joined the nursery staff along with Gus Ryberg. Working conditions were tough with poor remuneration. Gus left the nursery after two and a half years but returned in 1937.

1930s Italian brothers Angelo and Philip Falcone lived in the original flax mill and used the adjacent land for farming potatoes. The building burnt down when a billy fire got out of control. Their farm land was possibly on the former flax plantation including the Arboretum slope and north of Emerald Lake Road to the Old Gembrook Road.

1930s The Nobelius Station Estate Syndicate was encouraged by the Nobelius family and others to develop the land east of the nursery as a park. CA Nobelius had retained tree ferns along the creek valley (Stillwell Valley) during clearing operations. There is a suggestion that the Syndicate was carrying out nursery production on part of the estate (Graeme Butler 1996). The area was described as a wilderness after years of neglect.

Part 3: Emerald Lake Park

1938-39 The **Shire of Fern Tree Gully** compulsorily acquired 118 acres (47 hectares), Arch Nobelius and surveyor Webb supervised development of the park. There were several unsuccessful attempts to construct a lake – inspired by the small dam constructed for flax treatment.

1941 The new 130 acre (52 hectare) Emerald Lake Park was officially opened by Sir Frank Beaurepaire, Lord Mayor of Melbourne. The Council had constructed a 3.5 acre lake, swimming pool, dressing sheds, kiosk and a picturesque caravan park (*The Argus*, 28 Jan 1941). Structures also included three rubble stone picnic shelters. Water for the kiosk and toilets came from a small upstream dam formed by a low stone wall across the creek (Legge 2013). Periodic planting of exotic trees commenced the following year, starting south-west of the lake. The lake was originally known as Emerald Lake but later named Lake Treganowan after one of the original syndicate members.



Image of original kiosk in Lakeside car park, 1940s – 1950s.

The park was designed to serve as a public recreation area for Emerald and for day tourists from further afield. Water activities were to be centred on the new lake, with a diving tower and springboard, a central pontoon for those who could not swim the full distance, and a wading pool. Many local children learnt to swim in the lake with classes conducted by local schools. Many walking tracks to the south and west provided alternative recreation opportunities.

1944 Lakeside station opened to serve visitors to the park. This was the last station to be constructed on the narrow gauge railway line.



View of Lake Treganowan and the entry road from the north-east in the 1940s or early 1950s. A diving tower is on the left of the lake and the change rooms & toilet block are on the right. The Poolside shelter can be seen behind trees at the far edge of the lake as well as a sloping lawn planted with young trees (now the Conifer arboretum). Behind this lawn is a group of mid-height trees, probably remnant nursery fruit trees, with taller conifers in the distance.

1950s The kiosk was demolished when the car park was expanded. A portion of the creek was piped and covered over and the flax plants were removed. (Legge 2013). The Wishing Well was relocated to its current position after being the original source for a hydraulic ram pump providing water to Nobelius Nurseries from the creek below. Carl Stemp assisted in the reconstruction. (Carl Stemp junior, pers comm.)

The Rose Series postcards (undated) show the new kiosk, waterslide, spring board, diving tower, picnic shelter, wading pool and a timber bridge at the southern end of the lake. Cars in these images appear to be of early 1950s vintage.

1954 The narrow gauge railway line closed after landslides in 1952 and 1953 (and also, electrification of broad gauge rail to Belgrave).

At the end of 1959, **Gus Ryberg** was approached by the Shire of Fern Tree Gully council members to see if he would be interested in taking over the running of Emerald Lake Park. Gus laid down conditions and took on the job with **Carl Stemp** (senior) as his assistant. Carl had been employed at the park since 1947. His duties included manning the ticket box at the park entry (opposite the road junction with the dam causeway), taking caravan park bookings, counting money received for park entry and banking the funds, handling the council paperwork, as well as cleaning toilets and the picnic shelters (Ryberg 1998, p.56, and Carl Stemp (junior) pers. comm.).



Southern end of Lake Treganowan with diving tower on the left, spring board in the foreground and timber bridge over Wattle Creek in the distance. This view was taken in front of the Lake Treganowan change rooms and toilet block.

1960 New toilets were constructed on the east side of the lake, and two more followed in the next few years. Additional picnic shelters were constructed to the east of Lakeside Station.

1961 A small nursery was set up to grow new trees and shrubs for planting in the park (location unknown).

1962 The narrow gauge railway line re-opened, now run by volunteers and named “Puffing Billy”. Gus Ryberg was involved in the campaign to preserve the line.

1962 A new kiosk and café was built near the lower level of the fiberglass waterslide overlooking the children’s pool at the south-western end of the lake. The building included a residence for the operators. (Legge 2013).

1964 The Shire of Fern Tree Gully was broken up and the Shire of Sherbrooke was created from the East Riding.



1962 image of the south-western end of Lake Treganowan. The Lifesaving Club building is on the left and the new kiosk and café is on the right above the wading pool.

1970s The caravan park east of the Lakeside Station was expanded to three terraces. The caravan park accommodated workers while the Cardinia Reservoir was being constructed, but revenue fell after the dam's completion in 1973. The area was converted for car parking.

1978 Emerald Lake Park Committee of Management set up by Sherbrooke Shire councillor, John Knorr.

1980 Gus Ryberg retired as curator.

1981 A water slide with its own pool was constructed on the eastern bank of Lake Treganowan. A second slide was constructed in the following year and plans were prepared for a giant model railway on the site of the former caravan park. The water slides were removed in 2006.

1982 The second kiosk was damaged by fire. The café and tea rooms on the eastern side of Wattle Creek were constructed as a result. (Legge 2013).

1985 Premier John Cain turns earth for the Gus Ryberg Amphitheatre (during an election campaign). The amphitheatre was one of four developed between 1984 to 1986 by local artist Jenny Saulwick, as part of the Innovative Community Use Sculpture project. The project also included the six mural walls in the Gus Ryberg arboretum.

1987 Development of a second lake at the southern end of Wattle Creek named Lake Nobelius to replace swampy conditions and reduce flow of silt to Lake Nobelius along Wattle Creek.

1988 Australian bicentennial celebrations.

1989-1990 Lake Treganowan was drained and extended to the east with a new dam wall. A new pedestrian bridge was constructed on the site of the original dam wall.

1996 Model railway building completed.

2000 Friends of Emerald Lake Park established.

2002 Path across the Gus Ryberg arboretum constructed south from Emerald Lake Road by the Friends of Emerald Lake Park through a Shire Capital Works Grant.

2006-2010 A Federal Grant enabled upgrading of the wading pool, Lakeside & Puffing Billy car parks, toilets, environment centre surrounds (decking and paving); directional and interpretive signage, new

park furniture, repairs to existing furniture, retaining wall near playground, new stairs to model railway, viewing area, new band stand / rotunda. Major track works were carried out throughout the park.

2012-2016 Weed control and revegetation program carried out.

2017 De-silting works at the Lakeside car park end of Lake Treganowan. A dam wall was built to hold back water for machine excavation. Part of this wall has been retained as an island in case works are required again.

2019 Reconstruction of the Wishing Well surrounds.

2020-2021 Construction of Lakeside Visitor Centre. Associated works included removal of the Messmate Shelter, the Lion's Den Shelter and adjacent maintenance building and toilets plus remodelling of car parking and access roads to the east.

3. Emerald Lake Park Physical Description

Emerald Lake Park and Nobelius Heritage Park are remnants of the former extensive Gembrook Nurseries established by Carl Axel Nobelius and which operated from 1892 to 1921. Nursery activity continued in part of the Emerald Lake Park area up to 1938, but the Nobelius & Sons nursery in the (now) Nobelius Heritage Park continued until 1981. The nursery extended over 1625 acres (650 hectares) by 1921 and included up to 3 million trees. Emerald Lake Park is defined on the north by Emerald Lake Road and on the east and south by the Puffing Billy narrow gauge railway with an area to the east of the Lakeside Station. The western boundary abuts the Nobelius Heritage Park. The park area is approximately 130 acres (52 hectares).

The eastern end of Emerald Lake Park has been cleared of nursery remnants and provided with facilities for a public recreation park. Elements include Lake Treganowan, Lake Nobelius, Lakeside' Office, walking tracks, picnic shelters, toilet blocks and change rooms, cafe, barbecue facilities, seating, playgrounds, fitness station, bridges, board walks and car parks. Much of the area has been replanted, including arboreta to the north and south-west of Lake Treganowan. Five amphitheatres have been constructed with timber-edged terraces and earth mounding as part of an Innovative Community Use Sculpture project, including six mural panels in the Gus Ryberg arboretum. A new Lakeside Visitor Centre is under construction adjacent to the Lakeside railway station and due for completion in 2021.

The western end of the Park is a dense mixed forest comprising remnants of exotic nursery trees and an understorey of regrowth and planted indigenous vegetation. Several walking tracks through the forest link to the Nobelius Heritage Park. The eastern side beyond the Puffing Billy railway line is remnant indigenous forest with a small number of planted exotic trees.

Landscape elements

1. Hard Landscape

Main Entry Road

The entry road is an extension of Emerald Lake Road. The entry is defined by the ticket box (see below). Beyond the ticket box, the road sweeps around a horseshoe bend ("Wombat Corner") to enter the park. At a "T" intersection, a road to the left follows the line of the lake's dam wall, crosses the railway line and provides access to the Visitor Centre site and parking areas. The main road follows the north-western shore of Lake Treganowan and continues to the Lakeside car park at the south-western end. The red soil embankment to the north-west of the road is slumping, apparently due to the road being widened; this requires construction of a retaining wall and constructed access points up to the Gus Ryberg arboretum.

Ticket box to entry road

The original ticket box was located on the northern side of the main entry road, just before the junction with the causeway over the original dam wall. The current ticket box is located in the centre of the entry road off Emerald Lake Road and has small garden beds in the front and rear edged by timber sleepers. The box is a small weatherboard structure with a steep corrugated iron gable roof without eaves gutters. The roof extends over a narrow passageway on the front end supported by two timber posts; these have diagonal brackets near the top. The gable ends are closed with horizontal weatherboards. The box has a concrete slab base. Entry is via a door in the rear. There are windows in each wall but these have been painted over. There is a one-way toothed steel grid in the road way on the exit side and a steel post that would have once supported a gate. The post on the eastern side of

the ticket box has a steel eye bolt and a U-shaped bracket which may have been for a security chain or similar. There is a traffic control boom at the rear of the ticket box on the entry side of the road.



View of Ticket Box from the north.

Lake Treganowan

The picturesque lake and its surrounds were a popular tourist attraction and an important early feature of the park. The lake is contained by the junction of three steep valleys and surrounded by exotic trees set in lawns. It was formed by damming Wattle Creek from the south and a tributary beside the Wishing Well Track from the west in 1940/41. The tributary along Stilwell Valley (named after one of the original syndicate members, B.S. Stillwell) to the west is piped underground beneath the Lakeside car park. The dam wall or causeway was originally located where the timber pedestrian bridge now spans the water. The lake was drained and extended further to the east around 1988 with a new curved reservoir wall supporting a relocated driveway. The lake area was 3.5 acres but has been increased by approximately 0.5 Ha. A wading pool has been constructed at the south-western end.



Western end of Lake Treganowan with the Japanese Cedar in the centre of the image.

Former lake features included a water slide and springboard on the north-western side, in front of the current changing rooms and toilet block, and a diving tower on the south-east. This section of the lake was used as a swimming pool. Two other water slides were constructed in 1981/2. A timber pedestrian bridge formerly spanned the Wattle Creek inlet to the southern arm of the lake. An information centre and rangers' office, now the Cardinia Shire Council Lakeside office, has timber decking projecting over the water's edge. This structure is on the site of a former lifesaving club building. Paddle boats operate from the southern end of the decking.

The lake edge is formed mainly by the natural red clay but also includes a bluestone retaining wall at the western approach to the pedestrian bridge, granite boulders, and a concrete platform in front of the Lakeside changing rooms and toilet block, the latter being the former location of an early waterslide and springboard.

The pedestrian bridge consists of a 44m shallow-arched timber bridge across the north-eastern corner of the lake. The bridge is supported by eight pairs of round timber poles with diagonal bracing set into the lake bed. The poles support steel edge beams and timber joists for the decking. The balustrades have vertical spaced timber members fixed to top and bottom rails and with a horizontal flat timber handrail. There are diagonal timber bracing members against the outside of the vertical balusters and external diagonal bracing at right angles to the balustrade fixed to extended decking joists. Timber decking boards run longitudinally over the arched bridge and are covered with anti-slip wire mesh.

The curved wading pool at the south-western end of the lake is defined by a narrow concrete wall. A pool safety fence sits on this wall. A concrete apron to the rear of the pool provides access and is surrounded by an extension of the safety fence. The area behind the fence contains a number of simple timber benches and remnants of stone edging suggesting the locations of missing garden beds. Small sheds south of the wading pool enclosure contain pool equipment and storage for chemicals. A further corrugated iron shed marked "Pool Plant" is sited between the Boatshed Shelter and the railway line.

A Japanese Cedar (*Cryptomeria japonica* 'Elegans') with an unusual growth form of drooping branches provides a striking visual feature at the south-western end of the lake. A narrow island constructed in front of this corner of the lake was part of a dam wall constructed to hold back water for de-silting works; the island has been retained in case de-silting works will again be required.

Lake Treganowan toilet block

This structure has been a dominant feature of the western side of the lake since the park officially opened in 1941. Its main function was to provide facilities for swimmers in Lake Treganowan, including both change rooms and toilet facilities.

The walls are constructed with pink rubble-faced freestone, believed to have been sourced from a small quarry opened to supply stone for the Emerald Country Club building in 1929. Because of the sloping ground to the edge of the lake, there is a projecting concrete plinth that extends for the width of the building. The central section of the building has a low angle corrugated iron gable roof, lacking eaves gutters, with the gable ends projecting around 0.9m beyond the stone walls. The gable end facing the lake has spaced vertical battens allowing ventilation to the interior. The roof is supported by two large round logs, or shaped tree trunks, parallel to the ridge and supported by the side piers, with two shorter secondary round logs at the same level above the walls. The edge of the building is formed by two sloping stone piers – the inner edges being vertical and the outer edges sloping. The majority of stones in the piers are orientated vertically. The centre of the wall has rubble stone laid in fairly regular courses, in contrast to the base plinth where the stone has smoother faces but more random coursing. There are two windows, each formed with twelve glass bricks. The lintels and sills project beyond the face of the wall. Vertical timber screen walls extend each side of the central stone building up to eaves level; these terminate in rubble stone parapet walls to the north-east and south-west and which include entry openings into the building. The projecting corners of the stone end walls are rounded with vertically-orientated coursing. The side sections of the complex are unroofed.

The north-west face of the change rooms is set back from the edge of the entry road, but does not have the stone base plinth as it is at the upper level. The gable end on this side is closed with

overlapping vertical timber battens. There are two windows, each with two vertical rows of glass bricks separated by wide stone mullions. A later addition of a disabled toilet has a skillion roof and walls with vertical timber cladding.

There are flights of stone steps with steel handrails to each end of the building, giving access from the upper level to a gravel pathway at the lake edge. A concrete platform at the lake edge was the site of a former waterslide and a diving board.



Lake Treganowan toilet block on the north-western side of the lake.

Cardinia Shire Council Lakeside Office

This building has been constructed on the site previously occupied by a lifesavers' club building. Wall cladding is vertical timber boards. The roof has four low gables facing the lake with trellis infills and is supported by timber posts. The roof extends over timber decking, forming a covered veranda that returns at each end of the building.

Lakeside Paddle Boats operates from the southern end of the decking in front of the building. The large-wheel paddle boats replaced an earlier version of paddle boats seen in 1960s images.



Cardinia Shire Council Lakeside Office and paddle boats.

Picnic shelters

Three picnic shelters were part of the original elements of the park when it opened in 1941. These are the Boatshed shelter east of the lake plus the Poolside and Lakeside shelters south of the lake. The construction of the shelters is similar but with minor differences. The pink rubble stone is believed to have been sourced from a small quarry opened to supply stone for the Emerald Country Club building in 1929.

Low-angle corrugated iron roofs are supported by round timber logs on four tapered pink rubble-stone piers. The logs extend up to 0.9m beyond the end walls to support the roof framing; the ends of these beams have a steel sheet capping to protect the timber from weathering (except for the Boatshed shelter). Similar sized logs act as cross-beams at the same level as the longitudinal members on top of the stone piers. The roofs have traditional timber rafter framing with collar ties. (The Poolside shelter has additional horizontal tie beams.) Eaves gutters are fixed to timber fascias and rectangular down pipes are installed at corner piers; these were not part of the original construction. The gable ends are open, although the Boatshed shelter and the Lakeside shelter gables are enclosed with vertical timber cladding.

Low stone walls provide enclosure to three sides of the shelters with the fourth long side remaining open. The walls are capped with thin horizontal stones projecting above the walls below. The long rear walls have a low central pier to provide additional support. The long side of the Boatshed shelter, adjacent to the pathway, has a timber trellis infill from the low wall extending to the eaves line. Each shelter has a concrete slab floor and contains three timber picnic tables with fixed benches and slatted tops. The picnic tables have two different framing designs.



View of Boatshed shelter from west.



View of Poolside shelter from south-east. Note steel caps to ends of beams.



Internal view of Lakeside shelter showing roof framing. Note vertical boards to gable end.

Emerald Lake Park Café.

The building was constructed in this location after 1982. The original kiosk dating from 1940/1 was on the north-western side of car park but was demolished for expansion of the car park. A second kiosk/café was constructed as a replacement above the children's wading pool but was damaged by fire in 1982.

The building is clad with horizontal weatherboards and has a low-pitched corrugated steel hipped roof. The central section of the building extends out to the west and includes access doors at the northern and southern ends. Verandas wrap around this section of the building to the north, west and south. The weatherboards are painted in two colours – off-white to the upper half of the walls and olive/grey to the lower half (This colour scheme appears to be a common theme for weatherboard and other buildings after 1960.). Large windows provide views to the west and south. A large Algerian Oak is growing close to the building at the south-western corner. There is an extensive outdoor terrace with brick paving and picnic tables associated with the facility to the western and southern sides.



View of café from the north.

Eastern Section of the Park

Three buildings east of the railway line are sited on terraces that were part of the original 1940s/50s caravan park. The three upper terraces are now parking areas; the Bellbird car park area is the terrace above the Lion’s Den and is accessed by steps from the terrace below. The former concrete block Messmate Shelter was a recent structure that has been removed for construction of the Lakeside Visitor Centre but is scheduled for future replacement.

- Model Railway Building

A horizontal weatherboard building with a veranda facing west. The building is painted with a two-tone colour scheme similar to the Cafe. It is accessed by steps commencing east of the railway crossing behind Lakeside Station and the new Visitor Centre.



View of model railway building from south.



Messmate shelter



Maintenance building and Lion's Den toilets. The Lion's Den rotunda is to the right of the image.

- **Maintenance Building and Lion's Den Toilets**

This building is situated on one of the former caravan park terraces and is accessed by two flights of steps and a walkway from the Model Railway level below. The building is constructed from concrete bricks with breeze block ventilation panels. Roofing is a steel tray deck. This building is proposed to be removed as part of parking areas and access road re-development associated with the new Visitor Centre.



Lion's Den Rotunda

- **Lion's Den Rotunda**

Two hexagonal shelters with corrugated steel roofing supported by six octagonal timber posts. The shelters are south of the maintenance building and toilets on the same level. The shelters are approximately 12m in diameter and are connected with a more recent section of flat roofing. The shelters contain timber picnic tables and a brick barbecue. The shelter is proposed to be removed as part of parking areas and access road re-development associated with the new Visitor Centre.

Café toilet block

This toilet block is south of the Café. It is constructed with split-faced concrete block, the upper half with an off-white block and the lower half with a pale brown block. The building has a flat steel tray deck roof and a colourbond steel fascia. Possible date of construction is in the 1970's. Access is by a gravel path from the north and a flight of concrete steps without handrail from the west. The lower

end of the steps commences from a wide asphalt path leading to Lakeside Station. This path has a low bluestone retaining wall to the eastern side.

Bandstand toilet block and change rooms

This building is high above the Nobelius Loop Track and Wattle Creek, opposite the Emerald Lake Park Café. Its original purpose would have been to act as change rooms for the children's wading pool. The walls are constructed with patterned-face concrete blocks, the upper section off-white and the base courses in contrasting grey. Corners to the front of the building are rounded. The centre section has a hipped steel roof with skylights, supported by round timber poles at the front. A steep asphalt path with treated pine poles and cyclone fencing provides access to the southern end. An informal rough clay "goat track" has developed as a short cut to the northern end from the pool and barbecue areas.



Cafe toilet block



Bandstand toilet block.

Barbecue areas (2006-2010)

Barbecue areas all have similar facilities. Barbecues consist of a stainless steel hot plate with a brick surround, a corrugated steel gable roof shelter, without eaves gutters, and two square timber posts with diagonal bracing at the top. Picnic tables are set on asphalt paving. The areas are enclosed by treated pine post and rail with cyclone fencing. The barbecue area south of the wading pool is defined by timber retaining walls to the north and west; a portion of the wall has timber support posts on the outside of the face and sleeper seats have been fixed between these supports. (This area is the possible site of the second kiosk building.) The barbecue on the Gus Ryberg arboretum slope has no surrounding fence or retaining walls; it is accessed off the asphalt pathway that leads to Emerald Lake Road.

Bandstand rotunda (2010)

A hexagonal structure situated on the western side of Wattle Creek. The peaked roof is corrugated steel sheet with eaves gutters, supported by square timber posts with diagonal eaves brackets. Balustrades with vertical spaced timber balusters are attached to three sides and have metal seats in front. The floor is coloured concrete paving.



Bandstand rotunda.

Lake Nobelius

This water body was formed at the southern end of the Wattle Creek valley in 1988 and is approximately 0.5 Ha in extent. The area had two natural water springs that made the ground swampy. The lake was constructed to slow down the entry of silt into Lake Treganowan from Wattle Creek. The Nobelius Loop Trail circumnavigates the lake with bridges and boardwalks.

The bridge at the southern end is similar in construction to the Lake Treganowan footbridge although this newer bridge (2014) has a painted/stained finish. The balusters are narrower than the Lake Treganowan version and there are no diagonal bracings along the rear of the balustrades. Other smaller bridges have rectangular posts with handrails, mid rails and kick rails plus timber decking with anti-slip wire mesh. Boardwalks have round pine posts supporting timber top rails and kick rails with ARC roll-top steel mesh panels.

Lake Nobelius enhances the aesthetic appeal of Emerald Lake Park.



Southern end of Lake Nobelius. The tree in the middle distance is a Fastigiata English Oak.

Lake Nobelius toilet block

This small building is located on a slope south of Lake Nobelius. It is constructed from concrete block and horizontal timber sleeper screen walls. Steel roof sheeting is applied to two contrasting skillion roof slopes – flat to the east and steeply sloping to the west. The roof framing is supported by round timber poles placed outside the face of the walls. Access is by a winding gravel path off the Nobelius Loop Track.



Lake Nobelius toilet block

Amphitheatres (1984-5)

The amphitheatres were part of Jenny Saulwick's Innovative Community Use Sculpture Project (1984 to 1986). All amphitheatres are formed by earth mounding with grassed terraces constructed by timber sleepers on edge with vertical posts for support.

- *Gus Ryberg*: the largest amphitheatre situated on the northern slopes above Lake Treganowan. The plan is a three-quarter circle with 8 terraces and opens out to a view of the lake. Gravel-filled sleeper steps with timber handrails are provided to each end of the terraces for ease of access. The bottom level is surfaced with concrete pavers. (Good condition.)
- *Bunurong*: situated south-east of Lake Nobelius. The plan is a full circle with six terraces. There is a stormwater drain at the bottom level. Access is over the grass from the Nobelius tract; there is no pathway. (Poor condition.)
- *The Gums*: located south of Lake Nobelius. The plan is a three-quarter circle with 7 terraces. Access is to the bottom level via a steep track with a treated pine post and rail fence with cyclone wire to the lower side. The lowest terrace is formed by sleepers on edge set into the ground. (Poor condition.)
- *Carl Stemp*: located on the western side of Wattle Creek. The plan is an irregular semi-circle with 4 terraces. It is approached by a short gravel track off the Nobelius Loop Track and has a post and rail fence with cyclone wire in front. (Poor condition.)
- *The Pines*: located off The Pines Track, south-west of Lake Treganowan. The plan is a full circle with 5 terraces. Terraces have crushed rock surfaces, but are partly overgrown. There is no access path. (Very poor condition.)



Bunurong amphitheatre



The Gums amphitheatre



Gus Ryberg amphitheatre

Mural walls

The mural walls were part of Jenny Saulwick's Innovative Community Use Sculpture Project (1984 to 1986). Six walls are constructed on the north-western slopes above Lake Treganowan and south of the Gus Ryberg amphitheatre in two groups of three. Access is provided by the asphalt path from the park entry road leading to the amphitheatre. The walls are curved rendered panels to which the coloured murals have been attached. The mural images represent historical themes from the Emerald district.



Mural wall depicting Carl Axel Nobelius and Emily Nobelius.



Mural wall depicting Puffing Billy on a timber trestle bridge.

Playgrounds & fitness equipment

There are two small playgrounds on the slopes above the wading pool and Lakeside car park. The lower of the two is at the rear of the Poolside shelter. This is a simple playground with soft-fall mulch retained by sleepers on the lower side. Equipment includes a set of swings, an activity/climbing element and two small rockers. The upper playground is linear and straddles the start of the Pine Track; this is a recent addition and is for 12 year-olds and above. There is a low concrete wall to the uphill side and a metal safety fence to the lower side. The first section is for fitness equipment and the base is recycled rubber. There are four fitness machines. The following section has a soft-fall mulch surface and contains three climbing structures.



Fitness equipment and upper playground

Stone wall to western creek

Remnants of a small stone wall which formed a dam across the western creek. The L-shaped wall is approximately 450mm high across the creek and has a central flat stone acting as an overflow. A circular stone structure is slightly to the rear of the wall, and would have been the outlet point for supplying water to the original kiosk and toilet block in around 1940. (Legge 2013)



Former dam wall across the creek near Wishing Well Track and the "free play" area off Pine Track.

Wishing Well and Surrounds

A hydraulic ram pump operated from the spring at the upper end of the western creek to provide water for the nursery to the west. The pump was housed in a shed on a concrete slab, the remains of which can still be seen. The Shire discontinued the use of the pump. The well was re-built at a higher level next to the track in the 1950s; Carl Stemp assisted in its construction. The well sits at the western end of the Wishing Well Track. The approach is framed by a balustrade of heavy timbers with diagonal bracing on the side above the creek. A specially constructed heavy timber seat is on the southern side of this approach. The wishing well is a small circular bluestone structure around 0.75m high and 1.4m diameter. The walls are of irregular stones with thinner, flat capping stones to the top course.



Wishing well and surrounds.



Wishing well.

The inside of the well appears to be lined with a cement render within 300mm from the top. An ornamental grating fills the well; this is made from welded steel rods formed into six overlapping circles and secured to the walls. A small wooden shingle gable roof sits above the well on timber frames. A horizontal steel bar with a handle represents a windlass for winding rope with a bucket.

Lakeside Car Park

This is one of the original car parks constructed in 1940/41 when the park was first created. (The others were east and south-west of the lake.) The first kiosk was located at the northern end against the embankment before being removed when the car park was extended. The 11m long section of bluestone retaining wall in a slight recess on the northern side possibly marks the location of the missing kiosk. The random stone placement is similar to the wall on the southern side of the car park.

The parking area is approximately 95m long and averages 40m in width. The asphalted parking area is divided by a central median planted with trees. A ticket machine is located in the median. Parking capacity in the marked spaces is for 113 vehicles. A 750mm diameter drain passes under the car park from the creek at the western end and discharges into Lake Treganowan. A line of bollards with horizontal cables at the lake end provides protection for pedestrians from traffic. The south-eastern side of the car park has a bluestone retaining wall against the embankment; this extends from the south-western end and continues around pathways to terminate at the north end of the barbecue area above the wading pool. Images from the 1940s / 1950s show that this wall was part of the early park construction work. A short bluestone-sided ramp is directly below the Lakeside Shelter. A flight of bluestone steps with stainless steel handrails, at the eastern end of the parking area, provides access to concrete pathways to the Lakeside Shelter and to the barbecue area above the wading pool.

Walking and cycling tracks

The majority of paths are surfaced in gravel except for asphalted high-use areas: e.g. around the Lakeside office, barbecue areas, etc. The main tracks are wide enough for maintenance vehicles.

- *Lake Treganowan track*: follows the north-western side of the lake shore from the car park to the pedestrian bridge. The north-western side has a low sleeper retaining wall with two recessed areas and sleeper seats.
- *Nobelius Loop Track*: follows the valley of Wattle Creek south from Lake Treganowan to Lake Nobelius, providing access to three amphitheatres. The track crosses timber bridges and boardwalks.

The following tracks traverse through remnants of the Gembrook Nurseries plantations in the western half of the park and are dominated by exotic conifers and deciduous trees with an understorey of regrowth indigenous vegetation.

- *Nobelius Track*: this is the southern-most track and follows the Puffing Billy railway line to the railway siding and the Nobelius Heritage Park.
- *Pine Track*: this track roughly follows the Nobelius Track alignment but is mid-slope between the railway and Wishing Well Track.
- *Link Track*: a short, steep track connecting the Wishing Well Track with the Nobelius Heritage Park.
- *Wishing Well Track*: connects the western end of the car park to the Wishing Well and follows the creek line.
- *Fern Gully Track*: connects the western end of the car park to the Nobelius Heritage Park.
- *Eastern Dandenong Ranges Trail*: a recent track from the Nobelius Heritage Park leading out of the eastern end of the park and partly formed on the site of an original track.



View east along Wishing Well Track.



View west along Nobelius Track



View east along Link Track.



Line of remnant Chestnuts at angle to Pine Track.

Signage

- Directional signs are generally stained timber boards on posts with letters recessed and painted. Some signs have park maps attached as “You are here” locations.
- Amphitheatre signs: stained timber boards on posts with letters recessed and painted.
- Information signs are metal-framed rectangular signs with rounded corners containing an information sheet covered with clear perspex. There is a sequence of 10 numbered signs commencing from the western end of the car park at the Eastern Dandenong Ranges Trail, returning from the Nobelius Heritage Park boundary along the Wishing Well Track, and from midway along the Nobelius Loop Track back to the car park. Similar signs, not in the numbered sequence, are provided at the Wishing Well, the Mural Walls and the rare Emerald Star Bush (*Asterolasia asteriscophora*) next to the Cardinia Shire Council Lakeside Office. The signs were provided by Friends of Emerald Lake Park through grants in conjunction with Council.
- A small sign shelter on the eastern side of the Nobelius Loop track has a similar construction to barbecue shelters, except that the supporting timber posts are round and tapered. A horizontal timber member between the posts indicates that it once provided base support for an information sign.
- A sign marked “Heritage Plantation” is on a slope set back from the western side of the Nobelius Loop Track approximately in line with the northern end of Lake Nobelius. The wording states that the plantation was established in 1985 by Emerald Primary School in co-operation with the Shire of Sherbrooke and Gus Ryberg. (There is no evidence of any surviving planting apart from a single NZ *Pittosporum tenuifolium*.)

Furniture

- Picnic tables – timber picnic tables with bench seats are placed in picnic shelters, barbecue areas, above the wading pool or around the Cafe; there are three variations of framing used to support the seats and table tops.
Modern commercial steel-framed aluminium picnic tables with separate bench seats have been installed below the Bandstand toilet block and changing rooms.

- Seats - older versions include 1950s style precast concrete bases with timber slats to the seat and backs. Timber benches constructed with sleepers or similar, either free-standing or attached to retaining walls.
- Bollards – rectangular timber posts with pyramidal tops to the eastern end of the Lakeside car park.
Round pine bollards and posts with top rails to Emerald Lake Road.

Missing Hard Landscape Elements

- Timber bridge to south end of Lake Treganowan;
- Original kiosk (1940);
- Replacement kiosk, café and dwelling (1962);
- Diving tower;
- Water slides and pools;
- Springboard;
- Garden beds west of wading pool;
- Messmate picnic shelter.

2. Soft Landscape

The original site for Gembrook Nurseries was on hilly country in the Dandenong Ranges, covered with forest and dissected with stream valleys. The land prior to subdivision was described as “well-timbered, with gum, messmate, peppermint and box scrub”. Stream valleys included tall Tree Ferns. Ecological Vegetation Classes may have included Wet Forest (30), Damp forest (29) and Shrubby Foothill Forest (45). All vegetation was painstakingly cleared for cultivation although CA Nobelius ensured that the tree ferns remained along streams.

Emerald Lake Park contains an area of 52ha which formed only a small part of the original Gembrook Nurseries total area of 650ha. Vegetation in the park can be divided into three types as follows:

1. Areas replanted in several periods commencing from the acquirement of land by the Shire of Sherbrooke in 1938/39. This includes the Gus Ryberg arboretum north-west of Lake Treganowan, the Conifer arboretum south of the Lakeside car park, and along the Wattle Creek Valley to Lake Nobelius;
2. Remnants of original nursery planting dating from 1921, or earlier, in the western section of the park (note that some trees may date from the continuing nursery operations up until 1938/39);
3. Remnant indigenous forest to the east of the Puffing Billy Railway and south and east of the Nobelius Loop Track. This also includes Tree Ferns and other indigenous species along the creeks.

An aerial photograph taken in April 1972 shows the extent of vegetation cover at that time (Refer to Appendix). Vegetation planted since 1938/39 can be readily seen in this image due to the relative sizes of the tree canopies. A comparison of vegetation cover in 1972 can be made with Taylor’s 2018 survey and the 2020 Arborist Assessment by Homewood Consulting.

Refer to Homewood Consulting’s Arborist Assessment for details of individual trees included in their survey. The assessment includes estimates of age for each tree; however, these estimates need to be treated with caution. Trees growing in the free-draining Emerald soils with high rainfall are faster-growing than similar species at lower altitudes and may affect estimate of age based on size only. Planted trees in Emerald Lake Park cannot be older than 80 years, dating from the 1940/41 opening of

the park, unless they are remnants of Nobelius Nursery or can be confirmed from photographic evidence.

Each of the vegetation areas is described as follows:

2.1 (a) Gus Ryberg Arboretum

This area is believed to have been the site for CA Nobelius' flax plantation until 1926, then subsequently used for potato farming. It shows as essentially an open paddock in 1972 with the exception of trees along Emerald Lake Road, presumed to be the current row of seven *Pinus radiata*; the pines have trunk diameters averaging 1.3m which is a reasonable indication of some age. A belt of vegetation extended from the northern side of the Lakeside car park to about three quarters along the shore of Lake Treganowan. No trees with large trunk diameters appear to remain in this location in the current arborist's assessment and may have been removed. A scattering of small tree canopies can be seen throughout the rest of the area in 1972, representing trees planted post-1941 or even from 1960 with Gus Ryberg's involvement.

Trees are planted randomly across sloping lawns. There are 277 trees with representatives of 13 species of conifer, 15 species of native trees and 33 other exotic species; all but 5 of the exotic species are deciduous. Notable trees include Chestnut (*Castanea sativa*), Japanese Cedar (*Cryptomeria japonica* 'Elegans'), Algerian Oak (*Quercus canariensis*), Arizona Cypress (*Hesperocyparis arizonica* 'Glabra'), Blue Atlantic Cedar (*Cedrus atlantica* f. *glauca*) and West Himalayan Spruce (*Picea smithiana*). Younger trees of interest include Rewarewa (*Knightia excelsa*) and Wollemi Pine (*Wollemia nobilis*).



Gus Ryberg arboretum – Japanese Cedar



Gus Ryberg arboretum – West Himalayan Spruce

2.1 (b) Conifer Arboretum south of the Lakeside Car Park

This L-shaped area shows on the 1972 aerial photo with a number of trees planted in lines from the southern end of the car park bending around the contours to as far as the southern end of Lake Treganowan. Trees on the south-eastern side of the lake are included in this area. The tree canopy sizes suggest that this was the first area planted after 1941 and the opening of the park.

Trees are planted on sloping lawns. The limit of planted vegetation blends into indigenous forest to the south backing onto the railway line. The area is characterised by a high number of conifer species and cultivated varieties (26) inter-planted with smaller deciduous species and indigenous vegetation.

Four trees in this arboretum are listed on the National Trust of Australia (Victoria) Register of Significant Trees:

- Japanese Umbrella Pine (*Sciadopitys verticillata*) [Homewood no. 2366]
- Norway Spruce (*Picea abies*) [Homewood no. 2374]
- Weeping Himalayan Cypress (*Cupressus cashmeriana*) [Homewood no. 2360]
- White Fir (*Abies concolor*) [Homewood no. 2279]

Note that there is a second Weeping Himalayan Cypress [Homewood no. 2375] growing in the arboretum but is not included on the Register of Significant Trees.

2.1 (c) Wattle Creek and Lake Nobelius Surrounds

The Wattle Creek surrounds include remnant indigenous vegetation including Tree Ferns. Plantings to each side of the creek and Nobelius Loop Track would have been implemented by Gus Ryberg from 1960 to 1980. Possible exceptions are the six Californian Redwoods (*Sequoia sempervirens*) immediately south of the Bunurong Amphitheatre; these trees are planted in a line at right angles to the valley contours in a manner similar to the way trees were planted in the Gembrook Nurseries. It is possible that they are remnants from the continuing nursery operations prior to 1938. The large specimen of Fastigate English Oak (*Quercus robur* 'Fastigiata') on the southern edge of Lake Nobelius may also be a remnant from the original nursery.

Eleven Mountain Grey Gums (*Eucalyptus cypellocarpa*) were planted by Council in 2009 along the western side of Wattle Creek next to the Loop Track; the trees are spaced approximately 15m apart. These were replacements for a large number of dead and damaged Silver Wattles. Indigenous vegetation surrounds planting along this corridor on the western side up to the railway line. The "Heritage Plantation" sign, dating from 1985, is in this area, but there is no indication of any remnant planting near the sign.

Lake Nobelius was constructed in 1988 after Gus Ryberg had retired as curator (although he was acting as honorary curator at Nobelius Heritage Park from 1982).

2.2 Western section of Emerald Lake Park

The western section of the park contains overgrown remnants of the original Gembrook Nurseries' ornamental tree planting. This has become a unique forest of mainly deciduous trees and pines with an understory of regrowth indigenous vegetation (see below for list of species); the exotic vegetation has also regenerated. Some flax plants still remain. Revegetation works have also been carried out since 2010. It has to be understood that Gembrook Nurseries' business was to sell bare-rooted trees which had to be lifted out of the ground and prepared for sale. Young trees were planted in rows at right angles to contours around three feet (0.9m) apart. Such trees would have had a maximum height of 1.8m to 2.4m for ease of handling and packing. It has been recorded that many of the trees were removed, ploughed into the ground or burnt when the business was failing. However, the view from the south-west of the packing shed in the 1920s shows that many tall trees had not been removed but had been abandoned and remain in the background. (Refer to History section) Compare the growth of trees in this

image with the c.1910 image in the History section which showed orderly rows of young trees in the nursery.

A number of very large trees closely-spaced in linear stands, as survivors from the original nursery, can still be seen along the walking tracks. Regrowth from these trees is also present. Tree Ferns survive along the creek valleys but have not been recorded in the arborist's report. The Friends of Emerald Lake Park have been active in clearing weedy species including Sycamore Maple (*Acer pseudoplatanus*) and Holly (*Ilex* spp.) and replanting cleared areas with local indigenous plants. Examples of remnant trees along the walking tracks are as follows:

- Nobelius Track – several rows of large Monterey Pine (*Pinus radiata*) adjacent to the Nobelius Heritage Park boundary at the western end; a group of 50 Algerian Oaks and a stand of 6 Chestnuts near the southern loop of the track.
- Pine Track – up to 20 specimens of Persimmon (*Diospyros kaki*) near the western end, although not particularly old; a line of 14 large Chestnut trees with trunks almost touching; a row of Elms further east. An area has been cleared of weed species (Cherry Laurel and *Cestrum elegans*) and replanted by the Friends of Emerald Lake Park. Three rows of Chestnuts with approximately 50 trees follow the slope at right angles to the creek near the connecting link to the Wishing Well Track.
- Wishing Well Track – from west end: stands of Beech (*Fagus sylvatica*); rows of up to 12 very large Tulip Trees (*Liriodendron tulipifera*); a short row of London Plane (*Platanus x acerifolia*) at right angles to the creek; a large Turkey Oak (*Quercus cerris*), two Japanese Cedars and a large Algerian Oak. A row of 10 Oriental Planes (*Platanus orientalis*) is parallel to the creek near the small stone dam wall.



Lines of remnant Tulip Trees to the southern side of the Wishing Well Track.



Lines of remnant Beech trees adjacent to Wishing Well Track.

- Fern Gully Track – from west end: Turkey Oak, Oriental Plane (2), Algerian Oak, row of 20 Chestnut leading to Eastern Dandenong Ranges Trail, row of 20 English Oak leading to Multi-Use Trail, row of 13 Oriental Plane along track, Japanese Cedar.
- Eastern Dandenong Ranges Trail – A group of large Beech adjacent to the Nobelius Heritage Park boundary; the predominant species further east are Dutch Elm (*Ulmus x hollandica*), suckering and spreading, interspersed with some Oak species, Sycamore, Black Wattle and Blackwood.

2.3 Indigenous Forest

Remnant areas of forest include:

- East of the Puffing Billy Railway line to the park boundary, including the three terraces, the former site of a caravan park. The third terrace (Bellbird Picnic area) contains a central row of English Oaks (*Quercus robur*).
- West of the Nobelius Loop Track to the railway line and south of Lake Nobelius to the railway line.
- Creek valleys and drainage lines.

Regrowth indigenous trees and shrubs are scattered throughout the western forest of exotic trees.

Principal tree species: Messmate (*Eucalyptus obliqua*), Narrow-leaved Peppermint (*E. radiata*), Mountain Grey Gum (*E. cypellocarpa*), Manna Gum (*E. viminalis*), Black Wattle (*Acacia mearnsii*), Blackwood (*A. melanoxylon*), Silver Wattle (*A. dealbata*).

Principal understorey species: Rough Tree fern (*Cyathea australis*), Soft Tree Fern (*Dicksonia antarctica*), Banyalla (*Pittosporum bicolor*), Hazel Pomaderris (*Pomaderris aspera*), Victorian Christmas Bush (*Prostanthera lasianthos*), Blanket-leaf (*Bedfordia arborescens*), Musk Daisy-bush (*Olearia argophylla*), Burgan (*Kunzea ericoides*), Dogwood (*Cassinia aculeata*), Bracken (*Pteridium esculentum*), Prickly Currant-bush (*Coprosma quadrifida*), Saw-sedge (*Gahnia sieberiana*), Austral Clematis (*Clematis aristata*).

2.4 General comments:

The planted areas in the Gus Ryberg arboretum and around the lakes contain a large number of small exotic trees, including Japanese Maple (*Acer palmatum*), Silver Birch (*Betula pendula*) and Flowering Cherry (*Prunus serrulata*). These small trees may have been planted to provide displays of autumn colour or spring flowers. However, they may also have been surplus species obtained after the closure of the continuing nursery in 1981 and simply planted in available spaces. There is no predictable design intent for placement of these trees, except for around the lake shores. They are generally out of scale with the large exotic pines and deciduous trees.

Similarly, there is no obvious design intent with the location of arboretum trees other than a random scattering of specimen trees or filling of spaces. There is a need to provide labels to identify significant species.

Shrub planting is limited to areas around Lake Treganowan. A loose hedge of burgundy-coloured Chinese Fringe Flower (*Loropetalum chinense* 'Burgundy') lines the entry road into the Lakeside car park on the northern side. A short, clipped Westringia hedge on the opposite side of the road lines the start of the path around the lake. A Hebe hedge tops the stone retaining wall to the rear of the wading pool. Beds of native shrubs contained by treated pine barrier fencing are at the rear of the Cardinia Shire Office and nearby around barbecue areas.

4. Assessment and Comparative Analysis

Emerald Lake Park is located on part of the former Gembrook Nurseries established by C.A. Nobelius in 1892. Vast areas of indigenous forest were cleared for the nursery operations. In 1921, the year of Nobelius' death, the operation covered 1,625 acres (650 hectares) and had previously advertised over three million trees for sale, both fruit tree stock and ornamental trees. Nobelius supported construction of the Puffing Billy Railway which would provide transport for fruit, other produce, and the timber industry along the line to Gembrook. The railway encouraged expansion of the nursery and a packing shed with siding was constructed beside the line in 1904 to enable direct loading of nursery products. In 1907 the nursery catalogue advertised 207 apple varieties for sale along with many other fruit tree varieties. Nobelius travelled widely, importing seeds from interstate and overseas and establishing a successful export market for tree stock. No other nursery of this period can compare with the extent of the Gembrook Nurseries operation which had developed an international reputation and was considered to be the largest in the southern hemisphere.

Nobelius had considerable impact on development of the Emerald area, encouraging local settlers to grow their own orchards for fruit and berries, and provided employment for many people during the winter months when trees were lifted from the ground. He provided a loan for construction of the Emerald Hall and donated the land for a sports oval, as well as providing trees to the perimeter.

The nursery was broken up after Nobelius' death in 1921 and 300 acres (120 hectares) were purchased by the Nobelius Station Estates. Nursery operations continued in part, including the growing of flax in the eastern section until 1926. The flax was then removed and the cleared area was used for growing potatoes. Many of the nursery trees were removed or ploughed into the ground because they had grown too large to be lifted from the ground for sale. The majority of the area reverted to a wilderness of remnant and self-seeded exotic trees plus indigenous vegetation regrowth. The Shire of Ferntree Gully purchased 110 acres (45 hectares) for the development of a public recreation park in 1938/39, now the site of the Emerald Lake Park. Lake Treganowan was formed, diving platforms and wading pools were constructed for swimmers, a kiosk, picnic shelters and toilets were provided, and the park was officially opened in 1941. Planting of exotic trees commenced in the cleared areas around the lake, initially to the slopes to the south-west, and later to the north-west of the lake.

The character of the western part of the site has changed dramatically over time, first from laborious clearing of indigenous forest in 1903, then establishment of the initial nursery with its extensive rows of young trees planted at right angles to the contours, and finally to a unique forest environment of mixed exotic and regrowth indigenous vegetation after 1921. Nursery trees were mainly grown for sale and were lifted out of the ground for transporting; height of trees would have been managed to not exceed 1.8 metre or 2.4 metres for this reason. Some of the nursery plants in their distinctive rows were not completely removed and have grown into closely-spaced stands of huge trees. Many of the exotic species have also self-seeded and have proliferated as exotic weeds. Walking tracks have been developed through the forest on what would have been original nursery access roads.

The eastern area of the park has been developed for public recreation, centred on water activities in the lake. It has expanded from the surrounds of Lake Treganowan along the Wattle Creek valley to the south where a second lake has been constructed. The earliest planting appears to have been above and south of the Lakeside car park; this has become an arboretum of rare conifers. A secondary planting forms the Gus Ryberg arboretum on the north-western slopes above the lake. Indigenous forest remains above the Puffing Billy Railway to the east. Lakeside Station, constructed in 1944 to serve visitors to the park, is now being enhanced by a new Lakeside Visitor Centre.

Comparisons with other Victorian nurseries

The earliest nursery known to be established in Victoria was **Charles Wyatt's** Frogmore Nursery at Fyansford in 1858; the nursery specialised in vines and fruit growing (Victorian Heritage Register H2060). **John Smith** commenced a nursery at Riddell's Creek in 1863 which became a major supplier of fruit trees in Victoria; the nursery expanded into ornamental trees and plants (Victorian Heritage Register H2060). **Taylor & Sangster** had the 2 acre (0.8 hectare) Vice-Regal Nurseries in Toorak, commenced in 1865, where C.A. Nobelius was employed. A second nursery was established at Macedon for cool climate plants in 1875; seven trees in the nursery site are on the National Trust's Significant Tree Register. (National Trust G13111.) This nursery had an important influence on plantings in the district and influenced the kind of garden landscape which became typical of the Dandenong Ranges. **J.C. Cole** established the Belgrave Nursery (1879-1891) which specialised in growing fruit. Many other orchards were planted in the Emerald district after encouragement from **C.A. Nobelius**, but these were for fruit production rather than growing of fruit trees and ornamental trees for sale. His Gembrook Nurseries supplied fruit trees to orchardists and ornamental trees throughout Australia; many shire councils, the Melbourne Botanic Gardens, Fitzroy Gardens, Burnham Beeches, Emerald Golf and Country Club were among the nursery's customers.

Comparisons with other parks established for recreation

Blackburn Lake Sanctuary was established in 1889 by the damming of Gardiner's Creek. The intentions were two-fold: to enhance surrounding land values and provide a reservoir for local orchardists; and to provide a tourist destination for train travellers from inner Melbourne with a refreshment room, jetty and rowing boats.

Wattle Park, Burwood was created by the Tramways Board in 1934 to provide a recreation venue at the terminus of the Riversdale Road tram line. The park featured disused tramcars, playground, toilets, picnic areas, a chalet for refreshments, tennis courts, an oval and a 9-hole golf course. Walking tracks developed through remnant indigenous vegetation. Materials from the disused cable car system were used for building the structures and cables with bollards were employed as road barriers.

Lillydale Lake is an artificial lake and wetland developed in 1988-90 with an area of 100 hectares. The park includes shared trails, a community room, playground, barbecues and picnic areas and is managed by the Yarra Ranges Shire.

Criteria for Assessment of Cultural Heritage Significance

(From a document adopted by the Heritage Council of Victoria on 17 August 2008.)

Criterion A Importance to the course, or pattern, of Victoria's cultural history.

Emerald Lake Park is part of the vast Gembrook Nursery established by Carl Axel Nobelius from 1882 and was one of Australia's foremost plant nurseries, described in 1920 as the largest in the southern hemisphere. It was the originator of an extensive range of exotic plants and fruit trees, supplied other nurseries of the era, and influenced gardens, parks, streetscapes and orchard planting throughout Australia. The nursery exported to the USA, South America, South Africa, New Zealand, Europe and Asia.

Criterion B Possession of uncommon, rare or endangered aspects of Victoria's cultural history.

Emerald Lake Park is significant for rare conifers planted after 1940, including four species listed on the National Trust of Australia (Victoria) Register of Significant Trees.

Criterion E Importance in demonstrating particular aesthetic characteristics.

The combination of the mixed exotic/indigenous forest, rolling vegetated hills, deep creek valleys and picturesque lakes provide changing and extensive views for travellers on the Puffing Billy railway.

Criterion H Special association with the life or works of a person, or group of persons, of importance in Victoria's history.

Emerald Lake Park is significant for its association with Carl Axel Nobelius. His contributions to the Emerald area included:

- support for the Belgrave to Gembrook narrow gauge railway line which provided local farming, nursery and timber industries with easier access to markets, as well as tourism;
- support for the local area by providing employment opportunities;
- involvement in community activities such as providing land and loans for the recreation ground and hall;
- activities in association with the local berry industry.

C. A. Nobelius is significant in the horticultural history of Victoria for his investigations into plant selection, particularly their suitability for local climates. He imported kiwifruit vines from Japan in 1900 and 1903 prior to the introduction of this species to New Zealand in 1904.

5. Statement of Significance

What is significant?

The Emerald Lake Park and landscape was associated with the CA Nobelius' Gembrook Nurseries from 1892 to 1939. Part of the nursery land was then acquired by the Shire of Ferntree Gully for development as a public park. A picturesque lake was created and then public toilets, change rooms and picnic shelters and car parks were constructed. Exotic trees were planted in sloping lawns for enjoyment of the public while remnant indigenous forest was retained to the eastern side. Additional facilities and attractions have been added including a council office, cafe, model railway display, paddle boats, playgrounds, barbecue facilities, boardwalks and a second lake. The southern boundary is defined by the Puffing Billy Tourist Railway which currently bisects the eastern end of the park and terminates at the Lakeside Station, built specifically to provide access to the park for tourists. Walking tracks provide access to the Nobelius Heritage Park through the western mixed forest of remnant exotic trees and indigenous species regrowth.

How is it significant?

Emerald Lake Park is of historic, aesthetic, scientific (horticultural) and social significance to Emerald and the Shire of Cardinia.

Why is it significant?

Emerald Lake Park has **historic** significance as important surviving evidence of the extensive Gembrook Nurseries operations in Emerald established by CA Nobelius. The land included the site of flax growing and processing works for use in the nursery. Remnant lines of exotic trees in the western forest demonstrate the nursery practice of planting in rows at right angles to the contours. Although the nursery operations ended when the land was acquired by Council for use as a public park, it continued to have exotic trees planted periodically from 1940.

Emerald Lake Park has **aesthetic** significance because it is an excellent example of an ornamental public recreation area set in a native and exotic forest context and surrounding a picturesque lake with rustic, rubble-stone and log shelters. A fine example of Japanese Cedar (*Cryptomeria japonica* 'Elegans'), with an unusual growth habit and bronze-coloured autumn foliage, terminates the view at the south-western end of Lake Treganowan. Tree Ferns lining creek valleys are typical of the Emerald area. The rolling topography with creek valleys and mixed forest provide fine views from the Puffing Billy Railway line.

Emerald Lake Park has **scientific** (horticultural) significance for the expansive plantations of unusual exotic deciduous trees and conifers, both north-west and south-west of Lake Treganowan. Four conifers have been classified by the National Trust and included on the National Trust's Significant Tree Register. The linear stands of huge, closely-spaced remnant nursery trees in the western forest are also of scientific (horticultural) significance, including Tulip Trees, Beeches, Chestnuts, Planes, Pines, Walnuts, Oaks and Elms.

Emerald Lake Park has **social** significance for the development of a public recreation area for Emerald residents during the Second World War years. Lake Treganowan contained facilities for aquatic recreation including swimming, diving towers, a spring board and a wading pool. Surrounding lawns, shelters and a kiosk provided pleasant opportunities for picnics. The Puffing Billy Lakeside Station encouraged tourists to visit the park and enjoy its facilities.

LEVEL: *Regional significance.*

6.0 Conservation Policies

6.1 Introduction

The following conservation policies have been developed to provide direction and guidelines for the conservation of the heritage significance for Emerald Lake Park. Cardinia Shire Council has the responsibility for implementing these policies, which should form the basis of consideration for any current or future works. The following policies are not exhaustive with regard to works; rather they seek to identify priorities for immediate and future works and to set a framework for an overall strategy for the conservation of the park and its elements.

6.2 General Policies

These general policies are intended to provide a basis for which the specific policies for individual elements of the park have been formulated. Those elements identified as being of significance should be retained and conserved in accordance with the conservation policies of this plan, and should be considered in, and form the basis of, future management of the complex.

Emerald Lake Park is made up of elements that provide demonstrable evidence of its significance. Individually and collectively these elements contribute to the overall cultural significance of the park. Acknowledgement of their significance should be the basis of, and a guide to, the future approaches to conservation works, management, interpretation, adaptation and development of the complex.

Specific conservation objectives should be to:

- Retain and enhance the existing cultural heritage values of Emerald Lake Park;
- Retain the sense of place of the park and its environs;
- Retain all fabric identified as of primary significance;
- Preferably retain all fabric of contributory significance. However, sympathetic alterations and additions could be made if it would enable appropriate adaptive re-use or development.

The guidelines contained in the Burra Charter should be used to determine the acceptability of any proposed conservation works and/or adaptive uses of the complex.

6.3 Significant Areas and Elements

The two main periods of significance are:

(1) The Gembrook Nurseries era from 1903, following expansion of the original nursery area to the south to include the narrow-gauge railway line development, and the continuing nursery (after the death of CA Nobelius in 1921 and subdivision of the land) until purchase of the land by the Shire of Ferntree Gully in 1938/39;

(2) Early development of the park as a recreation area surrounding the lake from 1940 to 1960.

In the development of the conservation policy, it is usual to assign levels of significance to structures and landscape elements in order to provide guidance with regard to conservation actions. These levels of significance are *primary*, *contributory* and *little or no significance*.

Primary Significance

Elements of primary significance are those that are of individual *historical, aesthetic, scientific or social* significance. They are essential to an understanding of the heritage significance of the Emerald Lake Park and are largely intact. These include:

Association with Gembrook Nurseries / Nobelius & Sons:

- Original nursery site (part of the vast nursery area from 1903) and part of the continuing nursery from 1921 to 1939;
- Large remnant nursery trees closely-spaced in rows in the western forest (from 1903 onwards);
- Remnant gully vegetation including Tree Ferns excluded from clearing by CA Nobelius;
- Western forest tracks – (possibly) original nursery access paths (Nobelius, Pine, Link, Wishing Well, Fern Gully), but excluding the Eastern Dandenong Ranges Trail, only part of which was constructed on an earlier nursery track.

Early development of park from 1939/40:

- Lake Treganowan and its setting;
- Lake Treganowan toilet block on lakeside with rubble-stone walls and log-framed roof;
- Picnic shelters with rubble-stone piers and dado walls plus log-framed roofs;
- Conifer arboretum south of the Lakeside car park, including the Japanese Cedar at the eastern end of the car park;
- Gus Ryberg arboretum to north-west of Lake Treganowan (1972 aerial suggests that some of this planting was later – from 1950-1960?).

Elements of primary significance should be retained and conserved.

Contributory Significance

Elements of contributory significance are those that are important in contributing to the cultural significance and interpretation of the park, or elements that are original but have been altered, or are elements of historic, aesthetic, scientific or social interest. These include the following:

- Small stone dam remnant walls on creek next to Wishing Well Track – the dam provided water supply to the original kiosk and toilets c.1940;
- Bluestone retaining walls to north and south of the Lakeside car park – possible remnant behind the original kiosk (north side) and retaining structure (south);
- Ticket box to entry (not the original ticket box) – this structure marks the entry to the park;
- Lake Nobelius and its setting – of aesthetic interest but a relatively recent addition to the park;
- Wading pool – possibly an original element but has been altered significantly;
- Entry road, from Emerald Lake Road to the Lakeside car park – original park entry road alignment;
- Lakeside car park – original parking area but modified;
- Trees planted from 1960-1980 – later additions.

Elements of contributory significance should preferably be retained and conserved.

Little or No Significance

Elements of little or no significance are those which were originally minor in nature, are of more recent origin, (after 1980) or which have been substantially altered. These include:

- Lake Treganowan footbridge and extension of the lake;
- Toilet blocks (3 No.);
- Lion's Den shelter;
- Model railway building;
- Maintenance shed and Lion's Den toilets above model railway building;
- Former caravan park terraces, now parking areas;
- Emerald Lake Park Café;
- Cardinia Shire Council Lakeside Office;
- Paddle boat operation;
- Pool plant and equipment sheds;
- Barbecues and picnic areas;
- Rotunda;
- Amphitheatres (5 No.);
- Mural walls (6 No.);
- Wishing Well;
- Playgrounds (2 No.);
- Signage (directional, information);
- Former information sign/shelter with roof to south of Cafe on Nobelius Loop Track;
- "Heritage Plantation" sign on western side of Nobelius Loop Track;
- Fences, barriers, boardwalks;
- Furniture - picnic tables and seats;
- Leaf sculpture south-west of Lakeside car park;
- Roads and pathways;
- Low bluestone retaining wall to path leading to Lakeside Station;
- Trees and shrubs planted after 1980;
- Stone edging to former garden beds west of wading pool.

Elements of little or no significance may be retained, altered or removed as required.

6.4 Setting

The Emerald Lake Park's setting should be retained. This includes open sloping lawns around Lake Treganowan, both to the north-west (Gus Ryberg arboretum) and south-west (Conifer arboretum) planted with specimen trees, and the indigenous forest backdrop to the east of the railway line. The sloping south-western lawn to the Conifer arboretum above the Lakeside car park should remain relatively open. Consideration should be given to selective removal of small trees (e.g. Birch, Japanese Maple and Flowering Cherry) to enable the specimen trees to expand and to allow them to be fully appreciated. The view from the Puffing Billy Railway line towards the lake or the western forest should not be obscured by new landscape elements or features. (Note that Cardinia Shire's Planning Scheme - Significant Landscape Overlay SLO1 applies to the Puffing Billy Tourist Railway Scenic Corridor.)

6.5 Future Development

There are planning constraints in relation to future development of Emerald Lake Park. The site has a Cardinia Shire heritage overlay and the local community considers the place to be of heritage value.

Planning overlays are as follows:

- Bushfire Management Overlay.
- Significant Landscape Overlay SLO1.
- Heritage Overlay HO106.
- Public Park & Recreation Zone

A planning permit will be required for any works which may affect the significance of the Emerald Lake Park, including removal of any trees.

Future development should be undertaken in a co-ordinated and planned manner in accordance with an agreed master plan.

6.6 Risks

The following risks need to be taken into consideration for protection of the park's heritage assets:

- Climate change – climate change and associated drought will affect vegetation with reduced rainfall resulting in loss of soil moisture, increase in temperatures and tree decline. Damage from storm events, including hail and strong winds, is likely to increase and affect the large number of mature and senescing trees.
- Fire – drier conditions increase the risk of fire resulting from lightning strikes or arson. Fine fuel build-up on the eastern boundary with Emerald Lake Park, and under the Emerald Lake Road pines, poses a threat and needs to be monitored.
- Vandalism – includes deliberate damage to buildings, vegetation and site furniture. Graffiti to buildings and site furniture is also a potential risk. Presence of permanent staff is recommended for visible security.
- Insect and pathogen attack to vegetation. Exotic insect pests may provide a conduit for tree diseases. Regular inspections should be conducted for evidence of attack by Elm Leaf Beetle, and if present, treatment should be carried out accordingly. Similarly, regular monitoring for signs of any Cypress Canker, Honey Fungus (*Armillaria spp.*) or Cinnamon Fungus (*Phytophthora cinnamomi*) and other *Phytophthora* species need to be conducted and appropriate action taken early if discovered.
- Weed invasion of all areas. Imported soil or mulch may introduce new diseases and weeds.
- Senescing trees susceptible to storm damage, bushfire, insect attack, fungal disease or death resulting in limb drop or tree collapse.

6.7 Interpretation

Visitors to the park should be informed about the heritage values of the park and be encouraged to protect and maintain them. Interpretation signage at main park entries is of particular importance. Information signs or other forms of interpretation should include reference to the Nobelius Nursery as the historic background for Emerald Lake Park. Interpretation includes the provision of labels to National Trust listed trees as well as to other significant representative trees in the park. Tree labels provide botanical information for botanically-minded visitors, students and school children.

Advances in digital technology need to be recognised. Consideration should be given to the inclusion of digital interpretation systems, such as “augmented reality”, within an overall interpretation strategy.

6.8 Adoption and Review

Cardinia Shire Council, the managers of Emerald Lake Park, (via the Emerald Lake Precinct Advisory Committee and Nobelius Heritage Park and Museum Committee of Management) should adopt and implement the policies in this Conservation Management Plan. The conservation policies should be subject to review at a minimum of five-yearly intervals. Should circumstances affecting the park change within this time, the policies should then be reviewed accordingly.

6.9 Repairs and Maintenance

Article 16 of The Burra Charter states that maintenance is fundamental to conservation. Maintenance should be undertaken where fabric is of cultural significance and its maintenance is necessary to retain that cultural significance. Article 22.2 of The Burra Charter notes that new work should be readily identifiable as such, but must respect and have minimal impact on the cultural significance of the place.

All repairs and maintenance should be carried out with regard to the significance of the place and the conservation policies of this Conservation Management Plan. Regular maintenance and monitoring of the various elements identified in this report will ensure that the significant fabric does not deteriorate and that it is properly conserved. Primary and contributory elements and their fabric should be conserved in accordance with the Burra Charter and the conservation policies of this report. Maintenance of primary and contributory heritage structures must be carried out by contractors with proven experience in heritage restoration. Heritage consultants should be involved in planning processes.

To achieve a proper maintenance regime, a cyclical inspection and maintenance program should be put in place to ensure that the gardens and other significant hard landscape elements are kept in good condition to slow deterioration of their fabric. An important pre-requisite for the development of a maintenance program is the engagement of an arborist to monitor the ongoing condition of all trees and to carry out any associated works. All tree pruning must be done in accordance with AS4373 Pruning of Amenity Trees. As previously noted, no trees can be removed without first obtaining a Cardinia Shire Council Planning Permit.

General maintenance (mowing, weeding, mulching, watering, clipping of formal hedges, rubbish removal, re-surfacing of paths, repair, cleaning and replacement of drains, erosion control works) can be carried out in accordance with the conservation policies of this report and without the assistance of a conservation specialist. Cardinia Shire Council needs to ensure that experienced maintenance contractors (preferably experienced in dealing with heritage sites) are employed and that they provide regular reports on actions proposed or taken.

An appropriate maintenance program should include a detailed listing of all maintenance tasks with frequency of actions, including inspections and monitoring, for a 5 year period.

7.0 Conservation Actions

The program of works has been divided into two levels of priority – *Essential & Immediate Works* and *Future Works*.

Essential and Immediate Works should be undertaken immediately to ensure **safety** for the users of the site and to ensure the physical integrity of the existing fabric.

Future Works are less urgent and are not necessarily fundamental to ensuring the physical integrity of existing fabric and may include reconstruction and other works that enhance the appearance and useability of the place. Future Works are recommended to be carried out when funds permit.

Level 1 Essential and Immediate Works

- **Trees.**

Refer to the Homewood Consulting: *Arboricultural Assessment and Report*, 2020. This report includes conditions and permit requirements for tree works relating to Cardinia Shire Council's Significant Landscape Overlay (SLO1) and Heritage Overlay HO106. It also includes current condition reports for each identified tree, recommended tree protection zones, and recommended works for management purposes including monitoring condition, cabling, pruning, lopping or removal for safety reasons. Management of trees shall be in accordance with *Australian Standard AS 4373-1996 Pruning of Amenity Trees* and *AS4970 Protection of Trees on Development Sites*.

Attention is drawn to the following paragraphs in the Homewood Consulting Report: 4.2 Tree Details, 4.3 Significant Trees, 5. Risk Assessment and 6. Recommended Works.

Construction of any new buildings or structures plus cable trenching for any new services with the potential to affect root zones must be designed to occur outside any tree protection zones for significant trees. If installation of services cannot be avoided, then boring under tree root zones will only be permitted under supervision of an arborist who will prescribe the minimum depth below the surface.

Trees in lawns should have their trunks surrounded by circles of organic mulch with a minimum *radius* of 1.5m and depth of 100mm - to conserve moisture, to control weed growth, to eliminate competition from grasses, to reduce root compaction by mowers and maintenance vehicles, and to protect trunks from mower damage. Mulch must be kept back a minimum distance of 150mm from the base of trunks.

Ongoing monitoring of significant trees is essential, as these are generally mature, and should be carried out on an annual basis. Note that an arborist may be required to assess damage after severe winds or storm damage, and should also be required to visit the site to report on trees after such events. Photographic records shall be kept of any damage. Removal of any trees will require a planning permit from Cardinia Shire.

Nobelius Nursery remnant trees in western forest.

Recognition should be given to the unique nature of the western forest. Large trees in closely-spaced lines or groups provide evidence of original plantings and nursery practices before the nursery was abandoned in the area. Simply put, the trees would not have been allowed to

exceed 1.8m to 2.4m in height before they would be lifted from the ground for sale. The young trees were originally planted around 0.9m apart. Many trees were removed for sale or ploughed into the ground after 1921 but several have remained and have been allowed to grow to a great size. It has to be remembered that all indigenous vegetation was cleared to establish the original Gembrook Nurseries and that most indigenous vegetation is either re-growth or recently planted. The forest needs to be managed to allow both kinds of vegetation to co-exist. Management includes the removal and monitoring of exotic weed species and clearing of smaller exotic saplings beside the remnant stands.

- **Weed control measures.**

Refer to Emerald Lake Park Revised Weed Control Strategy 2019-2024 (June 2019), Australis Biological: Emerald Lake Park – A weed Control Strategy (2013), and Ecology Partners Emerald Lake Park Vegetation Management Plan (2010). Note that these reports focus on indigenous vegetation and fail to recognise the heritage aspects of Nobelius & Sons' nursery remnants in the western forest (see above paragraph: Nobelius Nursery remnant trees). However, it is recognised that many of the exotic species represent serious weed threats, including Sycamore Maple, Elms, Holly, Hawthorn and Red Cestrum.

Consideration should be given to control and removal of all native and exotic weeds along creeks as well as throughout the park. Once cleared, areas should be mulched and re-planted with local indigenous species.

- **Rubble-stone Lake Treganowan toilet block.**

Maintenance shall be carried out by contractors with demonstrated experience in heritage restoration and includes the following:

- Roof – check for leaks, clean out gutters and downpipes, repaint and/or replace timber fascias. Arrange for a structural engineer to evaluate the structural integrity of the log framing. Provide galvanised steel sheet covers to ends of projecting logs to reduce the risk of further weathering.
- Walls – clean rubble stone screens to eastern and western ends to remove stains; do not use abrasive cleaners.
Any stone replacement or repairs, including to steps, should be a reasonable match to the existing stone (on the assumption that the original quarry for pink stone used for the Emerald Golf and Country Club building no longer operates).
Investigate weatherproofing to the base of vertical timber cladding on the north-western wall.
- Timber surfaces – fascias, vertical cladding to both gable ends and walls, doors to be painted on a regular basis. Note that paint colour must comply with HO106 controls.

Review internal fixtures and finishes and consider upgrading to meet current standards including disability access; this will not affect significance.

- **Rubble-stone Picnic Shelters.**

Maintenance shall be carried out by contractors with demonstrated experience in heritage restoration and includes the following:

- Roof – check for leaks, clean out gutters and downpipes, repaint and/or replace timber fascias. Arrange for a structural engineer to evaluate the structural integrity of the log framing. Provide galvanised steel sheet covers to ends of projecting logs to reduce the risk of further weathering;
- Walls – Any stone replacement or repairs should be a reasonable match to the existing stone (on the assumption that the original quarry for pink stone used for the Emerald Golf and Country Club building no longer operates);
- Timber surfaces – fascias, vertical cladding to gable ends; to be painted on a regular basis. Note that paint colour must comply with HO106 controls;
- Existing picnic tables – consider replacing with furniture that meets Council’s current standards.

Specific works to shelters:

- *Boatshed Shelter* – clean gutters, repair gable infills. Install galvanised steel sheet covers to protect ends of projecting logs. Paint fascias;
 - *Poolside Shelter* - clean gutters and correct fall to downpipe outlet. Remove graffiti from roof beams;
 - *Lakeside Shelter* - clean gutters. Paint log frames and fascias.
- **Lake Treganowan.**

Retain the current lake perimeter and reinforce edges as necessary. General maintenance includes reinforcement or replacement of path edges and sleeper retaining walls, control of weeds to edge, control of aquatic weeds including Cumbungi/Bulrushes (*Typha domingensis*). Removal of silt build-up should also be planned to occur on a regular basis. Regular inspections should be scheduled for any leaks in the dam wall.

- **Fire management strategy**

A fire management strategy is essential to provide protection for visitors, staff and heritage assets. The strategy should include consideration of emergency responses during extreme fire danger days and for actions to reduce fire risk.

Actions during extreme fire danger days:

- Nominate fire wardens to manage emergency response actions during the fire season. Duties will include regular site inspections, calling for fire brigade response or other emergency vehicles, directing emergency vehicles, monitoring evacuation procedures;
- Identify safe assembly areas for visitors and staff;
- Establish an evacuation procedure including search of buildings and remote areas to ensure that all people are accounted for;
- Closure of the park.

Reduction of fire risk:

- Reduce fine fuel load where possible, including under pine trees (pine needles and sticks/branches with less than 10mm diameter). Mow grass when more than 150mm high and collect clippings;
- Rake up leaves and dispose, preferably to compost;

- Install fire sprinklers to protect heritage buildings and structures;
- Review locations of fire hose reels, hydrants and hand-held extinguishers.

Level 2 Future Works

- **Trees: replacement, maintenance, new plantings.**

Refer to the Arboricultural Assessment and Report by Homewood Consulting (2020). Refer also to maintenance requirements under Level 1 above.

Prepare a strategy for long-term replacement planting of exotic trees, particularly for significant species in the two arboreta. Replacement will be required where trees have suffered severe storm damage, are in serious decline due to senescence or disease, or have died. Trees shall be replaced with the same species, where practicable, except those which have serious weed potential. Cuttings of significant trees should be grown in advance for replacement purposes to maintain genetic provenance; this will need to be done by a specialist nursery. Trees do not have to be replaced in the exact locations, although they should be within the same alignment if linear planting; trees to be removed would need stumps and large roots ground out to at least 300mm or more below the surface, while it has to be recognised that soil nutrients would have been severely depleted by large trees growing in that location over time. The selection of species for their drought tolerance due to climate change may take priority over trees which are more suited to wetter climates. Removal of any trees will require a planning permit from Cardinia Shire.

Remnant nursery trees in groups or lines along tracks in the western forest should not be replaced, but selectively removed if they fail. Photographic records should be retained of these stands of trees prior to any removals.

Prepare a strategy for new tree and shrub planting in addition to tree replacements. Consider ultimate plant sizes to suit locations. The selection of species for their drought tolerance due to climate change may take priority over trees which are more suited to wetter climates. The strategy should include assessing all areas for overcrowding of species and for a reduction in the number of small trees that are over-represented such as Japanese Maple, Silver Birch and Flowering Cherry. An **accessions policy** should be implemented to record species palette objectives. Details shall include species name, cultivar if applicable, source (purchase or donations), date of planting, and location within the park.

- **Additional Tree survey.**

There is scope for further identification of trees and tree groups adjacent to the tracks in the western forest. In particular, evidence of remnant Nobelius Nursery trees planted in rows should be recorded.

- **Small stone dam on western creek**

Clear debris from surrounds of the dam to open it up to view from the Wishing Well Track. Retain Tree Ferns. Provide a narrow gravel path from the track to the eastern side of the stone wall for dry weather access. Provide a marker bollard and interpretation signage.

- **Renovation of garden beds to west of wading pool.**

Consideration should be given to re-forming and replanting of garden beds to the south-western corner of Lake Treganowan adjacent to the wading pool.

This is a project to be researched and implemented under the guidance of a horticulturalist with demonstrated heritage gardening experience.

Works include cultivation, reforming edges, imported topsoil, mulching and planting. Preference should be given to the use of plant species available to the nursery trade in the period from 1940 to 1960. Two publications by Peter Cuffley (Five Mile Press) include some appropriate planting lists: *Traditional Gardens in Australia* (1991), and *Cottage Gardens in Australia* (1994). Perennial plants are preferred to annual plants to reduce maintenance requirements. The use of drought tolerant species should be considered. Additional rock edging may be required.

- **Bridges, dam wall, boardwalks, structures, fences, steps.**

Monitor condition and safety of all structures on a regular basis and set up a maintenance schedule.

- **Park Entry.**

Upgrade signage with entry “statement” or gateway. New directional signage will be required for the Lakeside Visitor Centre. Renovate or remove planting beds adjacent to ticket box. Review condition of ticket box and allow for maintenance as required.

- **Path and track maintenance.**

Paths with high pedestrian use should have asphalt (or concrete) surfaces to minimise both slipping and maintenance. Recycled plastic edges or steel edging should be provided for asphalt. Steep paths or steps (e.g. to the toilet block south of Lakeside Station or to the embankment to the northern side of the entry road from the Gus Ryberg arboretum – see below) should be provided with handrails in accordance with AS 1428.1-2009.

Western forest tracks should be maintained with gravel surfaces to support maintenance and emergency vehicles.

- **Unauthorised access routes & erosion of embankments.**

Works are required in various locations to prevent erosion, either to exclude pedestrian traffic or to stabilise earthen embankments:

(a) The main entry road embankment north-west of Lake Treganowan requires stabilisation – possibly with a retaining wall. Additional flights of steps, in conjunction with a barrier fence to the top of the embankment, should be constructed to provide controlled access to the Gus Ryberg arboretum;

(b) Unauthorised tracks from Emerald Lake Road above the western forest, created by mountain bike riders, require a barrier fence. This could be a timber post and rail construction;

(c) The bare earth embankment to the eastern side of the path to the rear of the Cardinia Shire Council Lakeside Office requires stabilisation or a retaining wall.



Track and embankment soil slump to Gus Ryberg arboretum off entry road.

- **Toilet blocks.**

Review internal fixtures and finishes and consider upgrading to meet both current health and Council standards, including disability access, or consider full reconstruction if necessary.

- **Furniture.**

All furnishings (seats, picnic tables, barbecue, waste containers, lighting, etc.) should be utilitarian, low maintenance, and of consistent design. Seat design should not be mock “heritage”. Consider installing either gravel or concrete pads under seats to reduce wear by feet.

Consider upgrading of picnic tables to the three picnic shelters. Tables should have extended ends to allow for wheelchair access.

Seats generally throughout the park must be placed so that the seat surface is a maximum of 450mm above ground level.

- **Lighting.**

A lighting strategy should be considered for any areas subject to pedestrian use in connection with after-hours events.

- **Art works.**

Prepare a policy for introduction of art works or sculpture. The policy should address both relevance to Emerald Lake Park and suitable locations for any installations.

The “leaf” sculpture to the southern side of the western carpark requires interpretation signage.

- **Interpretation.**

Develop an interpretation policy to provide visitor information regarding the origins of Emerald Lake Park on the site of the former Nobelius & Sons Nursery and establishment of the Puffing Billy narrow gauge railway. Information should include the 1940s development as a recreation park with early structures, and the park’s natural history of planted exotic species and remnant indigenous forests.

Update the Emerald Lake Park plan on general information signs to include new survey of the western forest tracks and the Lakeside Visitor Centre.

Review the existing series of information signage and upgrade as necessary, particularly the information on the Wishing Well sign.

Tree labels.

Install labels to identify both National Trust Significant Trees and all mature trees within the two arboreta. Install labels to identify representative significant species throughout the park other than in the above areas. Label information shall include botanical name, common name, botanical family and country of origin.

Develop a self-guided walk brochure or other interpretation strategies for the western forest tracks, supported by numbered marker posts at stopping points.

Consider the provision of distance marker posts for the western forest tracks.

- **Further research.**

Develop an oral history program to record memories from current and former staff members, local historians and local residents.

Investigate the source of pink stone used in the picnic shelters and change rooms.

- **Friends Group.**

Conduct a recruiting drive to increase membership of Friends of Emerald Lake Park and Emerald Lake Precinct in general.

Review council support and funding for the group.

- **Labour and resources.**

Review the current system of Council staff and park management.

A member of staff should be available at all times that the park is open to visitors for reasons of information provision, security and emergency response.

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APPENDIX A

EMERALD LAKE PARK & LANDSCAPE (PART NOBELIUS NURSERY)

Place No. 298

ADDRESS Emerald Lake Road

Last Update 14/10/2008

Emerald

HO No. add to H0106



DESCRIPTION

Emerald Lake Park and landscape is located adjacent (west) of the former Nobelius nursery (syn. Nobelius Heritage Park). Together these two sites once formed a part of the influential nursery operations of Carl Axel Nobelius and his Gembrook Nurseries, one of Victoria's major nurseries from 1886-1921. (Another part of the original site was developed as the Emerald Country Club in the 1920s.)

The Nobelius Heritage Park is listed on the Cardinia Shire Planning Scheme, Heritage Overlay (HO106). It formed the more functional nursery component where stock was grown (some in glasshouses, with only archaeological remnants extant), assembled, displayed, packed for transport by road or rail elsewhere in Melbourne), or sold directly.

Emerald Lake Park was formerly the CA Nobelius Gembrook Nursery display garden for current and imported lines (Winzenried: 94). (See History for more on the historical background).

The park comprises extensive ornamental and primarily exotic planting as specimen trees on sloping lawns of the valley landscape, many which date from the Nobelius Gembrook Nursery phase, with others planted later during the place's use as a public park from 1939. The Park is surrounded by native forest. Ornamental trees include conifers, mature oaks, perimeter rows of Monterey pines, the central Lake Treganowen, early stone and timber picnic shelters

(c.1940s-50s) named Lakeside Shelter, Poolside Shelter, and Boatshed shelter. As well, the Park contains dry stone retaining walls, paths, and roads. Together these elements which date from the park's use as a display garden associated with the nursery, and public park, provide the core historic character of the park.

The Lake Railway Station, built on the Gembrook light railway, overlooks the park and lake.

Trees from the National Trust of Australia (Vic) Register of Significant Trees include: Japanese cedar 'Cryptomeria japonica' at the lake edge near the lake-side carpark and a popular tourist photographic spot because of its unusual form, classified by National Trust of Australia and estimated to have been planted c1923; Colorado white fir 'Abies concolor' east of post office by car park beyond lake, (several c.30m tall) recorded by the National Trust of Australia for rarity, estimated planted c1940; Weeping Himalayan cypress 'Cupressus himalaica', J.Silba sp.nova., classified for rarity, estimated planting c1930; Norway (or common) spruce 'Picea abies' in the conifer group above the car park, 25m tall, recorded, estimated planting c1910; Japanese umbrella pine 'Sciadopitys verticalata' recorded for its rarity, planted c1960.

Note:

Some of the specimens have been noted by Spencer [R Spencer (1995) in 'Horticultural Flora of South-Eastern Australia', volume 1, p181] discussing the unknown taxonomic status of Emerald Lake Park cypress, possibly 'Cupressus cashmeriana' or 'C. torulosa'. The Western Himalayan cypress is probably a Kashmir cypress ('Cupressus cashmertana'). Most of these major tree specimens (generally mature conifers) are grouped just above the lake-side carpark and on the hill overlooking the carpark as part of a greater group of conifers which are notable on a State or regional basis for their variety within the genus, the formation and the rarity of individual specimens. Many of these trees are shown as semi-mature in postcards of the park produced soon after WW2 (State Library of Victoria Pictures collection). A large oak located near the pump house close to the water slide, appears to date from prior to the 1940s-50s.

More recent additions include the foot bridge, Gus Ryberg, Carl Stemp & Bunurong amphitheatres and 1990 Earthday memorial wall, also treated pine fences, poles, water slide, staff accommodation, tea rooms, and kiosks, and landscaping works, including traffic islands and plantings within the car park. There is also Prices amphitheatre and nearby mature chestnut ('Aesculus sp'.), and 'Quercus' [Macedon].

Tourist walks extend from the lake to the south- west, including the Southern Firebreak and Wishing Well Creek tracks. The following is an extract of a guide written by the former park ranger (?) for these two walking tracks, accompanying a sketch map (note that botanical names may need revision). It provides some idea of the planting in the park and the value given to some of the elements by local people.

"FIREBREAK TRACK (Numbered pegs)

PEG I. On the left trees are Green Japanese Cedar, Spruce, Larch and Huon Pine. On the right is Wishing Well Creek. From (1) proceed 100 paces to (2). Trees on the left are Laburnum Norway Maple, Variegated Thuya and Larch (deciduous conifer).

Carry on 85 paces to (5). At (5) on the right is a single row of trees including Oriental Planes, an English Oak, and one Linden Tree if unter den Linden (a famous avenue in Germany). As you left uphill to Peg (4) on the right are 5 rows of Chestnuts. These trees produce edible nuts, usually maturing during the months of April to May. From (3) to (4) - a distance of 100 paces - you turn right and on your left is a naturally regenerated stand of Radiata Pine used for timber, furniture, paper pulp, and chipboard. During the 80 paces travelled to (5) on the right are stands of Chestnut and English Elm. On the left are Blackwoods and Heather Scrub. Having arrived at (5) proceed 50 paces to (6) during which time you will have passed English Laurel and Veronica Hedge plants on the right and on the left Native Olive and Blackwoods. You now have 120 paces to reach (7), and on the way stands of English Elm on the right and on the left are many natives, including Dogwood, Native Ash, Musk Shrub, and Blackwoods, Native Olive, Pittosporum, Tree Ferns, Apple Berry and Clematis climbers.

The dead trees in this wilderness area are mostly Black Wattles which have reached their allotted life span which rarely exceeds 30 years. Early morning and late evening, this area is the scene and sound of indigenous animal and bird life. Having reached (7) which is identified by a King Fern framed in a mass of Vulgaris Privet Hedge, you now turn left uphill some 90 paces to (8) which is at a Japanese Bamboo Plant (Lycesteria). Both left and right for 150 paces to (9) on either side of the track are Cork Elms (a propagation stock for Weeping, Golden and Variegated Elm) . Also there is a clump of Cherry Plum stock. At (9) on the right are stands of English Oak and also more English Elm. On the left are Silver Poplar and white Robinia. Proceed 80 paces to (10) - Turn left and now you are on the South Fire break Track boundary of the Park and the Puffing Billy line.

Emerald Lake Park Conservation Management Plan

Proceed 260 paces to (11) and from here 130 paces to (12). You will have passed clumps of Hill Ti-tree, Sword Grass and Black Wattle. From (12) to (13) is a distance of 160 paces, you will pass on the left stands of naturally regenerated Radiata Pine. Continue to (14) 150 paces turning left from the main track through Radiata Pine and Black Wattle and Victorian Christmas Bush. Continue for another 100 paces to point (15) on the edge of open plantation from where the Car Park can be seen.

WISHING WELL TRACK

(D) starts from the bottom of the 5 rows of Chestnut Trees, turning left through Sycamores on either side for 185 paces to (E). Here turn right over spring-fed creek containing Tree Ferns as well as Fishbone and King Ferns along its banks. From the bridge, some 90 paces to (F) at which vicinity you will note Victorian Christmas Bush, Native Olive, Common Bracken Fern, and Musk Shrub. The tall trees, both dead and alive, are BLACK WATTLE whose life span rarely exceeds 30 years. Proceed 60 paces to (G), turn left and on your left are Norway Maples and English Ash, On the right is the fern lined Wishing Well Creek with two specimens of Blackwoods which when milled produce much sought after furniture timber.

Another 90 paces to (H) and you are confronted on the left by English Laurel and Chestnut Trees and Huon Pine. On your right is a tall Hybrid Gum. 150 paces to (I) and on the way on your left you pass many specimens of Elm, Silver Poplar, Chestnut and Common Beech Trees. Arriving at

(I) you gaze at some of the finest specimens of Tulip Trees in the State. These and the Common Beech backing on to them are much prized as veneer and furniture timber in Europe.

On to (J) some 145 paces away, sited at the Wishing Well and prior to arriving, the trees you have passed are Cordyline Palms, Japonica Camellia and Rhodo Ponticum often planted along English lanes. Uphill from (J) you cross a bridge and on the left of the bridge is the spring-fed source of Wishing Well Creek. Proceed to (K) some 65 paces and on the left a Giant Plane Tree is found, together with a large Blackwood and more Cordyline Palms. Keeping the creek on your right, travel 185 paces to (L). Continue downhill (beware this area is very slippery) At 30 paces on the left is a giant Evergreen Oak (Hodjinsii) and a further 60 paces on the right are 3 Black Walnut trees (used for timber) and close by a number of Hydrangeas.

Continuing to (M) you will pass on your left a giant Holly Tree, rows of Monilifera, Poplar, Chestnut and extensive areas of King Fern. From (L) to (M) you covered 185 paces. Proceed 47 paces to a large specimen of Parris Giant Chestnut on the right. This Chestnut produces the largest nut of this species. This is at peg (N) and from here 184 paces to (O) which is identified by a Medlar Tree (one of the Quince family). Another 60 paces and you are at (P) identified by two Holly Trees backed by an avenue of Coccinea Scarlet Oaks. Another 110 paces takes you across the stream on the right and almost at Peg (B). All that remains to be said is that had you travelled this No.2 Track in the early morning or late evening you would have enjoyed the bonus of seeing and hearing the abundant bird and native animal life of this wilderness area which so effectively protects them.

The above walking track pegs or markers have been largely destroyed although the specimens are generally still evident.

Condition	Good	Integrity	Evidence of stages
Threats		Key elements	Landscape Tree(s)
Designer		Builder	

HISTORY Background from the Environmental History:

In the late 1970s nurseries were rated as the major land users in the Dandenongs. (Winzenried:261). In the Emerald area this important land use extends back to the 1880s when Carl Axel Nobelius realised that the soil in the Dandenongs was perfect for producing fruit trees. He purchased land from an original selector (Koenig) in 1886 and, still working for Taylor and Sangster in Melbourne, worked on weekends to clear and plant his land with trees. Eventually Nobelius moved his family to Emerald, where they lived at Carramar. Nobelius' nursery originally extended across the area now covered by the Emerald Lake Park and the Nobelius Heritage Nursery. By 1914, at his peak, he had two million fruit and ornamental trees covering 450 acres of land, which he sold not

Emerald Lake Park Conservation Management Plan

only to the domestic market, but to customers in several overseas countries as well. While Nobelius' business connections stretched across the globe, he had an enormous influence on the Emerald area. His vast nursery complex provided work for approximately 50 workers, many of them local small landowners who could not have survived on their own resources.

Nobelius was also an active campaigner to have the narrow gauge railway built between Ferntree Gully and Gembrook and the Gembrook Nurseries (as his company was called) had its own siding with a packing shed built alongside. Nobelius established his own flax plantation and experimented with a lavender farm, which, though not successful, was a forerunner to other lavender farms in the district. (Ryberg: 58).

When Nobelius died in 1921 the nursery was sold to a syndicate which then sold the nursery business to A.M. Nicholas who resold it to Nobelius' sons, Cliff and Arch. They retained the nursery business until 1955. Part of the property was developed as the Emerald Country Club in the 1920s. Carramar, Nobelius' home, served as the club house until the permanent club house was completed in 1929. This area was later expanded by the Shire Council. The Nobelius Heritage Nursery is also situated on the original nursery site and features many exotic trees that date back to its days as an important nursery. Nobelius's packing shed, by the narrow gauge line, is also still located in this park.

Emerald Lake Park:

Emerald Lake Park was formerly the CA Nobelius Gembrook Nursery display garden for current and imported lines (Winzenried: 94). Included in the garden was a 'music pavilion' erected for a performance by Nellie Melba. At a later stage Nobelius planted flax to produce rope and twine, setting up his processing mill on the current park site but reputedly never at the expense of the ecology. Many of today's tree ferns are a result of his care in development of the site. Nobelius died in c1921 and his estate was sold, one large portion forming the Emerald Country Club & estate (q.v.). One of the ownership syndicates was the Nobelius Station Estates which included WH Treganowen as a partner, carrying on nursery production on part of the estate until they sold in the late 1940s {ASH}. Reputedly AV Nobelius, (son of CA) and a surveyor called Webb, persuaded the syndicate to develop the area as a park. Their attempts to construct a lake in the area failed and they sold (ibid.).

The Shire of Ferntree Gully (under Shire engineer, Heany) developed this section of his estate as a public park after acquisition when it was thought to be almost a wilderness after years of neglect (Winzenried: 94). Dates cited for this transformation are 1939-40 when a new lake of 3-1/2 acres was created by the Shire after pressure from local progress associations convinced the Shire to acquire the land in 1939 with a completion date reached in 1941 {ASH}. Periodic planting of imported trees commenced in 1942.

In the period c1960 -1976 a small nursery was set up in the park to grow new trees and shrubs for planting in the park which included conifers, maples, elms, poplars, oaks, chestnuts, hybrid hawthorns, wattles, cornus and camellias {ASH}. Emerald riding councillor of the new Sherbrooke Shire (created in 1966), John Knorr, took over the development of the park as part of the committee of management which had been set up by the Shire in 1978. One result was a water slide opened in December 1981, a second slide in 1982 and plans for a giant model railway display on a former caravan park site [Winzenried: 272]. The park has been the venue for numerous public gatherings, one of the more recent being part of the Australian bicentennial celebrations in 1988 and a naturalisation ceremony in the newly erected Gus Ryberg Amphitheatre [Winzenried: 319].

Note: This is a direct extract from Graeme Butler's 1996 Cardinia Shire Heritage Study and references excluded in this extract can be viewed in the original study.

Creation Date 1910s

Change Dates 1940s

Associations

Local Themes

STATEMENT OF SIGNIFICANCE

What is significant?

The Emerald Lake Park and landscape, which originally formed the display garden for imported plants associated with the adjacent CA Nobelius Gembrook Nursery site (1886–1939). Later it was acquired by Council (1939-) at which time a picturesque lake was created (c.1939- 40) and, from the 1940s onwards, periodic plantings of exotic trees occurred. Evidence of other improvements to the site for public purposes comprise the rustic rubble stone and log shelters, remnants of earlier structures. The plantings of exotic trees and landscape elements planted for the park's use and enjoyment by the public as both a display garden (1886–1939) and later Council-owned public park (from 1939) are significant. The association of the place with CA Nobelius and the CA Nobelius Gembrook Nurseries is also significant.

How is it significant?

Emerald Lake Park is of historic, aesthetic, and scientific (horticultural) significance to Emerald and the Shire of Cardinia.

Why is it significant?

Emerald Lake Park has historic significance as important surviving evidence of the CA Nobelius Gembrook Nurseries' display garden and later the flax field and processing works, which formed part of the original holdings of Carl Axel Nobelius on which he established his nursery operations in Emerald. Although its use as a display garden and flax field and processing works ended when the land was acquired by Council for use as a public park, it continued to have exotic trees planted, periodically from 1940, retaining both its parkland character of a sloping grassed valley with exotic specimen trees and its accessibility to the public. It is an excellent example of an ornamental public recreation area, with planting largely from 1940 onwards, set in a native forest context and surrounding a picturesque lake, with associated rustic rubble stone and log shelters typical of this era and earlier. (RNE Criteria A.4, F.1, H.1)

Emerald Lake Park has scientific (horticultural) significance for the rarity and uncommon formation of individual, mainly conifer, specimens within the park as well as the superior conifer grouping on the hillside overlooking the lake and lakeside car park (RNE Criterion B.1, F.1).; Historically it is also significant for its direct associations with Carl Axel Nobelius (RNE criterion H.1), and his originally larger holdings on which he established his nursery operations in Emerald, and which included the adjacent Nobelius Heritage Park, the former nursery's packing shed and siding, and on another nearby part of which was established the Emerald Country Club in the 1920s. It contributes to an understanding of the former nursery operations of CA Nobelius, and the extent of Nobelius's original holdings.

LEVEL

Local significance

Heritage Register Listings

Register	Reference	Zoning	Status
Planning Scheme	HO106		Recommended
Add to extent of HO106			
Register of the National Estate	100546		Indicative Place (Nominated)

Name of place: Nobelius Nursery, Crichton Rd, Emerald, VIC

Place ID: 100546

Australian Heritage Commission File Number: 2/16/048/0016

Extent None specified

Heritage Schedule

External Paint Controls:	No	On VHR:	No	VHR Ref No: No
Internal Alteration Controls:	No	Prohibited Uses:	No	
Tree Controls:	Yes	Aboriginal Heritage Place:	No	
Outbuildings or Fences:	No	Incorporated Plan:	No	Incorporated Plan Details
Description:	None specified			None specified

Conservation Management

SPECIFIC CONSERVATION GUIDELINES - TREES

In order to conserve the heritage significance of the identified significant trees, it is recommended that the following guidelines are used in the future management or development of the place:

Emerald Lake Park Conservation Management Plan

1. Ensure that the tree/s survives in good condition according to their normally expected lifespan. Regular maintenance should include monitoring condition, pruning, and pest and disease management.
2. Develop a strategy for replacement when the tree/s becomes senescent or dangerous. Document the replacement process (photographs and written record before, during & after) for future record.
3. Replace 'like with like' species to maintain the significance and integrity of the vegetation fabric, unless an alternative planting scheme has been devised in accordance with an approved management plan.
4. Manage surrounding vegetation to maintain the integrity and condition of the tree/s. Remove weed vegetation species.

5. Ensure that any future development, or changes in immediate environmental conditions, adjacent to the tree/s does not have a detrimental impact upon the integrity and condition of the of the tree/s. Investigate ways in which adjacent development could include or coordinate with recovery and improvement of the tree/s integrity and condition.

Extra Research None specified

BIBLIOGRAPHY Context Pty Ltd, (2006), Cardinia Local Heritage Study Review

Graeme Butler & Assoc., (1999), Cardinia Shire Heritage Study (ex Cranbourne & Sherbrooke), Cardinia Shire Council, 36

APPENDIX B

Emerald Lake Park Conservation Management Plan

THE BURRA CHARTER

The Australia ICOMOS Charter for
Places of Cultural Significance 2013



Australia ICOMOS Incorporated
International Council on Monuments and Sites

ICOMOS

ICOMOS (International Council on Monuments and Sites) is a non-governmental professional organisation formed in 1965, with headquarters in Paris. ICOMOS is primarily concerned with the philosophy, terminology, methodology and techniques of cultural heritage conservation. It is closely linked to UNESCO, particularly in its role under the World Heritage Convention 1972 as UNESCO's principal adviser on cultural matters related to World Heritage. The 11,000 members of ICOMOS include architects, town planners, demographers, archaeologists, geographers, historians, conservators, anthropologists, scientists, engineers and heritage administrators. Members in the 103 countries belonging to ICOMOS are formed into National Committees and participate in a range of conservation projects, research work, intercultural exchanges and cooperative activities. ICOMOS also has 27 International Scientific Committees that focus on particular aspects of the conservation field. ICOMOS members meet triennially in a General Assembly.

Australia ICOMOS

The Australian National Committee of ICOMOS (Australia ICOMOS) was formed in 1976. It elects an Executive Committee of 15 members, which is responsible for carrying out national programs and participating in decisions of ICOMOS as an international organisation. It provides expert advice as required by ICOMOS, especially in its relationship with the World Heritage Committee. Australia ICOMOS acts as a national and international link between public authorities, institutions and individuals involved in the study and conservation of all places of cultural significance. Australia ICOMOS members participate in a range of conservation activities including site visits, training, conferences and meetings.

Revision of the Burra Charter

The Burra Charter was first adopted in 1979 at the historic South Australian mining town of Burra. Minor revisions were made in 1981 and 1988, with more substantial changes in 1999.

Following a review this version was adopted by Australia ICOMOS in October 2013.

The review process included replacement of the 1988 Guidelines to the Burra Charter with Practice Notes which are available at: australia.icomos.org

Australia ICOMOS documents are periodically reviewed and we welcome any comments.

Citing the Burra Charter

The full reference is *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013*. Initial textual references should be in the form of the *Australia ICOMOS Burra Charter, 2013* and later references in the short form (*Burra Charter*).

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The Burra Charter consists of the Preamble, Articles, Explanatory Notes and the flow chart.

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Cover photograph by Ian Stapleton.

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The Burra Charter

(The Australia ICOMOS Charter for Places of Cultural Significance, 2013)

Preamble

Considering the International Charter for the Conservation and Restoration of Monuments and Sites (Venice 1964), and the Resolutions of the 5th General Assembly of the International Council on Monuments and Sites (ICOMOS) (Moscow 1978), the Burra Charter was adopted by Australia ICOMOS (the Australian National Committee of ICOMOS) on 19 August 1979 at Burra, South Australia. Revisions were adopted on 23 February 1981, 23 April 1988, 26 November 1999 and 31 October 2013.

The Burra Charter provides guidance for the conservation and management of places of cultural significance (cultural heritage places), and is based on the knowledge and experience of Australia ICOMOS members.

Conservation is an integral part of the management of places of cultural significance and is an ongoing responsibility.

Who is the Charter for?

The Charter sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance, including owners, managers and custodians.

Using the Charter

The Charter should be read as a whole. Many articles are interdependent.

The Charter consists of:

- Definitions Article 1
- Conservation Principles Articles 2–13
- Conservation Processes Articles 14–25
- Conservation Practices Articles 26–34
- The Burra Charter Process flow chart.

The key concepts are included in the Conservation Principles section and these are further developed in the Conservation Processes and Conservation Practice sections. The flow chart explains the Burra Charter Process (Article 6) and is an integral part of

the Charter. Explanatory Notes also form part of the Charter.

The Charter is self-contained, but aspects of its use and application are further explained, in a series of Australia ICOMOS Practice Notes, in *The Illustrated Burra Charter*, and in other guiding documents available from the Australia ICOMOS web site: australia.icomos.org.

What places does the Charter apply to?

The Charter can be applied to all types of places of cultural significance including natural, Indigenous and historic places with cultural values.

The standards of other organisations may also be relevant. These include the *Australian Natural Heritage Charter*, *Ask First: a guide to respecting Indigenous heritage places and values* and *Significance 2.0: a guide to assessing the significance of collections*.

National and international charters and other doctrine may be relevant. See australia.icomos.org.

Why conserve?

Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records, that are important expressions of Australian identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us and the Australian landscape. They are irreplaceable and precious.

These places of cultural significance must be conserved for present and future generations in accordance with the principle of inter-generational equity.

The Burra Charter advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained.

Articles

Article 1. Definitions

For the purposes of this Charter:

- 1.1 *Place* means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.
- 1.2 *Cultural significance* means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.
- Cultural significance is embodied in the *place* itself, its *fabric*, *setting*, *use*, *associations*, *meanings*, *records*, *related places* and *related objects*.
- Places may have a range of values for different individuals or groups.
- 1.3 *Fabric* means all the physical material of the *place* including elements, fixtures, contents and objects.
- 1.4 *Conservation* means all the processes of looking after a *place* so as to retain its *cultural significance*.
- 1.5 *Maintenance* means the continuous protective care of a *place*, and its *setting*.
- Maintenance is to be distinguished from repair which involves *restoration* or *reconstruction*.
- 1.6 *Preservation* means maintaining a *place* in its existing state and retarding deterioration.
- 1.7 *Restoration* means returning a *place* to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.
- 1.8 *Reconstruction* means returning a *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material.
- 1.9 *Adaptation* means changing a *place* to suit the existing *use* or a proposed use.
- 1.10 *Use* means the functions of a *place*, including the activities and traditional and customary practices that may occur at the place or are dependent on the place.

Explanatory Notes

Place has a broad scope and includes natural and cultural features. Place can be large or small: for example, a memorial, a tree, an individual building or group of buildings, the location of an historical event, an urban area or town, a cultural landscape, a garden, an industrial plant, a shipwreck, a site with in situ remains, a stone arrangement, a road or travel route, a community meeting place, a site with spiritual or religious connections.

The term cultural significance is synonymous with cultural heritage significance and cultural heritage value.

Cultural significance may change over time and with use.

Understanding of cultural significance may change as a result of new information.

Fabric includes building interiors and sub-surface remains, as well as excavated material.

Natural elements of a place may also constitute fabric. For example the rocks that signify a Dreaming place.

Fabric may define spaces and views and these may be part of the significance of the place.

See also Article 14.

Examples of protective care include:

- maintenance — regular inspection and cleaning of a place, e.g. mowing and pruning in a garden;
- repair involving restoration — returning dislodged or relocated fabric to its original location e.g. loose roof gutters on a building or displaced rocks in a stone bora ring;
- repair involving reconstruction — replacing decayed fabric with new fabric

It is recognised that all places and their elements change over time at varying rates.

New material may include recycled material salvaged from other places. This should not be to the detriment of any place of cultural significance.

Use includes for example cultural practices commonly associated with Indigenous peoples such as ceremonies, hunting and fishing, and fulfillment of traditional obligations. Exercising a right of access may be a use.

Articles

- 1.11 *Compatible use* means a *use* which respects the *cultural significance* of a *place*. Such a use involves no, or minimal, impact on cultural significance.
- 1.12 *Setting* means the immediate and extended environment of a *place* that is part of or contributes to its *cultural significance* and distinctive character.
- 1.13 *Related place* means a *place* that contributes to the *cultural significance* of another place.
- 1.14 *Related object* means an object that contributes to the *cultural significance* of a *place* but is not at the place.
- 1.15 *Associations* mean the connections that exist between people and a *place*.
- 1.16 *Meanings* denote what a *place* signifies, indicates, evokes or expresses to people.
- 1.17 *Interpretation* means all the ways of presenting the *cultural significance* of a *place*.

Conservation Principles

Article 2. Conservation and management

- 2.1 *Places of cultural significance* should be conserved.
- 2.2 The aim of *conservation* is to retain the *cultural significance* of a *place*.
- 2.3 *Conservation* is an integral part of good management of *places of cultural significance*.
- 2.4 *Places of cultural significance* should be safeguarded and not put at risk or left in a vulnerable state.

Article 3. Cautious approach

- 3.1 *Conservation* is based on a respect for the existing *fabric, use, associations* and *meanings*. It requires a cautious approach of changing as much as necessary but as little as possible.
- 3.2 Changes to a *place* should not distort the physical or other evidence it provides, nor be based on conjecture.

Article 4. Knowledge, skills and techniques

- 4.1 *Conservation* should make use of all the knowledge, skills and disciplines which can contribute to the study and care of the *place*.

Explanatory Notes

Setting may include: structures, spaces, land, water and sky; the visual setting including views to and from the place, and along a cultural route; and other sensory aspects of the setting such as smells and sounds. Setting may also include historical and contemporary relationships, such as use and activities, social and spiritual practices, and relationships with other places, both tangible and intangible.

Objects at a place are encompassed by the definition of place, and may or may not contribute to its cultural significance.

Associations may include social or spiritual values and cultural responsibilities for a place.

Meanings generally relate to intangible dimensions such as symbolic qualities and memories.

Interpretation may be a combination of the treatment of the fabric (e.g. maintenance, restoration, reconstruction); the use of and activities at the place; and the use of introduced explanatory material.

The traces of additions, alterations and earlier treatments to the fabric of a place are evidence of its history and uses which may be part of its significance. Conservation action should assist and not impede their understanding.

Articles

4.2 Traditional techniques and materials are preferred for the *conservation* of significant *fabric*. In some circumstances modern techniques and materials which offer substantial conservation benefits may be appropriate.

Article 5. Values

5.1 *Conservation* of a *place* should identify and take into consideration all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others.

5.2 Relative degrees of *cultural significance* may lead to different *conservation* actions at a place.

Article 6. Burra Charter Process

6.1 The *cultural significance* of a *place* and other issues affecting its future are best understood by a sequence of collecting and analysing information before making decisions. Understanding cultural significance comes first, then development of policy and finally management of the place in accordance with the policy. This is the Burra Charter Process.

6.2 Policy for managing a *place* must be based on an understanding of its *cultural significance*.

6.3 Policy development should also include consideration of other factors affecting the future of a *place* such as the owner's needs, resources, external constraints and its physical condition.

6.4 In developing an effective policy, different ways to retain *cultural significance* and address other factors may need to be explored.

6.5 Changes in circumstances, or new information or perspectives, may require reiteration of part or all of the Burra Charter Process.

Article 7. Use

7.1 Where the *use* of a *place* is of *cultural significance* it should be retained.

7.2 A *place* should have a *compatible use*.

Explanatory Notes

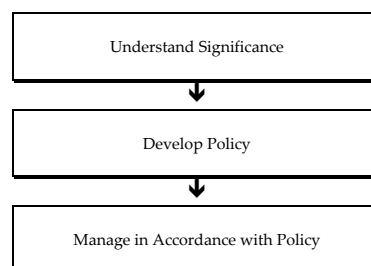
The use of modern materials and techniques must be supported by firm scientific evidence or by a body of experience.

Conservation of places with natural significance is explained in the Australian Natural Heritage Charter. This Charter defines natural significance to mean the importance of ecosystems, biodiversity and geodiversity for their existence value or for present or future generations, in terms of their scientific, social, aesthetic and life-support value.

In some cultures, natural and cultural values are indivisible.

A cautious approach is needed, as understanding of cultural significance may change. This article should not be used to justify actions which do not retain cultural significance.

The Burra Charter Process, or sequence of investigations, decisions and actions, is illustrated below and in more detail in the accompanying flow chart which forms part of the Charter.



Options considered may include a range of uses and changes (e.g. adaptation) to a place.

The policy should identify a use or combination of uses or constraints on uses that retain the cultural significance of the place. New use of a place should involve minimal change to significant fabric and use; should respect associations and meanings; and where appropriate should provide for continuation of activities and practices which contribute to the cultural significance of the place.

Articles

Article 8. Setting

Conservation requires the retention of an appropriate *setting*. This includes retention of the visual and sensory setting, as well as the retention of spiritual and other cultural relationships that contribute to the *cultural significance* of the *place*.

New construction, demolition, intrusions or other changes which would adversely affect the setting or relationships are not appropriate.

Article 9. Location

9.1 The physical location of a *place* is part of its *cultural significance*.

A building, work or other element of a place should remain in its historical location. Relocation is generally unacceptable unless this is the sole practical means of ensuring its survival.

9.2 Some buildings, works or other elements of *places* were designed to be readily removable or already have a history of relocation. Provided such buildings, works or other elements do not have significant links with their present location, removal may be appropriate.

9.3 If any building, work or other element is moved, it should be moved to an appropriate location and given an appropriate *use*. Such action should not be to the detriment of any *place* of *cultural significance*.

Article 10. Contents

Contents, fixtures and objects which contribute to the *cultural significance* of a *place* should be retained at that place. Their removal is unacceptable unless it is: the sole means of ensuring their security and *preservation*; on a temporary basis for treatment or exhibition; for cultural reasons; for health and safety; or to protect the place. Such contents, fixtures and objects should be returned where circumstances permit and it is culturally appropriate.

Article 11. Related places and objects

The contribution which *related places* and *related objects* make to the *cultural significance* of the *place* should be retained.

Article 12. Participation

Conservation, *interpretation* and management of a *place* should provide for the participation of people for whom the place has significant *associations* and *meanings*, or who have social, spiritual or other cultural responsibilities for the place.

Article 13. Co-existence of cultural values

Co-existence of cultural values should always be recognised, respected and encouraged. This is especially important in cases where they conflict.

Explanatory Notes

Setting is explained in Article 1.12.

For example, the repatriation (returning) of an object or element to a place may be important to Indigenous cultures, and may be essential to the retention of its cultural significance.

Article 28 covers the circumstances where significant fabric might be disturbed, for example, during archaeological excavation.

Article 33 deals with significant fabric that has been removed from a place.

For some places, conflicting cultural values may affect policy development and management decisions. In Article 13, the term cultural values refers to those beliefs which are important to a cultural group, including but not limited to political, religious, spiritual and moral beliefs. This is broader than values associated with cultural significance.

Conservation Processes

Article 14. Conservation processes

Conservation may, according to circumstance, include the processes of: retention or reintroduction of a *use*; retention of *associations* and *meanings*; *maintenance*, *preservation*, *restoration*, *reconstruction*, *adaptation* and *interpretation*; and will commonly include a combination of more than one of these. Conservation may also include retention of the contribution that *related places* and *related objects* make to the *cultural significance* of a *place*.

Article 15. Change

15.1 Change may be necessary to retain *cultural significance*, but is undesirable where it reduces cultural significance. The amount of change to a *place* and its *use* should be guided by the *cultural significance* of the place and its appropriate *interpretation*.

15.2 Changes which reduce *cultural significance* should be reversible, and be reversed when circumstances permit.

15.3 Demolition of significant *fabric* of a *place* is generally not acceptable. However, in some cases minor demolition may be appropriate as part of *conservation*. Removed significant fabric should be reinstated when circumstances permit.

15.4 The contributions of all aspects of *cultural significance* of a *place* should be respected. If a place includes *fabric*, *uses*, *associations* or *meanings* of different periods, or different aspects of cultural significance, emphasising or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasised or interpreted is of much greater cultural significance.

Article 16. Maintenance

Maintenance is fundamental to *conservation*. Maintenance should be undertaken where *fabric* is of *cultural significance* and its maintenance is necessary to retain that *cultural significance*.

Article 17. Preservation

Preservation is appropriate where the existing *fabric* or its condition constitutes evidence of *cultural significance*, or where insufficient evidence is available to allow other *conservation* processes to be carried out.

Conservation normally seeks to slow deterioration unless the significance of the place dictates otherwise. There may be circumstances where no action is required to achieve conservation.

When change is being considered, including for a temporary use, a range of options should be explored to seek the option which minimises any reduction to its cultural significance.

It may be appropriate to change a place where this reflects a change in cultural meanings or practices at the place, but the significance of the place should always be respected.

Reversible changes should be considered temporary. Non-reversible change should only be used as a last resort and should not prevent future conservation action.

Maintaining a place may be important to the fulfilment of traditional laws and customs in some Indigenous communities and other cultural groups.

Preservation protects fabric without obscuring evidence of its construction and use. The process should always be applied:

- where the evidence of the fabric is of such significance that it should not be altered; or
- where insufficient investigation has been carried out to permit policy decisions to be taken in accord with Articles 26 to 28.

New work (e.g. stabilisation) may be carried out in association with preservation when its purpose is the physical protection of the fabric and when it is consistent with Article 22.

Articles

Article 18. Restoration and reconstruction

Restoration and reconstruction should reveal culturally significant aspects of the *place*.

Article 19. Restoration

Restoration is appropriate only if there is sufficient evidence of an earlier state of the *fabric*.

Article 20. Reconstruction

20.1 *Reconstruction* is appropriate only where a *place* is incomplete through damage or alteration, and only where there is sufficient evidence to reproduce an earlier state of the *fabric*. In some cases, reconstruction may also be appropriate as part of a *use* or practice that retains the *cultural significance* of the place.

20.2 *Reconstruction* should be identifiable on close inspection or through additional *interpretation*.

Article 21. Adaptation

21.1 *Adaptation* is acceptable only where the adaptation has minimal impact on the *cultural significance* of the *place*.

21.2 *Adaptation* should involve minimal change to significant *fabric*, achieved only after considering alternatives.

Article 22. New work

22.1 New work such as additions or other changes to the *place* may be acceptable where it respects and does not distort or obscure the *cultural significance* of the place, or detract from its *interpretation* and appreciation.

22.2 New work should be readily identifiable as such, but must respect and have minimal impact on the *cultural significance* of the *place*.

Article 23. Retaining or reintroducing use

Retaining, modifying or reintroducing a significant *use* may be appropriate and preferred forms of *conservation*.

Article 24. Retaining associations and meanings

24.1 Significant *associations* between people and a *place* should be respected, retained and not obscured. Opportunities for the *interpretation*, commemoration and celebration of these associations should be investigated and implemented.

24.2 Significant *meanings*, including spiritual values, of a *place* should be respected. Opportunities for the continuation or revival of these meanings should be investigated and implemented.

Explanatory Notes

Places with social or spiritual value may warrant reconstruction, even though very little may remain (e.g. only building footings or tree stumps following fire, flood or storm). The requirement for sufficient evidence to reproduce an earlier state still applies.

Adaptation may involve additions to the place, the introduction of new services, or a new use, or changes to safeguard the place. Adaptation of a place for a new use is often referred to as 'adaptive re-use' and should be consistent with Article 7.2.

New work should respect the significance of a place through consideration of its siting, bulk, form, scale, character, colour, texture and material. Imitation should generally be avoided.

New work should be consistent with Articles 3, 5, 8, 15, 21 and 22.1.

These may require changes to significant fabric but they should be minimised. In some cases, continuing a significant use, activity or practice may involve substantial new work.

For many places associations will be linked to aspects of use, including activities and practices.

Some associations and meanings may not be apparent and will require research.

Article 25. Interpretation

The *cultural significance* of many *places* is not readily apparent, and should be explained by *interpretation*. Interpretation should enhance understanding and engagement, and be culturally appropriate.

Conservation Practice

Article 26. Applying the Burra Charter Process

26.1 Work on a *place* should be preceded by studies to understand the place which should include analysis of physical, documentary, oral and other evidence, drawing on appropriate knowledge, skills and disciplines.

26.2 Written statements of *cultural significance* and policy for the *place* should be prepared, justified and accompanied by supporting evidence. The statements of significance and policy should be incorporated into a management plan for the place.

26.3 Groups and individuals with *associations* with the *place* as well as those involved in its management should be provided with opportunities to contribute to and participate in identifying and understanding the *cultural significance* of the place. Where appropriate they should also have opportunities to participate in its *conservation* and management.

26.4 Statements of *cultural significance* and policy for the *place* should be periodically reviewed, and actions and their consequences monitored to ensure continuing appropriateness and effectiveness.

Article 27. Managing change

27.1 The impact of proposed changes, including incremental changes, on the *cultural significance* of a *place* should be assessed with reference to the statement of significance and the policy for managing the place. It may be necessary to modify proposed changes to better retain cultural significance.

27.2 Existing *fabric*, *use*, *associations* and *meanings* should be adequately recorded before and after any changes are made to the *place*.

Article 28. Disturbance of fabric

28.1 Disturbance of significant *fabric* for study, or to obtain evidence, should be minimised. Study of a *place* by any disturbance of the fabric, including archaeological excavation, should only be undertaken to provide data essential for decisions on the *conservation* of the place, or to obtain important evidence about to be lost or made inaccessible.

In some circumstances any form of interpretation may be culturally inappropriate.

The results of studies should be kept up to date, regularly reviewed and revised as necessary.

Policy should address all relevant issues, e.g. use, interpretation, management and change.

A management plan is a useful document for recording the Burra Charter Process, i.e. the steps in planning for and managing a place of cultural significance (Article 6.1 and flow chart). Such plans are often called conservation management plans and sometimes have other names.

The management plan may deal with other matters related to the management of the place.

Monitor actions taken in case there are also unintended consequences.

28.2 Investigation of a *place* which requires disturbance of the *fabric*, apart from that necessary to make decisions, may be appropriate provided that it is consistent with the policy for the place. Such investigation should be based on important research questions which have potential to substantially add to knowledge, which cannot be answered in other ways and which minimises disturbance of significant fabric.

Article 29. Responsibility

The organisations and individuals responsible for management and decisions should be named and specific responsibility taken for each decision.

Article 30. Direction, supervision and implementation

Competent direction and supervision should be maintained at all stages, and any changes should be implemented by people with appropriate knowledge and skills.

Article 31. Keeping a log

New evidence may come to light while implementing policy or a plan for a *place*. Other factors may arise and require new decisions. A log of new evidence and additional decisions should be kept.

New decisions should respect and have minimal impact on the cultural significance of the place.

Article 32. Records

32.1 The records associated with the *conservation* of a *place* should be placed in a permanent archive and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

32.2 Records about the history of a *place* should be protected and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

Article 33. Removed fabric

Significant *fabric* which has been removed from a *place* including contents, fixtures and objects, should be catalogued, and protected in accordance with its *cultural significance*.

Where possible and culturally appropriate, removed significant fabric including contents, fixtures and objects, should be kept at the place.

Article 34. Resources

Adequate resources should be provided for *conservation*.

The best conservation often involves the least work and can be inexpensive.

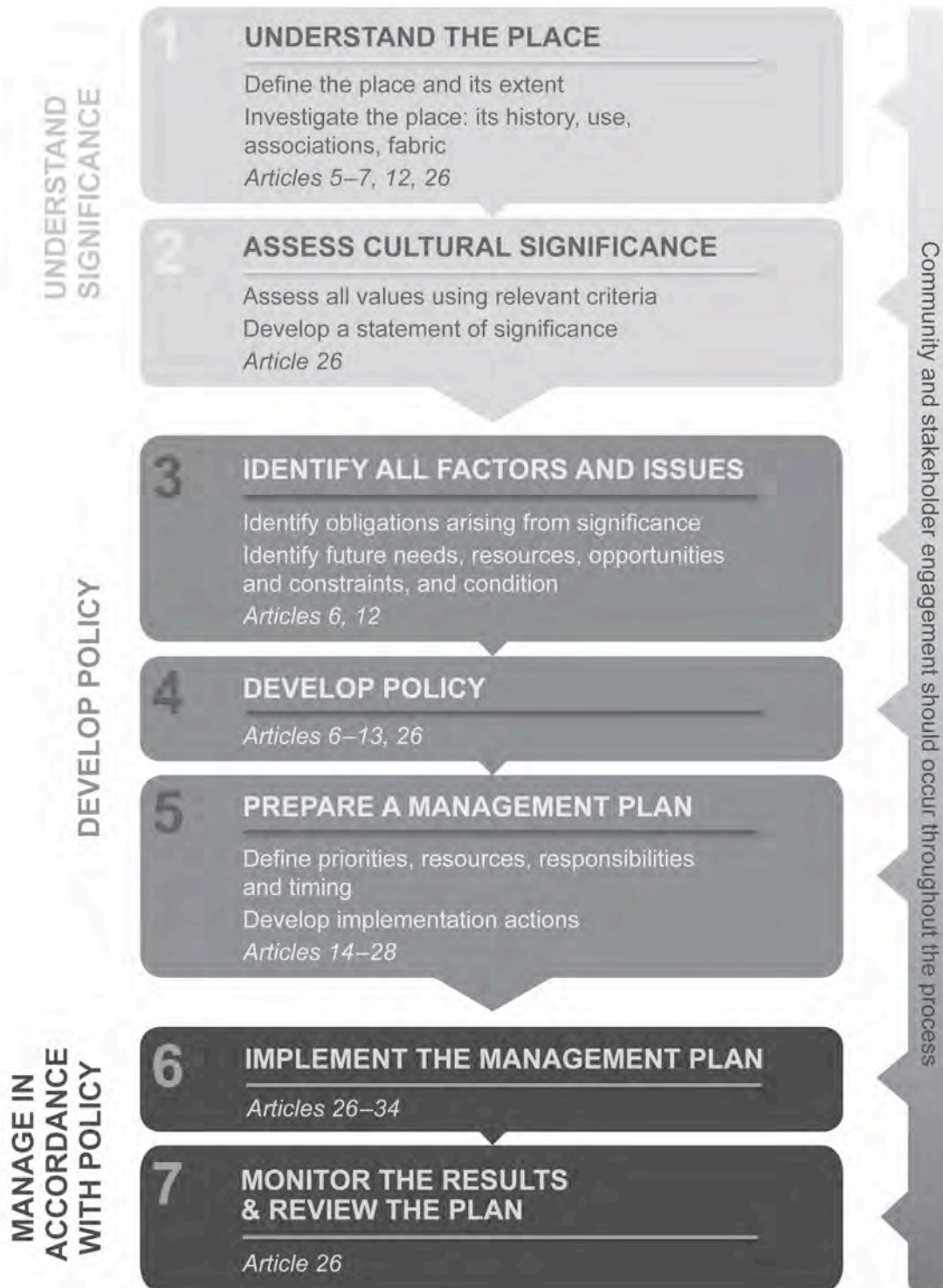
Words in italics are defined in Article 1.

The Burra Charter Process

Steps in planning for and managing a place of cultural significance















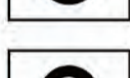

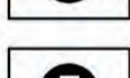
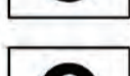

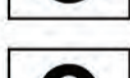
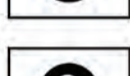
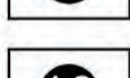
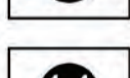
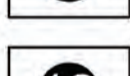
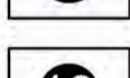
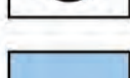
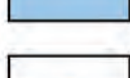
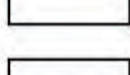
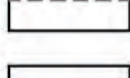
The Burra Charter should be read as a whole.

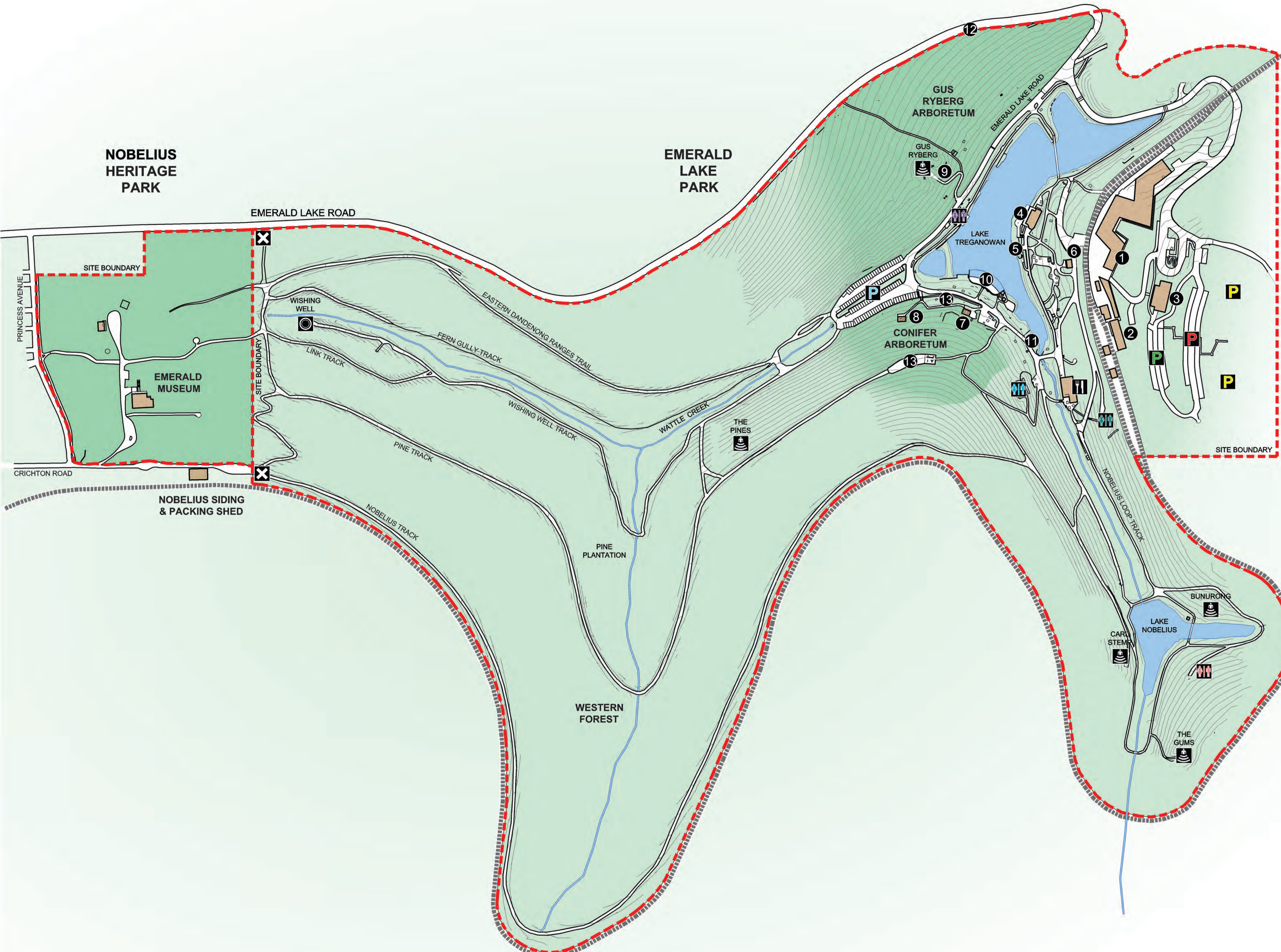
Key articles relevant to each step are shown in the boxes. Article 6 summarises the Burra Charter Process.



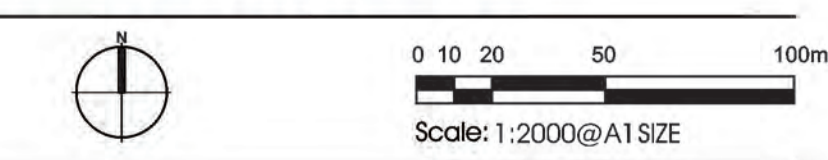


LEGEND

-  AMPHITHEATRES
-  EMERALD LAKE PARK CAFE
-  FIRE ACCESS GATES
-  WISHING WELL
-  LAKE NOBELIUS TOILET BLOCK
-  CAFE TOILET BLOCK
-  BANDSTAND TOILET BLOCK
-  LAKE TREGANOWAN TOILET BLOCK
-  LAKESIDE CAR PARK
-  BELLBIRD CAR PARK
-  LION'S DEN CAR PARK
CONCEPT ONLY & SUBJECT TO CHANGE
-  MODEL RAILWAY CAR PARK
CONCEPT ONLY & SUBJECT TO CHANGE
-  1 PUFFING BILLY LAKESIDE VISITOR CENTRE
-  2 LAKESIDE STATION
-  3 MODEL RAILWAY
-  4 LAKESIDE OFFICE
-  5 LAKESIDE PADDLEBOATS
-  6 BOATSHED SHELTER
-  7 POOLSIDE SHELTER
-  8 LAKESIDE SHELTER
-  9 MURALS
-  10 WADING POOL
-  11 BANDSTAND ROTUNDA
-  12 TICKET BOX
-  13 PLAY & FITNESS EQUIPMENT
-  LAKES
PLOTTED INDICATIVELY ON THIS PLAN -
DERIVED FROM NEARMAP AERIAL IMAGE
-  CREEKS
PLOTTED INDICATIVELY ON THIS PLAN -
DERIVED FROM NEARMAP AERIAL IMAGE
-  PUFFING BILLY RAIL TRACK
PLOTTED INDICATIVELY ON THIS PLAN -
DERIVED FROM NEARMAP AERIAL IMAGE
-  SITE BOUNDARY



EMERALD LAKE PRECINCT PLAN



Emerald Lake Park

Tree List from Homewood Consulting Arborist Report

Botanical name	Common name	Botanical name	Common name
<i>Abies concolor</i>	White Fir	<i>Eucalyptus globulus</i>	Blue Gum
<i>Abies nordmanniana</i>	Caucasian Fir	<i>Eucalyptus macarthurii</i>	Camden Woollybutt
<i>Abies pinsapo</i>	Spanish Fir	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint
<i>Acacia dealbata</i>	Silver Wattle	<i>Eucalyptus oblqua</i>	Messmate Stringybark
<i>Acacia mearnsii</i>	Black Wattle	<i>Eucalyptus radiata</i>	Narrow-leaved Peppermint
<i>Acacia melanoxylon</i>	Blackwood	<i>Eucalyptus regnans</i>	Mountain Ash
<i>Acer palmatum</i>	Japanese Maple	<i>Eucalyptus viminalis</i>	Manna Gum
<i>Acer platanoides</i>	Norway Maple	<i>Exocarpos cupressiformis</i>	Cherry Ballart
<i>Acer pseudoplatanus</i>	Sycamore Maple	<i>Fagus sylvatica</i>	European Beech
<i>Acer saccharinum</i>	Silver Maple	<i>Fagus sylvatica</i> 'Purple Group'	Purple Beech
<i>Acer saccharum</i>	Sugar Maple	<i>Fraxinus angustifolia</i> subsp. <i>angustifolia</i>	Desert Ash
<i>Allocasuarina torulosa</i>	Forest Oak	<i>Fraxinus angustifolia</i> subsp. <i>oxycarpa</i> 'Raywood'	Claret Ash
<i>Angophora costata</i>	Smooth-barked Apple Myrtle	<i>Fraxinus excelsior</i> 'Aurea'	Golden Ash
<i>Banksia marginata</i>	Silver Banksia	<i>Fraxinus ornus</i>	Manna Ash
<i>Betula pendula</i>	Silver Birch	<i>Ginkgo biloba</i>	Maidenhair Tree
<i>Betula pendula</i> 'Dalecarlica'	Cut-leaf Birch	<i>Grevillea robusta</i>	Silky Oak
<i>Brachychiton acerifolius</i>	Illwarra Flame tree	<i>Hesperocyparis arizonica</i>	Arizona Cypress
<i>Castanea sativa</i>	Sweet Chestnut	<i>Hesperocyparis arizonica</i> 'Glabra'	Smooth Arizona Cypress
<i>Catalpa bignonioides</i>	Indian Bean tree	<i>Hesperocyparis macrocarpa</i>	Monterey Cypress
<i>Cedrus atlantica</i> f. <i>glauca</i>	Blue Atlas Cedar	<i>Ilex aquifolium</i>	English Holly
<i>Cedrus deodara</i>	Deodar	<i>Knightia excelsa</i>	Rewarewa
<i>Celtis occidentalis</i>	American Hackberry	<i>Laburnum anagyroides</i>	Golden Chain
<i>Chamaecyparis lawsoniana</i>	Lawson's Cypress	<i>Larix decidua</i>	European Larch
<i>Chamaecyparis nootkatensis</i> 'Pendula'	Nootka False Cypress	<i>Larix decidua</i> 'Pendula'	Weeping European Larch
<i>Chamaecyparis obtusa</i>	Hinoki Cypress	<i>Ligustrum lucidum</i> 'Tricolor'	Tricolor Privet
<i>Cinnamomum camphora</i>	Camphor Laurel	<i>Liquidambar styraciflua</i>	Liquidambar
<i>Cornus capitata</i>	Evergreen Dogwood	<i>Liriodendron tulipifera</i>	Tulip Tree
<i>Corymbia maculata</i>	Spotted Gum	<i>Lophostemon confertus</i>	Queensland Brush Box
<i>Cryptomeria japonica</i>	Japanese Cedar	<i>Magnolia grandiflora</i>	Bull Bay

<i>Cryptomeria japonica</i> 'Araucarioides'	Snake-branched Japanese Cedar	<i>Malus x domestica</i>	Apple
<i>Cryptomeria japonica</i> 'Elegans'	Plume Cedar	<i>Malus floribunda</i>	Japanese Crab Apple
<i>Cupressus cashmeriana</i>	Kashmir Cypress	<i>Melaleuca styphelioides</i>	Prickly Paperbark
<i>Cupressus torulosa</i>	Bhutan Cypress	<i>Melia azedarach</i>	White Cedar
<i>Diospyros kaki</i>	Persimmon	<i>Paulownia tomentosa</i>	Royal Paulownia
<i>Eucalyptus botryoides</i>	Southern Mahogany	<i>Photinia x fraseri</i> 'Robusta'	Chinese Hawthorn
<i>Eucalyptus crenulata</i>	Buxton Silver Gum	<i>Picea abies</i>	Norway Spruce
<i>Eucalyptus cypellocarpa</i>	Mountain Grey Gum	<i>Picea omorika</i>	Serbian Spruce
Botanical name	Common name		
<i>Picea smithiana</i>	West Himalayan Spruce		
<i>Pinus pinaster</i>	Maritime Pine		
<i>Pinus radiata</i>	Monterey Pine		
<i>Podocarpus totara</i>	Totara		
<i>Pittosporum eugenioides</i> 'Variegatum'	Silver Tarata		
<i>Platanus x acerifolia</i>	London Plane		
<i>Platanus occidentalis</i>	American Sycamore		
<i>Prunus avium</i>	Cherry		
<i>Prunus cerasifera</i>	Cherry Plum		
<i>Prunus cerasifera</i> 'Nigra'	Purple Cherry Plum		
<i>Prunus serrulata</i>	Japanese Flowering Cherry		
<i>Pseudotsuga menziesii</i>	Douglas Fir		
<i>Quercus canariensis</i>	Algerian Oak		
<i>Quercus cerris</i>	Turkey Oak		
<i>Quercus coccinea</i>	Scarlet Oak		
<i>Quercus</i> 'Macedon'			
<i>Quercus palustris</i>	Pin Oak		
<i>Quercus robur</i>	English Oak		
<i>Quercus robur</i> 'Fastigiata'	Fastigate English Oak		
<i>Quercus rubra</i>	Red Oak		
<i>Salix babylonica</i>	Weeping Willow		
<i>Sciadopitys verticillata</i>	Japanese Umbrella Pine		
<i>Sequoia sempervirens</i>	Coast Redwood		
<i>Taxodium distichum</i>	Swamp Cypress		
<i>Thuja occidentalis</i>	White Cedar		
<i>Thuja plicata</i>	Western Red Cedar		
<i>Thujopsis dolabrata</i>	Hiba Arbor-vitae		
<i>Tilia cordata</i>	Small-leaved Linden		
<i>Ulmus glabra</i> 'Camperdownii'	Weeping Elm		

<i>Ulmus minor</i> 'Variegata'	Silver Elm			
<i>Ulmus parvifolia</i>	Chinese Elm			
<i>Ulmus procera</i>	English Elm			
<i>Ulmus glabra</i> 'Lutescens'	Golden Wych Elm			
<i>Ulmus x hollandica</i>	Dutch Elm			
<i>Wollemia nobilis</i>	Wollemi Pine			