



EMERALD LAKE PRECINCT
Masterplan

2023

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1. Introduction

Project Aim

The aim of the Emerald Lake Precinct Masterplan is to undertake a strategic analysis and assessment of Emerald Lake Park and Nobelius Heritage Park in order to guide development, maintenance and management of the parks for the long term.

Project Objectives

The Masterplan is based on a strategic review of use and assets within the precinct, and Cardinia Shire Council's Strategic Plan (2020-2030) priorities. The Masterplan aims to respect the heritage and unique qualities of the precinct whilst creating a solid foundation on which to build the future.

Key considerations include:

- A new regional scale playground including a zero depth water play facility
- Provision of two new shelters to replace those that were removed as part of Lakeside Visitor Centre development
- An upgrade to the Eastern Dandenong Ranges Trail to comply with shared path standards where possible
- Improvement of accessibility and DDA compliance where practical throughout the precinct
- Review and potential upgrade of the existing performance area and amphitheatres to suit the events across the site
- Exploration of opportunities to further beautify and enhance the park's presentation to reflect the history of the precinct and meet contemporary expectation
- Improve and upgrade signage and wayfinding

The Masterplan will guide investment priorities at Emerald Lake Precinct to help facilitate opportunities at Emerald Lake Park and Nobelius Heritage Park.





Background

Close to the Dandenong Ranges, and 45 kilometres south-east of Melbourne to east of Emerald township, are two distinctly unique parklands – Emerald Lake Park (52ha) and Nobelius Heritage Park (4ha). These parks, including the Puffing Billy Railway facilities, are known as the Emerald Lake Precinct (ELP). The two parks are both historic and impressive but have unique characters and perform different functions.

Emerald Lake Park has commercial operators, Puffing Billy precinct and historic shelters for hire. It is busy and attracts large crowds, which makes it appropriate to activate with a regional playspace, waterplay, new shelters, upgraded carpark, new toilets and major event space upgrade.

Nobelius Heritage Park is home to the Emerald Museum, exotic mature trees and shrubs of which some are rare, with significant heritage value. The park lends itself to an interpretation of the nursery long gone and is suitable for passive recreation and small celebrations and events. Any changes to the landscape and buildings need to be approved by Heritage Victoria, who are committed to retaining its cultural landscape. The masterplan focuses on improved wayfinding, celebrating the nursery history, emphasising the Museum's presence with minor infrastructure that enhances the landscaped gardens.

The historic nursery cart tracks through the western forest are now popular bushwalking tracks which transition the visitor's experience from one park to the other park and remain largely unchanged.

ELP is Cardinia Shire Council's premier regional open space and the precinct's attractions draw large numbers of local, regional and international visitors. The precinct is owned and managed by Council, however, the Puffing Billy Railway, Packing Shed and Railway Siding, Lakeside Station and new Visitor Centre are owned and operated by Emerald Tourist Railway Board in conjunction with the Puffing Billy Preservation Society.

The Masterplan is an action from the Emerald Lake Precinct Strategic Plan (2020-30), which builds on previous strategic documents that created a foundation on which the future of the precinct can build.

The following objectives, drawn from the Emerald Lake Precinct Strategic Plan (2020-2030) highlight Council's vision for the Precinct:

- The precinct is recognised as a regional park offering a unique blend of natural, historical, recreational and cultural experiences for local, regional, national and international visitors.
- The precinct is accessible for all ages, abilities and cultures and hosts a range of opportunities for social and economic exchanges.
- The precinct is well maintained and comfortable and offers appropriate amenities and infrastructure expected in a regional open space.
- Visitors are engaged in a range of events, activations, recreation and leisure activities and the precinct supports both public and private functions.
- Through sustainable management and practices, the precinct balances development with the natural environment.

History

Prior to European Settlement, the land was home to members of the greater Kulin nations. The recognised Traditional Owners for the Emerald Lake Precinct are the Wurundjeri People (<https://achris.vic.gov.au/weave/wca.html>).

The area was settled in 1835 following which, the Gembrook Nursery (now the Emerald Lake Precinct) was established by Swedish immigrant Carl Axel Nobelius in 1886. The Gembrook Nursery, more commonly known as Nobelius Nursery (after its proprietor), became one of Australia's foremost plant nurseries in the early 20th century, selling exotic plants and fruit trees locally, all over Australia and overseas.

Emerald Lake Park was established in 1939 after the Shire of Fern Tree Gully compulsorily acquired 47 hectares to develop the park. Emerald Lake (later named Lake Treganowan) was constructed in 1940 in the location of Nobelius' dam along with a swimming pool, dressing sheds, kiosk and caravan park. Many of these structures still exist today.

This rich history contributes to the Precinct's notable landscape character, with mixed forest comprising of remnants of exotic nursery trees and an understorey of regrowth and planted indigenous vegetation alongside well used facilities for a public recreation park.



Diving Tower, Emerald Lake c. between 1920-1954
(source: State Library of Victoria)



Nobelius Packing Shed and Nobelius Nursery c.1906
(source: Emerald and District Museum)



Emerald Lake pool, c. between 1920-1954
(source: State Library of Victoria)



Workers budding cherries at Nobelius Nursery c.1890
(source: State Library of Victoria)

2. Existing Conditions



Within the Precinct, the two parks have their own distinct identities with shared landscape characteristics that link the two.

Emerald Lake Park is defined in the north by Emerald Lake Road and on the east by the railway line with an additional area to the east of the Lakeside Station. The western boundary abuts Nobelius Heritage Park.

The eastern end of Emerald Lake Park has established facilities for public recreation. Elements include Lake Treganowan, Lake Nobelius, Lakeside Office, picnic shelters, walking tracks, bridges, board walks and carparks. A number of buildings within the parklands have heritage significance including three rubble stone picnic shelters and the Lake Treganowan toilets. Additionally, there are barbecue facilities, seating, amphitheatres, playgrounds and fitness stations. Unknown service locations, in particular water, is a significant barrier to upgrading and consolidating these facilities.

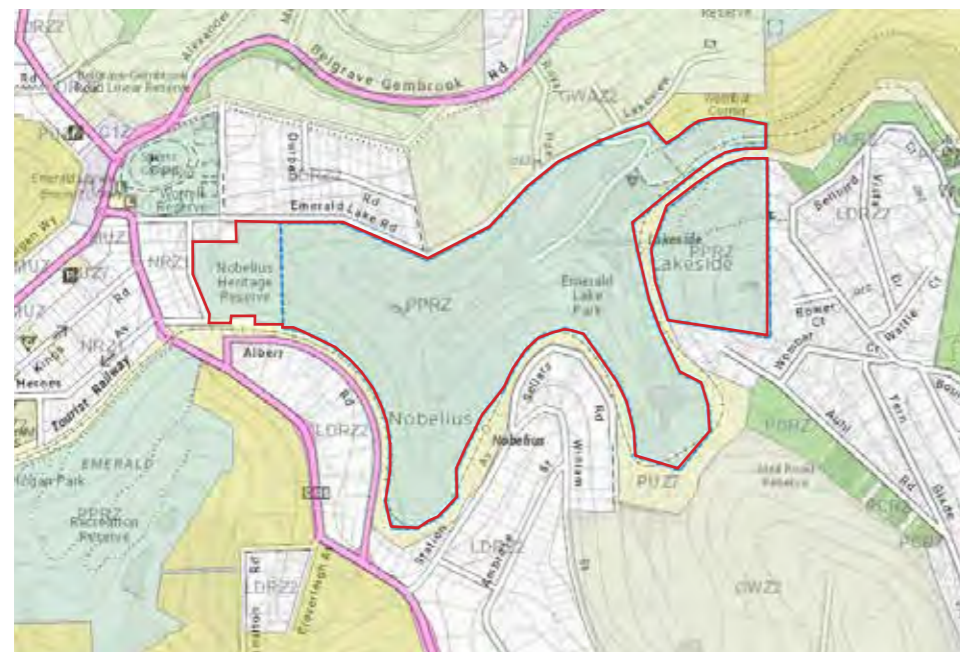
The recently constructed Puffing Billy Lakeside Visitor Centre and upgraded carparks are not included in this Masterplan. The Visitor Centre, owned and managed by Puffing Billy has unisex, ambulant, and disabled toilet facilities as well as a Changing Places facility. This project included an upgrade of nearby Council owned and managed carparks which now have lighting, disabled parking bays and DDA compliant paths.

The western end of the Emerald Lake Park is a dense mixed forest comprising remnants of exotic nursery trees, an understorey of regrowth and areas of revegetation. Several walking tracks throughout this area provide recreational opportunities and pedestrian connections to destinations.

Further to the west, is Nobelius Heritage Park. A 4.5 hectare parkland within a small valley, dominated by exotic mature trees. It contains the historic Packing Shed, the Emerald and District Museum and the Blue Hills Lapidary Club Inc. who utilise Linton's Cottage.

Formed in the year 2000, Friends of Emerald Lake Park (FELP) continue to carry out important maintenance works in the park including weed removal, planting and creek restoration. FELP have been instrumental in securing funding to assist with enhancing and preserving the bushland.

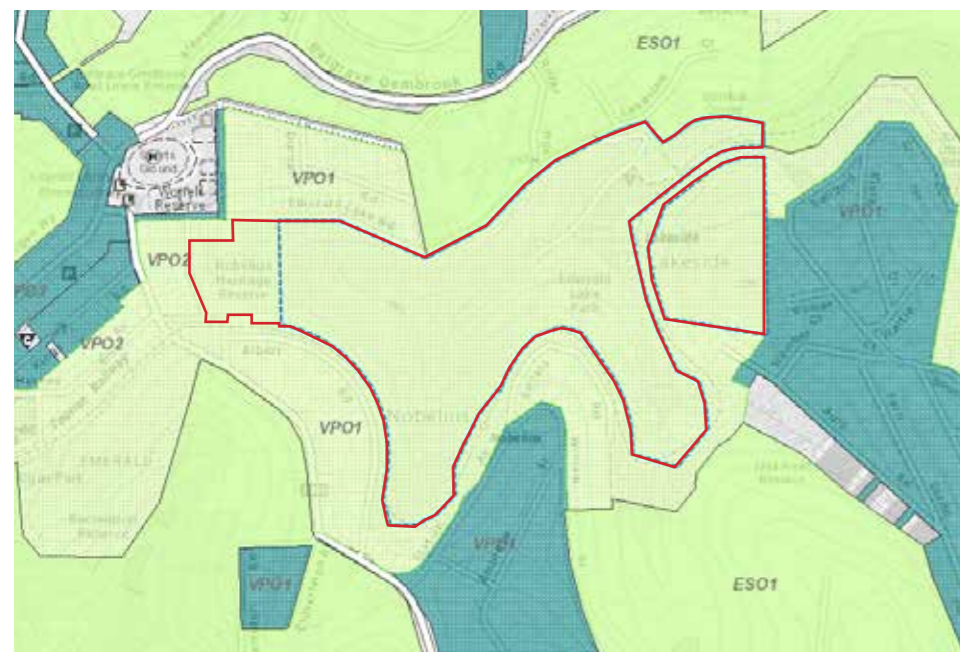
Land Use Planning Zones



- Emerald Lake Precinct Site Boundary
- PPRZ - Public Park and Recreation
- PUZ7 - Other Public Use

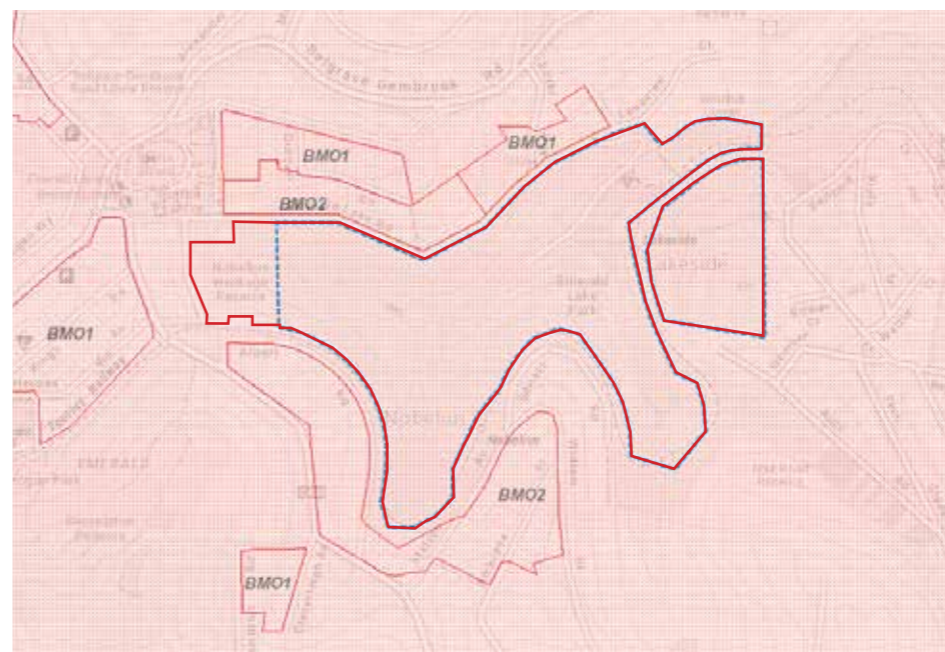
Emerald Lake Precinct comprises primarily as a Public Park and Recreation Zone. This includes both Nobelius Heritage Park and Emerald Lake Park. Adjacent to the site is the Puffing Billy railway, Public Use Zone 7 (Other Public Use), recognised for public utility and community services and facilities, which bisects the Precinct on the eastern side.

Planning Overlays



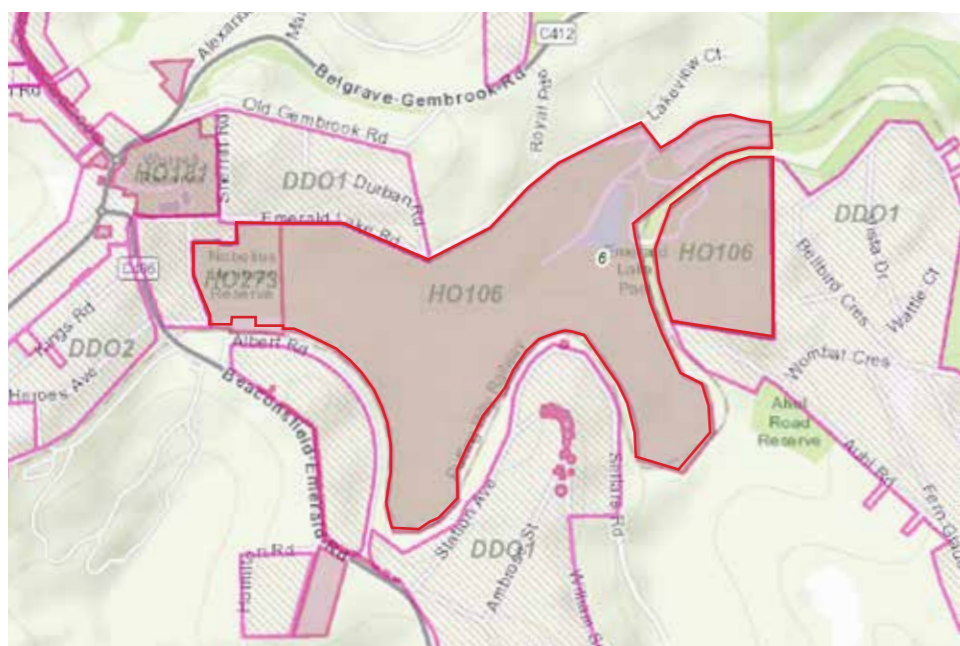
- Emerald Lake Precinct Site Boundary
- SLO1 - Significant Landscape Overlay

Environment and Landscape overlays seek to protect vegetation or landscape features of an area and are used to recognise areas of environmental or landscape significance. The SLO running through Emerald Lake Precinct, is to ensure any development is compatible to the conservation and enhancement of the character of the significant landscape. Areas within an SLO can require a permit to construct a building or construct or carry out works, construct a fence, and remove, destroy or lop any vegetation.



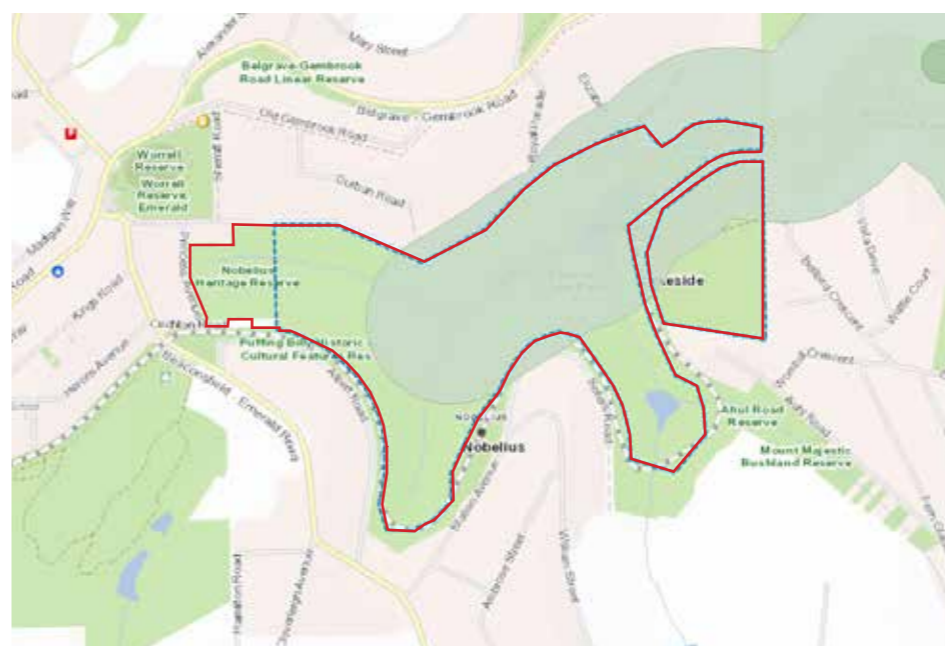
- Emerald Lake Precinct Site Boundary
- BMO - Bush fire Management Overlay

The BMO is a planning control which regulates development in areas where there is extreme bush fire hazard. The entire Precinct and surrounds have a Bush fire Management Overlay which triggers permits requiring mandatory bush fire protection measures such as defendable space, water supply, access and ongoing vegetation management requirements.



- Emerald Lake Precinct Site Boundary
- HO106 - Heritage Overlay
- HO273 - Heritage Overlay

The heritage overlay is in place to ensure that development does not adversely affect the significance of heritage places. Additionally, Nobelius Heritage Park, including the Former Nobelius Nursery, Packing Shed and Railway Siding is part of the Victorian Heritage Register (# H2285), which is subject to the requirements of the Heritage Act 2017.



- Emerald Lake Precinct Site Boundary
- Area of Aboriginal Cultural Heritage Sensitivity

The majority of the Emerald Lake Precinct is considered to be of cultural heritage sensitivity. These areas are defined under the Aboriginal Heritage Regulations 2018 and require a 'cultural heritage management plan' to be prepared where a listed 'high impact activity' is proposed.

3. Strategic Context Review

Background Documents

Below is a summary of key background documents and existing strategies that may influence future directions and priorities for the master plan

	Environmental significance and sustainability	Playgrounds	Events and Activation	Parking and road access	Cultural and Historical significance	Built infrastructure, venues, shelters and toilets	Maintenance
Emerald Link Precinct Strategic Plan 2020-30	ELP is a leading example in sustainable operation and management.	Upgrade the swimming and water play options <ul style="list-style-type: none"> Potential zero depth water play opportunities, Increase playspace options to incorporate accessible and nature play options 	A desire to have an increased number of events and activations within the precinct	<ul style="list-style-type: none"> Desire for improved pedestrian walkways including to the Emerald Township Clearly signed wayfinding between parks General concerns regarding Emerald Lake Road. 	<ul style="list-style-type: none"> Recognised and celebrated for its distinctive cultural and historical significance and offerings. The Wurundjeri with neighbouring Bunurong/ Boon Wurrung people of the Kulin Nation are the First Peoples of the land and area currently known as Emerald. Swedish immigrant Carl Axel Nobelius establishes Gembrook Nurseries on the site (late 1800's) 	<ul style="list-style-type: none"> Provide accessible and inclusive facilities and trails where appropriate, recognising that not all areas in the precinct can meet all abilities due to the natural topography of the landscape. Disappointment in food delivery opportunities within the precinct Desire to have more options, including healthy options Expanded service hours More inviting spaces available to park visitors 	<ul style="list-style-type: none"> Need for a long-term maintenance program for the precinct Desire for an increased level of service standard to be implemented.
Project Brief for Design Services	<ul style="list-style-type: none"> Local community is passionate about their park and have resisted development in the park with preference to retaining bushland areas and exotic trees The Masterplan needs to demonstrate that any development and infrastructure considers the environment and the protection and enhancement of the existing bushland The aquatic flora and fauna needs to be protected whilst ensuring the banks of the lakes are stabilised to cope with the recreation activities 	<ul style="list-style-type: none"> Potentially integrated into the same area as the playground Accessible options included and a preference in design that incorporates interchangeable parts with other water play facilities in Cardinia 	<ul style="list-style-type: none"> Desire to have an increased number of events and activations in the precinct servicing the local community. Some current events are held in spaces that are not ideally suited to the events or their size (eg. Lakeside Sounds family music event, and Christmas Carols). The precinct is becoming popular for wedding ceremonies, but facilities and services are not all suited to this use. 	<ul style="list-style-type: none"> Vehicle and truck access through the main Emerald Lake Park thoroughfare is necessary to carry out regular and emergency functions. The regional shared path, Eastern Dandenong Ranges Trail (EDRT) crosses through the Precinct yet there are no bike facilities (parking, repairs) A formal path connection between Emerald Lake Park into Nobelius Heritage Park will link the two parks. 	<ul style="list-style-type: none"> There is an opportunity to showcase indigenous flora and fauna and be inclusive of Aboriginal culture and the needs of the CALD and other underrepresented communities. The history of the park has a European focus reflected by the exotic flora and European settlement in the area. 	<ul style="list-style-type: none"> During the week when the park is quiet, ELP is popular with carers and people with disabilities Park is popular on weekends and holiday periods with large groups who like to picnic and bring their own food. 	The large amount of leaf fall and leaf litter impacts paths, making them slippery and needs to be carefully considered in the maintenance and operation costs of an upgraded playspace or water play area.

Continued.....	Environmental significance and sustainability	Playgrounds	Events and Activation	Parking and road access	Cultural and Historical significance	Built infrastructure, venues, shelters and toilets	Maintenance
Emerald Lake Park and Nobelius Heritage Park Conservation Management Plan	<ul style="list-style-type: none"> Protect and enhance environmental significance of precinct including: <ul style="list-style-type: none"> Large remnant nursery trees in the western forest Remnant gully vegetation Conifer arboretum Garden beds to the south western corner of Lake Treganowan Lake Nobelius and its setting Trees planted from 1960-1980 Construction of any new infrastructure to occur outside TPZs Recognition to be given to the unique nature of the western forest Control and removal of all native and exotic weeds along creeks and throughout the park A fire management strategy is essential to provide protection for visitors, staff and heritage assets Consideration to be given to tree replacement, maintenance and new plantings by a specialist nursery. Retain the current lake perimeter and reinforce edges as necessary. Engage an arborist with demonstrated heritage experience to monitor the ongoing condition of all trees and to carry out associated works. Specialist horticulturalists to be engaged to complete ID of plants not captured by arborist report Records should be maintained for any significant tree prior to its removal 		<p>Entry and gateway signage</p> <p>A lighting strategy should be considered for any areas subject to pedestrian use in connection with after-hours events.</p>	<ul style="list-style-type: none"> 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. The steep section of path from Princess Avenue (in NHP) has an erosion problem. The gravel surfaced path and the crushed rock to the roadway is moved by heavy rain and washes in grass areas. The steep top section of this path needs to be replaced with a sealed surface. 	<p>Protect and enhance heritage of primary significance including:</p> <ul style="list-style-type: none"> Association with Gembrook Nursery/ Nobelius & Sons Western forest tracks Lake Treganowan and its setting The Lake Treganowan toilet block and picnic shelters Gus Ryberg Arboretum <p>Elements of contributory significance should preferably be retained and conserved including:</p> <ul style="list-style-type: none"> Small stone dam remnant walls on creek Bluestone retaining walls to north and south of the Lakeside carpark Ticket box to entry Wading pool Entry road Lakeside carpark 	<ul style="list-style-type: none"> Retain heritage rubblestone toilet block and picnic shelters (sympathetic alterations/ additions possible if they enable appropriate adaptive re-use) Upgrade Lake Treganowan toilets to meet current standards, including disability access. Maintenance shall be carried out by contractors with demonstrated experience in heritage restoration. The Park's setting should be retained including the open sloping lawns around Lake Treganowan. Consideration should be given to the selective removal of small trees to enable specimen trees to expand and 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. There have been multiple kiosks in the park - the first one built in 1941 in the Lakeside car park, a second one built at the south end of the lake in the 1950s and a third one 1962 overlooking the southwestern end of the lake. The fourth one, currently the home of the cafe was built in 1982 	<p>General maintenance can be carried out in accordance with the conservation policies of this report and without the assistance of a conservation specialist.</p>

Continued.....	Environmental significance and sustainability	Playgrounds	Events and Activation	Parking and road access	Cultural and Historical significance	Built infrastructure, venues, shelters and toilets	Maintenance
Assessment of trees at Emerald Lake Precinct (2020)	<ul style="list-style-type: none"> All trees meeting significance criteria are protected (added to a municipal or state tree protection register or significant veg. overlay) Consideration be given to recognising NHP as a collection of botanical specimens, with further research to determine the cultivars of the significant fruit tree varieties A Tree Management Plan, focusing on the maintenance of significant trees be prepared All pruning works and tree removals are carried out by qualified arborists and conform to the Australian Standard, Pruning Amenity Trees (AS4373 2007) Trees that are removed should be replaced to ensure the ongoing landscape contribution and to retain the landscape character. Onsite propagation facilities are recommended to assist with succession planning A walkover assessment of the trees is carried out every 12 months to assess condition, risk and to determine any further works requirements 						
Playspace Strategy (2014)		Investigate the feasibility of a 'regional' playspace at Emerald Lake Park		Safe and convenient access to playspaces that are centrally located and connected to a pedestrian / cycling network			
Buildings and Facilities Feasibility Study				<ul style="list-style-type: none"> Carparking needs to be considered with anticipation of larger visitor numbers Emerald Lake Rd is not suitable for pedestrians (Existing access lacks wayfinding to encourage people to use it) 		<ul style="list-style-type: none"> Lakeside office building opportunity: pursue the idea for a waterside restaurant and/or cafe. 	
Recreational Open Space Strategy (2000)				<ul style="list-style-type: none"> Develop an interconnected trail system to cater for informal walking, bike riding and greater public access to waterways and Open Space facilities (Emerald to Gembrook) Establish an open space linkage between Cockatoo and Emerald through Wrights Forest and Emerald Lake Park 			

Continued.....	Environmental significance and sustainability	Playgrounds	Events and Activation	Parking and road access	Cultural and Historical significance	Built infrastructure, venues, shelters and toilets	Maintenance
Aboriginal Cultural Heritage Report					<ul style="list-style-type: none"> Wattle Creek identified as an area of Cultural Heritage sensitivity Likely that Aboriginal cultural heritage is in locations: in lower elevated land form areas along Wattle creek and surrounding Emerald Lake and Nobelius Lake, in gradual moderately sloping land form areas within 200m from Wattle creek and Emerald Lake and Nobelius Lake. 		Aboriginal cultural heritage contingency plans would be of value for civil maintenance contractors engaged within the Emerald Lake Precinct
Actions to be considered in the Masterplan	<ul style="list-style-type: none"> Masterplan to preserve and enhance significant natural environmental assets in the precinct <ul style="list-style-type: none"> Scope for additional Tree survey - further identification of trees and tree groups adjacent to the tracks in the western forest Prepare a strategy for long-term replacement planting of exotic trees, particularly for significant species in the two arboreta. Prepare a strategy for new tree and shrub planting in addition to tree replacements Install labels to identify both National Trust Significant Trees and all mature trees within the two arboreta Complete a fire management strategy for the site. Strategy to consider protection of heritage aspects of the precinct & museum contents. Any path network connection or upgrade needs to ensure the structural integrity of lake edges are maintained or improved Action recommendations outlined in the CMPs Action recommendations outlined in the Arborist Assessment. 	<ul style="list-style-type: none"> Masterplan to include additional/ increased play opportunities incorporating water play, accessible play and nature play. Potential to consolidate and develop a 'regional' level playspace (large playspace servicing a regional area with a broad range of play opportunities for all ages and abilities). 	<p>Masterplan to outline areas to offer a range of programs, including educational programs, organised recreational activities and classes, arts and cultural events, festivals and markets.</p> <ul style="list-style-type: none"> Masterplan should consider provision of power, lighting, shelter and stage area(s). Upgrade signage with entry "statement" or gateway. 	<p>Masterplan to establish safe and accessible path network, trails and facilities:</p> <ul style="list-style-type: none"> Potential of additional connecting trails to maximise potential of spaces Create a connection with Emerald Township Defined and safe access for pedestrians/cyclists and cars (including bike parking) Improve path connection between Emerald Lake Park into Nobelius Heritage Park Design the EDRT crossing safely through Lakeside carpark Replace section of trail from Princess Avenue with sealed surface <p>Access Roads and routes</p> <ul style="list-style-type: none"> 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 <p>Provide wayfinding signage to direct pedestrians and cyclists to use the EDRT rather than Emerald Lake Road.</p>	<ul style="list-style-type: none"> Masterplan to protect and enhance heritage significance of precinct. Interpretive and wayfinding signage for visitors on the precinct's historic significance (including Aboriginal, post settlement, economic and industrial themes). Expression of local Aboriginal culture and significance through public art, interpretation signage, events etc Proposals must be aligned with a CHMP (any proposed civil or recreational infrastructure works that are 'High Impact' within the 'Area of Cultural Heritage Sensitivity' of Wattle creek may trigger a CHMP) The 'Areas of Cultural Heritage Sensitivity' overlay within Emerald Lake Precinct could be updated to include the overall extent of the Wattle creek, Paternoster creek and Mackenzie creek. View from the Puffing Billy Railway line towards the lake or the western forest should not be obscured by new landscape elements or features. Removal of silt build-up should occur on a regular basis. 	<ul style="list-style-type: none"> Masterplan to include updated facilities and infrastructure where necessary <ul style="list-style-type: none"> Easily accessible, personable and welcoming information and customer service Maintenance to be carried out by contractors with demonstrated experience in heritage restoration Consider upgrading picnic tables in the three picnic shelters. Tables should have extended ends to allow for wheelchair access. Upgrade toilet facilities to meet current health and council standards, including disability access, or consider replacement of toilet blocks if necessary. 	All repairs and maintenance should be carried out with regard to the significance of the place and the conservation policies of the CMP.

4. Consultation Summary

2018/19 consultation

Extensive community and stakeholder consultation was undertaken in 2018 and 2019 as part of the Emerald Lake Precinct Strategic Plan 2020-30. Of the responses received, 74% were from Cardinia Shire residents and 26% from respondents who resided elsewhere. Results from this consultation are detailed in the Strategic Plan and have formed the key deliverables for this Masterplan.

2021 consultation

Key stakeholder consultation was completed as part of the background research phase for the Masterplan project in October and early November 2021. Staff workshops and interviews were conducted with members from the Cardinia Shire Council, who raised a number of issues and considerations. These included:

- Maintaining site character
- Playground and water play
- Site amenities
- Access in and around the site
- Signage and wayfinding throughout the site
- Designated fishing areas
- The activation of spaces through organised events.

Stakeholder contributions from the Friends of Emerald Lake Park, Wombat Corner, Puffing Billy, Lakeside Paddleboats and Emerald and District Museum reiterated these ideas with an underlying push for improved accessibility throughout the site. These user groups highlighted issues and opportunities within the reserve specific to their needs, which have been considered in the Masterplan. The stakeholders advocated for upgraded and shared facilities that improve overall connectivity and wayfinding at the site whilst maintaining its distinct identity.

A summary of key comments, issues or priorities is identified in Appendix A.

2022 consultation

Community and stakeholder consultation for the Masterplan was undertaken 4 July 2022 – 25 August 2022. The Creating Cardinia portal was the primary source of feedback, and was distributed to the general community through:

- Council Facebook page
- Mailout to 3,386 local residents,
- Emails: 239 database of interested residents, sports clubs, Emerald community groups and all Cardinia Council staff, eight x local schools (newsletter item)
- Six open Office sessions at ELP Lakeside building
- Hills Hub, Emerald: Display with opportunity for sticky notes comments

The gender split for responses was a 49% male and 51% female split. There was a good distribution from the 4 age groups with biggest contributors being 55+ (29%). Emerald residents were the main contributors at 58%, other Hills residents (28%) which indicates that feedback was received from those who have an interest in the topic.

The following targeted consultation also took place:

- On site/online meetings: Victoria Police (CPTED feedback), Heritage Victoria (Nobelius Heritage Park)
- Presentations to Committees: Emerald Lake Precinct Advisory Committee, Cardinia Access and Inclusion Advisory Committee and Emerald Village Association
- Local schools: Workshop with Emerald Primary School Grades 4-6 (341 students), Emerald Secondary College – lunchtime drop-in session for all years and newsletter information

The Creating Cardinia page received 3,074 views and 428 contributions from 333 contributors. The high number of views indicate good public awareness of the campaign and high interest in the project.



5. Issues and Opportunities

The following is a summary of issues and opportunities identified during the stakeholder consultation, desktop analysis, strategic document review and site investigation phase.

Key Considerations:

Emerald Lake Precinct (ELP) will be reinforced as Cardinia Shire Council's premier regional open space. Key considerations for ELP include:

- A new regional scale playground
- Improvement of accessibility, wayfinding and DDA compliance where practical throughout the precinct
- Improve opportunities for community use including event space activation, walking, play and community gatherings

Accessibility and Wayfinding

- 1 Opportunity to improve the Eastern Dandenong Ranges Trail (EDRT) particularly through the Lakeside carpark, around the lake and to Nobelius Heritage Park, to improve user safety and experience
- 2 The extensive path network throughout the precinct requires renewal and rationalisation which presents the opportunity to improve accessibility and connections
- 3 Opportunity to improve connectivity and engage the community through wayfinding and interpretive signage/ artwork. This may include information/ expression on:
 - the precinct's history and heritage around first nations, post settlement, economic and industrial themes.
 - local Aboriginal culture and significance in relation to the site
 - the precinct's identity through the definition of 'zones' to assist with legibility of the precinct.

Parking and Road Access

- 4 Opportunity to improve the condition of the embankment north-west of Lake Treganowan along the main access road to improve safety and access. This could include additional and improved access points to destinations north of the embankment such as the Gus Ryberg arboretum and paths
- 5 Opportunity to modify the existing Lakeside Carpark to provide additional parking spaces through embankment stabilisation.

Note: bus access is provided at the Lakeside Visitors Centre and is not required at the Lakeside Carpark

Shelter and Facilities

- 6 Establishment of the recently completed Lakeside Visitor Centre involved the removal of two key picnic shelters. Opportunity to provide two new shelters within the precinct to cater to the community and visitors
- 7 Opportunity to upgrade existing furniture, particularly seats, bins and picnic tables throughout the precinct to achieve a consistent suite of materials and to improve accessibility. Consider use of sustainable materials and products in line with Council's environmental commitments
- 8 Opportunity to provide lookout/ viewing areas around Lake Treganowan. Consider photo opportunities for weddings and events that take place in the precinct
- 9 Opportunity to consolidate the number of toilet blocks and upgrade existing toilet facilities to bring them into line with current health and council standards, including disability access

Landscape and Environment

- 10 The reserve is home to a selection of significant trees and remnant vegetation, which should be conserved and protected
- 11 The reserve is dominated by a 'bushland/ parkland' character, which should be reinforced
- 12 Opportunity for implementation of succession planting plan for trees

Playgrounds

- 13 The existing playground facilities are outdated and in need of upgrading. Opportunity for a new 'destination playspace' that is an accessible, regional scale playspace that compliments the Precinct



- 14 Opportunity to upgrade water play facilities in line with community expectations and current standards whilst reducing maintenance and resource requirements

Activation

- 15 Opportunity to activate the precinct by providing appropriate facilities and services to accommodate a range of programs and events to take place in the precinct including educational programs, recreational activities, arts and cultural events, festivals and markets

6. Masterplan

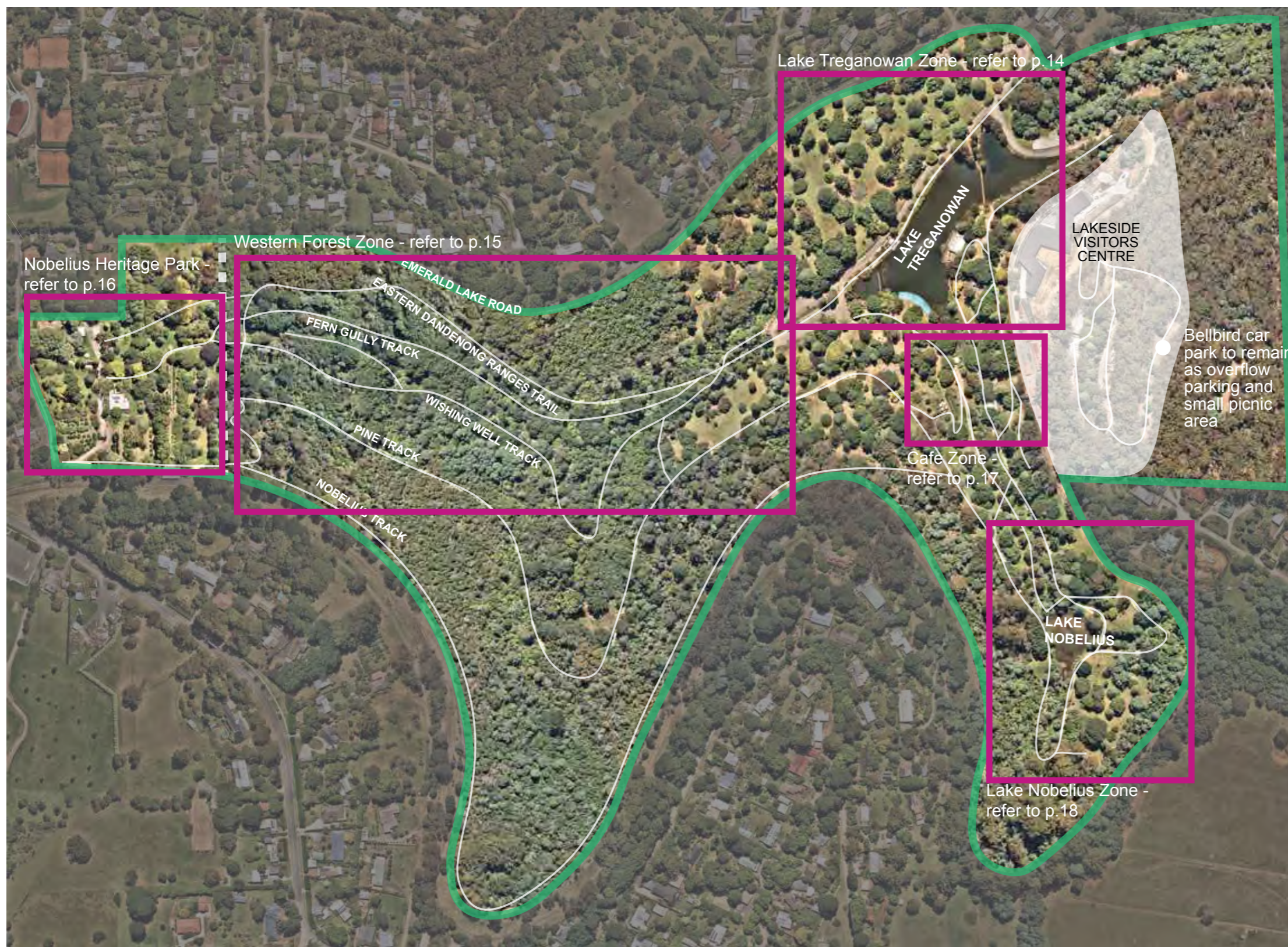
The Masterplan has been developed to assist in guiding the future development of Emerald Lake Park. The plan has been informed by Council's objectives, strategic documents and plans, in particular the Emerald Lake Precinct Strategic Plan (2020-2030), internal consultation with Council and stakeholder engagement.

A set of key principles have been developed to guide the Masterplan and to provide direction on the future development at Emerald Lake Precinct. The key principles are:

1. Preserve and enhance significant natural environmental assets in the precinct.
2. Ensure the existing views of Lake Treganowan are retained and not obscured by new landscape elements or features
3. Protect and enhance heritage significance of precinct
4. Ensure all repairs and maintenance are carried out with regard to the significance of the place and the conservation policies of the Conservation Management Plans (CMP).
5. All works must be aligned with the Aboriginal Heritage Act 2006, noting that any proposed civil or recreational infrastructure works that are 'High Impact' within the 'Area of Cultural Heritage Sensitivity' of Wattle Creek may trigger a Cultural Heritage Management Plan (CHMP).

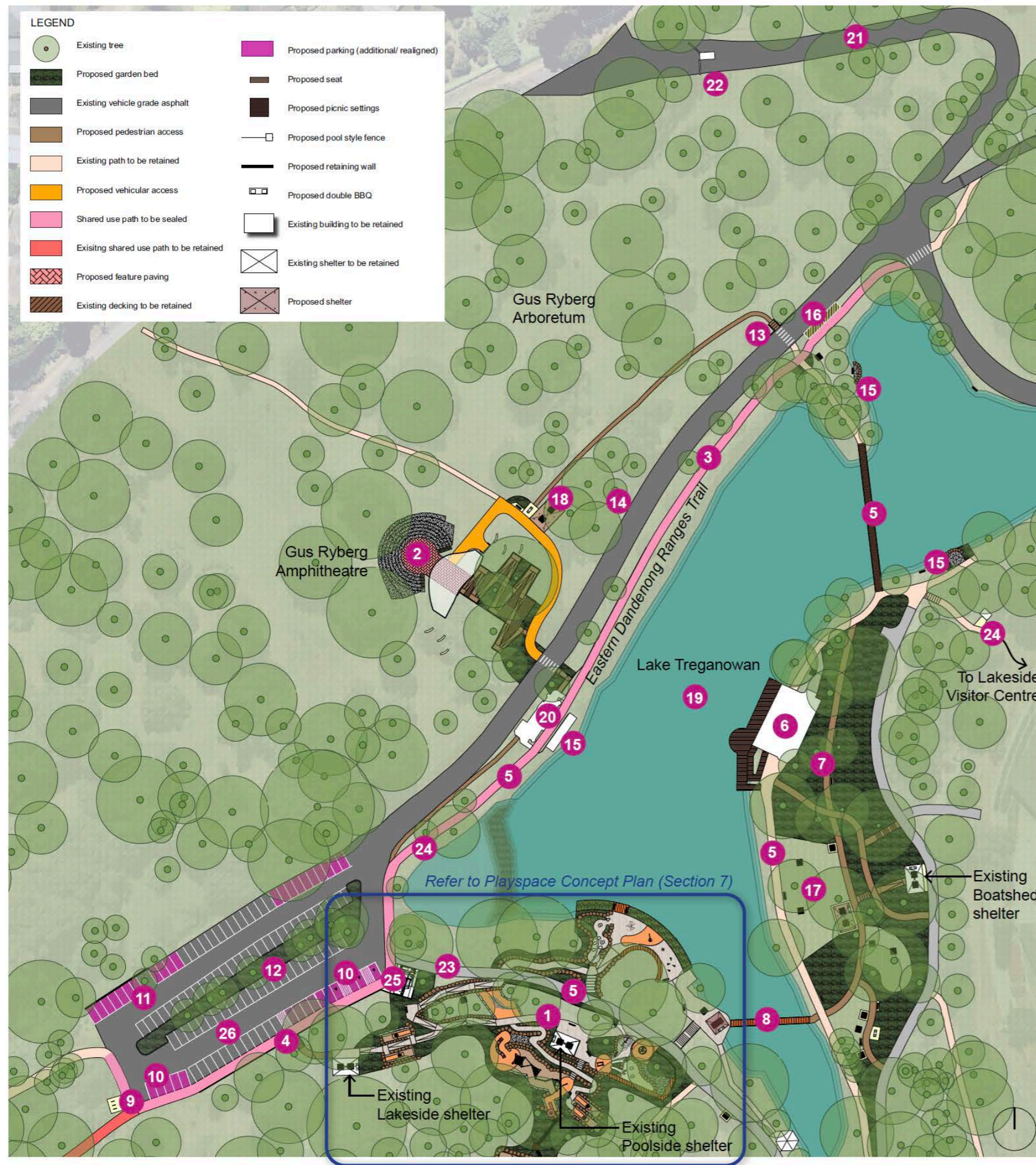


6.1 Whole of site action items



- 1 Provide interpretive signage at all park entries and throughout the park for information and educational purposes. Consider the historical significance of the precinct and how that translates to the present day including Indigenous history and post settlement heritage
- 2 Develop a consistent signage suite for the park. Implement easily accessible gateway, wayfinding, etiquette, identification and interpretive signage across the site
- 3 Consider programming opportunities within the park including educational programs, organised recreational activities and classes, arts and cultural events, festivals and markets
- 4 Upgrade the existing paths to establish safe and accessible network where possible. Consider the use of boardwalks or 'mini-mesh' as required to protect existing trees and root systems
- 5 Upgrade all existing furniture to Council's preferred furniture suite including DDA compliant furniture including drinking fountains at all activity nodes and picnic tables at Bellbird Picnic Area
- 6 Update the 'Areas of Cultural Heritage Sensitivity' overlay within Emerald Lake Precinct to include the overall extent of the Wattle Creek, Paternoster Creek and Mackenzie Creek
- 7 Implement and undertake the recommendations outlined in the Arborist report including maintaining and improving weed and pest management
- 8 Ensure the structural integrity of lake edges are maintained or improved in all works
- 9 Prepare a strategy for long-term replacement planting of nursery and exotic trees in accordance with the Conservation Management Plan
- 10 Restrict vehicular access within the park to maintenance and emergency vehicles only to reduce traffic and improve pedestrian safety
- 11 Engage traditional owners to add value to the precinct upgrades (including interpretive signage and artwork).
- 12 Consider Crime Prevention Through Environmental Design (CPTED) principles in future development of the park to ensure the safety of all users
- 13 Continue to work with Friends of Emerald Lake Park with the removal of invasive woody trees and native revegetation works
- 14 Complete a fire management strategy for the site that will compliment the Emergency Management Plan for extreme weather and fire which is already in place.
- 15 Develop a waste management plan for the precinct

6.2 Lake Treganowan Zone



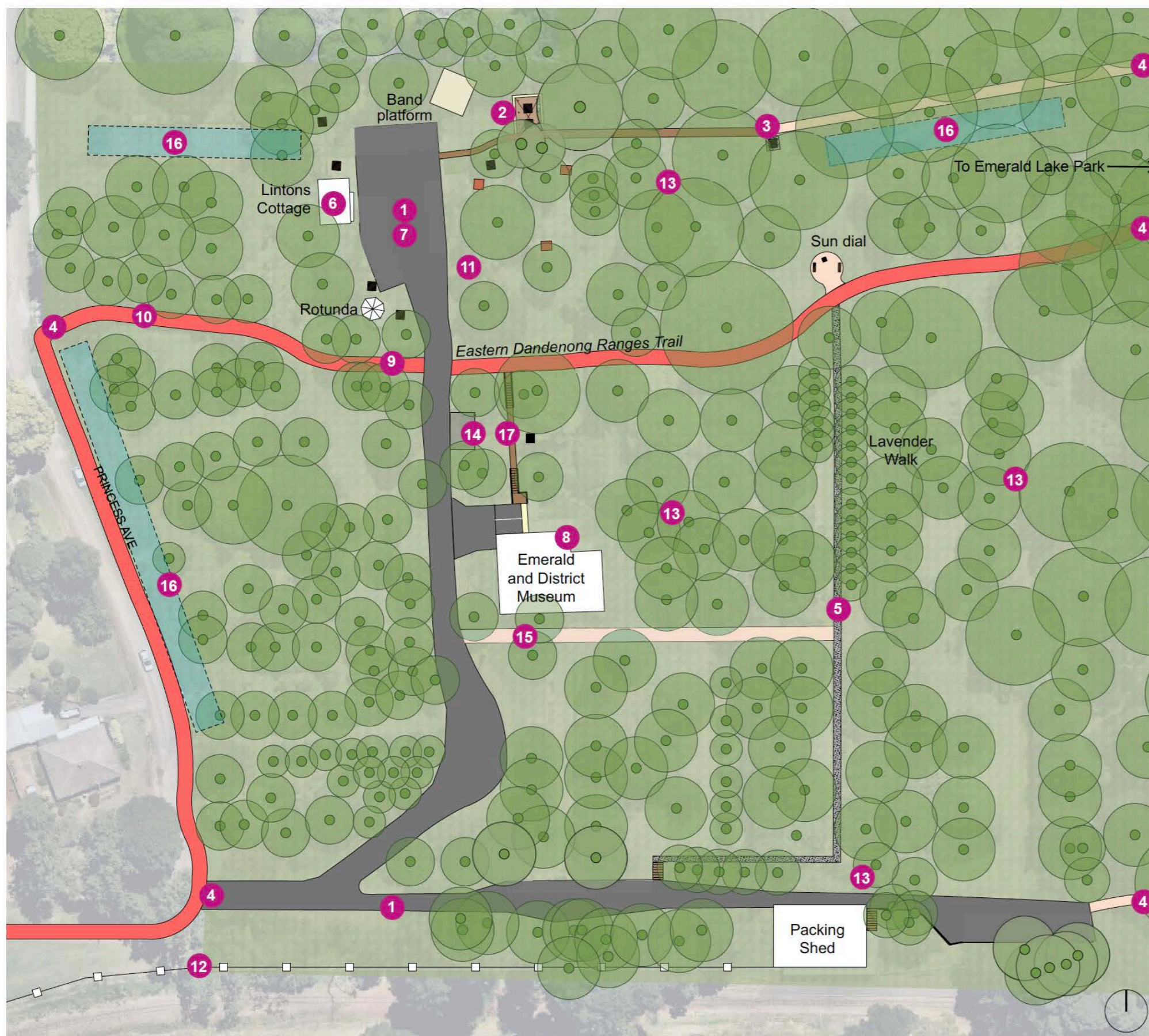
- 1 Upgrade existing playground facilities to a 'regional' level playspace with a broad range of play opportunities for all ages and abilities including water play, accessible play, nature play and new toilets with change facilities. Existing wading pool to be removed. Refer to play space concept plan (section 7).
- 2 Upgrade the Gus Ryberg Amphitheatre to include lighting, shelter and a stage area, all abilities access (i.e. blended ramp and stairs), vehicle access, pedestrian priority road crossing, and upgrade the existing seating facilities to composite timber seats (including seating areas for all abilities). As required, relocate or replace the murals which depict the precinct's history.
- 3 Define the Eastern Dandenong Ranges Trail (EDRT) with sealed surfacing and wayfinding and etiquette signage. Upgrade the trail as required to meet regional standards (noting that this may require removal/ relocation of existing trees), refer to Appendix B
- 4 Connect the EDRT through the Lakeside Carpark. Construct a retaining wall along the southern edge as required
- 5 Define an all abilities loop path around the lake with sealed surfacing, lighting, and wayfinding and etiquette signage
- 6 Investigate developing the Lakeside building to 'Emerald Lake Boathouse.' Opportunity to retain the paddle boats, part of the Council office and to include a waterside restaurant or cafe (pending market interest for private investment).
- 7 Upgrade the paths, drainage and garden bed areas behind the Lakeside building with accessible paths and new planted areas including the removal of fencing and edging to garden bed areas. Consider ground covers and plants to prevent erosion of garden beds and to keep sight lines open to achieve Crime Prevention Through Environmental Design (CPTED).
- 8 New bridge connecting the playspace to the loop path around the lake and to allow the bandstand to be blocked off to pedestrian traffic during events and performances
- 9 Bike parking, drink fountains and bike repair station near the EDRT
- 10 Realign carparking bays along the southern edge of the Lakeside Carpark to allow for the EDRT connection and create additional car parking bays, including disabled parking bays and the opportunity to accommodate food vans
- 11 Stabilise embankment and create more carparking bays (keeping bluestone retaining walls)
- 12 Provide lighting to Lakeside Carpark and retain parking meter
- 13 Construct stairs with safety balustrades to the top of the embankment and a new path to provide safe access to the Gus Ryberg Arboretum and amphitheatre. Include a pedestrian crossing as required
- 14 Embankment stabilisation works north of the entry road including a retaining wall as required
- 15 Designate specific fishing areas to ensure the bank of the lake is protected. Stabilise areas that have been damaged.
- 16 Establish an informal loading zone near the northern section of the lake to create a drop off area. Stabilise lake edge as required
- 17 Extend the picnic area with a shelter, two picnic tables and a double barbecue
- 18 New shelter with two picnic tables near the existing barbecues
- 19 Undertake desilting works at Lake Treganowan as required to maintain lake health
- 20 Upgrade the historic toilet facilities in-line with current health and safety standards and heritage requirements. Provide disability access from the EDRT and the Lakeside Carpark
- 21 Continue to advocate for the widening of Emerald Lake Road with a pedestrian path to the township
- 22 Retain the ticket box and provide a CCTV camera at the boom gate park entry
- 23 Create a unique and contemporary gateway at the park entrance that reflects the precinct character
- 24 Provide lighting for events from the Lakeside Carpark to the Gus Ryberg Amphitheatre and the Lakeside Visitor Centre in accordance with Council's Wildlife Sensitive Lighting Guidelines.
- 25 New toilet block with Changing Places facility
- 26 Investigate installation of charging points for electric vehicles (at Lakeside carpark) and e-bikes (close to the EDRT)

6.3 Western Forest Zone



- 1 Define the Eastern Dandenong Ranges Trail (EDRT) through the park with consistent wayfinding and etiquette signage. Retain existing surface through the western forest and add seating in suitable locations.
- 2 Encourage imaginative play opportunities to the existing informal nature play area in the western forest, and the addition of wide wooden steps. Ensure CPTED principles are considered.
- 3 Preserve and enhance significant natural assets in the precinct. Undertake an additional tree survey to identify trees and tree groups along the tracks in the western forest in accordance with Emerald Lake Park Conservation Management Plan
- 4 Raise the Pines Amphitheatre to ground level and use rock seats to create an informal seating area for groups. Include a path to provide a safe connection for all users
- 5 Provide a bird hide for bird watchers and nature photographers
- 6 Repair areas throughout the Western Forest that have been damaged by mountain biking. Install barricades to encourage bike riders to use the EDRT and prevent them from accessing problem areas.

6.4 Nobelius Heritage Park



- 1 Upgrade access road and carpark
- 2 A new picnic shelter with two tables and a barbecue
- 3 Strengthen the informal path connection between Emerald Lake Park into Nobelius Heritage Park with wayfinding signage
- 4 Provide gateway signage/feature at the entrances to the Nobelius Heritage Park
- 5 Provide an informal path connection with wayfinding signage from the Eastern Dandenong Ranges Trail (EDRT) to the packing shed
- 6 Upgrade the exterior of Linton's Cottage and include interpretive signage to explain its historical significance to the site. Investigate opportunities to improve the interior to meet future community needs
- 7 Provide carpark lighting in accordance with Council's Wildlife Sensitive Lighting Guidelines.
- 8 Investigate an upgrade to the Museum toilets.
- 9 Remove chicanes from the EDRT and replace with removable bollard to align with regional trail standards
- 10 If drainage issues continue on the EDRT between Princess Avenue and the road to the carpark improve drainage or stabilise the trail surface
- 11 Consider opportunities for activation and increased visitation to the Nobelius Heritage Park such as markets, performances and events
- 12 Upgrade fence between rail embankment and main entrance
- 13 New interpretive signage and maintain specimen display plates for park information, historical and educational purposes
- 14 Replace wheel stops with post and rail fence
- 15 Relocate wisteria away from the road, with a new arbour for support
- 16 Undertake regular maintenance on the existing water sensitive urban design (WSUD) swales to ensure they retain drainage functionality
- 17 New connecting path, with steps as required from the EDRT to the Emerald and District Museum.
- 18 Investigate Nobelius Heritage Park being officially recognised with botanic gardens status

Note: All actions for Nobelius Heritage Park require approval from Heritage Victoria under the *Heritage Act 2017*.

LEGEND

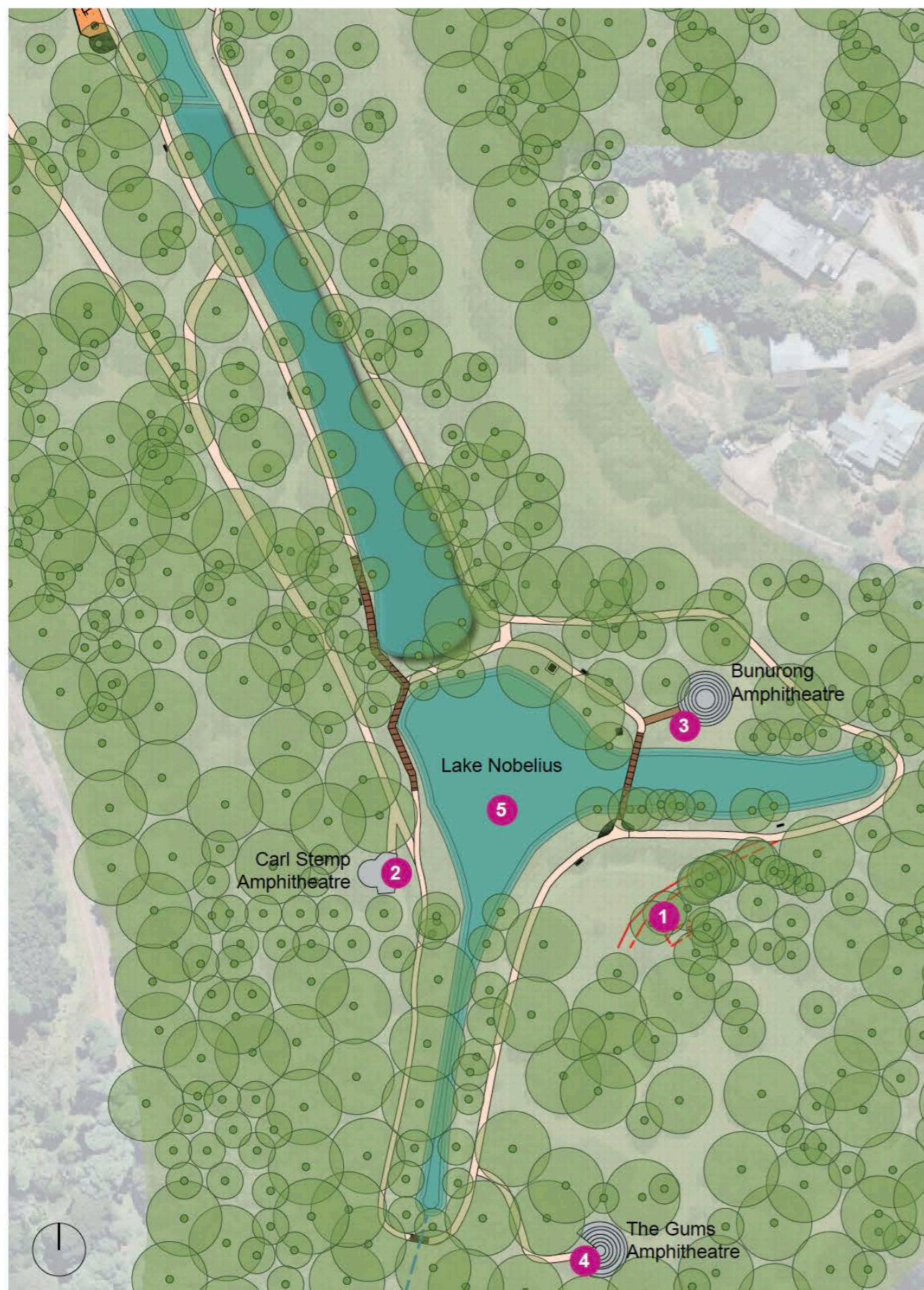
Existing tree (indicative)	Proposed gravel path
Proposed vehicle surfaces (crushed rock)	Existing park furniture to be retained
Proposed path	Proposed picnic settings
Existing path to be retained	Proposed BBQ
Existing shared use path	Existing building
	Proposed shelter

6.5 Cafe Zone

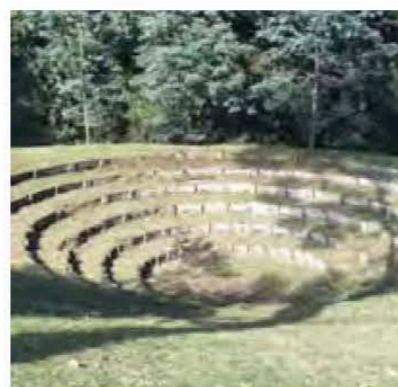


- 1 Remove the Emerald Park Park cafe building and repurpose to a picnic and barbecue area with a large shelter and toilets
- 2 Remove existing toilet facilities, associated infrastructure, landscape embankment, fencing and access path. Return the site to open lawn
- 3 Create an exercise hub close to the paths to provide all abilities. Ensure it includes equipment suitable for all abilities
- 4 New garden area to prevent erosion where the slope meets the path
- 5 Retain Bandstand for small events and performances

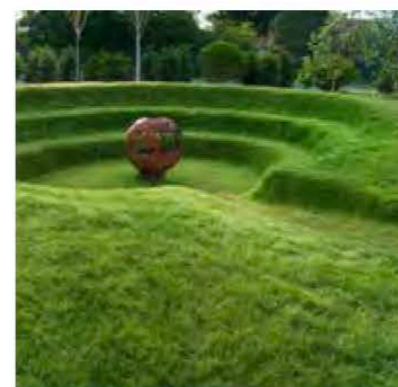
6.6 Lake Nobelius Zone



- 1 Remove existing toilet facilities and associated infrastructure
- 2 Undertake repair and renewal works at Carl Stemp Amphitheatre including the upgrade of seating facilities (including seating areas for all abilities where possible)
- 3 Undertake repair and renewal works at the Bunurong Amphitheatre including the upgrade of existing seating facilities (including seating for all abilities) and an accessible path from the lower path (refer to images below).
- 4 Repurpose The Gums Amphitheatre from an event/performance function to an informal picnic and quiet reflection space. Remove old wooden tiers, landscape to achieve a more bowl-like shape and include informal log or mudstone rock seating at the base.
- 5 Undertake ongoing desilting work at Lake Nobelius as required to maintain lake health



Bunurong Amphitheatre



Example of access ramp cut through amphitheatre to improve access.

LEGEND

- Existing tree
- Existing path to be retained
- Proposed and realigned gravel path
- Proposed seat
- Proposed picnic setting
- Existing infrastructure to be removed
- Existing pedestrian bridge
- Existing building

6.7 Precedent images

Images are indicative only.



Gateway entry feature - 6.2, #23



Permeable amphitheatre seating - 6.6, #2 & #3



Blended ramp and stairs - 6.2, #2



Post and mesh fence - 6.4, #12

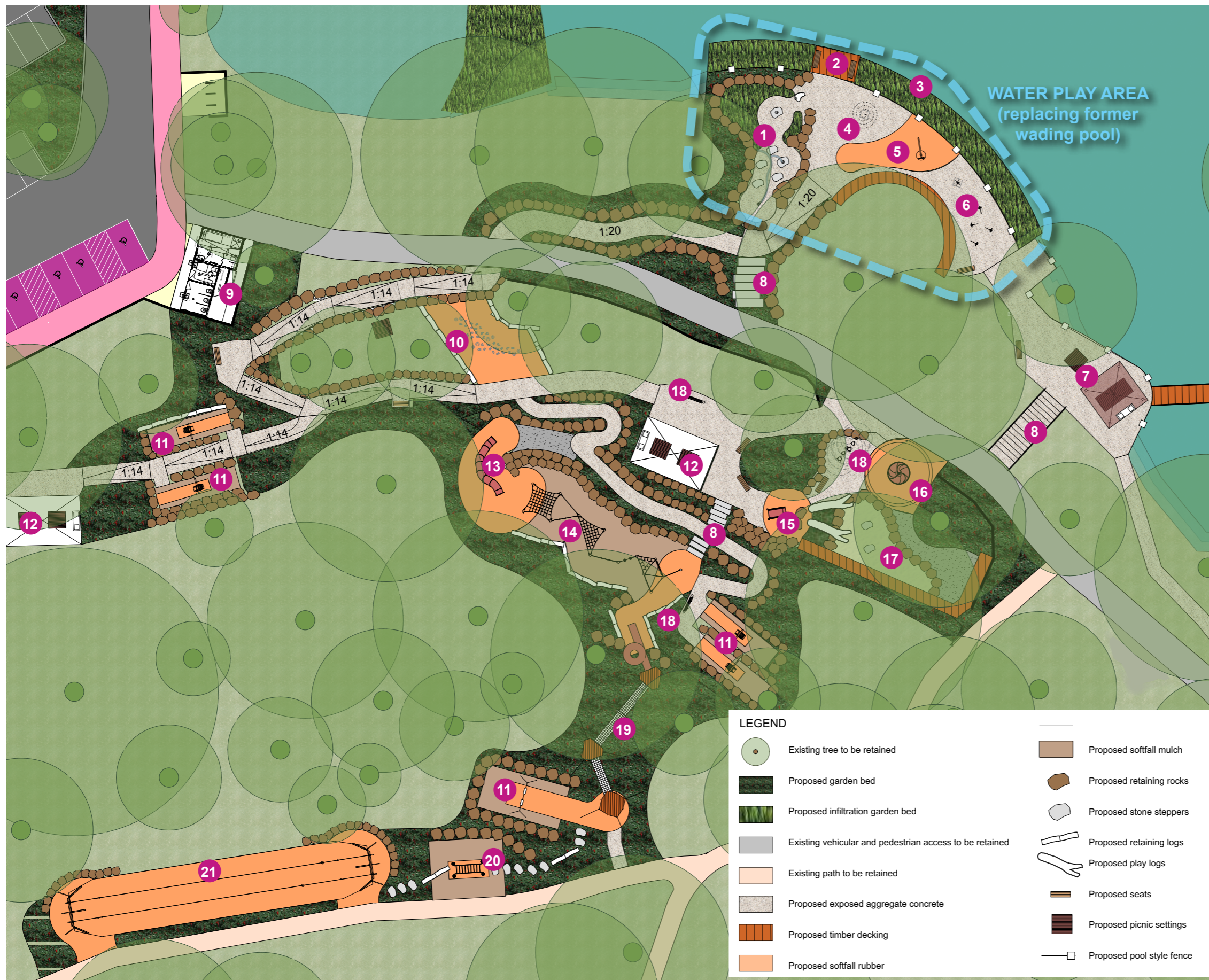


DDA compliant toilet unit with unisex, ambulant and disabled cubicles. Consider Colorbond cladding or similar that blends into the environment



DDA compliant park furniture - 6.1, #5

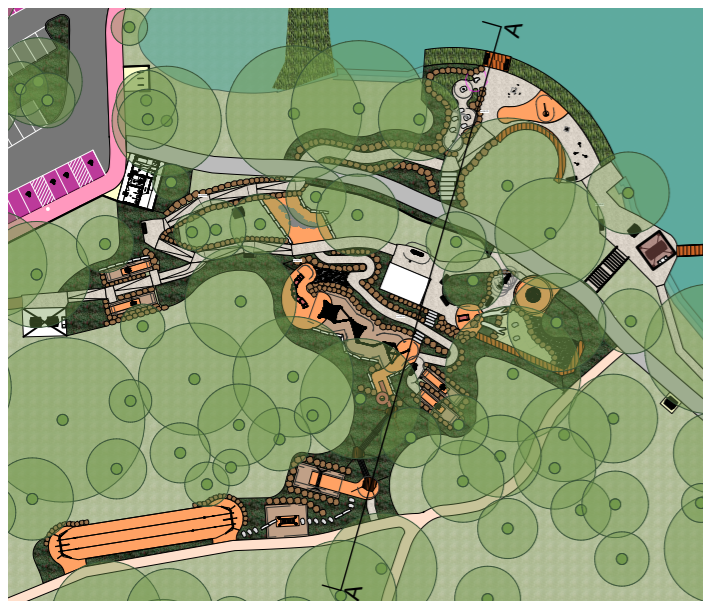
7. Playspace Concept Plan



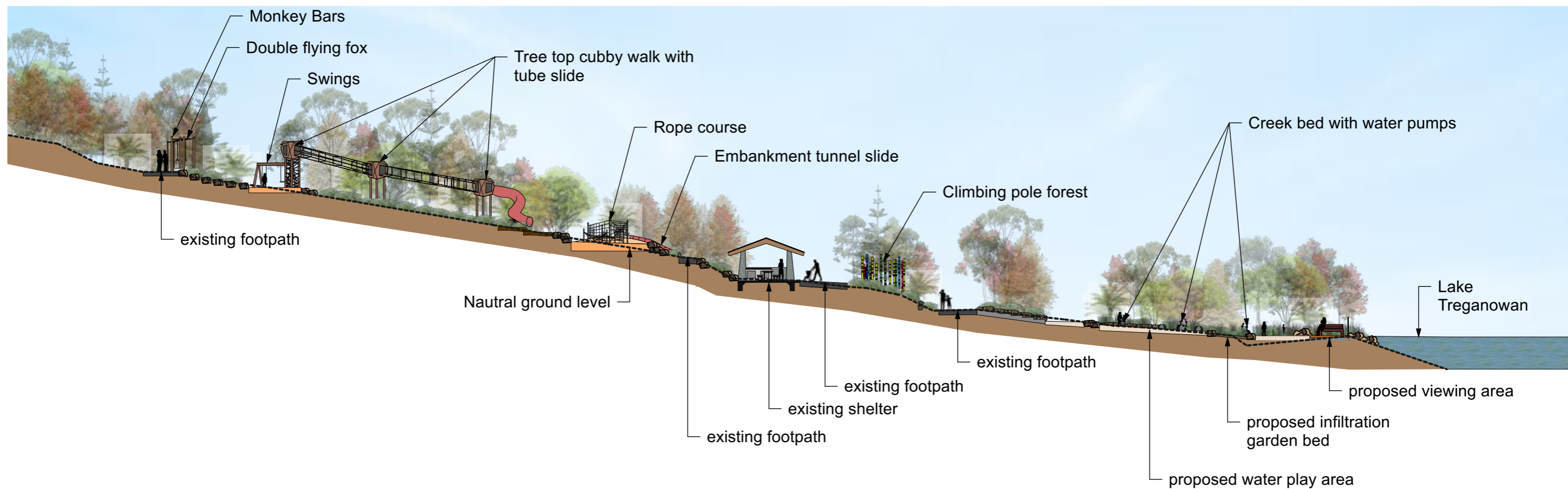
- 1 Creek bed with water pumps in rocks
- 2 Seating and viewing area
- 3 Investigate opportunities to convert wading pool into infiltration garden bed to catch waterplay runoff. Garden bed fenced as a barrier between the playground and the lake
- 4 Water sprays
- 5 Water pump and seesaw water pump
- 6 Water spray masts

These water play elements are indicative only. Community involvement will form part of the next stage - detail design process.

- 7 New shelter and picnic area
- 8 Steps
- 9 Toilet block with Changing Places facility, disabled cubicle, change facilities and 3 x ambulant cubicles.
- 10 Climbing pole forest
- 11 Swings
- 12 Retain rubble stone shelter
- 13 Embankment tube slide
- 14 Rope course
- 15 Junior embankment slide
- 16 Accessible carousel
- 17 Sandpit with retaining seating edge
- 18 Musical equipment
- 19 Tree top cubby walk with tube slide
- 20 Monkey bars and balance trail
- 21 Double flying fox
- 22 Consider opportunities to engage local artists in the development of the playground such as through sculpture, visual artwork signage
- 23 Ensure all rocks and logs can be used as informal seating to create quiet spaces for all users



Context Plan

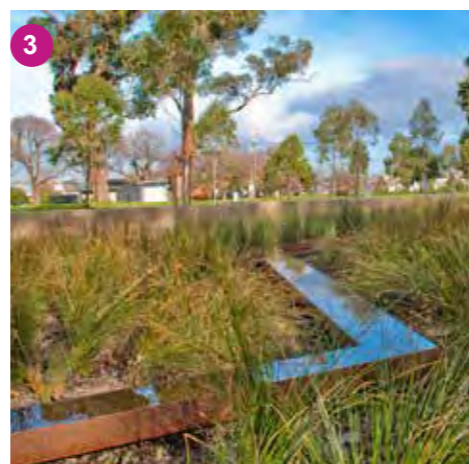


Section A-A

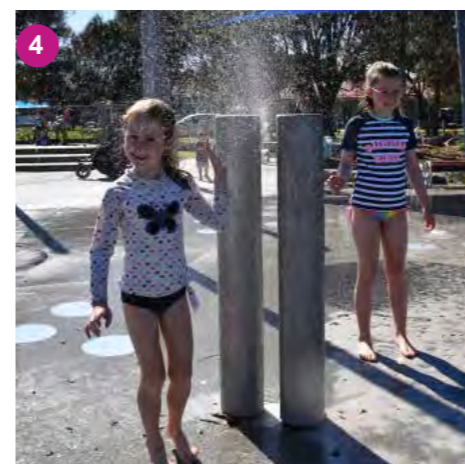
Images are indicative only.



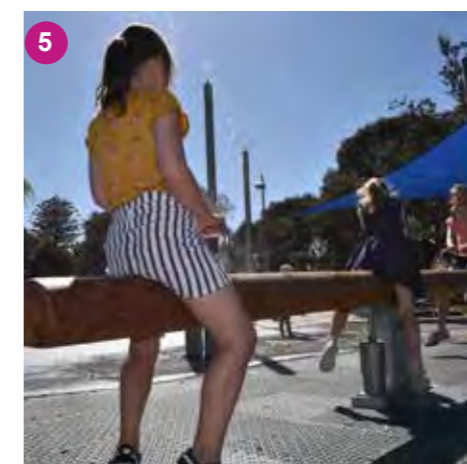
1
Creek bed with water pumps



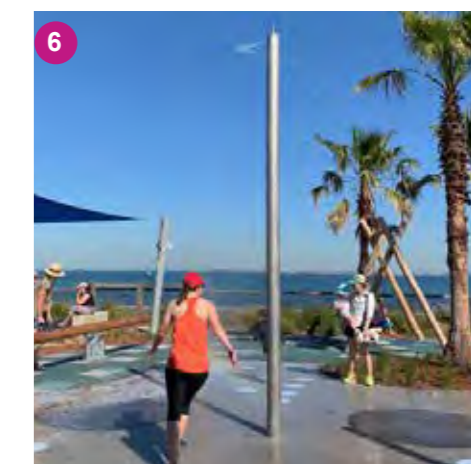
3
Infiltration garden bed



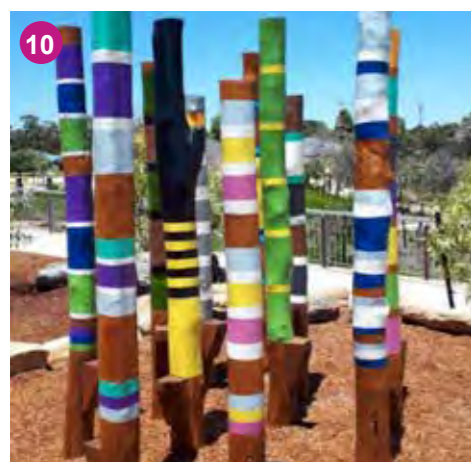
4
Water sprays



5
Seesaw to activate water pumps



6
Water spray masts



10
Climbing pole forest



11
Swings (with junior and senior seats)



13
Embankment tunnel slide



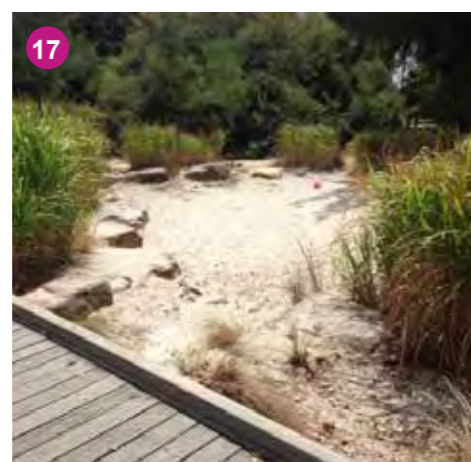
14
Rope course



15
Junior embankment slide



16
Accessible carousel



17
Sand pit



18
Musical instruments



19
Tree top cubby walk with tube slide



21
Double flying fox

8. Implementation

Table 1. Whole of site action items

Item	Action	Priority (High, Medium, Low)	Indicative cost
1	Provide interpretive signage at all park entries and throughout the park for information and educational purposes. Consider the historical significance of the precinct and how that translates to the present day including Indigenous history and post settlement heritage	Medium	\$50,000
2	Develop a consistent signage suite for the park. Implement easily accessible gateway, wayfinding, etiquette, identification and interpretive signage across the site	Medium	\$50,000
3	Consider programming opportunities within the park including educational programs, organised recreational activities and classes, arts and cultural events, festivals and markets	Medium	-
4	Upgrade the existing paths to establish safe and accessible network where possible. Consider the use of boardwalks or 'mini-mesh' as required to protect existing trees and root systems	High	\$350,000
5	Upgrade all existing furniture to Council's preferred furniture suite including DDA compliant furniture including drinking fountains at all activity nodes and picnic tables at Bellbird Picnic Area	High	\$300,000
6	Update the 'Areas of Cultural Heritage Sensitivity' overlay within Emerald Lake Precinct to include the overall extent of the Wattle Creek, Paternoster Creek and Mackenzie Creek	Medium	-
7	Implement and undertake the recommendations outlined in the Arborist report including maintaining and improving weed and pest management	High	-
8	Ensure the structural integrity of lake edges are maintained or improved in all works	Ongoing	-
9	Prepare a strategy for long-term replacement planting of nursery and exotic trees in accordance with the Conservation Management Plan	High	\$75,000
10	Restrict vehicular access within the park to maintenance and emergency vehicles only to reduce traffic and improve pedestrian safety	Ongoing	-
11	Engage traditional owners to add value to the precinct upgrades	Ongoing	\$5,000
12	Include CPTED principles in future development of the park to ensure the safety of all users	Ongoing	-
13	Continue to work with Friends of Emerald Lake Park with the removal of invasive woody trees and native revegetation works	Ongoing	-
14	Complete a fire management strategy for the site. Strategy to consider emergency responses during extreme fire danger days and actions to reduce fire risk. This will compliment the Emergency Management Plan for extreme weather and fire that is already in place.	High	be be completed internally
15	Develop a waste management plan for the precinct	Medium	\$50,000

Table 2. Lake Treganowan Zone

Item	Action	Priority (High, Medium, Low)	Indicative cost
1	Upgrade existing playground facilities to a 'regional' level playspace with a broad range of play opportunities for all ages and abilities including water play, accessible play, nature play and new toilets with change facilities. Remove existing wading pool. Refer to Playspace Concept Plan (section 7)	High	\$3,500,000
2	Upgrade the Gus Ryberg Amphitheatre to include lighting, shelter and a stage area, all abilities access (i.e. blended ramp and stairs), vehicle access, pedestrian priority road crossing, and upgrade the existing seating facilities to composite timber seats (including seating areas for all abilities). As required, relocate or replace the murals which depict the precinct's history	Medium	\$2,000,000
3	Define the Eastern Dandenong Ranges Trail (EDRT) with sealed surfacing and wayfinding and etiquette signage. Upgrade the trail as required to meet regional standards (noting that this may require removal/ relocation of existing trees), refer to Appendix B	High	\$150,000
4	Connect the EDRT through the Lakeside Carpark. Construct a retaining wall along the southern edge as required	High	\$300,000
5	Define an all abilities loop path around the lake with sealed surfacing, lighting, and wayfinding and etiquette signage	High	\$150,000
6	Investigate developing the Lakeside Office building to 'Emerald Lake Boathouse'. Opportunity to retain the paddle boats, part of the Council office and to include a waterside restaurant or cafe (pending market interest for private investment).	High	-
7	Upgrade the paths, drainage and garden bed areas behind the Lakeside building with accessible paths and new planted areas including the removal of fencing and edging to garden bed areas. Consider ground covers and plants to prevent erosion of garden beds and to keep sight lines open to achieve Crime Prevention Through Environmental Design (CPTED)	High	\$350,000
8	New bridge connecting the playspace to the loop path around the lake and to allow the bandstand to be blocked off to pedestrian traffic during events and performances	Medium	\$500,000
9	Bike parking, drink fountains and bike repair station near the EDRT	Medium	\$15,000
10	Realign carparking bays along the southern edge of the Lakeside Carpark to allow for the EDRT connection and create additional car parking bays, including disabled parking bays and the opportunity to accommodate food vans	High	\$100,000
11	Stabilise embankment and create more carparking bays (keep bluestone retaining walls)	High	\$100,000
12	Provide lighting to Lakeside Carpark and retain parking meter	High	\$150,000
13	Construct stairs with safety balustrades to the top of the embankment and a new path to provide safe access to the Gus Ryberg Arboretum and amphitheatre. Include a pedestrian crossing as required	Medium	\$100,000
14	Embankment stabilisation works north of the entry road including a retaining wall as required	Medium	\$150,000
15	Designate specific fishing areas to ensure the bank of the lake is protected. Stabilise areas that have been damaged	Low	\$50,000
16	Establish an informal loading zone near the northern section of the lake to create a drop off area. Stabilise lake edge as required	Low	\$50,000
17	Extend the picnic area with a shelter, two picnic tables and a double barbecue	High	\$300,000
18	New shelter with two picnic tables near the existing barbecues	Medium	\$50,000

19	Undertake desilting works at Lake Treganowan as required to maintain lake health	Operational	-
20	Upgrade existing toilet facilities in-line with current health and safety standards and heritage requirements. Provide disability access from the EDRT and the Lakeside Carpark	Medium	\$200,000
21	Continue to advocate for the widening of Emerald Lake Road with a pedestrian path to the township	Ongoing	-
22	Retain the ticket box and provide a CCTV camera at the boom gate park entry	Low	\$20,000
23	Create a unique and contemporary gateway at the park entrance that reflects the precinct character	Medium	\$50,000
24	Provide lighting for events from the Lakeside Carpark to the Gus Ryberg Amphitheatre and the Lakeside Visitor Centre in accordance with Council's Wildlife Sensitive Lighting Guidelines	Low	\$250,000
25	New toilet block with Changing Places facility	High	Allowed under item #1
26	Investigate installation of charging points for electric vehicles (at Lakeside Carpark) and e-bikes (close to the EDRT)	High	\$10,000

Table 3. Western Forest Zone

Item	Action	Priority (High, Medium, Low)	Indicative cost
1	Define the Eastern Dandenong Ranges Trail (EDRT) through the park with consistent wayfinding and etiquette signage. Retain existing surface through the western forest and add seating in suitable locations	High	\$75,000
2	Encourage imaginative play opportunities to the existing informal nature play area in the western forest, and the addition of wide wooden steps. Ensure CPTED principles are considered.	Low	\$80,000
3	Preserve and enhance significant natural assets in the precinct. Undertake an additional tree survey to identify trees and tree groups along the tracks in the western forest in accordance with Emerald Lake Park Conservation Management Plan	Medium	\$100,000
4	Raise the Pines Amphitheatre to ground level and use rock seats to create an informal seating area for groups. Include a path to provide a safe connection for all users	Low	\$150,000
5	Provide a bird hide for bird watchers and nature photographers	Low	\$25,000
6	Repair areas throughout the Western Forest that have been damaged by mountain biking. Install barricades to encourage bike riders to use the EDRT and prevent them from accessing problem areas	Medium	\$75,000

Table 4. Nobelius Heritage Park

Item	Action	Priority (High, Medium, Low)	Indicative cost
	Note: All actions for Nobelius Heritage Park require approval from Heritage Victoria under the <i>Heritage Act 2017</i> .		
1	Upgrade access road and carpark	High	\$100,000
2	A new picnic shelter with two tables and a barbecue	High	\$70,000
3	Strengthen the informal path connection between Emerald Lake Park into Nobelius Heritage Park with wayfinding signage	Low	\$75,000
4	Provide gateway signage/feature at the entrances to the Nobelius Heritage Park	High	\$100,000
5	Provide an informal path connection with wayfinding signage from the Eastern Dandenong Ranges Trail (EDRT) to the packing shed	Low	\$50,000
6	Upgrade the exterior of Linton's Cottage and include interpretive signage to explain its historical significance to the site. Investigate opportunities to improve the interior to meet future community needs	Low	\$100,000
7	Provide carpark lighting in accordance with Council's Wildlife Sensitive Lighting Guidelines	High	\$100,000
8	Investigate an upgrade to the Museum toilets	Low	\$125,000 - \$250,000
9	Remove chicanes from the EDRT and replace with removable bollard to align with regional trail standards	High	\$10,000
10	If drainage issues continue on the EDRT between Princess Avenue and the road to the carpark improve drainage or stabilise trail surface	High	\$50,000
11	Consider opportunities for activation and increased visitation to the Nobelius Heritage Park such as markets, performances and events	Medium	-
12	Upgrade fence between rail embankment and main entrance	Medium	\$50,000
13	New interpretive signage and specimen display plates for park information, historical and educational purposes	Medium	\$25,000
14	Replace wheel stops with post and rail fence	Low	\$10,000
15	Relocate wisteria away from the road with a new arbour for support	High	\$75,000
16	Ensure ongoing maintenance is undertaken on the existing water sensitive urban design (WSUD) swale to ensure it retains drainage functionality	Operational	-
17	Connecting path, with steps as required from the EDRT to the Emerald and District Museum	Medium	\$50,000
18	Investigate Nobelius Heritage Park being officially recognised with botanic garden status	Low	-

Table 5. Cafe Zone

Item	Action	Priority (High, Medium, Low)	Indicative cost
1	Remove the Emerald Lake Park Cafe building and repurpose to a picnic and barbecue area with a large shelter and toilets	High	\$500,000
2	Remove existing toilet facilities, associated infrastructure, landscape embankment, fencing and access path. Return the site to open lawn	Medium	\$75,000
3	Create an exercise hub close to the paths to provide all abilities. Ensure it includes equipment suitable for all abilities	High	\$100,000
4	New garden area to prevent erosion where the slope meets the path	Low	\$10,000

Table 6. Lake Nobelius Zone

Item	Action	Priority (High, Medium, Low)	Indicative cost
1	Remove existing toilet facilities and associated infrastructure	Medium	\$75,000
2	Undertake repair and renewal works at Carl Stemp Amphitheatre including the upgrade of seating facilities (including seating areas for all abilities where possible)	Low	\$150,000
3	Undertake repair and renewal works at the Bunurong Amphitheatre including the upgrade of existing seating facilities (including seating for all abilities), and an accessible path from the lower path.	Low	\$150,000
4	Repurpose The Gums Amphitheatre from an event/performance function to an informal picnic and quiet reflection space. Remove the old wooden tiers, landscape to achieve a more bowl-like shape and include informal log or mudstone rock seating at the base.	Low	\$150,000
5	Undertake ongoing desilting work at Lake Nobelius as required to maintain lake health	Operational	-

Appendix A: Consultation Summary

Stakeholder Consultation

The following table provides a summary of key findings, comments or suggestions from initial consultation with key stakeholders as part of the master plan project.

Meeting with Cardinia Council, Internal Consultation via MS Teams - 1pm, 27.10.2021

Present:	Kristen Jackson	Manager, Active and Connected Communities
	Samantha Cross	Coordinator Parks Planning
	Stephanie Langton	ELP Placemaker
	Beck Ellis	Parks Planning
	Anna Benjamin	Hills Hub Placemaker
	Andrew Pomeroy	Manager Arts, Advocacy and Economy
	Owen Hardidge	Manager Regulatory Services
	Ben Wood	Manager Operations
	Emily Tuck	Social Inclusion - Disability
	Nicholas Charrett	Traffic and Transport
	Ellie Urrutia Bernard	Emerald Museum curator
	Yasmin Daud	Parks Services - Operations
	Gordon Campbell	Buildings and Facilities
	Colin Millward	Buildings and Facilities
	Gabby Fisher	Arts programs & events
	Stewart Matulis	Emergency Management
	Tim Fitzgerald	FFLA
	Anna O'Sullivan	FFLA
	Prue Batchelor	FFLA

Water Play

1. Leaf and vegetation litter throughout seasons needs to be considered in any water play zones from a maintenance and safety point of view
2. Quantity of water used and type: Recycled water (substantial water treatment facilities - some are existing) vs. use of potable water vs. bubbler with no treatment
3. Hesitance to use sand as it clogs valves for stormwater discharge outlets
4. There is a community expectation for water play - potential to incorporate existing wading pool shell as an element

Regional Playground

1. Nature play with sculptural elements
2. Potential for a theme - prevalence of tree arboretum interplayed with tree house theme
3. High importance of DDA/accessibility with accessible features for play

Site Character

1. High heritage value of Nobelus Heritage Park (NHP) and Puffing Billy (train & stations) exist because of Carl Nobelius - would be great to bring that into focus
2. Importance of arboretum could be brought into focus by enhancing existing character traits for improved cohesion
3. Opportunity to create a new 'hero' in the park such as a flyway, which could connect NHP to ELP
4. Connectivity (both metaphorical and physical) - importance of wayfinding and educational signage that can connect culture and history with destination points throughout site
5. Potential for input by Traditional Owners
6. 'Quiet spaces'/ Sensory experiences - marry that with connection/picnic facilities
7. Idea to connect different parts of the park as a permanent scavenger hunt or geocaching

Access in and around the site

1. Pathway thoroughfare to continue for Pines Track rather than through playground
2. Need to establish Outdoor Event Framework (fencing off events etc.) - Therefore pathways need to consider going around these areas to ensure traffic thoroughfare during events
3. Potential for steeper tracks to offer different user experience as long as there is DDA alternative
4. Opportunity to consolidate toilet blocks and make them accessible
5. Addition of lighting along access paths and carparks
6. Entrance improvement/ Gateway (currently boom gates) whilst maintaining security after-hours (security for internal operators)
7. Opportunity for improvement with a gateway between NHP and ELP

Toilet Facilities

1. Review needed - many of the facilities are still on septic tank facilities (no mains sewer connection in the park, Puffing Billy Vis. Centre is connected)
2. BBQ facilities proximity to toilets needs to be considered
3. Finishes on buildings could be made more appealing, environmentally friendly
4. Existing water pipe system is very complex - logistics to be explored (Buildings and Facilities team)

Furniture

1. Council has preferred furniture suite
2. 'Regional' appeal of park provides opportunity to have Emerald Park Lake Park specific furniture (ensure it meets DDA standards and replacement ease)
3. More picnic facilities in Nobelius Park are needed
4. BBQs and toilets at NHP may also increase recurring visitation as currently there are none

Other Issues and Opportunities

1. Additional signage - variable messaging (removable/inserts) r.e high risk days closure, emergency info., UV risk, temperature (passive emergency info. to mitigate Council's risk)
2. Opportunity for increased weddings - ceremonies and receptions
3. Photo opportunities - addition of platform/gazebo on lake
4. Existing buildings - current buildings don't really fit with where ELP is headed (possibly suggest staged interventions)
5. Opportunity to retrofit 'boathouse' into destination building

Meeting with Cardinia Council, Internal Consultation via MS Teams - 1pm, 09.11.2021

Present:	Kristen Jackson	Manager, Active and Connected Communities
	Samantha Cross	Coordinator Parks Planning
	Stephanie Langton	ELP Placemaker
	Caroline Gillies	Planning - Community infrastructure/Liveability plan
	David Fice	Manager Community infrastructure
	Tim Cooper	Economic Development/tourism
	Emma Firth	Youth Services
	Janene Vurlow	Environment and Heritage
	Lisa Kuriata	Natural Reserves - Operations
	Thomas Nicholls	Community Infrastructure
	Anna O'Sullivan	FFLA
	Prue Batchelor	FFLA

Water Play

1. Water play to be turned off in colder months? Consideration for the function that play area will serve during Winter?
2. Edge of wading pool to the lake seems unsafe

Regional Playground

1. Work with topography to make it safe and accessible
2. Youth and social activities - 'hang out' spaces (inviting but not confronting)
3. Integrated space (eg. skate, bikes, parkour). Activities for older children - make some elements informal skate
4. Exercise equipment should be separate to play
5. Bike trails connecting to amphitheatres - re purposed to be used as informal hangout spaces
6. Meaningful theme to playspace (hills uniqueness)
7. Unstructured play/cubby building - re purpose 'Pines' amphitheatre for seating circle/cubby building etc.

Site Character

1. Interpretation consolidation to guide people between two parks, Puffing Billy, what there is to see - break it up into manageable areas/zones with identifiable themes/names/identities
2. Signage/wayfinding to extend to promotional maps etc. to assist people knowing what's there before they arrive
3. Revegetation of native species in bushland areas as an offset to what was lost for development of Puffing Billy

4. Opportunity for implementation of succession planting for trees
5. Opportunity for propagation, seed harvesting area that could be used by universities etc. and contribute to succession planting and planning

Access in and around the site

1. Connection between Puffing Billy to rest of the park
2. Bring amenities to lake level as much as possible
3. 'Scale' of accessibility paths to retain variety of experiences - cater for all abilities (priorities facilities as being accessible)

Toilet Facilities

1. Toilets currently not in good, accessible locations

Furniture

1. Consider new shelter locations: near Lake Nobelius to spread people around the park - currently a 'forgotten gem', near carpark to tie in with new facilities/wayfinding as it is currently a point of congregation
2. Shelter to include seating/BBQ as there is enough 'shade' from tree areas
3. Bin locations/water fountains (co-located hubs for maintenance access)
4. Bins for dog walkers

Other Issues and Opportunities

1. Needs to be a consideration for existing specimen trees - implementation of MP staging could suit existing conditions/life expectancies of trees
2. Fishing is a point of contention - designate an area/limit fishing area/designated fishing infrastructure
3. Consider perceived and true 'safety' of spaces
4. Spaces should cater for 'events'/activation/programmatic areas - School Groups, Rotary, Youth Groups
5. Dedicated education spaces for gatherings to occur (nature-based)
6. Encapsulate historical memories (e.g water slides/lake tower) through modern day allowances

Meeting with Council Officers r.e Water Play, Wading Pool at ELP - 8:30am, 11.11.2021

Present:	Stephanie Langton	ELP Placemaker
	Matthew Everson	Buildings and Facilities
	Roland Rozario	Community Infrastructure
	Nicholas Charrett	Traffic and Transport
	Ben Fenton	Active and Connected Communities
	Shane McGrath	Community Infrastructure
	Anna O'Sullivan	FFLA
	Prue Batchelor	FFLA

1. Complexity of water connections - no pipe or water mains mapping
2. Consideration of sustainability, phase out or limit the use of potable water
3. Water play infrastructure - Supplier to provide data to estimate litres per push
4. "Reclaim" area of wading pool (fill) rather than return area to lake
5. Potential for water recycle and re-use - Grey water for irrigation and toilets to offset potable water use in water play area
6. Current wading pool water seeps/mixes with lake water

Meeting with Council Officers r.e EDRT and Carpark, Lakeside Carpark - 9:30am, 11.11.2021

Present:	Stephanie Langton	ELP Placemaker
	Roland Rozario	Community Infrastructure
	Nicholas Charrett	Traffic and Transport
	Anna O'Sullivan	FFLA
	Prue Batchelor	FFLA

1. Need for pedestrian trails to connect to EDRT at western end of carpark
2. Create pedestrian connection from western end to eastern side of carpark along southern edge where existing retaining stone wall is
3. Potential to build into northern embankment for additional carparks with a structural retaining wall
4. Carpark location (and layout?) is original and has heritage overlay
5. EDRT connection alongside lake needs to be widened and prioritised (concrete, minimum 2.5m width) with the addition of a pedestrian crossing at eastern end next to hairpin turn of Emerald Lake Rd

Meeting with Council Officers r.e Waste and Services, Lakeside Carpark - 9:30am, 11.11.2021

Present:	Stephanie Langton	ELP Placemaker
	Matthew Everson	Buildings and Facilities
	Nigel Loughridge	Waste Contracts, Infrastructure Services
	Anna O'Sullivan	FFLA
	Prue Batchelor	FFLA

Bins and Waste

1. 8.8m service vehicle - maintenance access required to allow for this
2. Opportunity for Smart Bins however, cost benefit needs to be considered as maintenance schedule will empty bins regardless
3. Smart bins present opportunity for additional information (wifi enabled) e.g temperature, park closures and events etc.
4. Locations for bins should be at entry points (carparks) and amenity points
5. Currently, Recycle bin contents' are put into land fill due to contamination - opportunity to have bins with specific opening shape, such as rounded, to allow for bottles and containers
6. Opportunity for education activities and campaigns associated with wastes, recycling and sustainability such as compost as waste use on the site - combine these campaigns with operators

Services

7. Lake Nobelius Loop toilets run on septic and there is an opportunity to consolidate them however, use is unknown and they may still be needed therefore, pedestrian and maintenance access needs to be improved
8. Requirements for Masterplan - Priority is to locate services and connection points with the ability to isolate toilet blocks
9. Existing heritage toilet (on Lake) could be converted for an alternative use and consolidate toilets with a new facility near playground
10. Gus Ryberg amphitheatre rounded shape could be extended into a more half oval shape to accommodate additional seating - allow for functions and change facilities ('wings')

Meeting with Friends of Emerald Lake Park, Lakeside Office - 1:00pm, 11.11.2021

Present: Sheila Hampson FELP
Anna O'Sullivan FFLA
Prue Batchelor FFLA

1. Activations across the site, particularly in summer - movies on the hill, live entertainment etc.
2. Silt up and filtration of the lakes requires attention
3. Existing cafe lacks facilities such as dishwasher which prevents it from expanding, meeting growing crowd needs
4. Eastern side of existing Cafe has potential to be activated (in conjunction with upgraded toilet facilities) with seating, rock edging along waterway for stabilisation and informal seating
5. Need to move gym/fitness equipment, possibly to Lake Nobelius Loop
6. Additional furniture along bush tracks and Lake Nobelius (a matching suite)
7. Amphitheatres have sentimental significance and need to be maintained. There is an opportunity to make them informal gathering spaces, rather than bookable space
8. More park staff to facilitate activities, provide information to visitors and maintain areas
9. "Western Forest" (west of older children's playground) has an existing open space, with topographical challenges, that could be utilised e.g high ropes course (repurpose poles from Lions Den)

Meeting with Wombat Corner, Lake Treganowan Bridge - 2:00pm, 11.11.2021

Present: Stephanie Langton ELP Placemaker
Jordan Rickard Wombat Corner
Anna O'Sullivan FFLA
Prue Batchelor FFLA

1. Improved signage along Emerald Lake Road for Puffing Billy visitors to avoid cars stopping on corner/hairpin (Wombat Corner's entrance)
2. Wombat Corner clients have local access by coming down the hill but there is no formal footpath - there is poor pedestrian access into the park from the east
3. High use of canoes on eastern side of Lake Treganowan - existing entry point is eroding lake edge and exposing tree roots. This requires protection whilst maintaining access
4. Need one trailer bay park - could be positioned between EDRT and road
5. Northern embankment opposite lake, adjacent to Emerald Lake Road needs to be structurally retained and there is opportunity to provide access steps as it's a thoroughfare for pedestrians

Meeting with Emerald Lake Precinct Advisory Committee - 3:00pm, 11.11.2021

Present: Stephanie Langton ELP Placemaker
Samantha Cross Coordinator Parks Planning
Brett Butler Puffing Billy
Jordan Rickard Wombat Corner
Sheila Hampson FELP
Bill Whitbourn FELP
Stuart Evans Lakeside Paddleboats
Pauline Murphy Emerald and District Museum
Anna O'Sullivan FFLA
Prue Batchelor FFLA

Water Play & Playground

1. Separation of 'attractions' by separating play elements for age groups
2. Separate gym from play areas
3. 'Retain' wading pool character - holds high value to locals so could capture history of the pool with modern day elements
4. Themed areas or precincts - potential to have zones for specific activity areas. Signage and wayfinding is coordinated with those zones to promote various areas of the park
5. Potential for 'nature play' in NHP - could be low key elements as it is a passive area

Site Character

1. Maintain and improve weed management for indigenous vegetation areas with the potential to continue revegetation (implementation of arborist recommendations)
2. Succession planting - Replace European/exotic trees when they reach end of life to maintain site character (particularly at NHP)
3. Additional (matching) seating throughout precinct

Site Amenities

1. Shelter locations require flat ground which will most likely result in excavation
2. Existing location of gym/play could facilitate larger shelter (needs to be accessible)
3. Replicate shelter character of two shelters to be replaced
4. Large shelter needs two BBQs (DDA accessible)
5. Preservation of park character
6. Gus Ryberg and Bunurong are well used and to be retained and amphitheatres (retain others but convert them to informal spaces)
7. Gus Ryberg should be considered as an event space with shelter upgrade

Additional Comments

Lakeside Paddle

1. Viewpoint / decking area with vantage points
2. Pathways and improved access to and around boathouse
3. Defined hubs with appropriate facilities (take into account various cultural requirements)

Puffing Billy

1. Opportunity to activate park relationship with Puffing Billy
2. Park as a hub for all visitors (PB and park visitors)
3. General accessibility and amenity throughout park to be improved
4. Retain and enhance unique character (highlight NHP differences)
5. Embankment on rail corridor between station and park, could be planted out

Nobelius Heritage Park

1. Improved signage and promotion
2. Improved passive activity
3. Water treatment system is incompetent and destroying track - Runoff of Princes Avenue runs through site (opportunity for passive water treatment systems)

Friends of Emerald Lake

1. Picnic facilities or casual informal seating near Puffing Billy (near new Bus Loop)
2. Surface treatment of paths needs to be improved (asphalt is cracking and could be replaced with concrete)
3. Replace treated pine bollards and fencing
4. Formal and accessible access through arboretum
5. Formal fishing bays to discourage fishing from sensitive areas around the lake

Meeting with Nobelius Heritage Park Stakeholders, NHP Carpark - 9:30am, 19.11.2021

Present: Stephanie Langton ELP Placemaker
 Pauline Murphy Emerald and District Museum
 Anna O'Sullivan FFLA
 Prue Batchelor FFLA

1. Opportunity to activate newly surfaced carpark and existing bandstand for events e.g markets
2. Utilise Linton's Cottage as a café/kiosk or amenity block (e.g toilets for park users)
3. WSUD rain garden needs attention/ to be desilted
4. Weed management along ELP/NHP fence line
5. Fencing between rail embankment and main entrance to be upgraded
6. Entrance into park requires new gates and signage (to create an obvious gateway)
7. Current 'Emerald Museum' sign upon entrance to be upgraded to suit character of place
8. Nature play or passive play elements (eg rocks and logs) could be implemented in existing picnic seating area with the addition of a BBQ
9. Steps leading from Museum directly to existing picnic table area (slope is steep with no formalised access)
10. Opportunity to extend existing building for more museum space and to rearrange full storage areas
11. Lighting in carpark
12. Toilet facilities for bandstand area (potential to repurpose existing Linton's Cottage)

PATHWAYS

13. Additional signage and wayfinding throughout NHP
14. "Entrance" or gateway between ELP and NHP
15. Retain informal pathway on northern side of park (ensure safe surface)
16. Edging or barriers either side of path over Wattle Creek (On ELP/NHP boundary area)
17. Consolidate entry signage into NHP from ELP with corresponding signage on neighbouring pathways
18. Formalised connection to Packing Shed from park pathway with the potential to add steps or ramp access from top of Salvia Garden to Packing Shed
19. Review existing interpretive signage (e.g 'Flax' and other historical signage)

Meeting with Council Officer r.e Shelters, Lion's Den Shelter - 11:15am, 19.11.2021

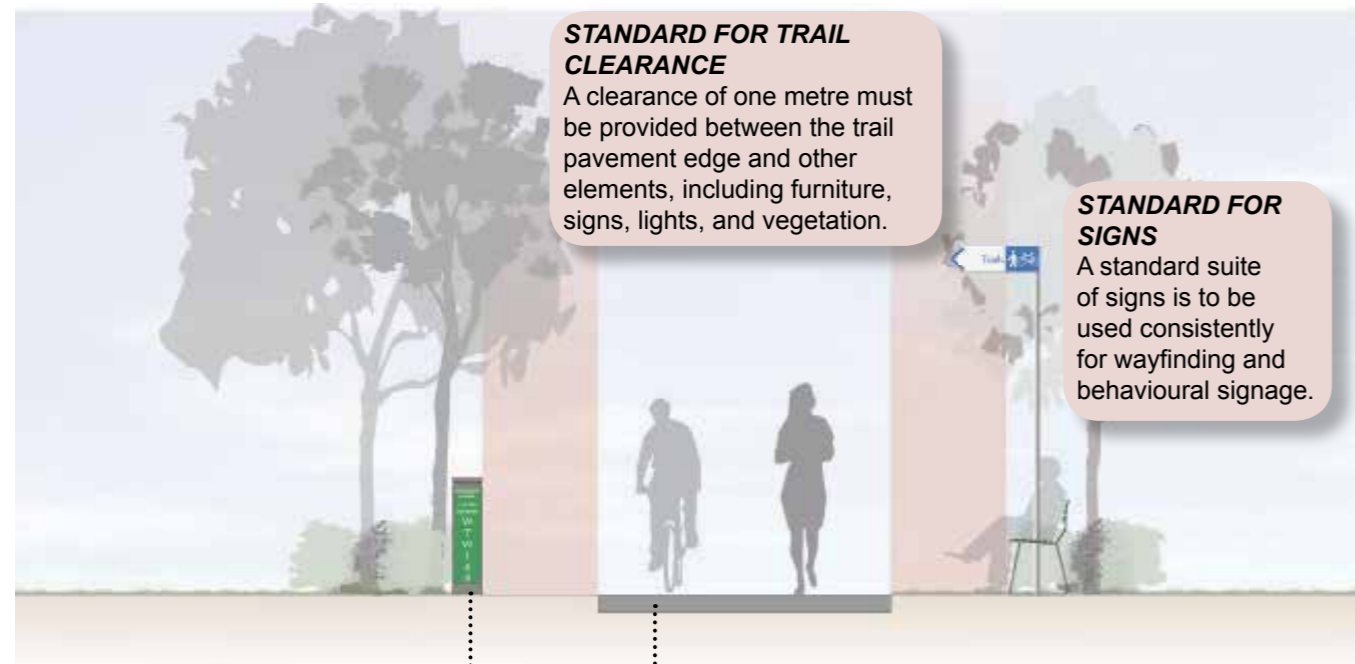
Present: Stephanie Langton ELP Placemaker
 Anna O'Sullivan FFLA
 Prue Batchelor FFLA

1. Existing 'overflow' carpark at top of site to be retained without development
2. 16 logs retained from Lion's Den shelter for re-use in park?
3. Approximate size of Lion's den shelter 80-100sqm

Meeting with Council Officer, Lake Treganowan - 12:00pmm, 19.11.2021

Present: Stephanie Langton ELP Placemaker
 Anna O'Sullivan FFLA
 Prue Batchelor FFLA

1. Decking for small access area (used by Wombat Corner) to protect and stabilise lake edge
2. Fishing needs designated areas with a standardised treatment for fishing and non-fishing zones
3. Re-vegetate eroded bank areas to obstruct pedestrian access with the addition of rocks
4. EDRT requires formalised edging on lake side
5. Implement signage or landscaping to prevent fishing on southern lake edge between bridge and lake house



STANDARD FOR TRAIL CLEARANCE
A clearance of one metre must be provided between the trail pavement edge and other elements, including furniture, signs, lights, and vegetation.

STANDARD FOR SIGNS
A standard suite of signs is to be used consistently for wayfinding and behavioural signage.

STANDARD FOR EMERGENCY MARKERS
Emergency markers complying with ESTA requirements to be installed every 500m-1km. Emergency markers can be incorporated into other trail signage. Bollards should be easily distinguishable from the trail with luminance contrast greater than 30%.

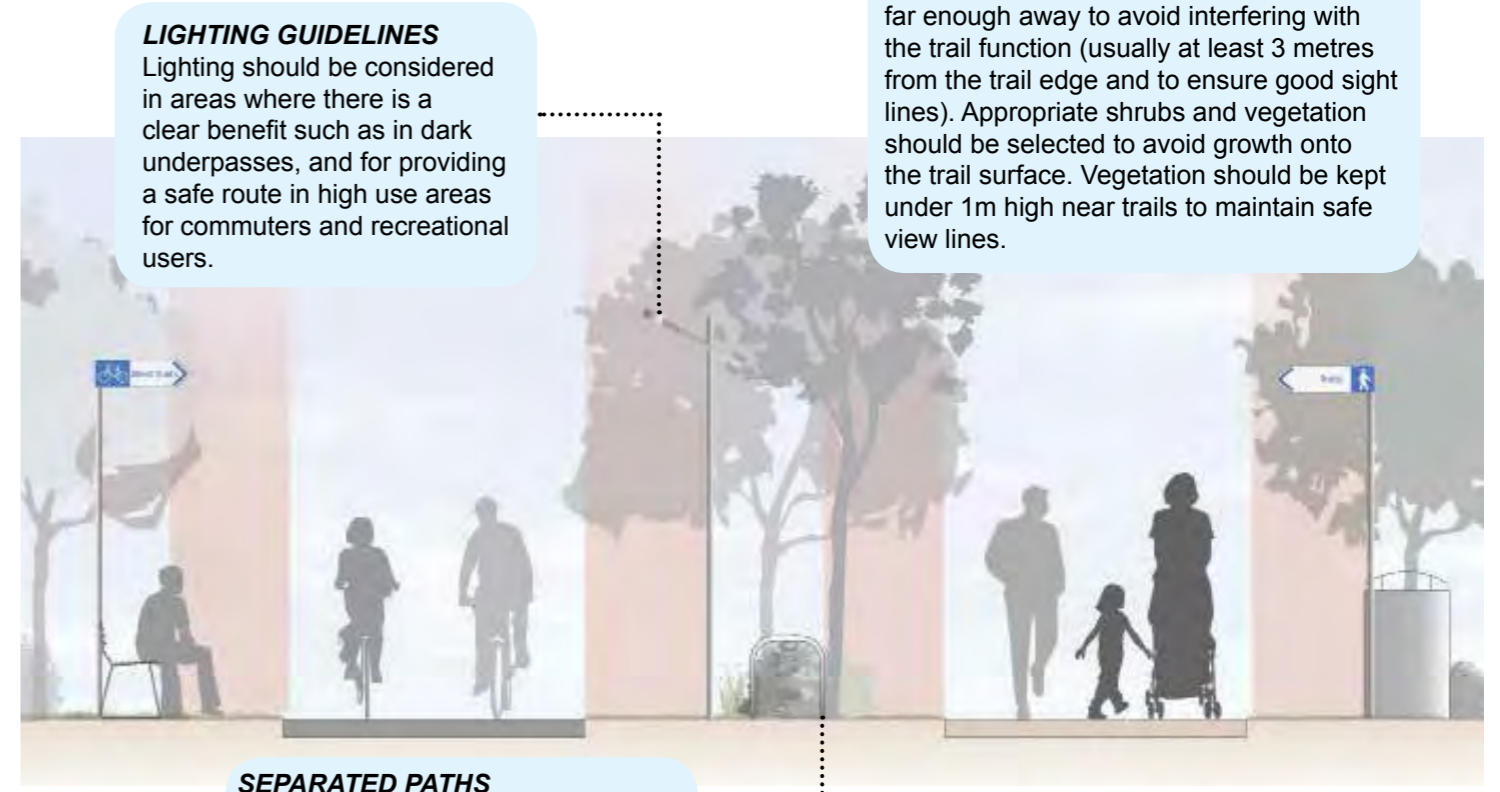
UNIVERSAL DESIGN
Regional trails must be designed to be accessible to as broad a section of the community as possible. This requirement infiltrates most aspects of trail infrastructure design.

STANDARD FOR TRAIL PAVEMENTS
Surface material

- Most trails to be either concrete or asphalt .
- All pavements to be designed to accommodate maintenance vehicle access (ie. for concrete min. 150mm depth reinforced concrete)
- Saw cuts (rather than ruled/tooled joints) to be used for concrete surfaces to reduce 'bumpiness' for cyclists.
- Compacted gravel surfaces are only to be considered on trails that:
 - are not intended to be used for cycle commuting
 - have no flooding risk or drainage issues
 - are to accommodate equestrian use

Pavement width

- Typically 3.0 metres wide to allow clear passing of oncoming trail users.
- Min. 2.5 metres wide where physical constraints prevent greater width.
- Segregated paths to be considered for high-use paths, in line with Austroads recommendations.



LIGHTING GUIDELINES
Lighting should be considered in areas where there is a clear benefit such as in dark underpasses, and for providing a safe route in high use areas for commuters and recreational users.

VEGETATION GUIDELINES
Trees should be planted near trails to provide shade and amenity benefits, but far enough away to avoid interfering with the trail function (usually at least 3 metres from the trail edge and to ensure good sight lines). Appropriate shrubs and vegetation should be selected to avoid growth onto the trail surface. Vegetation should be kept under 1m high near trails to maintain safe view lines.

SEPARATED PATHS
Segregated walking/cycling surfaces should be considered for high-use trails in line with Austroads guidelines.

BICYCLE PARKING GUIDELINES
Bike parking should be provided at all key destinations and stopping points (and should be installed at least 1 metre from the path edge onto concrete or asphalt).

FURNITURE GUIDELINES

- **Seats** with arm rests and backs should be provided on all trails, approximately every 500 metres, focused upon areas where people will want to sit (view points, trail heads, intersections, facilities and activity nodes).
- **Rubbish bins** should be provided only at key activity nodes, destinations and key dog off-lead/dog walking areas.
- **Drinking fountains** should be provided at key activity nodes, destinations and key dog off-lead/dog walking areas where these are existing water connections.
- **Shelters** should be provided at key activity nodes and destinations, providing shade and rain shelter for small groups.

PUBLIC TOILET GUIDELINES
Access to toilet facilities is important for busy trails. These facilities are most efficiently and effectively provided through adjoining reserves, activity centres and civic facilities.