

Buninyong Botanic Gardens Landscape Masterplan

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Urban Initiatives acknowledges the Wurundjeri People of the Kulin Nation as custodians of the land upon which we work. We acknowledge also the Wadawurrung People as the Traditional Owners of the lands on which the Buninyong Botanic Gardens sits, and their unique perspective and contributions to this project.

We pay our respects to their respective Elders past, present and emerging.



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Executive Summary

In 2019, the Gong reservoir wall within the Buninyong Botanic Gardens was identified as a public safety risk due to its gradual deterioration over time. An engineering solution was developed to stabilise the wall and a Council resolution recommended that a landscape master plan be created to make the most of the opportunity to integrate the reconstructed Gong reservoir wall into the surrounding landscape. This new landscape masterplan compliments the Buninyong Botanic Gardens Conservation Study and Masterplan (2004) and identifies improvements, actions and strategic directions for the Gardens and Gong in response to the needs of the current and future community. Mandatory works to the Gong reservoir wall were deferred until the completion of the Masterplan and associated engagement.

Engagement undertaken as part of the masterplanning process in July 2021 and again in December 2022 in response to the draft masterplan identified that the community held the Gardens and Gong in high regard as a beautiful, natural space. A preference was expressed for improvements to the existing character and infrastructure instead of large scale change.

The overarching objectives of this Masterplan are to:

- use the impending Gong wall works as an opportunity to achieve a more coherent, integrated Upper and Lower Gardens;
- build on the existing strengths of the Buninyong Botanic Gardens Conservation Study and Masterplan (2004) updating it to reflect new thematic areas of planting, education and the Traditional Owners' connection to country;

- evolve the Gardens to suit the diverse needs of the community, within the context of heritage significance and the availability of Council resources;
- improve accessibility, circulation and connections within the reserves as well as to iconic locations in town and surrounds;
- consider the future of the Gardens in the context of climate change and establish principles to guide inevitable change in the Gardens while retaining character and integrity;
- celebrate the landscape and heritage setting of the Gardens, including the cultural heritage of the location; and
- implement the City of Ballarat's Living Collections Strategy for the Gardens with a particular focus on education.

This Masterplan is intended to compliment the Buninyong Botanic Gardens Conservation Study and Masterplan (2004) and should be read as a high level strategic document identifying opportunities for improvement, strategic development and action.

A peer review of the engineering solution for the Gong wall was completed by Stantec in March 2023. It generally supported the Gong wall engineering and the subsequent landscape improvements presented in this Masterplan with some additional detail.

The Masterplan drawings at the end of this document should be used to inform future works and the development of an Implementation Plan.



1 INTRODUCTION

1.1 Context

In early 1850, William Malcolm, the then Government Surveyor, identified two large allotments amounting to ten acres annotating them as ‘Springs & Tea Tree’ indicating as the reason they were not allocated as housing allotments. It was also around that time that the Gong dam wall was constructed to ensure a water flow to the adjacent brewery but also to provide additional water for the growing settlement. In 1889, the ten acres were permanently reserved for Botanic Gardens by the Shire of Buninyong.



Fig. 1 Plan of the Township of Buninyong (1856) indicating ‘springs and tea tree’ on the Botanic Gardens site

During the 1860s the numerous plantings were sourced for the Botanic Gardens including specimens from Frederick von Mueller at the Botanical Gardens in Melbourne, Francis Moss at ‘Mossmount’ locally in Buninyong, George Longley at the Ballarat Botanic Gardens, and Daniel Bunce at the Geelong Botanic Gardens. It is also likely that additional donations came from Buninyong residents and other local figures. This began the rich history of the Buninyong Botanic Garden cementing it as an integral part of the town’s history and identity.

In 1999 the Garden and Gong precinct was included on the Victorian Heritage Register. A more in depth description of the Garden’s heritage can be located in the Buninyong Botanic Gardens Conservation Study and Masterplan (2004). This document remains current and should be read in conjunction with this masterplan.

The Buninyong Botanic Gardens Conservation Study and Masterplan (2004) is a comprehensive document that contains a body of research and actions that are still relevant today. This Masterplan is not intended to replace or supersede the Conservation Study and Masterplan, rather it provides an update to some sections of the 2004 document.

Buninyong Botanic Gardens is part of a larger regional network of creeks, waterbodies, open spaces and botanic gardens throughout Victoria. The role and function of botanic gardens both urban and rural, has been the subject of student work at RMIT.

For the Wadawurrung, the land on which the Gardens sit has been significant for millennia. They lie in close proximity to the scene of a significant battle between the two fearsome volcano warriors Derrinalum and Bonan Youang. Below is Uncle Bryon’s telling of their creation of Wadawurrung Country.

‘We are here on Bongerimennin [Flagstaff Hill lookout in Linton], we have a view of Bonan Youang and Derrinalum. Bonan Youang is now at Mount Buninyong, which means a man lying on his back with his knees raised. Terrinalum is now called Mount Elephant. Terrinalum actually means place of the sea terns, which are like swallows. The story is told by the old people that Bonan Youang and Terrinalum argued and challenged each other to a fight and they came together to fight at a place called Pitfield. Terrinalum had a spear. Bonan Youang had an axe. And as they fought, Terrinalum pierced Bonan Youang’s side with his spear. Buninyong hit Terrinalum on the head and split his head with his axe. They were so angry that they spat fire at each other, but they were also hurt so they retired back to their campsites to rest. They turned to stone. You can still see them today. If you look at Bonan Youang you can see where Terrinalum’s spear pierced his side. If you look at Terrinalum you can see where Bonan Youang’s axe split his head open.’

Wadawurrung ancestors witnessed this fight. Their Country, with its unique volcanic geology, flora and fauna now lies peaceful. The Gong is located directly in the line of fire between the two warriors, and the remains of Derrinalum are discernible in the distance, from the highest point of the upper gardens.



Fig. 2 Wadawurrung Country and the Buninyong Botanic Gardens

1.2 Gong Reservoir Dam Wall Reconstruction

The reconstruction of the Gong Wall will remediate the leaking dam wall and bring it into line with current standards to secure safety for the Buninyong Community. Works to the Gong Wall will retain the existing core and stabilise the structural integrity using a new drainage layer. The finish of the stabilised wall on the Gong side is proposed to be a rocky embankment planted with riverine plants while the Gardens side will be constrained to a soil to a depth of 300mm in order to ensure the wall structure remains intact. Solutions that may provide greater depth of planting medium for the inclusion of larger species, such as terracing, are being explored and are subject to engineering approval.

As part of the Wall repair, a Gong-side boardwalk may allow greater connection between park users and the aquatic environment and a new, safer pedestrian path can be established along Cornish Street. A new walking path is possible at the foot of the new Gong Wall to allow for appreciation of the new embankment collections and improved views into the Botanic Gardens.

Opportunities that arise as a result of this project include:

- Exploring opportunities to better unite the two sides of the Gardens through paths, signage and improved sight-lines;
- Seeing the revegetation of the new embankment wall as an opportunity to extend the collections of the Buninyong Botanic Gardens (and City of Ballarat), as well as providing a considered and heritage-sensitive backdrop for the Sequoia and heritage ponds;
- Redesigning and integrating the Cornish Street edge and crossings to improve pedestrian access, safety and experience;

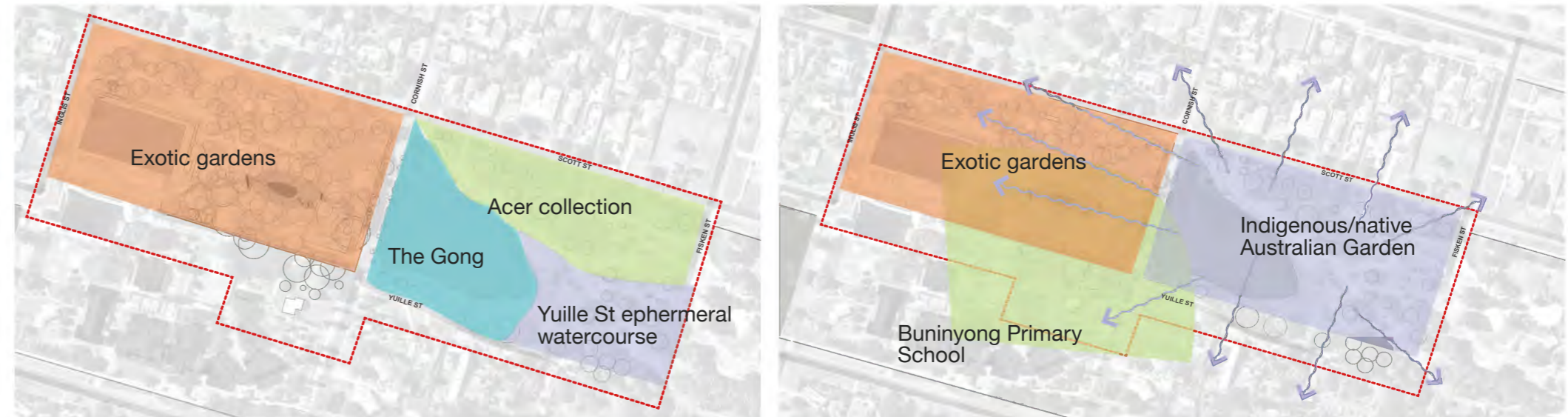


Fig. 4 Existing Zoning vs Proposed Concept plans for the layout of the Gardens, post the Gong Embankment works.

- Using the new interface of the embankment wall to create a thriving, indigenous, aquatic landscape for habitat, amenity and cultural importance, and to improve its access via boardwalk or similar;
- Using the embankment wall works to enable a staged vegetation replacement strategy which will progressively reduce environmental weed species and replace these with indigenous, water's edge species.

Currently, the Gardens and Gong are used as, and appear to be, two distinct spaces (Figure 4a). Under this Masterplan, the aspirations for the site are to enhance the Botanic Gardens as a place for exotic collections and the Gong side to be developed as a naturalised indigenous and native garden showcasing riverine and Australian plants (Figure 4b).

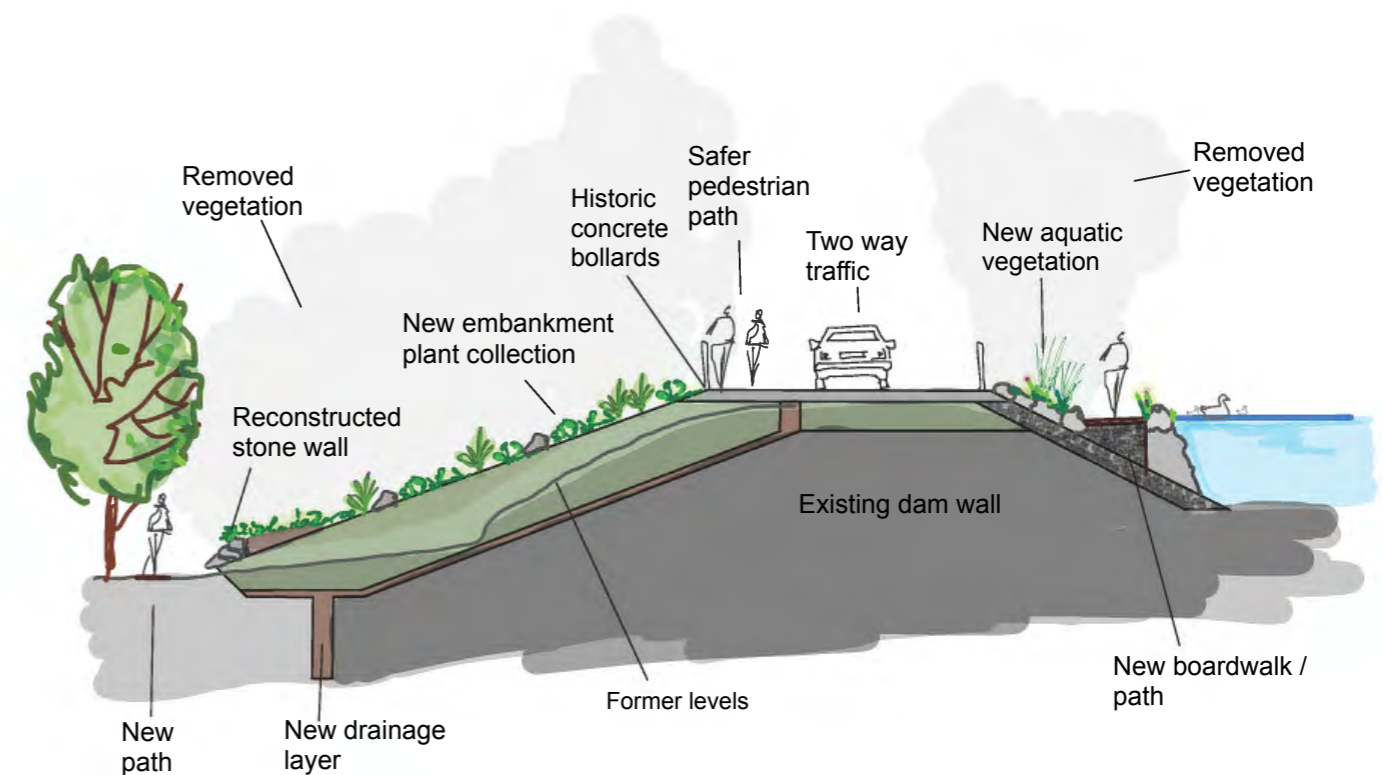


Fig. 3 Draft Concept for the new Gong embankment, Cornish Street and boardwalk. Concept subject to Engineering approval.

1.3 Reference and Guiding Documents

The following key documents were considered in the preparation of this revised Masterplan.

- *Buninyong Botanic Gardens Conservation Study and Masterplan*, Dr. David Jones 2004
- *Paleert Tjaara Dja Let's make Country Good Together 2020-2030*, Wadawurrung Country Plan 2020, Wadawurrung Traditional Owner Aboriginal Corporation
- 'The Gong Reservoir Engagement Summary Document', City of Ballarat, March 2020
- *The Gong Reservoir Dam Wall, Buninyong Botanic Gardens Reserve Heritage Impact Statement*, Context-GML Heritage Victoria August 2020
- 'Community Engagement Report, Buninyong Botanic Gardens Master Plan', City of Ballarat, September 2021
- *Buninyong Botanic Gardens Conservation Study and Masterplan*, Dr. David Jones 2014
- 'The Gong Dam Detailed Design Upgrade Risk Assessment Summary', GHD, 2019
- *Botanical Living Collection of Ballarat - Living Collection Strategy and Plans*, Mark Richardson, May 2018
- Structural Inspection + Report on Buninyong Gardens Former Pool Perimeter Walls, Consult Australia and Quatrefoil Consulting, June 2020
- Student work 'Project Botanica' was also considered as part of contextual research to prepare this Masterplan document. This document is available by contacting RMIT directly.



2 STAKEHOLDER ENGAGEMENT PROCESS

This Masterplan has come about as a direct response to engagement undertaken in 2019 that focused on the reconstruction of the Gong Reservoir Wall stabilisation works. As part of this process, the community advocated that the wall works be considered in the context of a revisited Masterplan for the Gardens and Gong precinct. A Council motion actioned this request.

Community and Stakeholder engagement featured in the development of this Masterplan with two main phases – to inform the development of the Draft Masterplan and then again once a Draft Masterplan had been prepared. Engagement methods in both phases were diverse and included a walk and talk session with member of the Stakeholder Advisory Group (SAG), an online survey, 2 x Open House Drop In Sessions at the Buninyong Town Hall, online workshops with year five students at Buninyong Primary School, articles in the Buninyong Community News, e-Newsletter, onsite meetings with the Wadawurrung, letter drops to properties immediately adjacent to the site, emails to stakeholders and promotions via Council’s MySay Ballarat page and social media.

Pre-Masterplan Engagement

Engagement to initiate the Masterplan took place over 10 weeks commencing with an Open House and Survey in July 2021. This phase of consultation focused on understanding what the community valued about the Gardens and what they would like to see retained or changed.

During this period response rates for the key engagement events included:

- Visits to MySay Ballarat– 189 total visits across the 10 weeks

- Attendees at the Community Open House - 25 individuals
- Online survey - 56 respondents
- Classroom conversations with Buninyong Primary School – 200 children.

The majority of the respondents were locals who used the Gardens as their local park for socialisation, exercise, respite and to feel connected to the natural beauty and aquatic environment.

The strongest theme emerging from the Pre-Masterplan engagement was the community’s high regard for the Buninyong Botanic Gardens and the Gong as a beautiful, natural space and their desire for the changes to the Gardens to be carried out with a ‘light touch’, retaining the historical character of the Gardens and keeping changes to a minimum.

Identified areas for improvement included a connected path network spanning Cornish Street, increased tree planting, acknowledgement of Country (to be determined in consultation with Wadawurrung Traditional Owners Aboriginal Corporation), an increased variety of seating, an upgraded play space and greater access to the Gong through a path or boardwalk. There was also a preference for the Lower Gardens to be enhanced to highlight European heritage and exotic plant collections, while the Gong be improved as a naturalised aquatic space exhibiting collections of indigenous plants. There was keen interest in including a telling of the story of the battle of Derrinalum within the Gardens.

Responses from this engagement series were used to help inform the Draft Masterplan.

Draft Landscape Masterplan

The Draft Landscape Masterplan was released at an Open House in December 2021. It was then on display for 7 weeks during which time the community and stakeholders were invited to make comments or submissions.

During this period response rates for the key engagement events included:

- Visits to MySay Ballarat– 218 total visits across the 7 weeks
- Draft Landscape Masterplan downloaded 95 times
- Attendees to Community Open House – 12 individuals
- Submissions/Email Contributions – 20 emails from 24 individuals.

The feedback received from the emails and submissions varied from simple statements of support for certain recommendations, to detailed critiques and questioning of the need for reconstruction of the Gong Wall. There were cases of support for improved path connections, bio-diversity, plant collections and amenity outcomes as well as preserving the Gardens exactly as they are and ‘do(ing) nothing’.

All responses have been analysed and considered where appropriate, in the course of actively revising the Masterplan. A document summarising the feedback and identifying how it was used in the revisions to the Masterplan has been provided to all submitters to conclude the engagement process.



The Open House consultation, July 2021.



The consultative site walk through the Gardens with representatives of the Wadawurrung Traditional Owner Aboriginal Corporation revealed the Gardens’ most significant view for the Wadawurrung.

3 EXISTING CONDITIONS

3.1 Access and Circulation

Existing Conditions Summary

There is an unsurprising contrast between the formality of the paths in the Lower Gardens and the more organic experience of the Upper Gardens paths around the Gong. This is consistent with the historical development of the Gardens and the difference is something to be celebrated as the Upper Gardens have the potential to evolve into a contrasting zone of the Botanic Gardens in their own right.

Clear and consistent circulation paths are at times compromised by missing links in pathways, grades, inconsistent surface materials and poor drainage. This is evidenced by the proliferation of informal paths or desire lines created throughout the Gardens and Gong. In considering improvements to the path network, travel to destinations beyond the Gardens, such as to Buninyong Primary School and the south-west car park, is worthwhile.

The establishment of a path hierarchy that responds to the various uses of the Gardens would also be beneficial. Whereas currently collections are not clearly defined, the opportunity to explore and experience collections of differing scales on a circuit of secondary or tertiary paths would provide the Gardens and visitors with more varied options for enjoying their time there.

Key Issues

- Lack of safe and accessible crossing between the two halves of the Gardens;
- Filling in missing links, in particular to destination/connections beyond or adjacent to the Gardens;
- Formalising frequented pathways to avoid soil compaction beneath/within tree root zones;

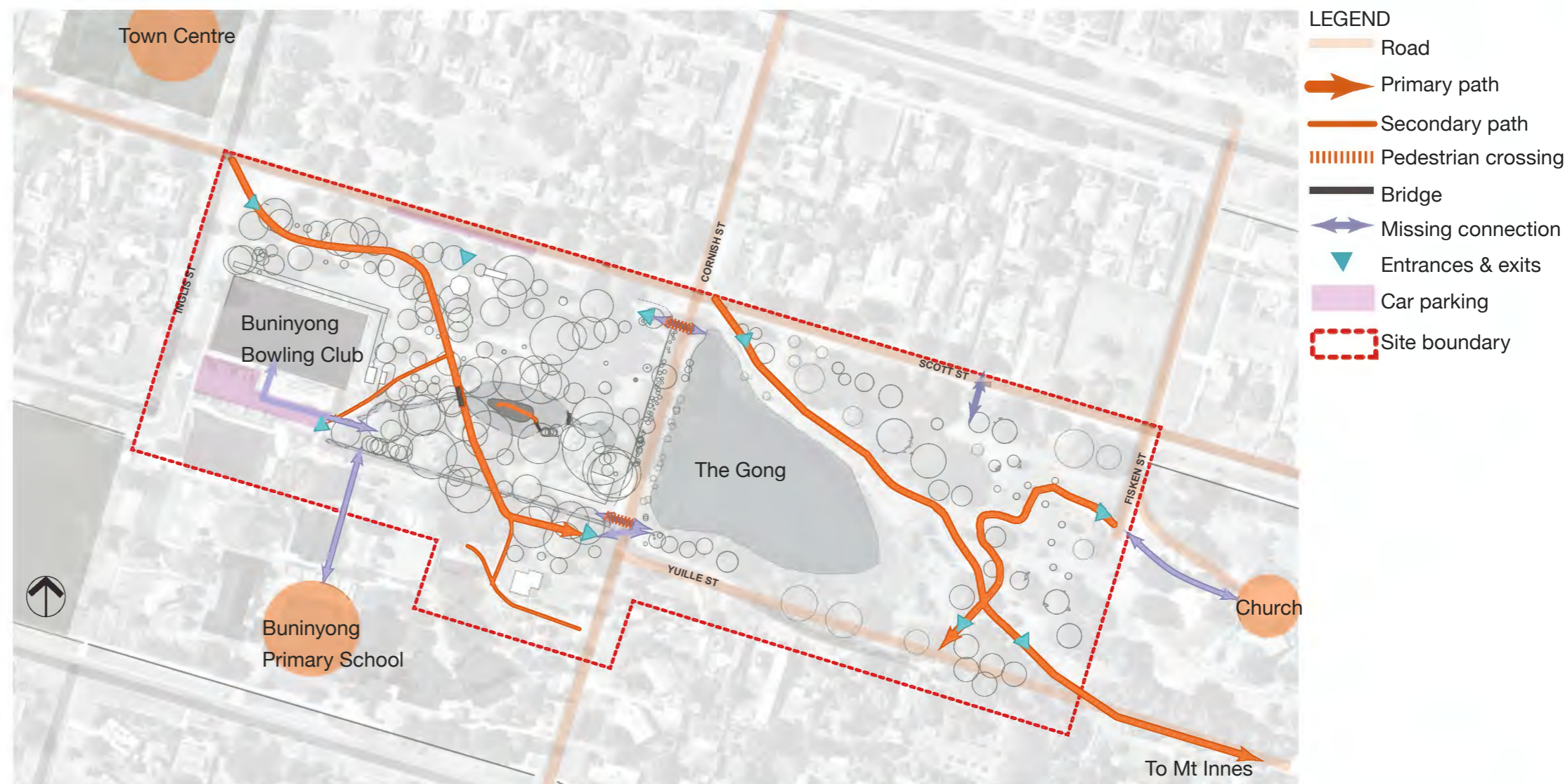
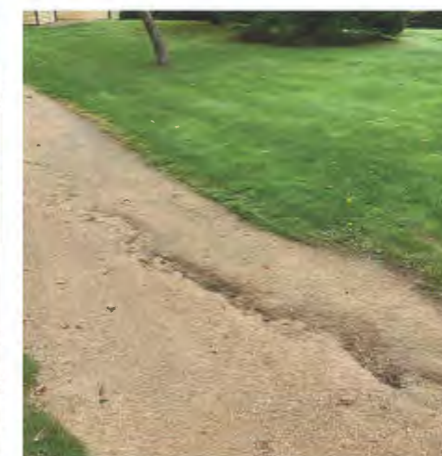


Fig. 5 Access and Circulation Diagram

- Considering universal access, path grades, drainage and surface finishes ;
- Providing circuitous paths for active and more leisurely exercise;
- Providing secondary and tertiary path connecting loops for exploring garden collections;
- Providing North-South pedestrian-only access parallel to Cornish Street but within the Gardens.



Photos from above left: Crossing Cornish Street; Drainage issues affecting existing gravel pathways; Opportunity to better integrate furniture with BBQ facilities for easier access.

3.2 Interpretation

Existing Conditions Summary

The City of Ballarat's *Living Collections Strategy* has determined a purpose for the Buninyong Botanic Gardens which is complementary to that of the City's existing collections, on a theme of 'Education'. The Gardens are strongly positioned to deliver upon this theme owing to:

- their proximity to the Buninyong Primary School;
- the interest of the Wadawurrung Traditional Owners Aboriginal Corporation in this site and project;
- the variety of vegetation collections including the Gardens' aquatic setting;
- the traditional and colonial heritage significance of the Gardens.

The Buninyong Primary School currently uses the Gardens for exercise and as a recreation space, but have expressed an interest in using it as an educational resource and space for informal teaching or excursion. They are particularly keen to learn about Wadawurrung culture, as is the Buninyong community keen to see it appropriately acknowledged.

Existing interpretation takes the form of plaques and information boards only.



Fig. 6 Cultural Heritage Map

1. Buninyong Botanic Gardens HV (#1826)
2. The Gong Reservoir HV (#1826)
3. Entry / Main Gates HV (B1)
4. Main path HV (S1)
5. Concrete posts and wire on Scott Street edge (Significant)
6. Queen Victoria Rotunda HV (B2)
7. Bowling Club old pavilion HV B4)
8. Baths walls HV (B6)
9. Baths pool (covered over) HV (B5)
10. Main Pool and Island HV (S2)
11. Upper Pool HV (S3)
12. Main Pool channel HV (S2)
13. Stone flume HV (S4)
14. Former Court House (Significant)
15. Cornish Street Reservoir and embankment (Significant)
16. Gong Lake HV (S6)
17. Acer species (registered trees under the heritage act 1995)
18. Commemorative trees
19. Gong path HV (S5)

This map shows those features listed as significant. For a complete list of heritage-listed features see 'Historic Artefacts in the Buninyong Botanic Gardens' 5.5.1 David Jones, *Buninyong Botanic Gardens Conservation Study and Masterplan 2004*.

For a full list of heritage and significant trees please refer to the 'Vegetation and Inventory of the Buninyong Botanic Gardens and the Gong Reservoir' David Jones, *Buninyong Botanic Gardens Conservation Study and Masterplan 2004*.



Photos, left to right: Memorial tree plaque; Interpretive signage denoting the history of the Pavilion; Heritage plaque at the Gardens' main gate.

Key Issues

- Opportunity exists for the acknowledgement of Wadawurrung Country and the integration of interpretation about the pre-colonial history of the site (in consultation with the Wadawurrung Traditional Owner Aboriginal Corporation);
- The quality and definition of existing plant collections are varying, plant labelling and comprehensive data bases are also inconsistent/incomplete;
- Existing interpretation and labelling is traditional and subject to exposure and deterioration. The Wadawurrung have expressed a preference for integrated, non-static interpretation and digital media, rather than visual clutter.

3.3 Waterways and Aquatic Health

Existing Conditions Summary

For an area that is historically damp, the water quality in the Gardens has been compromised by poor flow, residential development and agricultural activities in the catchment. Environmental weed species proliferate and the heritage-listed overflow channel 'The Flume' does not function correctly, nor is it maintained to do so. Constant seepage through the compromised wall means that overflow waters rather than reach 'The Flume', leak through to the base of the wall embankment causing a permanently soggy area.

Lack of water movement in the pond system renders the water stagnant. The waters of the ponds and the Gong, if properly maintained, offer greatly improved opportunities for amenity, for areas of indigenous, wetland habitat and so for attracting wildlife.

Key Issues

- Stagnating waters in both the Gong and pond systems;
- Inappropriate species for filtering of wetland waters;
- Disconnection of Flume;
- Opportunity to improve the termination of the creek system in the gardens that currently leads to a man made drain;
- Proliferation of environmental weed species along the waters edge and in the Gardens, including Willows and Poplars.



Fig. 7 Existing Water Conditions



Above from left: Main Pool Channel terminus; the heritage-listed Flume; Waters of the gardens ponds; The Gong Reservoir.

3.4 Trees, Vegetation and Collections

Existing Conditions Summary

The absence of a Tree and Vegetation Management Plan for the Gardens means that decisions over time have been reactive rather than responding to, and consistent with a coherent vision. Although the collections may have previously presented as intact, today the Gardens are comprised of a disparate grouping of specimens, largely conifers (*Pinus*, *Abies*, *Sequoiadendron* and *Cupressus* sp.), fairly commonplace exotic deciduous species (*Populus*, *Ulmus*, *Betula*) and dense, shaded areas of *Quercus canariensis*. As the original, coniferous and evergreen specimens have grown and resources for maintenance have lessened, these large plantings have shaded out understory beds and so, diminished the colour of the original Gardens. Still, the community describe Autumn colour in the Gardens' trees as one of the highlights of the year.

The impending loss of the *Arbutus* (Strawberry Tree) on the lower Gong wall embankment and *Salix* (Willow) on the upper embankment, in addition to the eventual removal of environmental weeds, senescent or unsafe trees, offers the opportunity to rethink plantings to bolster garden-wide strategies: providing spaces for the evolving uses of the Buninyong Community, future-proofing the Gardens' collections against Climate Change, the removal of environmental weed species which are responsible for long-term harm to the environment and strengthening collections and educative opportunities.

Key Issues

- Garden size is restrictive which limits capacity for the plant collections typical of Botanic Gardens, large tree species, while also providing the open spaces which are important to this community for amenity;

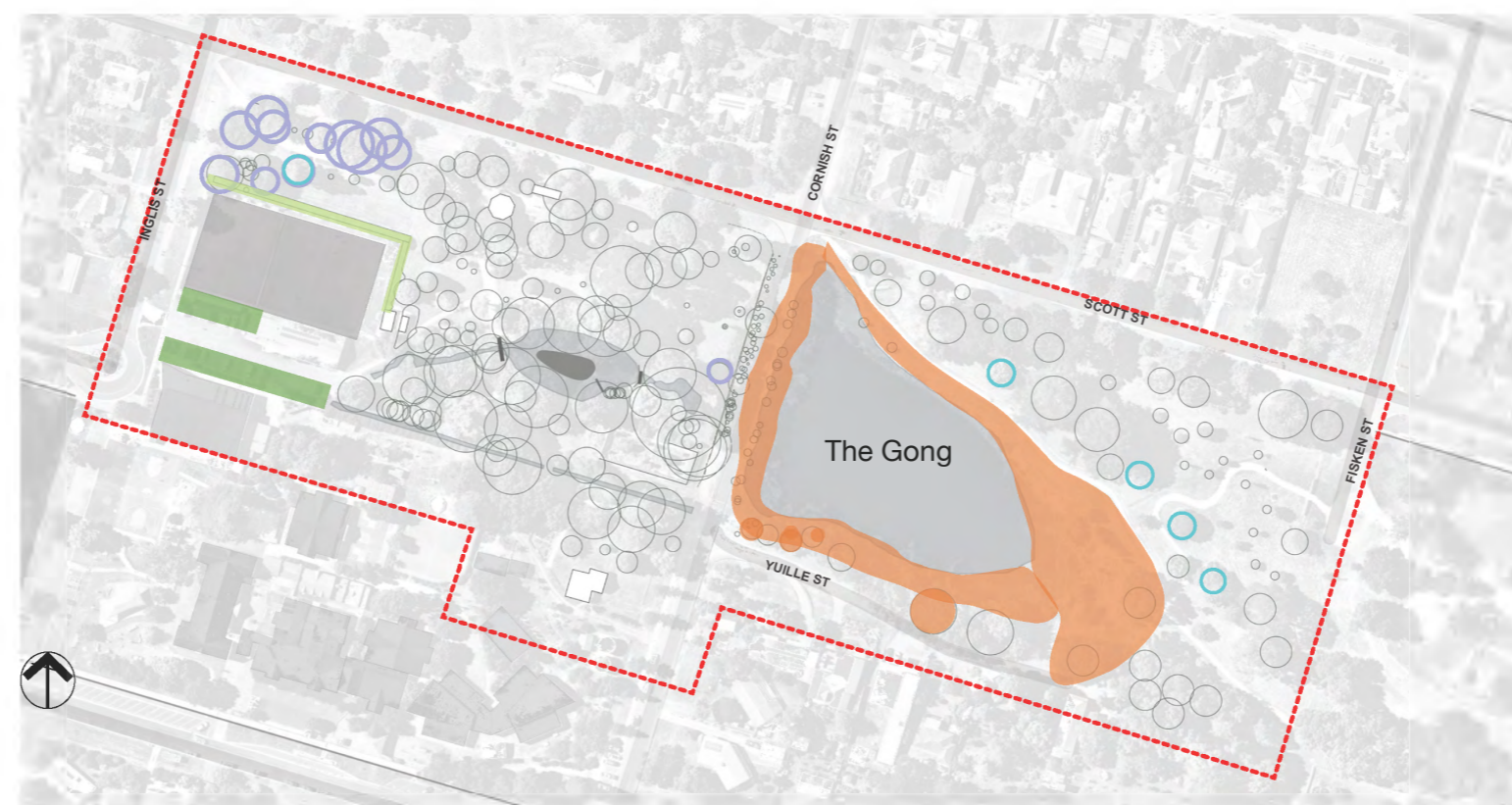
- Dominance by large, evergreen species and conifers which have shaded out extensive areas of understory, limiting opportunities for garden beds and shrub/annual/perennial collections as well as the contrast between open areas and more intimate/shaded/enclosed areas;
- Areas of environmental weed plantings or suckers;
- History of ad hoc plantings of commonplace species and/or cultivars, lessening somewhat the significance of the place for its collections;
- Poor definition of collections, particularly in the upper gardens;
- The original planting of the *Acer* collection in a location poorly-suited to the genus

and subsequent addition of commonplace cultivars to augment this collection;

- Loss of understory 'colour' described in early accounts of the Gardens in their heyday;
- Danger of losing open space and key views to garden features eg pond, embankment;
- Opportunities for tree planting to the surrounds of the Gardens, including to screen, shade and improve amenity within the car-park and street tree planting;
- Future planning for a tree management plan to guide the staged removal, replacement and renewal of trees throughout the gardens.



Clockwise from top: The *Acer* Collection; The Gardens/Bowling Club car park, bereft of trees and shade; self-sown Willows on the Gong bank, underplanted with indigenous grasses.



LEGEND

- Acer species (Registered trees under the *Heritage Act 1995*)
- Commemorative trees
- Zone dominated by environmental weed species
- Opportunity for hedge
- Opportunity for new tree plantings to screen and shade car park
- ▭ Site boundary

NOTE: This map shows all available existing digital tree data. A complete data base /tree inventory for the Gardens in digital format at time of writing, does not exist.

For a full list of heritage and significant trees please refer to the 'Vegetation and Inventory of the Buninyong Botanic Gardens and the Gong Reservoir' David Jones, Buninyong Botanic Gardens Conservation Study and Masterplan' 2004.

Fig. 8 Existing Vegetation Conditions

3.5 Amenity

Existing Conditions Summary

Existing furniture and facilities in the Gardens would benefit from upgrades to ensure universal accessibility. Alongside upgrades to pathways, an increase in stopping points along circuits would also be worthwhile. A variety of seat groupings has been requested to increase gathering options and use by various community groups and the school.

Access to both shade and more open areas exists, but more comfortable, lighter canopied areas would make a significant contribution to areas of comfort which are cross-seasonal.

As part of the engagement, requests have been received from the community for drinking fountains, to improve water quality and direct access to the waterside areas, as have specific requests for improvements to heritage structures for community use.

Key Issues

- Poor accessibility of some facilities eg. picnic tables;
- Furniture suite is inconsistent in type, age and condition;
- Unclear or inconsistent wayfinding signage;
- Provision of electricity for community events
- Lack of access and condition/safety of the Old Pool
- Outdated and/or inappropriate play equipment;
- Poor quality of water in pond systems and Gong;
- Opportunity to increase seating throughout as well as options for seating eg individual, group, formal, informal;
- Incomplete paths limit garden use for exercise;

- Lack of shelter over BBQ;
- Missing areas of shade/shelter in upper gardens, particularly at the high point where views can be enjoyed;
- Opportunity in heritage buildings - Police Station and the Butter Factory, remain mostly unused;
- Evolving use of the Gardens and planning to accommodate future use;
- Opportunity to repurpose garden beds in the location of the former Caretaker's Cottage as an outdoor classroom setting.



Fig. 9 Existing Buildings & Amenities



Photos above from left: Opportunity of the Heritage Precinct; BBQ facilities adjacent to the heritage-listed Pavilion; Outdated picnic tables, inaccessible for those with mobility issues; Traditional garden seating.

4 MASTERPLAN

4.1 Themes

The work included in this revised Masterplan report reflects the desires of the community and key stakeholders. Stakeholder engagement has revealed that all in all, wholesale changes to the Gardens are not desired but rather, that improvements to or the fine-tuning of what they already provide, is preferred. Themes from the consultation have therefore evolved as follows:

A Place for Connecting

First and foremost the Buninyong Botanic Gardens are a place for connecting. The important place held by the Gardens in the community's hearts is evident. Visitors retreat to the Gardens to connect to nature, to the seasons, to the past, to family and friends, for community events, for fun, learning, exercise and for respite. Looking forward, the Gardens will continue to provide for these pastimes as well as developing other opportunities to connect, particularly for the Buninyong Primary School, local residents and to the Wadawurrung community and their living cultural heritage.

A Place for Learning

The Living Collections Strategy recommends that a particular focus on education, ecology and biodiversity would make these gardens a unique complement to the City of Ballarat's

suite of gardens. The community are keen to learn more about their Gardens, the site and its heritage. Reframing the existing assets of the gardens from this perspective would render them an invaluable resource for the Primary School, the community and visitors alike.

Acknowledging our Cultural Heritage

The Gardens site is heritage-rich. Recommended future works will acknowledge this heritage through various interventions including consideration of key views, planting selection, signage, story-telling and interpretive trails, digital media, integrated nature play and land management techniques. Changes will be made in consultation with Heritage Victoria and the Wadawurrung Traditional Owners Aboriginal Corporation as appropriate, and will reference the recommendations of the 2004 Conservation Study and Masterplan.

Caring for our Natural Systems

Future plans and maintenance of the Gardens will be undertaken in a way that prioritises the health of natural systems on-site, particularly in consideration of rapidly changing climatic conditions. This includes improvements to aquatic, ephemeral and terrestrial areas, ensuring biodiversity, the selection of enduring botanical species and ethical maintenance techniques.

A Botanic Gardens for the Future

The Gardens are a precious combination of all of the above. Future-proofing the Gardens does not come at the cost of its heritage value. The essence of what makes the Gardens special is at the centre of all decision-making and innovative design thinking allows us to conserve and nurture without compromise, while evolving where necessary.



4.2 Strategies

Following are a series of strategies offering specific direction for the future development of the Gardens, in keeping with the aforementioned, overarching themes.

4.2.1 Community, Programming + Amenity

The Gardens continue to fill several roles in community life which have remained the same since their inception: those of access to nature, of providing a place for individual respite, exercise and for social gathering/ community events.

Under the umbrella of this strategy, facilitating these requirements from the Gardens has been achieved by:

- Paying heed to the natural topography of the Gardens and to the base of natural amphitheatres/focal points. These spaces can be used for performance and as outdoor teaching spaces;
- Augmenting the existing garden layout to provide a variety of contrasting spatial and natural experiences at different scales. This is achieved through the installation of secondary and tertiary paths and ornamental garden beds which provide the colour and scent in descriptions of the original gardens as well as breaking up of some of the larger expanses of lawn to create more intimate spaces (Refer Fig. 11). Upgrades to the Gong/upper gardens and the addition of wetland boardwalks will also add to the experiences on offer; Ensuring that a central band of open lawn with deciduous plantings and/ or ornamental gardens beds provides ample space for relaxing and picnicking in the gardens. This is as distinct from the Southern section of the Gardens which is dominated by large, evergreen canopies;



Fig. 10 Key Views and Focal Points

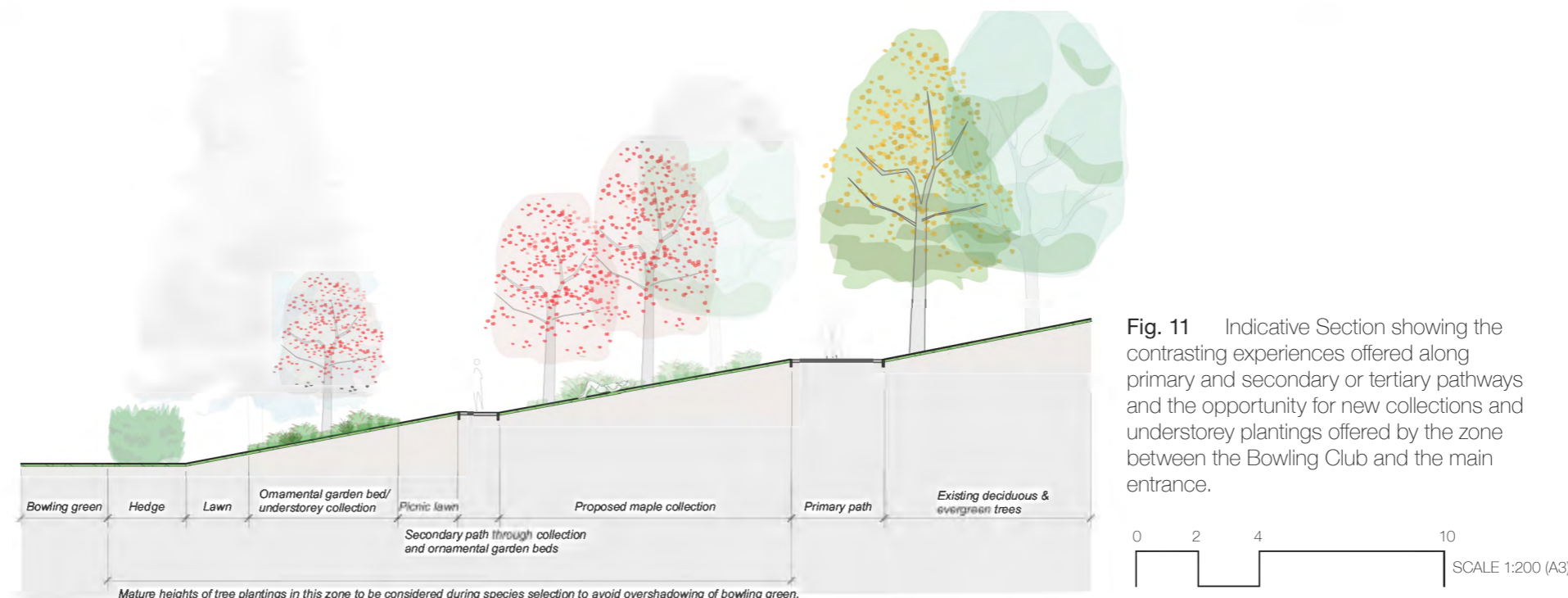


Fig. 11 Indicative Section showing the contrasting experiences offered along primary and secondary or tertiary pathways and the opportunity for new collections and understorey plantings offered by the zone between the Bowling Club and the main entrance.



Fig. 12 Programming and Amenity

- Earmarking spaces for formal and informal performance, teaching and ceremonial gathering (seating up to at least 25), for future development in conjunction with relevant stakeholders;
- Providing continuous and accessible pathways as well as circuit paths for walking and running (See Access, Circulation and Connections);
- Providing a consistent and quality suite of seating, tables, water fountains etc. water

- Providing clear, informative and integrated signage for interpretation, wayfinding and connection;
- Considering consistent and continuous surfaces to ensure accessibility to furniture and other amenities in the Gardens;
- Recommending upgrades to heritage structures: the Flume, Old Pool, the interface between the Rotunda and the

fountains to include dog bowls;
 BBQ area, the Butter Factory and the former site of the Caretaker's Cottage to extend programming possibilities for the Community and stakeholders.

4.2.2 Cultural Heritage

Stakeholder interest in the Gardens acknowledging Post-Colonial cultural heritage as well as continuing Wadawurrung culture, is high.

The Wadawurrung Traditional Owner Aboriginal Corporation has indicated a preference that cultural interpretation express one, robust design narrative, in this case, the site-specific story of Bonan Youang (Buninyong), the warrior volcano, who over the course of his battle with Derrinalum formed the unique Wadawurrung Country. The story ‘flows throughout the site, Gardens and beyond’ thus ways of articulating the story and acknowledging ownership which are integrated and/or living, are preferred to static interventions.

The Wadawurrung Traditional Owner Aboriginal Corporation is a fledgling corporation at the time of writing, however keen to be involved in future projects on-site as they evolve as an organisation and resources increase.

The following recommendations have come out of consultation with the Wadawurrung:

- Consider the installation of a ceremonial/ gathering space in the location as shown to remind visitors of the significance of the axis between Bonan Young (Buninyong) and Derrinalum (Mt Elephant). This gathering space, although designed to meet Wadawurrung cultural requirements could double as an events space and outdoor classroom;
- Engage with the Wadawurrung to develop plant lists for the indigenous collection which include recommendations for species for crafting and Bush Tucker;

- Design/develop materials palette/ integrated interpretation and/or nature play elements for an interpretive trail within the Upper Gardens which includes the Bonan Youang/Derrinalum story;
- Develop signage to acknowledge Country to be located as indicated at the entrance/ within the Gardens;
- Design dual-language English/ Wadawurrung plant tags for the Upper Gardens;
- Consider future collaboration with Council for traditional lands and waterway management in the Gardens.

Retaining the visual amenity and character of the Gardens to be sympathetic to the Victorian Period (1870s - 1890s) will be achieved by:

- Developing an integrated and consistent (Garden-wide) Signage and Interpretation Strategy;
- Reinstating the Flume as a high-flow space as part of the Gong wall works, so that it functions when necessary during large rain events, to avoid overflow;
- Retaining/opening up key views, indicated in Figure 10 and significant views/ sightlines (as outlined in the *Conservation Study 2004*);
- Retaining and enhancing elements of the Gardens which reinforce their importance in community life as a place of leisure, education and gathering;
- Replacing like for like, as original tree plantings reach senescence while ensuring key views remain clear;
- environmental weed and non-drought-tolerant species are replaced with similar but sustainable specimens;

- Retaining memorial and heritage/ significant plantings or consulting to relocate/substitute as appropriate;
- Repairing the old swimming pool walls and structure and reinterpreting it as usable space, especially for events;
- Ensuring materials and construction techniques for new structures/ infrastructure are complementary to the existing character of the place.



Fig. 13 Wadawurrung ceremony in Wurdi Youang (You Yangs) (Image: ABC)



Fig. 14 The Gardens' entry gates are of high significance for their craftsmanship

4.2.3 Education and Interpretation

The City of Ballarat's Living Collections Strategy has determined that the Gardens are strongly positioned to deliver upon a theme of 'Education' owing to their history, their collections and their proximity to the Buninyong Primary School.

The traditional ownership of the Wadawurrung and their interest in this site and project, the heritage significance of the Gardens and the huge value of curated natural settings as 'live' teaching spaces, renders the Gardens an important educative resource.

This approach has been endorsed by the community and stakeholders, in particular the Wadawurrung Traditional Owner Aboriginal Corporation and representatives of the Buninyong Primary School and Council. As a result, opportunities have been sought to use existing and proposed planting collections, specimens and other aspects of the Gardens as active and passive teaching/learning tools with a particular focus on the following themes:

- Indigenous plantings of cultural significance;
- Natural systems, biodiversity, wildlife and habitat;
- Memorialisation through plantings;
- Colonial history;
- Science and evolution; and
- Climate Change.

Going forward, interpretation relating to traditional stories and culture, in particular the story of Bonang Youang and/or other associated Language projects will be developed in partnership with Wadawurrung Traditional Owners as a living process.

Post European settlement history and heritage values will also be acknowledged appropriately and in consultation with Heritage Victoria.



Fig. 15 Education and Interpretive Opportunities Map

- 1 Consistent approach to interpretation and signage (where necessary) throughout the Gardens begins here. It is appropriate to denote heritage significance and cultural significance at the main gate;
- 2 Memorial Trail: Existing memorial avenue could be augmented by further information eg. veteran details/stories, historical information about the impacts of significant world events on the locality;
- 3 Opportunity to link and bring together information about the heritage structures in this area.
- 4 Interpretive/Educative opportunities around the natural and constructed water systems in the Gardens ie. Gong Reservoir, springs, Flume and ponds;
- 5 Consider opportunities to 'reverse integrate' the Buninyong Primary School with the Gardens, with particular focus on the interface between the two and the educative resources requested of the school;
- 6 The Historic/Legal precinct is a rich source of post-colonial educative information for sharing, as well as information about architecture, design and plantings design should the grounds of this precinct be formalised through plantings of the era;
- 7 The upper gardens present an opportunity to sensitively acknowledge Country. Interpretive elements, patterns, stories and other references can be embedded into built form. The boardwalk and areas of rich habitat offer the opportunity to install nesting boxes and bird hides to nurture and observe wetland environments and their fauna. Many wetland species are utilised in traditional cultural practices;
- 8 The Wadawurrung Traditional Owner Aboriginal Corporation has offered to provide Wadawurrung names for the labelling of the upper gardens vegetation. Using this endangered language embodies the opportunity to educate about many things as well as to acknowledge Country;
- 9 Indigenous gardens beds and a new Wadawurrung ceremonial space provide an area for teaching culture, and for teaching more generally.

4.2.4 Access, Circulation and Connections

The existing, historical layout of the pathways is improved by:

- Filling in missing connections on primary paths;
- Ensuring connections are made to destinations within and beyond the Gardens on continuous, safe and accessible pathways;
- Installing secondary and tertiary paths for more detailed exploration of the Gardens and their collections. These also provide a broader offering of spatial experiences (Ref: P15 Fig.11 Indicative Section);
- Addressing DDA compliance across the Gardens as a priority;
- Providing an improved natural experience and closer access to the Gong waters through the installation of a boardwalk. Curvilinear form is preferred by the Wadawurrung;
- Enhancing entry experiences from the main, secondary and car park entrances;
- Addressing access, grading and visibility issues across Cornish Street. Consider changes in the road surface to prioritise pedestrian crossing;
- Improving access to island and connection beyond.



Fig. 16 Improved Paths and Connections



Fig. 17 Visitor Experience Circuits and Exercise Trails

4.2.5 Healthy Ecosystems, Habitat and Water

Flourishing habitat and biodiversity provide benefits for fauna and humans alike and actively nurturing Country embodies the ancient wisdom of the Wadawurrung.

Achieving biodiversity in the Gardens is key to their longevity and preserving their integrity. The Gong works will, by default, precipitate the removal of environmental weed species (largely Willow /*Salix* sp.) which have proliferated on the upper embankment and at the water's edge, particularly on the southern bank of the Gong. Regeneration of the area with indigenous species that provide the ideal habitat for native birds and other animal species would greatly benefit this environment.

Conserving, improving and protecting habitat and plantings for aquatic life around the Gong has been prioritised highly by the community, including the Wadawurrung.

- It is recommended that a Tree and Vegetation Management Strategy for the Gardens is produced to ensure the conservation of the heritage character of the Gardens as well as to support the stakeholder vision for the Gardens into the future.
- Staged removal of environmental weed species is necessary to secure improved water quality and a healthy wetland environment;
- Revegetation of this area will require aquatic, ephemeral and terrestrial plantings which filter the water improving its quality. Improvements to water quality has knock-on benefits for adjacent water bodies and natural systems. Considered design of this area will be beneficial;
- Indigenous wetland species are quick to establish and noticeable improvements to habitat and the waterside environs will be evident within five years of planting;

- Undertaking revegetation works in consultation with the Wadawurrung.
- Reengineering of the Gong Wall offers the opportunity to also address and improve the issues around
- Seepage at the base of the embankment wall in the Lower Gardens;
 - Poor flow through the Ponds system; and
 - The functioning of the heritage Flume.

The Flume is a high water level bypass functioning as a drain during large rain events to avoid overflow. The designed seepage from the Gong wall is normal as it is an earthen wall. The new sub-surface drainage system will be designed and integrated with the wall construction. Collected seepage water will be discharged to the ponds, improving circulation and water quality. The ponds will by virtue of the new sub-surface drainage system, benefit from the water filtration, additional supply and constant flow.

The Lower Ponds would benefit from some attention at the pond terminus, particularly as this is also the entrance to the Gardens from the car park. Enlarging and better integration of the drain would greatly improve its appearance.



Fig. 18 Proposed Water Bodies Map

4.2.6 Trees, Vegetation and Collections

As mentioned previously, the City of Ballarat’s Living Collections Strategy has determined a planting strategy for the BBG which is complementary to that of the City’s existing collections, on a theme of ‘Education’.

Some of the benefits of implementing this planting strategy have been outlined in the ‘Signage and Interpretation’ as well as the Community, Programming and Amenity strategies.

New plantings on the Gong Embankment will be used to strengthen the Trees Vegetation and Collections strategy and design intent.

In addition, this Masterplan strategy recommends:

- The Upper Gardens be developed to contain an indigenous planting collection. This collection will focus particularly on species appropriate to the site conditions including wetland species for rehabilitation of aquatic systems and for cultural use, Bush Tucker plants of the Wadawurrung and other plants relevant to sharing of knowledge and storytelling;
- Removal of all environmental weeds;

- Plantings that are enduring and non-threatening to natural systems within or beyond the Gardens;
- Plantings are suited to and conducive to the programming requirements of the Gardens;
- Plantings are compatible with the conditions of the location and appropriate in the context of changing climatic conditions to ensure the character of the Gardens remains intact;
- New and replacement plantings whose characteristics (scale, form, habit,

- evergreen/deciduous, flowering etc) must be considered alongside the other strategies within this document for achieving the long-term vision for the place eg. retention of open views, screening, provision of native habitat etc. as well as retaining heritage character;
- The commissioning of a Tree and Vegetation Management Strategy for the Gardens that aligns with the above recommendations and takes into account the Useful Life Expectancy of existing specimens, securing the future of the Gardens’ trees.



LEGEND

- Ornamental perennial/shrub collections
- Seasonal bulb entry display
- Viburnum collection
- Conifer/succulent collection
- Indigenous shrub/perennial display beds
- Deciduous & flowering tree collection
- Indigenous, ephemeral-aquatic-wetland species collection
- Coniferous/deciduous tree boundary plantings
- Wet exotic understory species/evolution collection
- Deciduous and evergreen tree specimens
- Historic precinct
- Indigenous collection
- Re-established Acer collection

- 1 Consider blending vegetation across the Buninyong Botanic Gardens and Primary School Boundary to create better integration;
- 2 Consider implementing a planting style and species typical of this type of precinct. Carrying these across the boundary will go some way to assisting with reading of the precinct as a whole;
- 3 Existing Gong-side plantings already extend beyond the Gardens’ boundary into this area. Plans for the foreseeable future are to continue to manage this road reserve as part of the Gardens.



Fig. 19 Proposed Vegetation/Collection Map

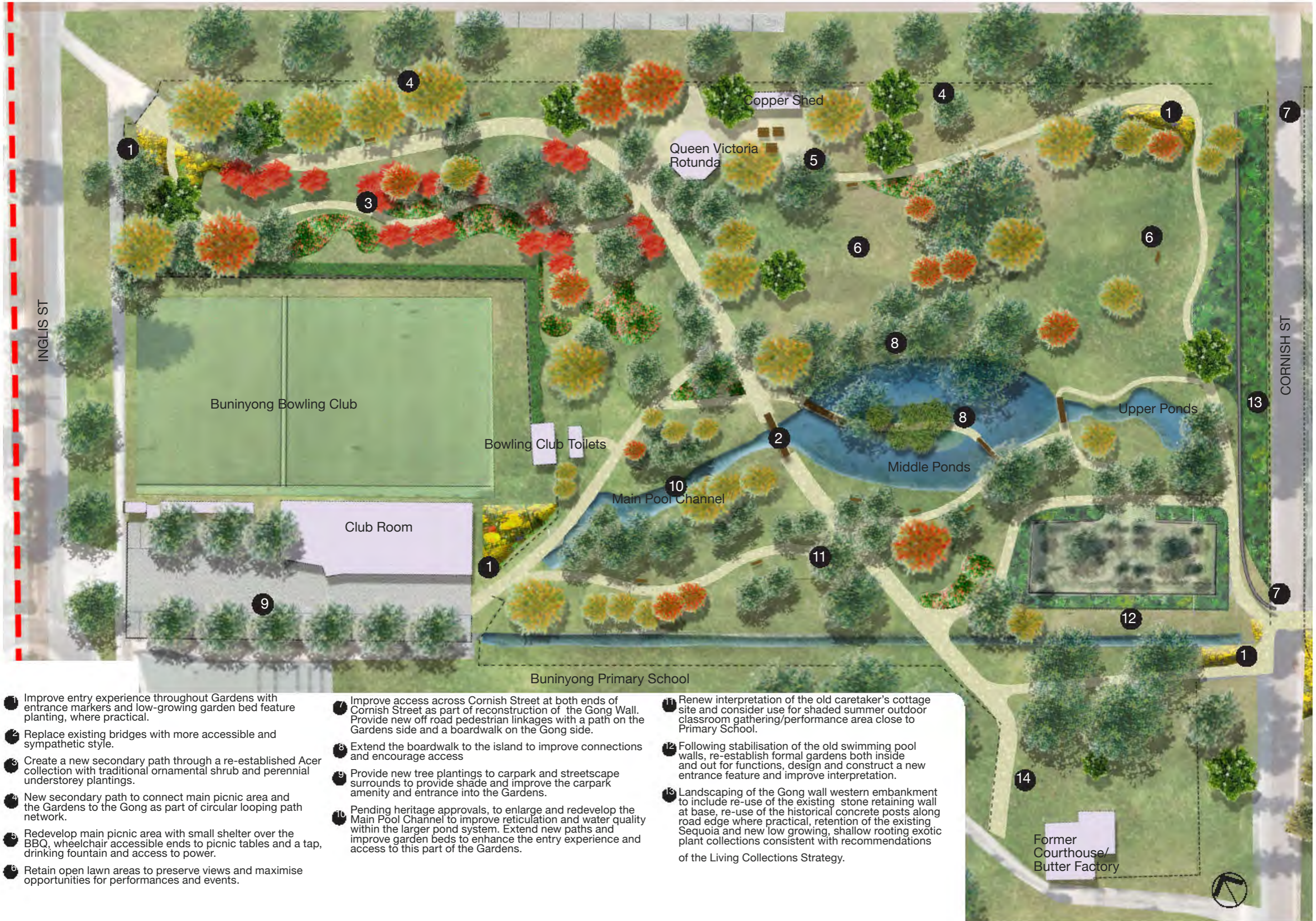
4.3 Masterplan



Fig. 20 Buninyong Botanic Gardens Masterplan 2022

Legend

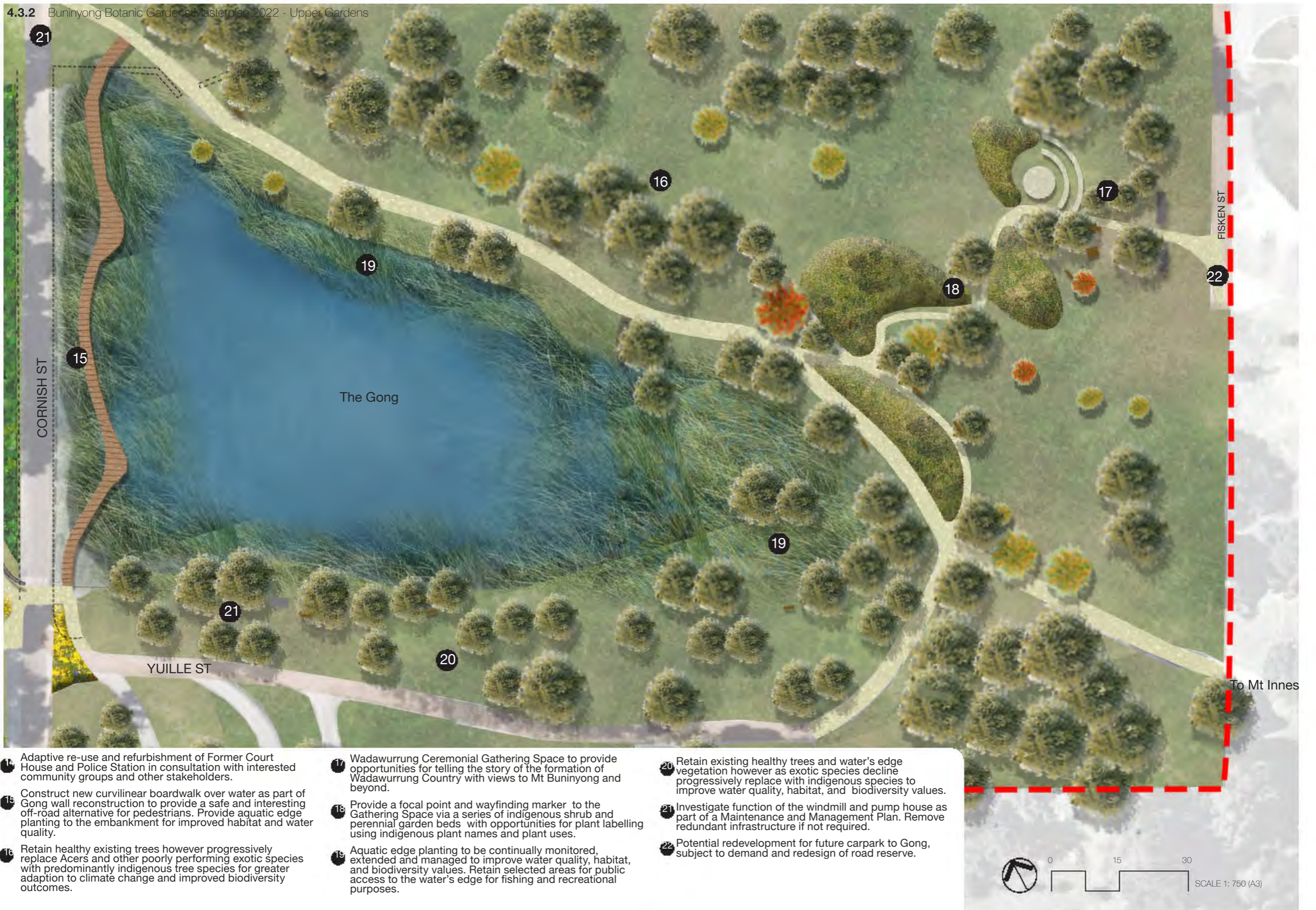
	Indigenous/Native Trees		Conifer		Bridge		Open lawn		Ceremonial Gathering Space
	Deciduous Trees		Ornamental garden bed		Path		Water		Existing buildings
	Evergreen Trees		Indigenous garden bed		Boardwalk		Wetland		Seat
	Maple		Conifer collection		Fence				



- 1 Improve entry experience throughout Gardens with entrance markers and low-growing garden bed feature planting, where practical.
- 2 Replace existing bridges with more accessible and sympathetic style.
- 3 Create a new secondary path through a re-established Acer collection with traditional ornamental shrub and perennial understorey plantings.
- 4 New secondary path to connect main picnic area and the Gardens to the Gong as part of circular looping path network.
- 5 Redevelop main picnic area with small shelter over the BBQ, wheelchair accessible ends to picnic tables and a tap, drinking fountain and access to power.
- 6 Retain open lawn areas to preserve views and maximise opportunities for performances and events.

- 7 Improve access across Cornish Street at both ends of Cornish Street as part of reconstruction of the Gong Wall. Provide new off road pedestrian linkages with a path on the Gardens side and a boardwalk on the Gong side.
- 8 Extend the boardwalk to the island to improve connections and encourage access
- 9 Provide new tree plantings to carpark and streetscape surrounds to provide shade and improve the carpark amenity and entrance into the Gardens.
- 10 Pending heritage approvals, to enlarge and redevelop the Main Pool Channel to improve reticulation and water quality within the larger pond system. Extend new paths and improve garden beds to enhance the entry experience and access to this part of the Gardens.

- 11 Renew interpretation of the old caretaker's cottage site and consider use for shaded summer outdoor classroom gathering/performance area close to Primary School.
- 12 Following stabilisation of the old swimming pool walls, re-establish formal gardens both inside and out for functions, design and construct a new entrance feature and improve interpretation.
- 13 Landscaping of the Gong wall western embankment to include re-use of the existing stone retaining wall at base, re-use of the historical concrete posts along road edge where practical, retention of the existing Sequoia and new low growing, shallow rooting exotic plant collections consistent with recommendations of the Living Collections Strategy.



- 14 Adaptive re-use and refurbishment of Former Court House and Police Station in consultation with interested community groups and other stakeholders.
- 15 Construct new curvilinear boardwalk over water as part of Gong wall reconstruction to provide a safe and interesting off-road alternative for pedestrians. Provide aquatic edge planting to the embankment for improved habitat and water quality.
- 16 Retain healthy existing trees however progressively replace Acers and other poorly performing exotic species with predominantly indigenous tree species for greater adaption to climate change and improved biodiversity outcomes.

- 17 Wadawurrung Ceremonial Gathering Space to provide opportunities for telling the story of the formation of Wadawurrung Country with views to Mt Buninyong and beyond.
- 18 Provide a focal point and wayfinding marker to the Gathering Space via a series of indigenous shrub and perennial garden beds with opportunities for plant labelling using indigenous plant names and plant uses.
- 19 Aquatic edge planting to be continually monitored, extended and managed to improve water quality, habitat, and biodiversity values. Retain selected areas for public access to the water's edge for fishing and recreational purposes.

- 20 Retain existing healthy trees and water's edge vegetation however as exotic species decline progressively replace with indigenous species to improve water quality, habitat, and biodiversity values.
- 21 Investigate function of the windmill and pump house as part of a Maintenance and Management Plan. Remove redundant infrastructure if not required.
- 22 Potential redevelopment for future carpark to Gong, subject to demand and redesign of road reserve.

Fig. 21 Buninyong Botanic Gardens Masterplan 2022