

GARDINERS CREEK (KOOYONGKOOT) MASTER PLAN

2022–2032

 **BOROONDARA**
City of Harmony

ACKNOWLEDGEMENT OF TRADITIONAL OWNERS

The City of Boroondara acknowledges the Wurundjeri Woi-wurrung people as the Traditional Owners and original custodians of this land, and we pay our respects to their Elders past and present.



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| | | |

2. Introduction

What is a master plan?

A master plan is a dynamic long-term strategic document that provides a conceptual layout to guide future planning, vision and development of place. This document provides confidence to the community about what change is expected in an area, and can respond to matters including but not limited to biodiversity and sustainability, Traditional Owner engagement, land use and development, heritage, character and open space.

This document is based on public input, surveys, planning initiatives, existing development, physical characteristics and constraints, and social and economic conditions.

Where is it happening?

The Gardiners Creek (Kooyongkoot) Master Plan focuses on the green corridor surrounding Gardiners Creek and its catchment including the Back Creek catchment, spanning the suburbs of Hawthorn, Hawthorn East, Glen Iris, Ashburton, Camberwell and Canterbury.

Gardiners Creek is significant as it forms part of the City of Boroondara's southern boundary and is on the traditional land of the Wurundjeri Woi-wurrung people. It's also where John Gardiner became the first white settler and settled near the junction of the Yarra River and what was then known as Kooyongkoot Creek. The creek was later renamed after him.

The site is an urban green corridor which functions as a multifaceted urban environment, providing the local community with large areas of active and passive open space, varying ecologies and landscape characters, and important connections through the City of Boroondara, and to adjacent suburbs.

Why is this master plan happening?

The City of Boroondara has prioritised the development of this master plan as it is timely for Council to do this due to the emerging collaborative opportunities and recent activity by local and state government.¹

Increased intensity of urban development and construction of associated hard surfaces along the entirety of the catchment has drastically increased the rate of stormwater runoff (which travels through the stormwater system very rapidly). As such, the Gardiners Creek, catchment and sub-catchments are highly susceptible to flooding with heavy rainfall, with water flow in the river being enormously variable.

Gardiners Creek is one of the highest contributing sources of contaminants, such as metals (copper, lead and zinc), entering the Yarra River System. Urbanisation along the Gardiners Creek catchment through stormwater drainage has increased the concentration of pollutants¹.

Under high flow conditions, water is rapidly exchanged and oxygen levels remain high throughout the water column. Under prolonged conditions of low flow, bottom waters do not get regularly replenished with oxygenated water and anoxic (low oxygen) conditions can prevail. This can have an effect on the level of toxicants within the waterbody, which can have an adverse affect on the marine life².

Gardiners Creek is under increasing pressure from climate change and increasing demand on open space from residents and visitors. The City of Boroondara is ensuring it continues to be attractive, vibrant and accessible to all members of the community, while also caring for and better managing the environment well into the future.

Key principles for the catchment

The overarching principle behind this master plan is to create a more sustainable, cleaner and safer Gardiners Creek catchment within the City of Boroondara, by:

1. *Improving creek health by enhancing and celebrating a rich and biodiverse catchment*
2. *Improving Water Sensitive Urban Design (WSUD) opportunities to the Gardiners Creek catchment*

3. *Establishing opportunities for improving water quality and reducing pollutants*
4. *Identifying and better managing high litter generating areas that are impacting the catchment*
5. *Recognition and celebration of Aboriginal histories, cultures and knowledges*
6. *Improving access and safety for all users including creating a connected corridor that enables everyone to move safely at their own pace*
7. *Improving signage and way-finding for all users.*

Our commitment to the catchment

Over the past decade Council has committed to improving the Gardiners Creek catchment through a variety of different initiatives. We have upgraded the Gardiners Creek Trail by providing a wider path network to 3m wide. We have provided a continuous network of lighting associated with the Gardiners Creek Trail. As of 2021, all path and lighting upgrades have been installed to the complete length of Gardiners Creek Trail (within the municipality of Boroondara).

We have committed to an annual program of revegetation for biodiversity sites as per our Urban Biodiversity Strategy and the recommendations listed under our Biodiversity Asset Management Plan.

Our ongoing commitment to advocacy

City of Boroondara and the City of Stonnington share the 'tail-end' of Gardiners Creek which terminates at the Yarra River confluence (with approximately 10km out of 30km within the two council areas).

Given that the quality is significantly impacted by contaminants entering at various points along the catchment, we have and will continue to advocate for improvements to issues beyond our reach, including objecting to up-stream activities that affect the quality of the catchment. We will continue to advocate and work collaboratively with other levels of government, relevant agencies and key stakeholders to improve the health of the catchment.

¹Refer Commitments by Others (page 7) for collaborative opportunities and recent activity associated with the Gardiners Creek catchment.

²EPA Victoria, 2013. *The origin, fate and dispersion Scientific Report of toxicants in the lower sections of the Yarra River.*

3. Our Commitment

Our endorsed strategies and action plans (relevant to this master plan)

A number of endorsed strategies and action plans are active and relevant to this project, refer below.

Extracts of relevant actions from these strategies are identified on the following pages (which have supported the development of this master plan).



**Boroondara Community Plan
(2021 – 2031)**



**Climate Action Plan
(2021)**



**Integrated Water Management
Strategy (2014 – 2024)**



**Boroondara Open Space Strategy
(2013)**



**Boroondara Reconciliation Strategy
(2022 – 2026)**



**Boroondara Bicycle Strategy
(2022)**



**Urban Biodiversity Strategy
(2013 – 2023)**



**Gardiners Creek (Kooyongkoot)
Master Plan (2022 – 2032)**



Our commitment to the community

The Boroondara Community Plan 2021–31 (BCP) sets out the 10-year vision for the City of Boroondara based on the aspirations of our community and the priorities they told us were important.

The BCP balances the needs of our community today, while recognising the challenges, opportunities and changes to come over the next decade. Developed through a deliberative engagement process with our community, the plan builds on what already makes Boroondara a great place to live, work, study and recreate. It paints a picture of what the community values most in the City of Boroondara and demonstrates practically how Council will bring our community's vision to life, for the benefit of all its members.

The Gardiners Creek (Kooyongkoot) Master Plan specifically relates to the following four key themes of the BCP and the strategies listed below:

Theme 2: Parks and Green Spaces

- 2.1 Our sustainable urban forest is preserved and increased through managing and renewing our open space trees and understorey growth
- 2.4 Green spaces are maintained and increased through management practices and investigating opportunities to acquire or modify existing land.

Theme 3: The Environment

- 3.6 Our biodiversity is conserved and maintained through improving the way we manage our diverse plants, animals and natural spaces

Theme 5: Moving Around

- 5.3 Shared paths and footpaths are fit-for-purpose through continued improvements to surface condition and lighting.
- 5.4 Off-road bike paths and on-road cycling lanes are interconnected and safe through expanding access and infrastructure for cyclists
- 5.6 Emerging transport options including e-mobility are planned for by exploring initiatives that increase safety and public confidence in e-mobility use and infrastructure.

Theme 7: Leadership and Governance

- 7.8 Celebrate and recognise Aboriginal and Torres Strait Islander cultures, knowledge and heritage through implementing initiatives in partnership with our community and stakeholders.

Our commitment to climate action

We have developed Boroondara's Climate Action Plan to deliver what is important to our community and in recognition of the real and increasing threat to our environment, to our health and wellbeing, and to the quality of the lives of current and future generations as the result of our changing climate.

A successful response to climate change requires a holistic approach, new ways of thinking and shifts in how we live, work and play. It requires action by individuals, businesses and all levels of government. This Plan outlines how Council will respond to this challenge and how we will work with our community and other levels of government to do the same.

The Climate Action Plan includes a range of commitments that are relevant to the Gardiners Creek Catchment with some of the most relevant including:

1. Develop a Litter and Pollution Reduction Plan for Boroondara within financial year 22/23
2. Develop a prioritised plan to implement new IWM projects (stormwater treatment, harvesting and reuse, litter management)
3. Increase area managed for biodiversity by 10 hectares from the current 51 hectares
4. Enhance habitat for biodiversity
5. Deliver a program of habitat restoration and the installation of nest boxes.

Integrated Water Management Strategy

2014–2024



Our commitment to water management

The aim of this Integrated Water Management Strategy (IWMS) is to set the strategic direction and implementation approach for improving water cycle management across the municipality.

The strategy draws on contemporary theory and practice in integrated water management, and contributes to the shared ambition for greater Melbourne to become a 'water sensitive city' over time. It considers Boroondara's unique urban context together with the risks posed by climate change, and focuses on the role Council can play in effectively managing water resources for the ongoing liveability, amenity and resilience of our built and natural environments.

The Strategy's vision is for "...a healthy, green and resilient city... where a diversity of water sources is available so that the right quality of water is available when and where it is required... contributing to healthier waterways and open spaces for greater community well-being."

A set of six guiding principles have also informed the IWMS's broader objectives and key strategies, being:

- Valuing water
- Leadership by Council within the community
- Balance competing objectives and pursue multiple benefits
- Partnership approach
- Action prioritised by impact
- Consider the impacts of climate change.



Our commitment to open space

The Boroondara Open Space Strategy (BOSS) provides the strategic direction for the future planning, provision, design and management of open space in Boroondara through to 2026. Providing a robust, quality open space system for the existing and forecast future population that is easily accessible has carefully been assessed as part of the strategy.

Open space along the Yarra River and Gardiners Creek is classified as 'regional' scale and these spaces should cater for the broader regional population and/or protection and enhancement of biodiversity values in a regional context.

The Boroondara Open Space Strategy includes a range of comments that are relevant to the Gardiners Creek Catchment with some of the most relevant including:

1. *Upgrading and providing additional informal recreation facilities, improving access through the open spaces and improving environmental values along the linear reserves and waterway corridor*
2. *Some gaps in continuity of open space are identified along Gardiners Creek, which are difficult to overcome due to the patterns of urban development*
3. *Continue to maintain and improve environmental values adjoining Gardiners Creek*
4. *A number of concept master plans and conservation management plans are suggested to public open space reserves adjacent to Gardiners Creek. Further review and preparation of detailed site specific master plans to these parks are to be considered further.*

Boroondara Reconciliation Strategy 2022–2026

March 2022

Our commitment to reconciliation

Reconciliation is an ongoing journey, which aims to bring together and strengthen relationships built on trust and respect between Aboriginal and Torres Strait Islander peoples and the wider Australian community. This Strategy acknowledges that to progress reconciliation, we need to work in collaboration with the Traditional Owners, the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation and local Aboriginal and Torres Strait Islander organisations. It also recognises the diversity of Aboriginal and Torres Strait Islander peoples and the distinct communities, cultures, histories and experiences present within Boroondara today and the importance of working in partnership with all Aboriginal and Torres Strait Islander peoples and the broader community to progress reconciliation locally.

The Boroondara Reconciliation Strategy 2022-26 was officially adopted by Council on 28 March 2022 – a significant milestone in our journey to progressing reconciliation here in Boroondara. The Strategy communicates our collective vision for reconciliation, which is 'to create a welcoming community where the histories, cultures, knowledges, achievements and aspirations of Aboriginal and Torres Strait Islander peoples are acknowledged, respected, considered and celebrated'.

It outlines a clear, four-year roadmap for implementing reconciliation initiatives and contains a number of actions that will be undertaken.

It is important to note the City of Boroondara is at the beginning of its formal reconciliation journey and it may take a number of years for Council to undertake the foundational work required before it can progress some initiatives.

Boroondara Bicycle Strategy

2022

Our commitment to the Gardiners Creek Trail

About the strategy

The Boroondara Bicycle Strategy sets a framework to advance bicycle infrastructure and mode share in the City of Boroondara over the next 10 years. The purpose of the Strategy is to:

1. *Provide direction and set a vision for the aspirational bicycle network*
2. *Inform future investment in bicycle infrastructure across the municipality*
3. *Guide a staged implementation of actions to align with priorities.*

The 2022 Boroondara Bicycle Strategy will deliver an integrated bicycle network that is safe, connected, protected, efficient and appealing to users of all ages and abilities. The bicycle network will include off-road paths and on-road links providing access to a range of destinations and making bicycle riding a feasible and attractive option for all residents, workers and visitors.

Bicycle count surveys indicate that Gardiners Creek Trail, crossing the municipality in the south, is the most popular bicycle route in the City of Boroondara, with the top three counts recorded along this trail. The highest count was recorded near the Monash Freeway underpass in Hawthorn, with 798 bicycle riders counted within a two-hour morning peak period in 2021.

Shared path upgrades and path separation opportunities

Separate paths for pedestrians and bicycle riders should be provided on high volume routes such as the Gardiners Creek Trail, Main Yarra Trail, Koonung Trail and Anniversary / Outer Circle Trail. Opportunities should be investigated into progressively separating all these high volume routes into the future to accommodate growing demand.

Other shared path upgrades to be investigated and considered include:

- *Widening shared paths to a minimum width of three metres (where path separation is not feasible or identified as a longer-term objective)*
- *Lighting, where appropriate*
- *Surface treatments*
- *Drainage improvements*
- *Kerb ramps*
- *Installation of user amenities such as water fountains and seating.*

Informal shared paths provide access to local facilities and are typically unsealed gravel. The emphasis for these types of paths is maintenance and renewal, where required. Many informal paths vary in width between one metre and four metres (or higher), however, recreational paths should be a consistent three metres wide.

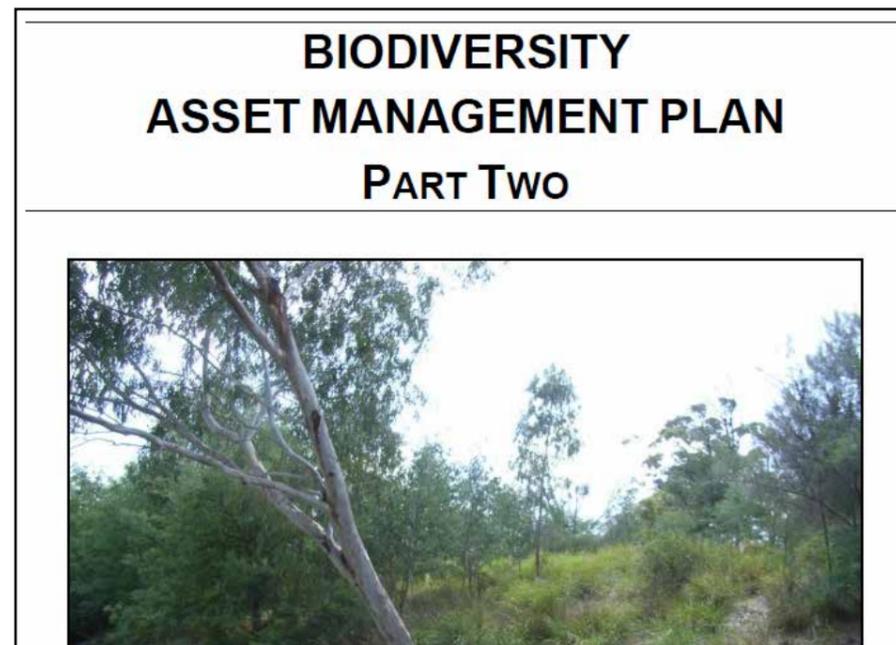
Emerging Technologies: e-bikes and e-scooters

The City of Boroondara promotes the safe and inclusive use of its trails, shared paths and open space for all members of the community subject to Council's Amenity Local Law 2019–2029 which specifies that a person must not endanger or be likely to endanger a person's health, life, property or an animal while on council-managed land. This means that riding a bicycle, an e-bicycle or e-scooter is currently permitted on shared paths if it is compliant with the Road Safety Road Rules, operated at low speeds and under full control of the user.

For formal shared paths such as the Gardiners Creek Trail, Main Yarra Trail, Anniversary Trail and Koonung Trail, cyclists are also required to comply with the Road Safety Road Rules, specifically rules 251 and 253 whereby the rider of a bicycle riding on a footpath, separated path or shared path must give way to pedestrians, keep to the left and must not cause a hazard by moving into the path of a pedestrian. To reinforce the regulations, statutory shared use path pavement markings and signage beside the path are in place to highlight the shared use of the paths in addition to other key behavioural messages.

Enforcement of all moving violations is the responsibility of Victoria Police.

Refer the Boroondara Bicycle Strategy Implementation Plan for the extended actions list (which includes numerous works proposed for Gardiners Creek Trail).



Our commitment to biodiversity

Since adoption of the City of Boroondara’s first biodiversity strategy in 2003, significant progress has been made in restoring, protecting and enhancing the city’s natural environment. Amongst other things, the original strategy led to development of The Inventory and Assessment of Indigenous Flora and Fauna in Boroondara by Dr Graeme Lorimer, and a Biodiversity Corridors Plan that outlines steps to improving habitat connectivity so as to establish a biodiversity corridors network across the municipality and beyond.

Progressive restoration and revegetation of biodiversity sites by the Council and Friends Groups has resulted in the stunning restoration of many sites and the return of birds and other fauna.

The Urban Biodiversity Strategy for Boroondara (2013–2023) identified four overarching objectives:

1. *To protect and enhance biodiversity in Boroondara on public land*
2. *To reduce land use and development impacts on biodiversity*
3. *To increase community support for biodiversity protection and enhancement*
4. *To ensure policy decision-making and actions are based on sound knowledge and up-to-date evidence.*

The City of Boroondara has developed a Biodiversity Asset Management Plan (BAMP) that establishes a detailed baseline of the extent and condition of all the biodiversity sites (‘assets’) identified in the flora and fauna inventory and/or Biodiversity Corridors Plan and through research associated with preparation of the BAMP.

This document provides a long-term framework for a staged approach to improving the condition and connectivity of areas currently managed for biodiversity as well as a strategy for managing new zones at existing biodiversity sites and some new sites as well. The BAMP outlines the long-term potential, given adequate resourcing, for up to 65 hectares of council land to be managed for biodiversity outcomes.

Hollow supplementation for Boroondara

The loss of habitat resources in urban spaces is an ongoing management issue for biodiversity managers. Supplementation of nesting hollows for Australian hollow-dependant bird species is currently being investigated within Boroondara as a way to increase the value of remaining green space for this group of birds in urban environments. With changing climatic conditions and increasing pressures from urban development, active habitat management is essential if these species are to be retained across the wider urban landscape.

Several sites have been identified for hollow supplementation across several reserves associated with the Gardiners Creek catchment.

4. Commitments by Others



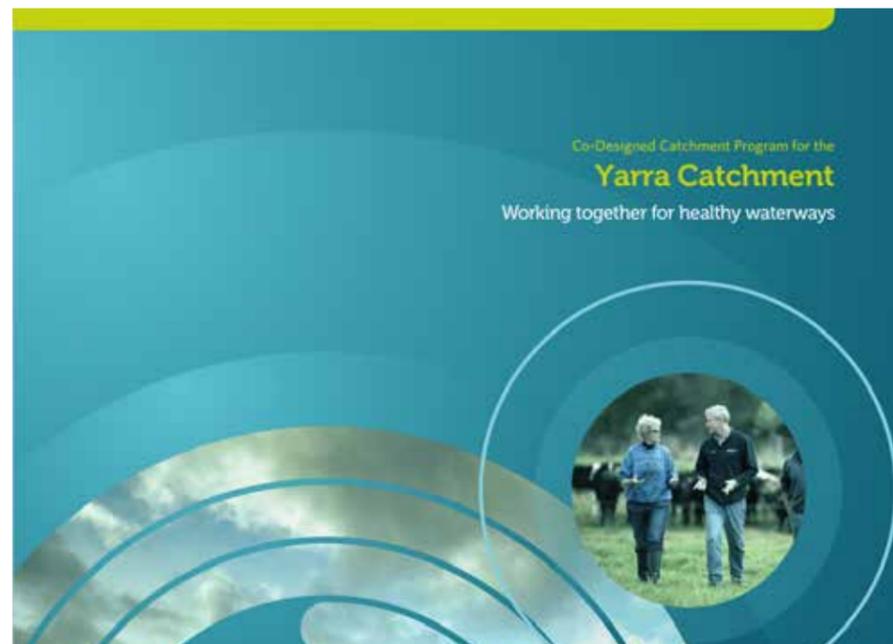
Yarra Strategic Directions Statement 2018

This Strategic Directions Statement (SDS) articulates the regional context, shared vision and strategic water-related outcomes for the Yarra catchment.

The Forum brings together 28 organisations with an interest in water cycle management. These organisations include five water corporations, 19 local governments, the Port Phillip and Westernport Catchment Management Authority, representatives of Traditional Owner interests, the Department of Environment, Land, Water and Planning (DELWP) and the Victorian Planning Authority. The shared vision and objectives identified are:

The Yarra River, Birrarung, is recognised around the world as an iconic example of a nurturing relationship between a river and its community. The following objectives are stated:

1. Safe, secure and affordable supplies in an uncertain future
2. Effective and affordable wastewater systems
3. Opportunities are optimised to manage existing and future flood risks and impacts
4. Healthy and valued waterways and marine environments
5. Healthy and valued urban and rural landscapes
6. Community values are reflected in place-based planning
7. Jobs, economic growth and innovation.



Healthy Waterway Strategy (Yarra catchment) 2018–2028

This Healthy Waterways Strategy spans the Port Phillip and Westernport region, and considers conditions over the next 50 years. It provides strategic direction for the management of a diverse array of waterways including the Gardiners Creek catchment.

The following performance objectives were listed for the Gardiners Creek catchment:

1. *(Water for Environment) Identify and implement opportunities to reduce the key threat of flow stress on waterways by addressing causal factors such as water for domestic and stock*
2. *(Vegetation Extent) Establish a continuous riparian vegetated buffer (1 km, 5 ha) and maintain existing vegetation (less than 1 km, 1 ha) along priority reaches (using EVC benchmarks to at least a level 3 vegetation quality). In addition to improve social values increase vegetation cover in existing and planned urban areas by 1 km Increase access to and along waterways from 73% to 75% (about 1 km of path) by filling gaps and improving connections with existing path network*
3. *(Access) Increase access to and along waterways from 73% to 75% (about 1 km of path) by filling gaps and improving connections with existing path network*
4. *(Participation) Increase participation rates from low to high; support community groups and build capacity through citizen science and cultural engagement.*

Strategic Cycling Corridor Network Overview

December 2020



Strategic Cycling Corridor Network–2020

The Strategic Cycling Corridor (SCC) network provides important continuous routes “to and through” for cycling for transport, linking up significant destinations, with the greatest activity or density of trips. These routes provide connections across suburbs and municipalities.

Gardiners Creek Trail is identified under this strategy as a ‘Primary Route’ (C1), and as such has associated high expectations on design speed, safety, security, directness, minimal delay, comfort and accessibility.

The five principles that underpin the SCC network have been developed by drawing on international cycling network principles, while considering the local context. These principles were used to review and identify the 2020 SCC network update. These principles are:

1. Destination focussed
2. Safe
3. Direct
4. Connected
5. Integrated.



Burndap Birrarung burndap umarkoo, Yarra Strategic Plan 2022–2032

This strategic plan aims to protect and enhance the Yarra River and its parklands as one living and integrated natural entity, and the first plan for the Yarra River developed in partnership with the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation.

The document identifies the confluence of Gardiners Creek with the Yarra River as a significant place in the inner city reach and suggests investigating the following options for improved environmental outcomes which includes implementing initiatives outlined in:

1. *City of Stonnington's Gardiners Creek Masterplan 2020, which includes a revegetation strategy for the creek*
2. *City of Boroondara's Urban Biodiversity Strategy 2013–2023, which nominates this area as a potential biodiversity hotspot*
3. *Work with Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation to provide interpretive information and artwork communicating the cultural heritage and historic significance of this area, both contemporary and pre-colonisation*
4. *Maintain and strengthen indigenous planting along the Yarra Boulevard and around the edge of Kevin Bartlett Reserve to improve habitat links.*



Nhanbu narrun ba ngargunin twarn Birrarung (Yarra Strategic Plan response)

The Wurundjeri First Peoples have set out to inform the development of the Yarra Strategic Plan (YSP) in line with the *Yarra River Protection (Wilip-gin Birrarung murrn) Act 2017* requirement of guiding the future use and development of the YSP area. This includes identification of areas for protection within the Yarra River Land and the expectations and composition of Wurundjeri membership and participation on the Birrarung Council, as specified under the Act. This is consistent with Wurundjeri Council's focus on the cultural, social, environmental, heritage and economic benefits of participation in the management of and care of Country (Land and Water).

As the Traditional Owners of the Birrarung and its surrounding country, the Wurundjeri will bring their unique knowledge, connections and understandings of the river and the wider Yarra catchment into the YSP to enhance the integrity of the plan. At the same time the Wurundjeri recognise the role and contribution to the process that other partner stakeholders will bring to the development and strength of the plan.



Gardiners Creek Masterplan by City of Stonnington

The Gardiners Creek (Kooyongkoot) Masterplan focuses on Gardiners Creek and its surrounding green corridor within the City of Stonnington, spanning the suburbs of Toorak, Kooyong, Malvern, Glen Iris and Malvern East.

The City of Stonnington released the master plan in 2019 and is committed to delivering on the aspirations and strategies listed in their master plan over the next 10 years.

The City of Boroondara have worked collaboratively with the City of Stonnington in the development of the Gardiners Creek (Kooyongkoot) Master Plan and has aligned on managing issues negatively affecting the river catchment, noting that management of the river should be an effort done in collaboration.

Regional collaboration project

The City of Boroondara has been involved in a joint project to explore a regional, shared vision for Gardiners Creek (Kooyongkoot), and the possibility of an ongoing regional collaboration. The Regional Collaboration Project provides a body of organisations along the catchment the ability to work collectively to identify, analyse and work towards addressing significant issues associated with the catchment.

The City of Boroondara supports the regional collaboration project with active participation to date and intends to be an ongoing key partner, noting the inherent opportunities that will be achievable across the entire catchment (such as identifying and better managing issues such as pollution and litter).

This project originated with the Stonnington Gardiners Creek Masterplan, which identified that ongoing regional collaboration was essential to achieve its desired water, biodiversity, open space and active and passive recreation outcomes as well as beneficial outcomes for the catchment as a whole.

A series of forums were convened during late 2021 and early 2022 with a range of stakeholders to discuss these matters, including councils adjacent to Gardiners Creek, water, road and transport authorities, Traditional Owners, other State Government representatives and community groups.

A draft vision and set of objectives have been co-designed by the above mentioned participants during an early forum meeting (to support the Regional Collaboration in an aligned stance and position in relation to future targets associated with the catchment).

Below is the draft shared vision which received very strong support (90% of participants) at one of the early forums:

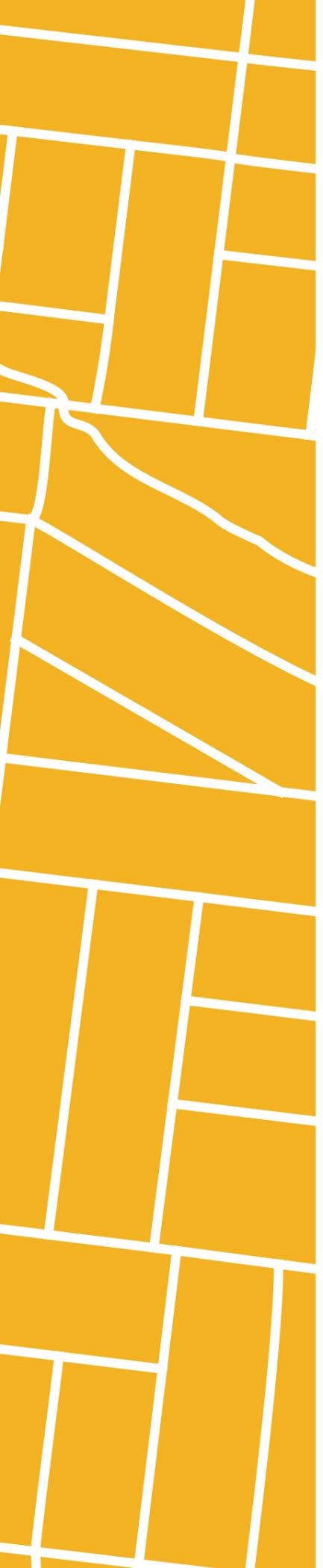
“Kooyongkoot and its catchment is protected, valued and loved, supporting diverse uses and thriving biodiversity. As custodians of our natural environment, Traditional Owners play a key role in its management.”

Community and all stakeholders are working together to heal, strengthen and ensure the resilience of Kooyongkoot and its catchment.”

In addition, a set of draft objectives were identified and agreed upon by the collective of stakeholders:

These objectives have been identified as follows:

- *Traditional Owners have a key role in the management of Kooyongkoot, and Kooyongkoot is a place where we collectively celebrate Country*
- *Protect sensitive environmental areas, enhance and expand biodiversity, habitat and biolinks along the creek corridors*
- *Promote consistent and collaborative planning across the catchment, recognising that impacts go beyond catchment borders*
- *Enable climate resilience*
- *Improve water quality and water management*
- *Enable diverse recreational uses to support health and wellbeing, community connection and environmental protection*
- *Encourage sustainable transport use within the catchment*
- *Preserve and expand green space*
- *Celebrate culture and heritage*
- *Connect people to nature*
- *Advocate to protect and enhance the ecological and social values of the catchment*
- *Manage expectations and encourage harmony between different stakeholders*
- *Encourage innovation and sharing of research and learning by community, education, corporate and public sectors.*



5. Destinations at the Gardiners Creek Catchment

These are some of the key destinations situated along the Gardiners Creek catchment, within the City of Boroondara. These destinations are associated with the creek catchment area but are not the main focus of this document.



PATTERSON RESERVE



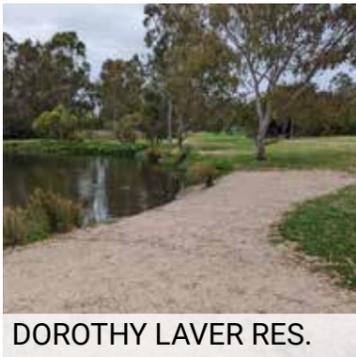
LEWIN RESERVE



NETTLETON PARK



ERIC RAVEN RESERVE



DOROTHY LAVER RES.



a. Context plan of Gardiners Creek and Back Creek catchment



Traditional Owners of Boroondara

The area now known as the City of Boroondara is on the traditional land of the Wurundjeri Woi-wurrung people. The City of Boroondara's name is derived from the Woi-wurrung language meaning 'where the ground is thickly shaded'. The Wurundjeri Woi-wurrung community has a strong historical, cultural and spiritual connection to their traditional lands and waterways.

Gardiners Creek (Kooyongkoot) forms part of the City of Boroondara's southern boundary. The banks of kooyongkoot creek were a source of vegetation used for food, tools and medicine by the local Wurundjeri Woi-wurrung people. Their skills and adaption to their environment meant they were able to sustain their lifestyle for many thousands of years with minimal impact to the environment. The bark and wood from the trees provided material for fire sticks, boomerangs, digging sticks, music sticks, canoes, coolamons or tarnuks (water carriers), and stone implements such as axes and adzes. The Wurundjeri Woi-wurrung people also used bark and wood in the production of weapons such as wommeras (spear throwers), shields, spears and clubs. Reeds and grasses were used to make mats, baskets, eel traps, fishing nets and string bags. Animals and plants provided food and materials for clothing such as possum skin cloaks and ornamentation such as belts, waist ornaments, emu feather skirts, kangaroo teeth and echidna quill necklaces, head bands and nose ornaments.¹

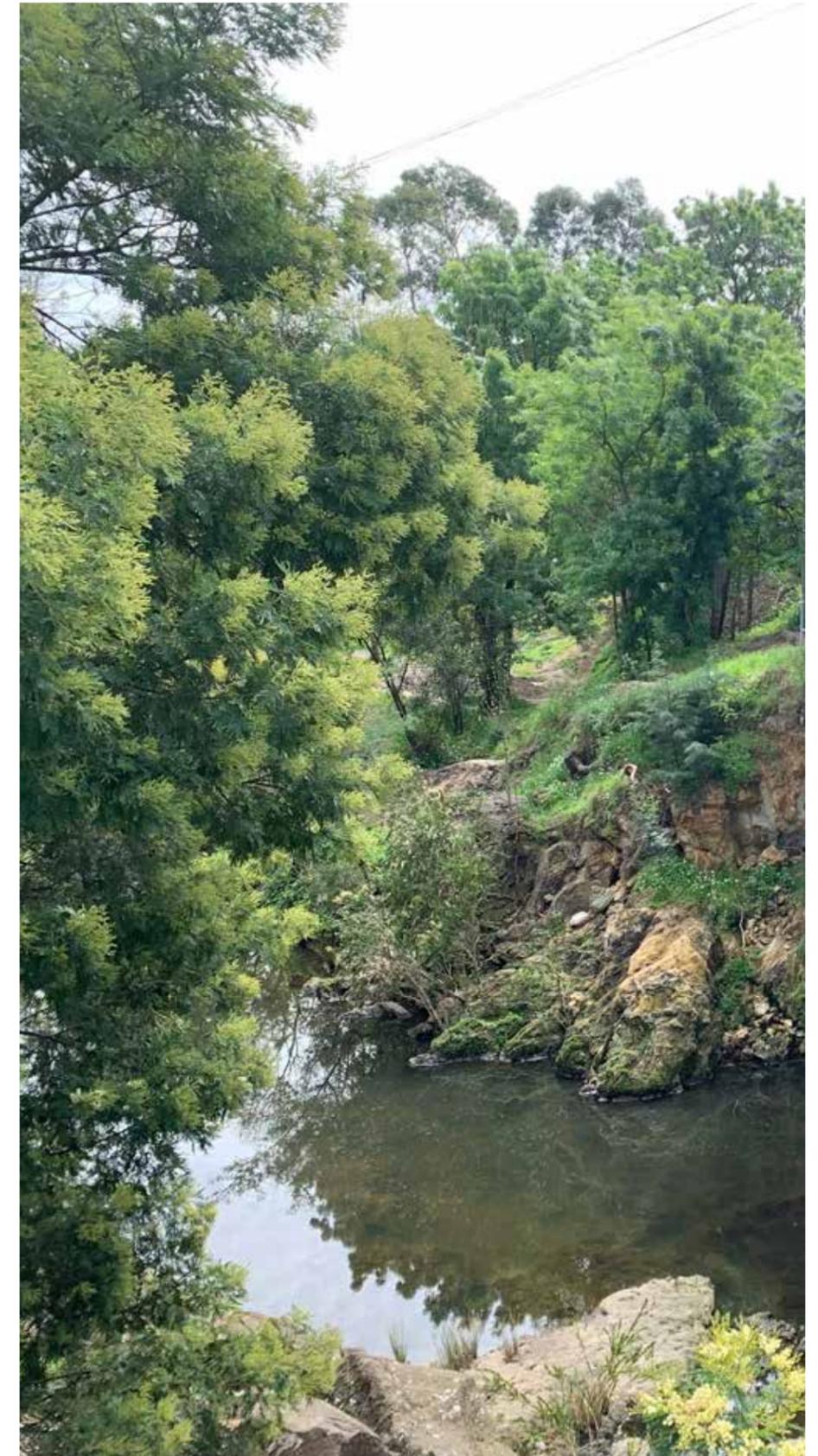
The Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC) is formally recognised through the Aboriginal Heritage Act 2006 as the Traditional Owners for the land and waterways in Boroondara. As the Registered Aboriginal Party, the WWCHAC has important legislated roles and functions in managing and protecting the Aboriginal cultural heritage of their recognised lands including evaluating Cultural Heritage Management Plans and assessing Cultural Heritage Permit applications. They also offer key services in the community including natural resource management services, cultural practices for events such as performing a Welcome to Country and smoking ceremonies, cultural consultations to provide feedback on projects being developed on their land, education and cultural awareness specific to their heritage and culture, and language and place naming protocols and advice.

¹Excerpt taken from Wurundjeri Trail, Chandler Reserve signage created in collaboration with Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation.

Wurundjeri Woi-wurrung people continue to practise the responsibilities bestowed by their ancestors of protecting, preserving and managing the land and waterways in accordance with culture and traditions.



b. Photographs of Gardiners Creek, near Ashburton



6. Findings from Consultation on Other Relevant Projects

To inform the development of the Gardiners Creek (Kooyongkoot) Master Plan, Council drew upon recent major consultation sources, such as the BCP 2021–31, and the Climate Action Plan. We also considered the findings from the City of Stonnington's consultation process for their Gardiners Creek Masterplan. Outlined below is a brief overview of the key findings from each of these consultations with further detail provided in the separate report "Gardiners Creek (Kooyongkoot) Master Plan - Consultation Package".

This master plan has also been selected as a pilot project for a Gender Impact Assessment (GIA), designed to support critical thinking about how actions, programs and services will meet the different needs of women, men and gender diverse people. The purpose of GIAs is to create better and fairer outcomes, and make sure all people have equal access to opportunities and resources.

BCP consultation findings¹

Between December 2020 and April 2021, the City of Boroondara undertook community consultations to inform the review of our key strategic document, the BCP, to ensure Council was responding to emerging trends, demands and changes to community priorities. In total, 4,723 people took part in a survey which included three key questions.

To inform the development of the Gardiners Creek (Kooyongkoot) Master Plan, a word search was performed on the verbatim responses to two of the survey questions: "What is important to you in Boroondara?" and "**What aspects of your top priority theme do you think Council should focus on in the next 10 years?**" to capture feedback associated with the Gardiners Creek and Back Creek catchments. These results were further narrowed by selecting only residents from the neighbouring area that generated 1,368 verbatim comments, which were then sorted by gender, non-English speaking background, age and suburb, and entered into a series of word clouds.

Overall, observed through a word cloud visualisation, the feedback indicates strong appreciation for Gardiners Creek with the community viewing it as a significant biodiversity corridor, a popular destination and a network for walking and cycling. However, the comments also suggest that Council can better plan for the Gardiners Creek catchment through conservation, improving community accessibility and participation, improving issues associated with litter/cycling options, improving signage and safety and surveillance.

Using a gender focused approach to respect the needs of men and women, the responses to the questions were entered into separate word clouds. When the data was broken down, women generally noted community building, enhancing the sense of community, access to facilities and safety as important. For men, there was general support of new quality facilities, parks and programs.

Climate Action Plan consultation findings²

In August and September 2020, the City of Boroondara undertook social research to help understand community perceptions, behaviours and aspirations regarding climate action at the local level, along with how the community sees Council's role in relation to climate action and what actions they would like Council to be engaged in moving forward.

The research was conducted using two distribution methods and achieved a total of 1,572 responses.

Open access (online):
1,070 responses through Council's internal surveying system. The link was distributed through a range of channels, including social media and community networks.

Representative (phone):
502 responses via landline and mobile phone via direct contact.

When asked to rate the importance of different aspects of environmental sustainability, "**Sustainable Water Use and Healthy Waterways**" was the highest rated for importance out of the selection.

Other relevant important areas of focus that were raised by the community included "**preserving and planting more trees**" (native species were preferred).

¹Refer to separate report "Gardiners Creek (Kooyongkoot) Master Plan - Consultation package" for detailed consultation findings.

²Findings based on Climate Action Plan Research Report (November 2020–September 2021), by ASDF Research for City of Boroondara.

Boroondara specific findings from the City of Stonnington's consultation findings¹

As part of the Gardiners Creek master planning process by City of Stonnington, extensive on-site surveying was undertaken in 2019 to understand user experiences, activities and destinations.

Given that users on the Gardiners Creek Trail typically navigate between the council areas of Boroondara and Stonnington (due to the weaving nature of the shared trails), we have reviewed the survey data received of 379 responses, and filtered this to only show responses from postcodes within the municipality of Boroondara (reducing the response number to 199). The aim of this was to limit the received feedback to specifically the Boroondara community who may have been intercepted by the surveying team on-site. We also investigated the differences in responses between genders to ensure we are supporting gender equity on our projects.

Based on the survey results, **women are more likely to visit the Gardiners Creek area on a regular basis**, with both men and women visiting for the same reasons.¹

Dog walking is the most popular recreational activity followed by personal exercise.¹

Women are more satisfied with the available space for active recreation. **Men are less satisfied with the available space, this may be due to their higher preferences in informal sporting recreation activities.**¹

Women have scored slightly higher regarding their satisfaction with the natural environment at Gardiners Creek.¹

Women are more dissatisfied with shared pathways and safe access to the area. This may be due to perceptions around safety in public space and issues associated with passive surveillance.¹

7. Consultation Findings for this Project

To support the development of the Gardiners Creek (Kooyongkoot) Master Plan and to get the most useful and supportive feedback for this important project, we have positioned the key consultation phase at the draft stage of this master plan. This is to provide as much information as possible to the community, at a stage where the document is still in early development and subject to positive change.

External stakeholder consultation findings¹

Through January 2022 a Council officer engaged with 21 key external stakeholders associated with the Gardiners Creek and Back Creek catchment (within the municipality of Boroondara). These stakeholders ranged from sporting clubs, scout groups and 'Friends of' groups of the catchment.

The findings of this targeted stakeholders phase has typically indicated issues associated with **poor water quality in the creek**, concerns associated with biodiversity and acknowledgment of areas of **poor vegetation diversity and health**. There was a trend with suggested improvements, indicating a desire for **reducing hard surfaces, enhancing planting through revegetation, separating walking paths for different users and re-naturalisation of the creek catchment in areas that contain concrete culverts**.

These findings have contributed to assisting us in identifying key directions associated with this master plan.

¹Refer to separate report "Gardiners Creek (Kooyongkoot) Master Plan - Consultation package" for detailed consultation findings.

Community feedback on draft Master Plan¹

City of Boroondara released the Draft Gardiners Creek (Kooyongkoot) Master Plan for community consultation from 24 May to 28 June 2022.

The consultation sought feedback on the draft master plan which was established based on extensive research and feedback from key stakeholders and community. Consultation findings were via an online survey that was available via the council website during the date range specified above and we also received submissions via email.

We participated in three face-to-face consultation activities at three locations across the Gardiners Creek corridor (Dorothy Laver Reserve West, Nettleton Park and Patterson Reserve).

These submissions have contributed to assisting us in finalising the master plan.

Cultural Consultation with the Traditional Owners of Boroondara

On 14 July 2022, Council officers met with Elders from the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation as part of the community consultation phase to understand their aspirations for Gardiners Creek.

The feedback received from the Wurundjeri Woi-wurrung Elders was to include **recognition and celebration of Aboriginal cultures, histories and knowledges through 'site specific initiatives'** (refer page 18), including involvement in **native revegetation and opportunities for new cultural gathering spaces**. The graphical representation of an eagle (reference to Bunjil the 'creator') was discussed at this meeting and approved for use by the Wurundjeri Woi-wurrung Elders as a new and separate guiding principle for action across all six precinct areas.

8. Our Strategy

Project precincts

The following precinct plans are divided into the following precincts (as indicated on the right). These precincts are to provide context as to what extent is shown per page and to indicate how each page is connected in an order.

For context, the precincts contain the following public open spaces:

Precinct 1 contains the following:

- HA Smith Reserve
- Hawthorn Skate-park
- Hawthorn Velodrome
- Patterson Reserve
- Hawthorn Hockey Ground

Precinct 2 contains the following:

- Gardiners Creek Reserve
- Lewin Reserve
- Howard Dawson Reserve

Precinct 3 contains the following:

- Nettleton Park

Precinct 4 contains the following:

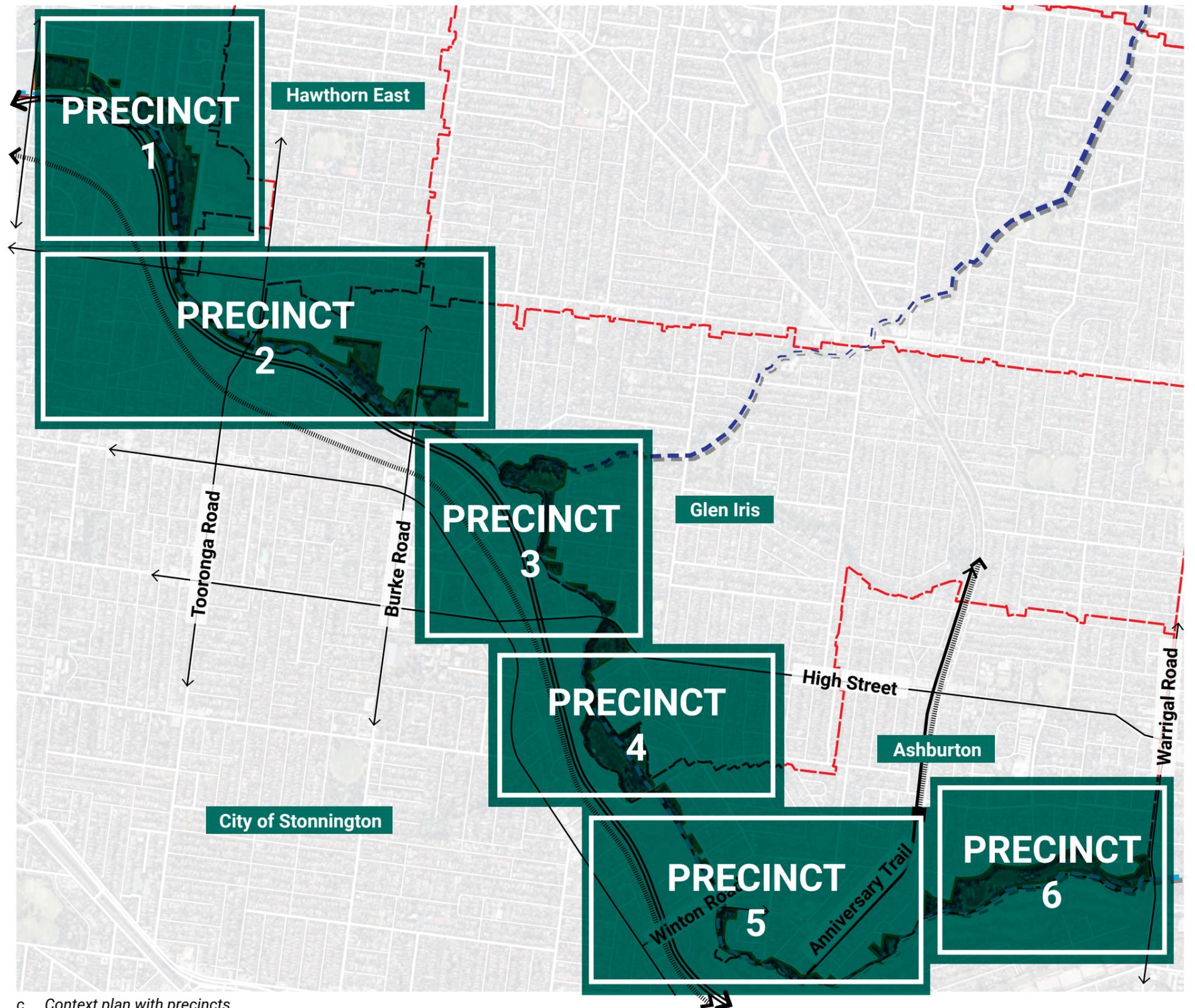
- Eric Raven Reserve
- Dorothy Laver Reserve West
- Dorothy Laver Reserve East

Precinct 5 contains the following:

- Winton Reserve

Precinct 6 contains the following:

- Markham Avenue Reserve



c. Context plan with precincts

The three-tier strategy

This master plan proposes three tiers of initiatives to encompass actions at a macro and micro scale. These tiers are as follows:

1 CATCHMENT-WIDE INITIATIVES

Catchment-wide Initiatives apply to all catchment areas of Gardiners Creek and Back Creek within the municipality of Boroondara.

Initiatives under this category typically do not have a specific application site and can be considered across multiple open spaces on a holistic level. **Refer page 17 of this master plan for further information.**

2 SITE-SPECIFIC INITIATIVES

Site-specific Initiatives as indicated by a 'pin' symbol on the precinct plans (refer section 9), indicating a located design intervention.

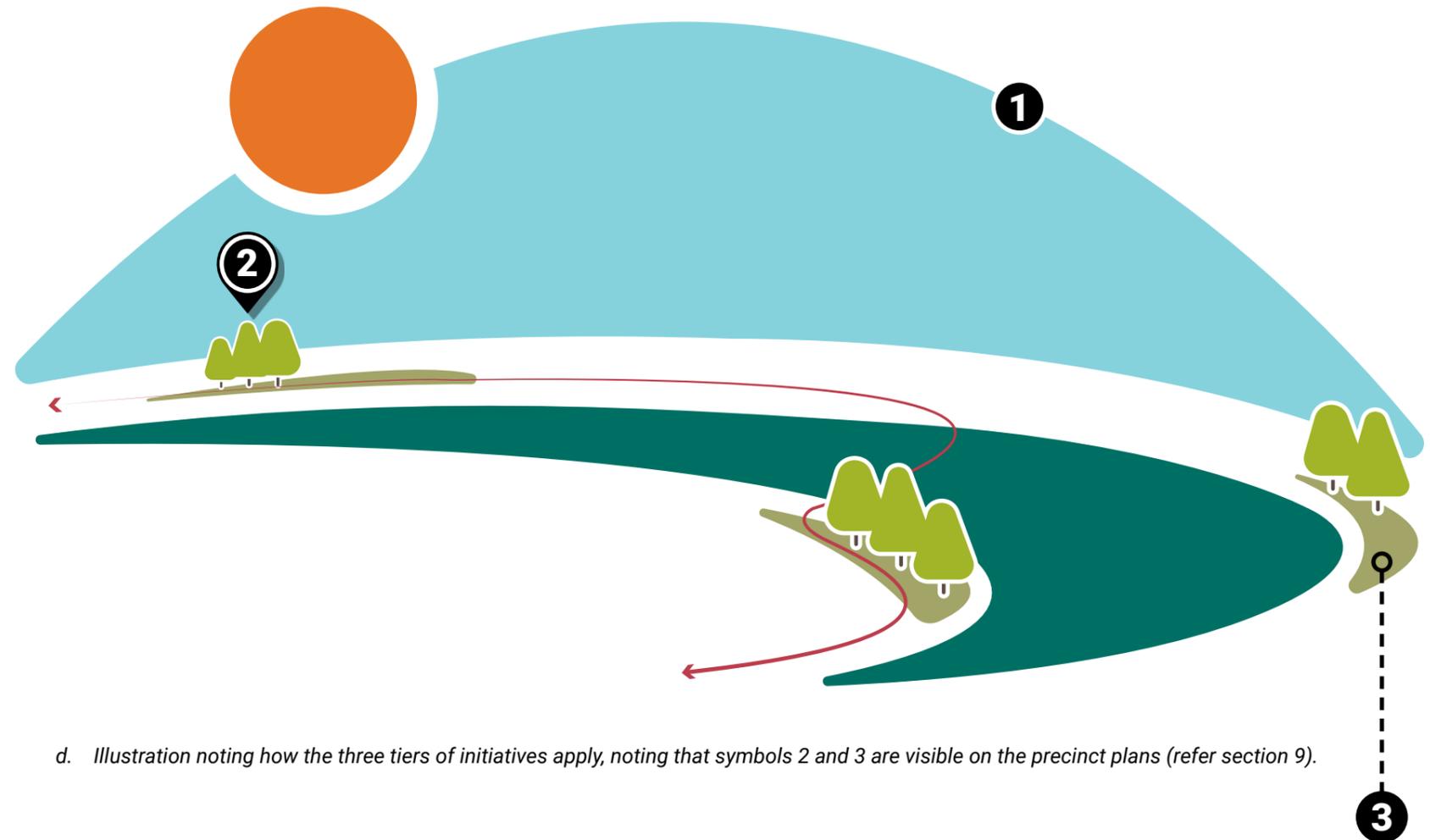
These interventions include various themes and triggers. **Refer page 18 of this master plan for further information.**

3 MAJOR STRATEGIC AND COLLABORATIVE OPPORTUNITIES

City of Boroondara is not directly responsible for funding some actions within the Gardiners Creek catchment. These are identified as **collaborative opportunities** only.

These opportunities would require substantial funding from other levels of government and present an advocacy opportunity for the City of Boroondara.

These collaborative opportunities are noted directly on the plans with 'leader' symbols (refer section 9).



d. Illustration noting how the three tiers of initiatives apply, noting that symbols 2 and 3 are visible on the precinct plans (refer section 9).

Catchment-wide initiatives

The following catchment-wide initiatives apply to Gardiners Creek and the Back Creek sub-catchment. Where funding is required, this will be considered as part of City of Boroondara's annual budget process.

The role of Regional Collaboration and working across the broader catchment (refer page 8 for the draft shared vision and objectives)

1. Work collaboratively with the regional collaboration project to explore and share research on the various issues affecting the entire catchment (such as litter, pollution, flooding, biodiversity, etc.).
2. Collaboratively seek funding for projects that are within and/or beyond our municipality boundaries to address identified and targeted issues.
3. Consider the initiatives of the Gardiners Creek (Kooyongkoot) Master Plan and the Regional Collaboration when reviewing and updating City of Boroondara's strategies (such as the Climate Action Plan, Integrated Water Management Strategy, Urban Biodiversity Strategy etc.).

Reducing pollution and litter

1. Stormwater quality can be improved through reducing pollution at the source. Develop a Pollution and Litter Reduction Plan, an objective from the Climate Action Plan to be delivered this financial year (2022/23). This master plan will identify and better manage sources of pollution and litter impacting the Gardiners Creek catchment including the consideration of gross pollutant traps and other infrastructure opportunities.
2. Advocate and work collaboratively with other key stakeholders such as Melbourne Water, Yarra Valley Water, Environmental Protection Authority and local council's to better identify and manage sources of pollution and litter (within and beyond our municipality boundaries).
3. Investigate markers and contact information on proposed signage to support the community in reporting pollution (investigation to occur with Council's Brands, Channels and Marketing teams).
4. Continue to support community groups through 'Clean Up Australia' and the various 'friends of' groups associated with the catchment. Investigate opportunities for further support to our community through the Pollution and Litter Reduction Plan.
5. Ensure Council's practices, including weed management, are conducted in a way to avoid pollution of the creek or creation of litter.

Recognition and celebration of Aboriginal Histories, cultures and knowledges

1. Opportunity to introduce initiatives across the catchment to recognise the Traditional Owners, the Wurundjeri Woiwurrung people, and the Aboriginal histories and cultures of the area (refer site-specific initiatives, page 18).

Improving creek health and biodiversity

1. As part of the development of an Urban Greening Strategy (an action from the Boroondara Climate Action Plan), we are undertaking an updated assessment of our biodiversity corridors, which include Gardiners Creek and Back Creek. This assessment will provide us with the latest data on the health of our vegetation and support us with ongoing management which includes identifying opportunities for further planting.
2. We recognise that the Gardiners Creek and Back Creek corridors are important for our biodiversity, including providing a safe linkage across our urban environment. We will continue to commit to ongoing annual revegetation to biodiversity sites as per the Urban Biodiversity Strategy.
3. Continued contribution to revegetation programs, including establishing a continuous riparian vegetated buffer where possible, and maintain existing vegetation.
4. Continue to support community groups and build capacity through citizen science and cultural engagement. Actively continue to advocate and work collaboratively with other levels of government, relevant agencies and key stakeholders to improve the health of the catchment.
5. Deliver a program of habitat restoration and the installation of nest boxes.
6. We note there are instances where residential property boundaries directly abut the Gardiners Creek. These instances can limit community access and impact management of our waterways and biodiversity corridors. Where a mutually beneficial opportunity exists, we may seek negotiations with these property owners to consider subdivision or leasing arrangements. When land that is situated on the river corridor is offered for sale, Council will investigate purchasing this land to amend property boundaries (to return the creek frontage to the public domain). The remaining land and associated property will then be re-sold in accordance with *Section 112, LGA 2020*.

Improving Water Sensitive Urban Design (WSUD)

1. Investigate opportunities within public open space for further stormwater irrigation including sporting ovals and garden beds. Continue to increase water harvesting opportunities as per the Integrated Water Management Strategy.
2. Support flood management activities in a way that better protects properties from flooding while also protecting the environment, amenity and function of Council assets that are our responsibility.
3. Continue to support projects to minimise impervious surfaces, reuse water on site, incorporate detention and retention basins to reduce peak flows, and use biofiltration systems or wetlands to remove pollutants.
4. Through any building projects explore opportunities for associated Water Sensitive Urban Design projects.

Improving access and safety

1. Explore ways to make clear the alternative routes available for different users, e.g., linemarking, signage and/or surface treatments to inform users of alternative routes that may be less busy.
2. Continue ongoing safety audits to our shared paths in accordance with the relevant standards.
3. Separate paths for pedestrians and bicycle riders should be provided on high volume routes (where possible). Other shared path upgrades to be considered are drainage improvements, kerb ramps and amenities, such as water fountains and seating. All separate paths that provide access to local facilities are to be an unsealed gravel (with no impacts to existing vegetation).
4. Ensure all furniture on the Gardiners Creek Trail is accessible. Where appropriate include a gravel access path connecting to the asset. Promote consistency in furniture styles (in accordance with Council's latest furniture styles).

Site-specific initiatives

The following site specific initiatives apply to the Gardiners Creek catchment. Refer section 9 (precinct plans) for locations of initiatives. Where funding is required, this will be considered as part of City of Boroondara's annual budget process.



Permeability

Opportunity to reduce extent of hard surfaces to improve soil permeability. Where this symbol appears on the plan, triggers the following intervention.

1. Remove excess concrete/hard surfaces, revegetate with indigenous plants as per the relevant Ecological Vegetation Class (EVC)
2. Explore use of permeable pavement for any creek trail resurfacing activities.



Water Sensitive Urban Design

Opportunity to introduce new Water Sensitive Urban Design initiatives. Where this symbol appears on the plan, triggers the following intervention.

1. Introduce increased indigenous planting, rain garden/swale systems etc
2. Introduce detention and retention basins to reduce peak flows, and use biofiltration systems or wetlands to remove pollutants.



Links and loops

Where this symbol appears on the plan, notes an opportunity for improved linkages to key points of interest such as public transport nodes or surrounding suburbs. The following intervention occurs at these locations.

1. Install new separated gravel trails for casual walkers (to provide options and safety for shared trail users)
2. In collaboration with City of Stonnington, install 'low-scale' linemarking, signage and/or surface treatments to inform users of alternative routes that may be less busy.



Primary gateways

A primary gateway is identified as an entrance to the Gardiners Creek that can also accommodate maintenance vehicle access. Where this symbol appears on the plan, triggers some or all of the following interventions.

1. Improved signage including a large scale map of the Gardiners Creek Trail with associated parks and facilities noted. Intersecting street or park name and highlighting alternative routes for different shared path users. Identification of looping path opportunities for exercise/exploration. Provide reference markers and contact information to support the community in reporting pollution (this may also include lighting fault reporting)
2. Improved indigenous garden bed planting treatment
3. New outdoor seat
4. Litter and recycling bins
5. Review Gardiners Creek Trail entrance and ensure vehicle access is restricted to service vehicles only (via gates, removable bollards etc.).



Secondary gateways

A secondary gateway is identified as a secondary pedestrian only entrance to the Gardiners Creek Trail. Where this symbol appears on the plan, triggers some or all of the following interventions.

1. Improved signage, noting the intersecting street or park name and highlighting alternative routes for different shared path users. Provide reference markers and contact information to support the community in reporting pollution (this may also include lighting fault reporting)
2. Improved indigenous garden bed planting treatment
3. New outdoor seat (if suitable)



Recognition and celebration of Aboriginal histories cultures and knowledges

Opportunity to introduce initiatives to recognise the Traditional Owners, the Wurundjeri Woi-wurrung people, and the Aboriginal histories and cultures of the area. Where this symbol appears on the plan triggers some or all of the following interventions which will be undertaken in collaboration with the Traditional Owners, the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation and Aboriginal stakeholders.

1. New interpretative signage to provide insights into the Aboriginal histories and cultures of the area and the indigenous plants
2. Integrate indigenous plants into garden bed planting
3. New interpretive public art
4. New spaces to gather such as circular seating spaces made out of natural materials.



Education

Where this symbol appears on the plan, notes an opportunity for education/informative signage. The following intervention occurs at these locations.

1. Fixed educational signage on key points of interest such as Gardiners Creek biodiversity, historical/cultural elements, community spaces/gardens, wetland systems etc
2. Recognition and celebration of Aboriginal histories cultures and knowledges to be considered at these locations too.



Pause points

Opportunity for rest and respite. Where this symbol appears on the plan, triggers the following intervention.

1. New outdoor seat, facing vista or view of river.

9. Precinct Plans

Precinct 1



Proposed Legend

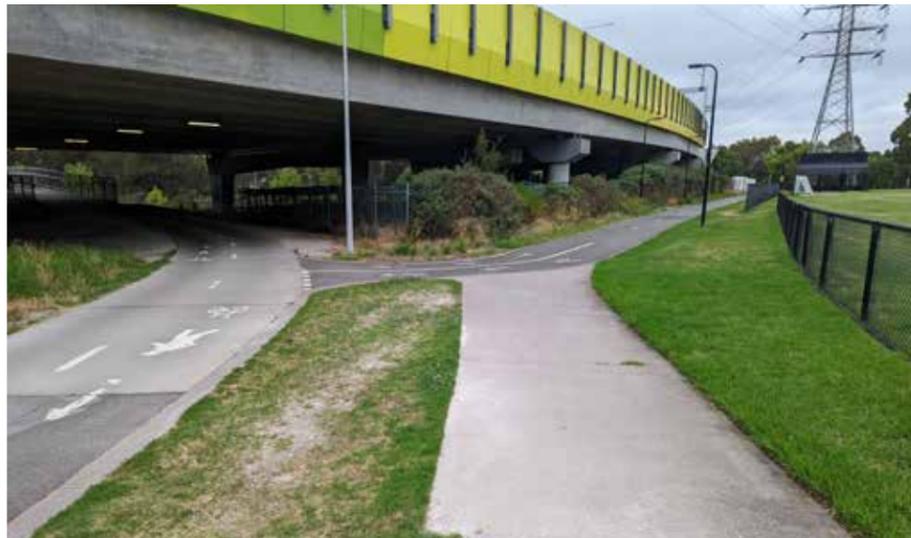
- Proposed new trail
- Primary gateway (Refer pg18)
- Secondary gateway (Refer pg18)
- Enhance permeability where feasible. (Refer pg18)
- Improve linkages to Auburn Road (Refer pg18)
- Promote Auburn Road as an on-street 'fast' protected bicycle route.

Existing Legend

- 1 Site photo locations
- Gardiners Creek Trail
- Secondary trail
- Gardiners Creek
- Suburb boundary
- Seat
- Litter bin
- Recycling bin
- Playground
- Barbecue
- Basketball court
- Bike rack
- Exercise equipment



1 Underpass loose timber decking/narrow passage.



2 Opportunity for improved gateway treatment.



3 Park open to vehicles, poor entrance character



4 Opportunity for formalised separated gravel trail.



5 Opportunity for formalised separated gravel trail.

Existing condition:

This section of Gardiners Creek from Scotch College/the Gardiners Creek confluence through to Toorak Road contains an open landscape character due to adjacent public open spaces (HA Smith Reserve/Patterson Reserve). The Gardiners Creek through this section is partially a concrete culvert which extends adjacent to and below the Monash Freeway.

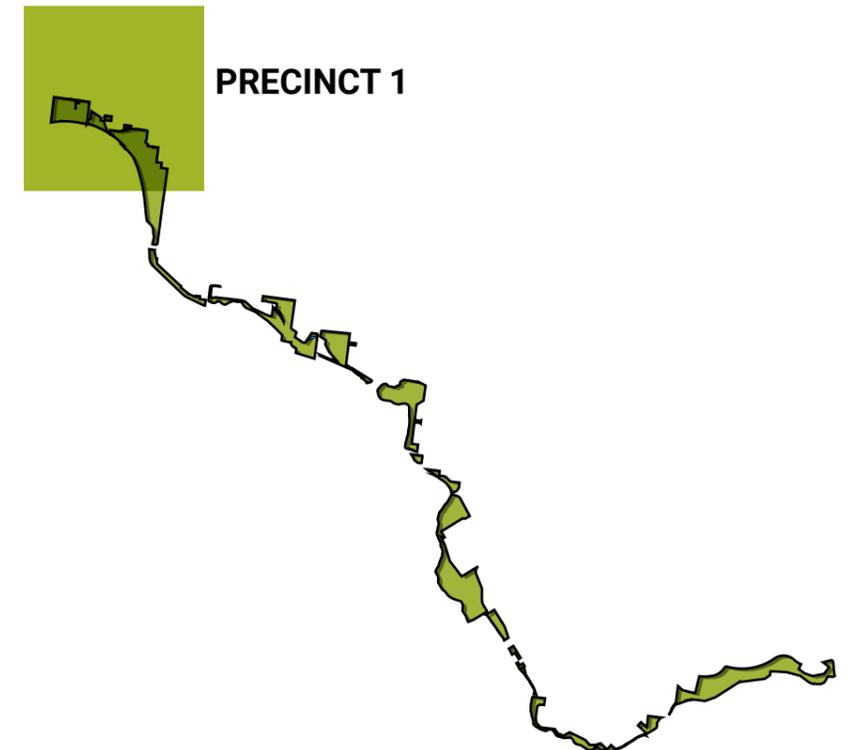
Issues and opportunities:

There are opportunities to improve gateway treatments, surface treatments, embankment revegetation and garden bed planting with ample opportunities for a separated pedestrian gravel trail.

Refer to the adjacent plan for additional notes and State Government advocacy initiatives.

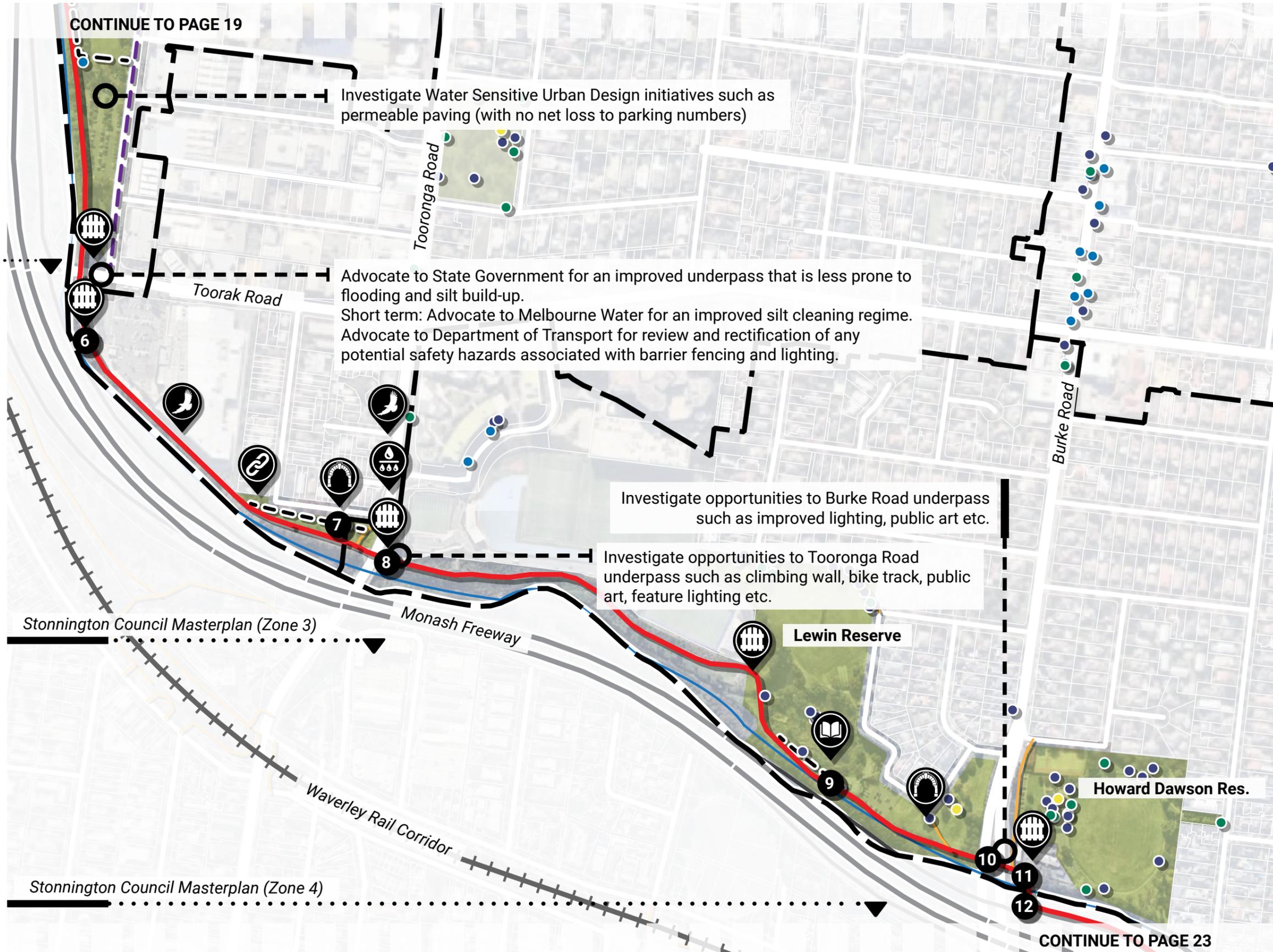
Actions:

Refer page 32 for the detailed master plan actions schedule.



e. Context plan with precincts

Precinct 2



Proposed Legend

- Proposed new trail
- Primary gateway (Refer pg18)
- Secondary gateway (Refer pg18)
- Enhance permeability where feasible. (Refer pg18)
- Additional educational signage (Refer pg18)
- Recognition of Aboriginal histories, cultures and knowledges (Refer pg18)
- Promote Auburn Road as an on-street 'fast' protected bicycle route.

Existing Legend

- 1 Site photo locations
- Gardiners Creek Trail
- Secondary trail
- Gardiners Creek
- Suburb boundary
- Seat
- Litter bin
- Recycling bin
- Playground
- Barbecue
- Basketball court
- Bike rack





6 Opportunity to improve gateway treatment.



7 Opportunity for secondary accessible grade path.



8 Opportunity for underpass improvements (Tooronga Road).



9 Opportunity for formalised separated gravel trail.



10 Opportunity for underpass improvements (Burke Road).



11 Opportunity to improve gateway treatment and access.



12 Opportunity to improve signage visibility and access.

Existing condition:

This section of Gardiners Creek from Toorak Road through to Howard Dawson Reserve contains generally a narrow corridor due to adjacent landuses (e.g., Gardiners Creek and Woolworths site / St Kevins Sportsfield). There are three underpasses to this precinct at Toorak Road, Tooronga Road and Burke Road. The Gardiners Creek through this section is in a naturalised condition, with sporadic sections of dense embankment vegetation.

Issues and opportunities:

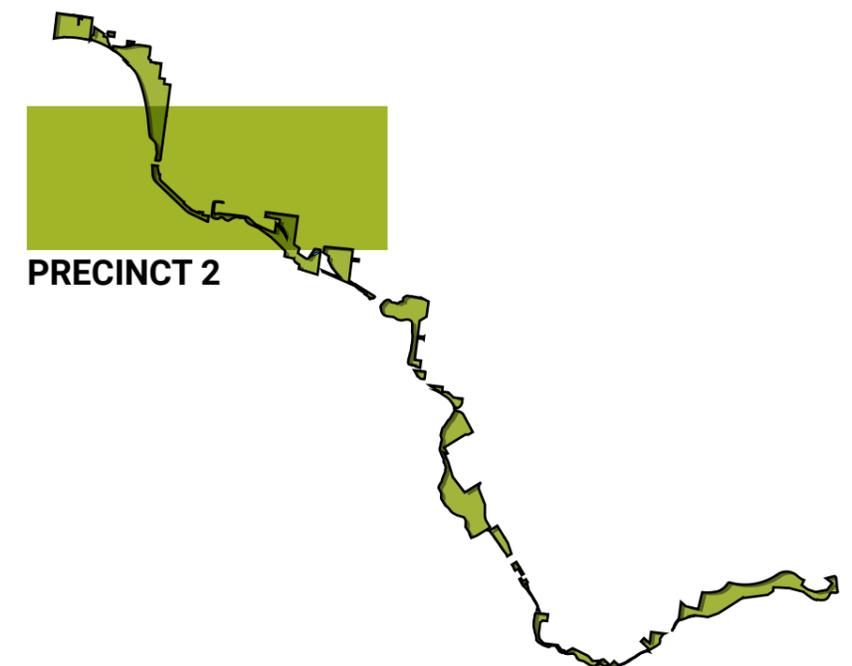
There are opportunities to improve gateway treatments, surface treatments, underpass treatments and opportunities for embankment revegetation and garden bed planting.

Due to adjacent land uses and the limited space available, there is limited capacity for any path widening or separated path treatments.

Refer to the adjacent plan for additional notes and State Government advocacy initiatives.

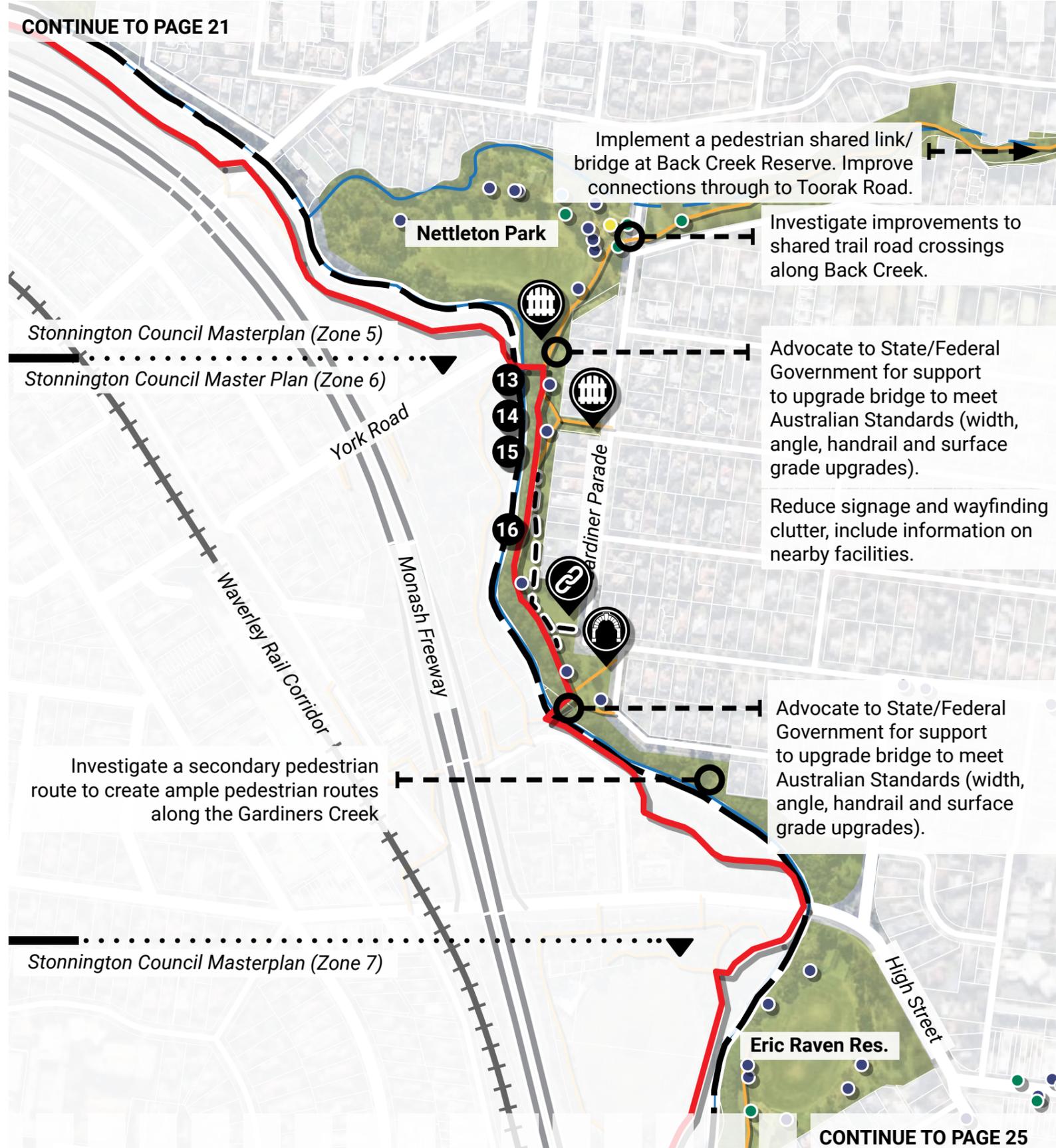
Actions:

Refer page 32 for the detailed master plan actions schedule.



f. Key plan with precincts

Precinct 3



Proposed Legend

- Proposed new trail
- Primary gateway (Refer pg18)
- Secondary gateway (Refer pg18)

Existing Legend

- Site photo locations
- Gardiners Creek Trail
- Secondary trail
- Gardiners Creek
- Suburb boundary
- Seat
- Litter bin
- Recycling bin
- Playground
- Barbecue
- Basketball court
- Bike rack





13 Opportunity to improve gateway treatment.



14 Opportunity to review signage locations and information.



15 Advocate to State/Federal Government for bridge upgrades.



16 Opportunity for formalised separated gravel trail.

Existing condition:

This section of Gardiners Creek from Nettleton Park through to Eric Raven Reserve contains generally a narrow corridor due to adjacent landuses (residential). Within this precinct, only a small portion of the trail falls within the City of Boroondara municipality.

Gardiners Creek through this section is in a naturalised condition, with dense embankment vegetation to both sides of the creek.

Issues and opportunities:

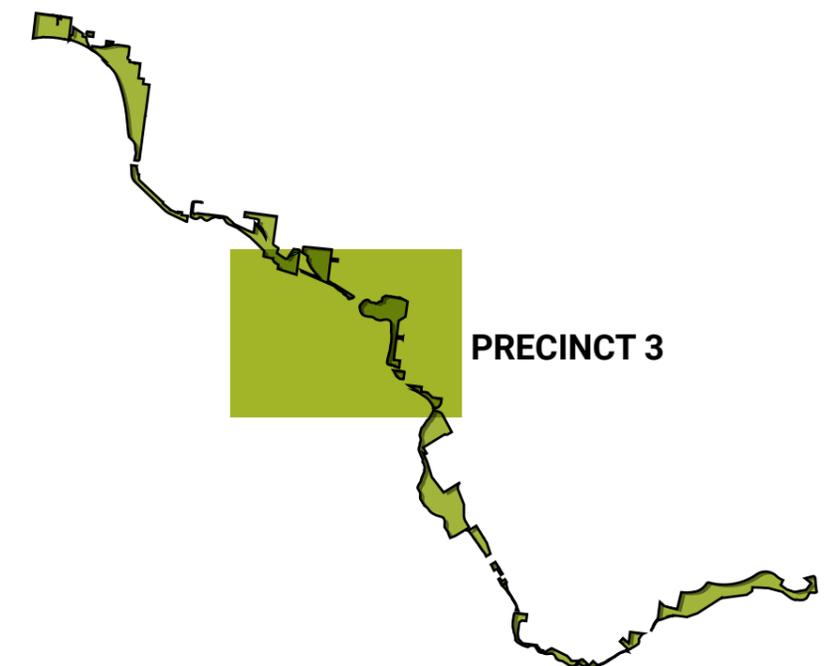
There are opportunities to improve gateway treatments, embankment revegetation and opportunities for garden bed planting.

Due to adjacent land uses and the limited space available, there is limited capacity for any path widening or separated path treatments.

Refer to the adjacent plan for additional notes and State Government advocacy initiatives.

Actions:

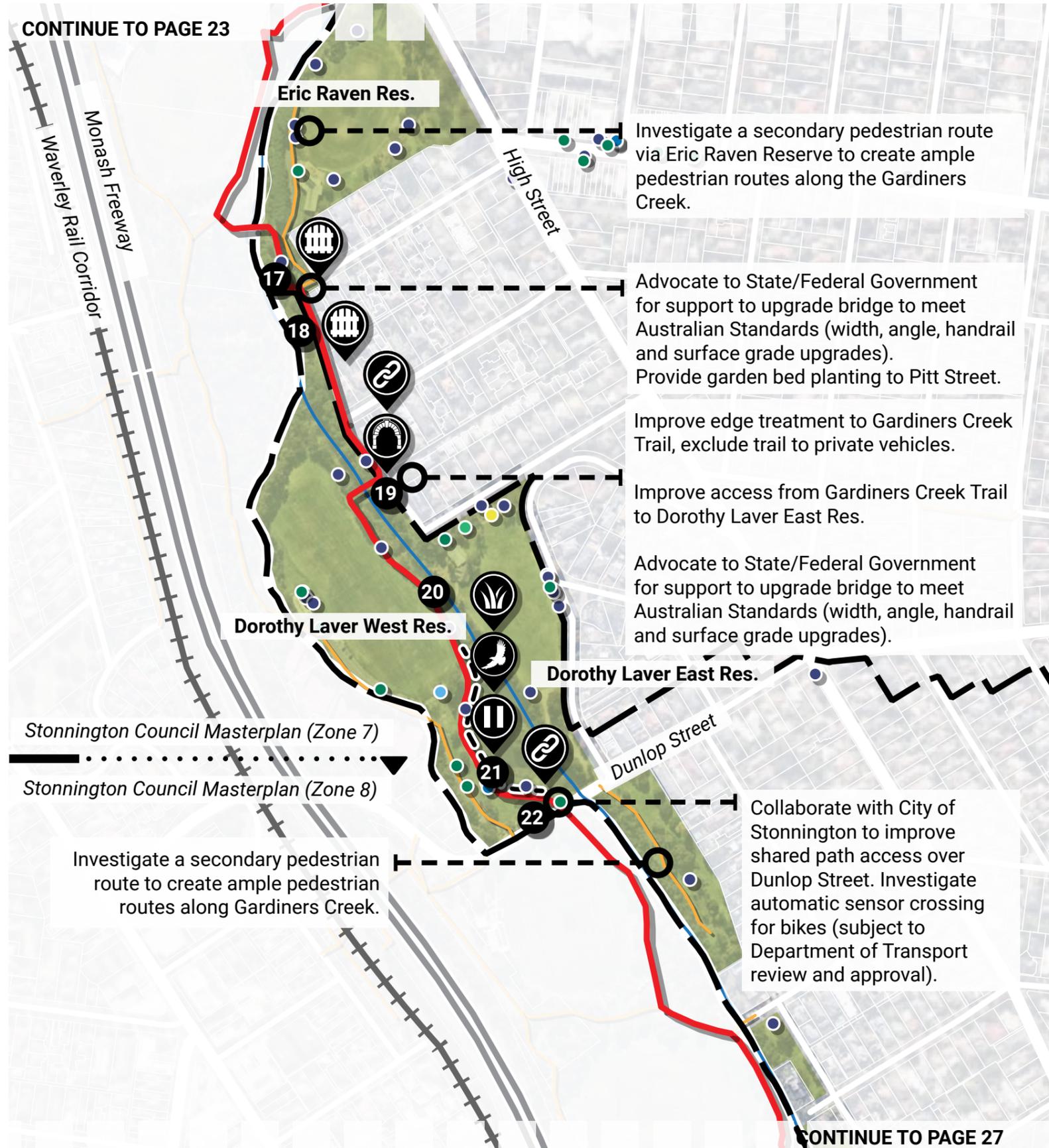
Refer page 32 for the detailed master plan actions schedule.



g. Key plan with precincts

Precinct 4

CONTINUE TO PAGE 23



CONTINUE TO PAGE 27

Proposed Legend

- Proposed new trail
- Primary gateway (Refer pg18)
- Secondary gateway (Refer pg18)
- Pause point (Refer pg18)
- Recognition of Aboriginal histories, cultures and knowledges (Refer pg18)
- Improve linkages to Dorothy Laver East Res. (Refer pg18)
- Enhance planting and Water Sensitive Urban Design treatments (Refer pg18)

Existing Legend

- 1 Site photo locations
- Gardiners Creek Trail
- Secondary trail
- Gardiners Creek
- Suburb boundary
- Seat
- Litter bin
- Recycling bin
- Playground
- Barbecue
- Bike rack





17 Opportunity to improve access to seating.



18 Opportunity for formative pruning to improve lighting.



19 Opportunity to improve primary gateway treatment.



20 Opportunity for formalised separated gravel trail.



21 Opportunity for decking structure (pause point).



22 Opportunity to improve road crossing (auto-sensors).

Existing condition:

This section of Gardiners Creek from Eric Raven Reserve through to Dunlop Street, Glen Iris, contains an open landscape character due to adjacent public open spaces (Dorothy Laver Reserve West).

The Gardiners Creek through this section is in a naturalised condition, with sporadic embankment vegetation to both sides of the creek.

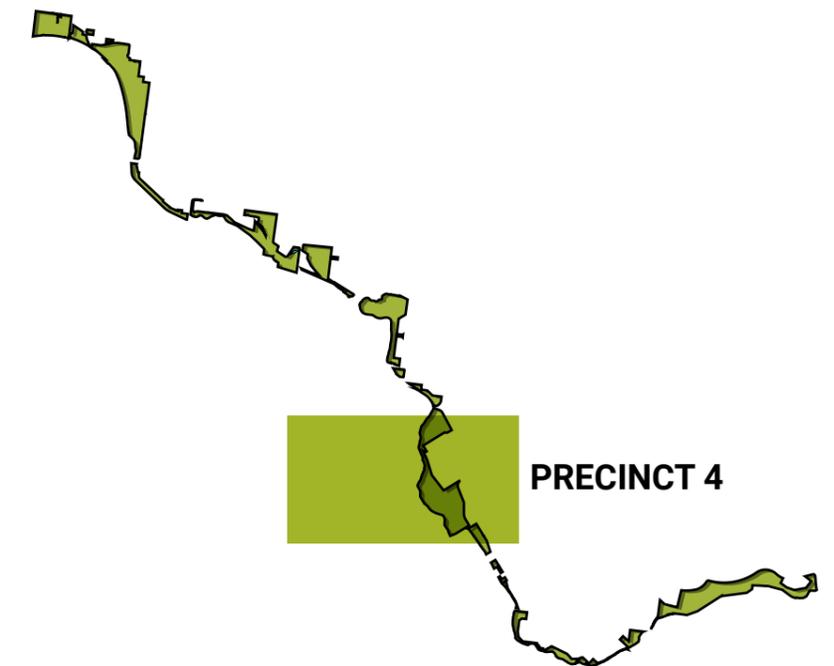
Issues and opportunities:

There are opportunities to improve gateway treatments, surface treatments, embankment revegetation, garden bed planting with ample opportunities for a separated pedestrian gravel trail. There is an opportunity for a timber platform pause point adjacent to Gardiners Creek (refer image 21).

Refer to the adjacent plan for additional notes and State Government advocacy initiatives.

Actions:

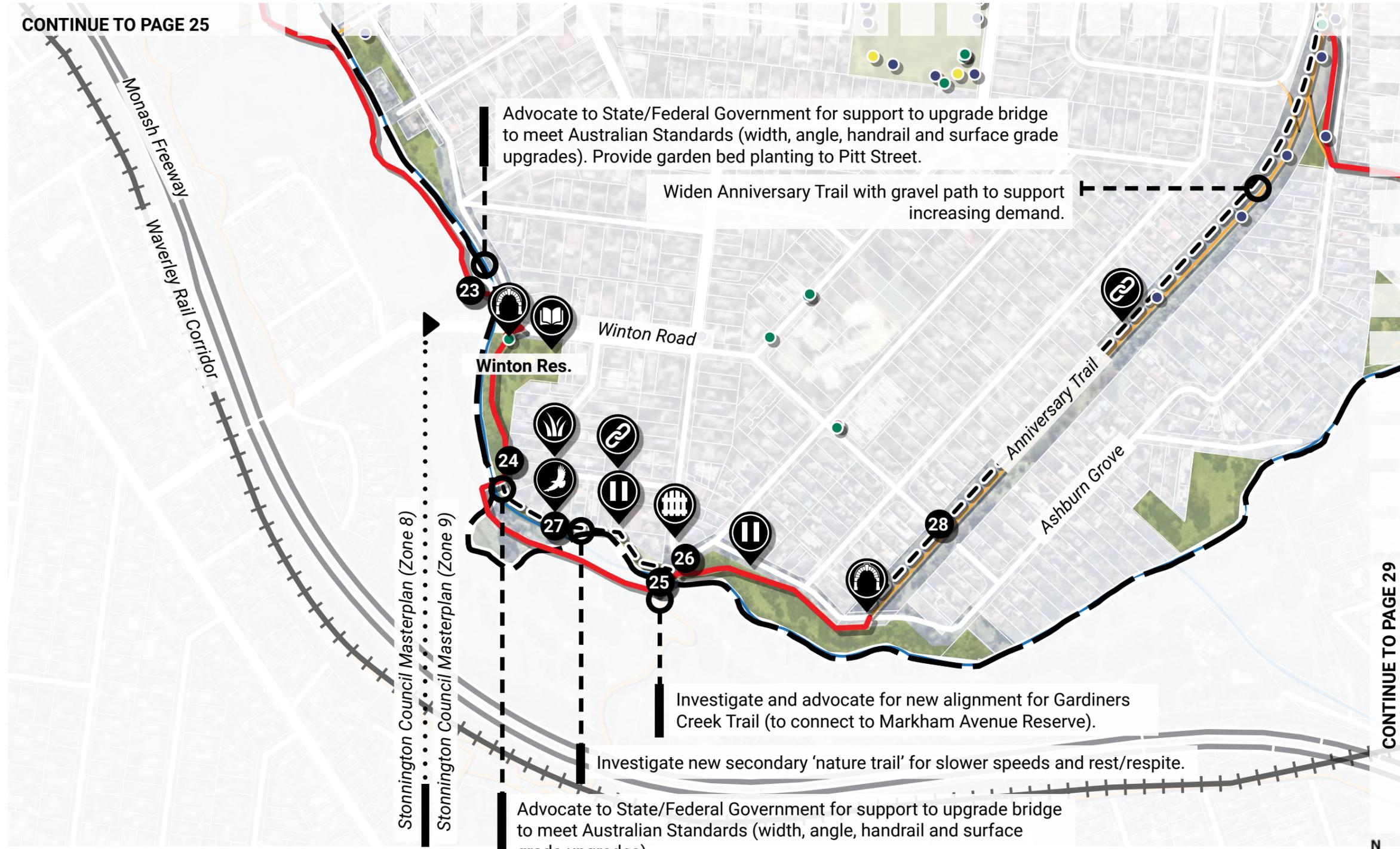
Refer page 32 for the detailed master plan actions schedule.



h. Key plan with precincts

Precinct 5

CONTINUE TO PAGE 25



Proposed Legend

- Proposed new trail
- Primary gateway (Refer pg18)
- Secondary gateway (Refer pg18)
- Pause point (Refer pg18)
- Additional educational signage (Refer pg18)
- Improve linkages to both sides of Gardiners Crk (Refer pg18)
- Enhance planting and Water Sensitive Urban Design treatments (Refer pg18)
- Recognition of Aboriginal histories, cultures and knowledges (Refer pg18)

Existing Legend

- Site photo locations
- Gardiners Creek Trail
- Secondary trail
- Gardiners Creek
- Suburb boundary
- Seat
- Litter bin
- Recycling bin
- Playground
- Bike rack

CONTINUE TO PAGE 29





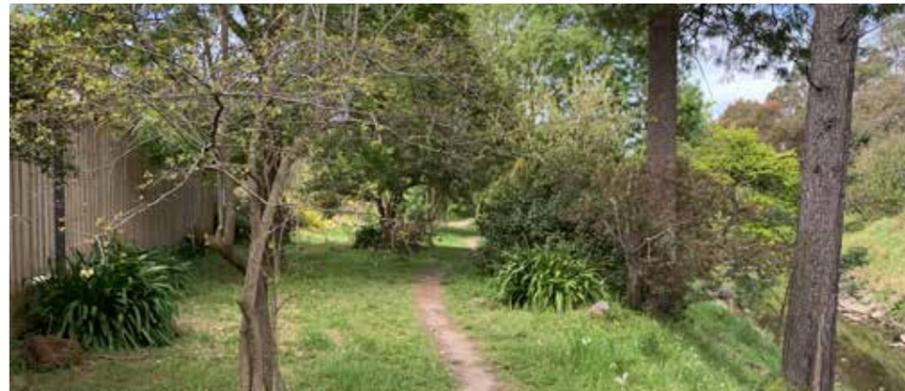
23 Opportunity to enhance garden bed planting.



26 Opportunity to improve access to new nature trail walk.



24 Opportunity to improve access to new nature trail walk.



27 Opportunity for formalised separated gravel trail.



25 Opportunity for new alignment to Markham Avenue Reserve.



28 Opportunity to widen Anniversary Trail.

Existing condition:

This section of Gardiners Creek from Winton Road, Ashburton, through to Anniversary Trail / Alamein station contains generally a narrow corridor due to adjacent landuses (residential and Malvern Valley Golf Course).

Gardiners Creek Trail in this precinct crosses between City of Stonnington and City of Boroondara areas.

Gardiners Creek through this section is in a naturalised condition, with sporadic embankment vegetation to both sides of the creek.

Issues and opportunities:

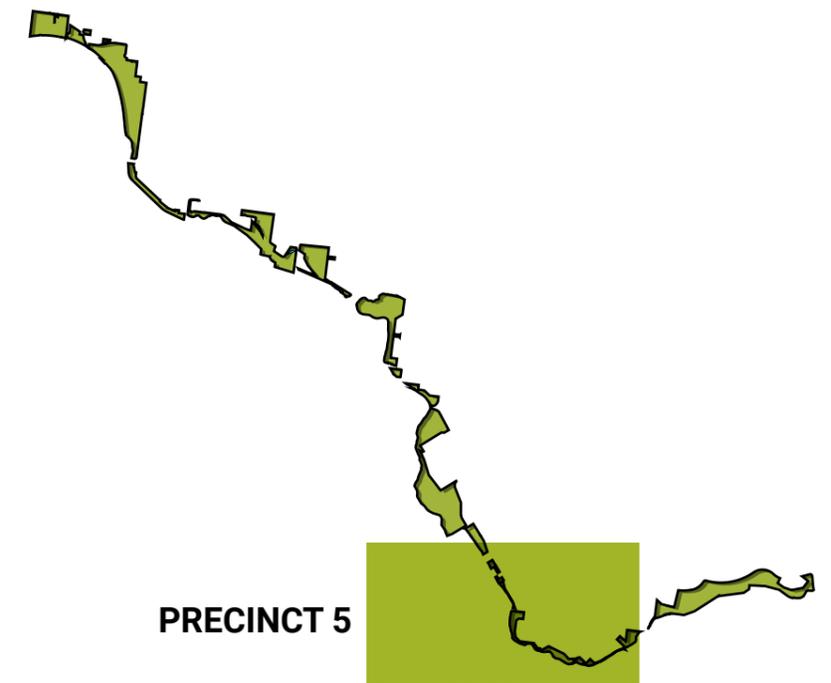
There are opportunities to improve gateway treatments, surface treatments, and opportunities for embankment revegetation and garden bed planting.

There is an opportunity to provide a secondary informal gravel 'nature walk' for reduced speed casual walkers, refer image 24. There are significant opportunities for revegetation through this section of the catchment. There is also an opportunity to widen the path at Anniversary Trail.

Refer to the adjacent plan for additional notes and State Government advocacy initiatives.

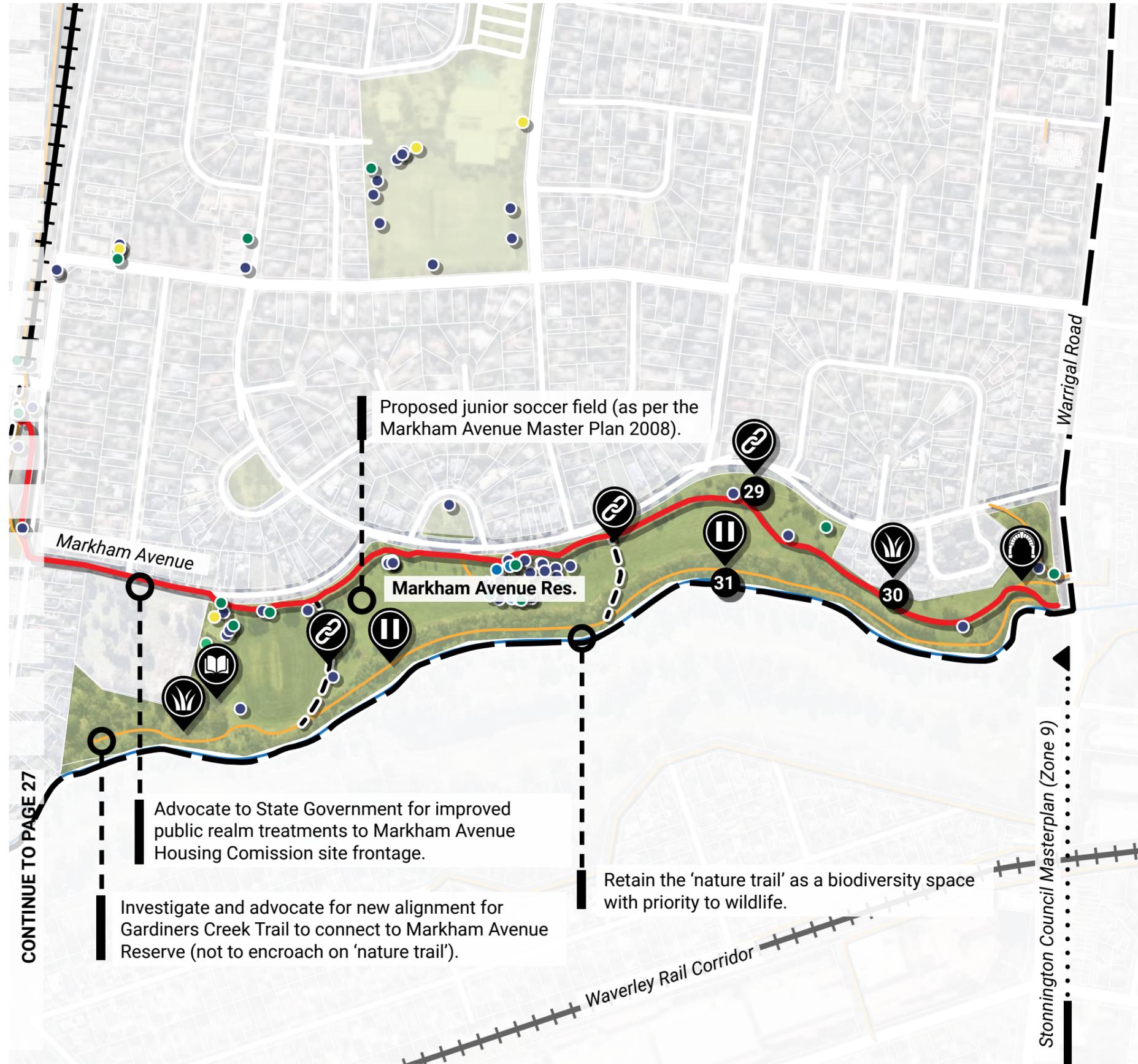
Actions:

Refer page 32 for the detailed master plan actions schedule.



i. Key plan with precincts

Precinct 6



Proposed Legend

- Proposed new trail
- Primary gateway (Refer pg18)
- Pause point (Refer pg18)
- Improve connections and improve looping tracks (Refer pg18)
- Enhance planting and Water Sensitive Urban Design treatments (Refer pg18)

Existing Legend

- Site photo locations
- Gardiners Creek Trail
- Secondary trail
- Gardiners Creek
- Suburb boundary
- Seat
- Litter bin
- Recycling bin
- Playground
- Bike rack

CONTINUE TO PAGE 27





29 Opportunity to improve pathing treatments and planting.



30 Opportunity to provide shade and buffer planting.



31 Opportunity to provide pause points for rest and respite.

Existing condition:

This section of Gardiners Creek from Ashburn Grove, Ashburton, through to Warrigal Road contains an open landscape character due to adjacent public open space (Markham Avenue Reserve).

Gardiners Creek through this section is in a naturalised condition, with mostly dense embankment vegetation to both sides of the creek.

Issues and opportunities:

Markham Avenue Reserve is in a good condition with only few suggestions proposed.

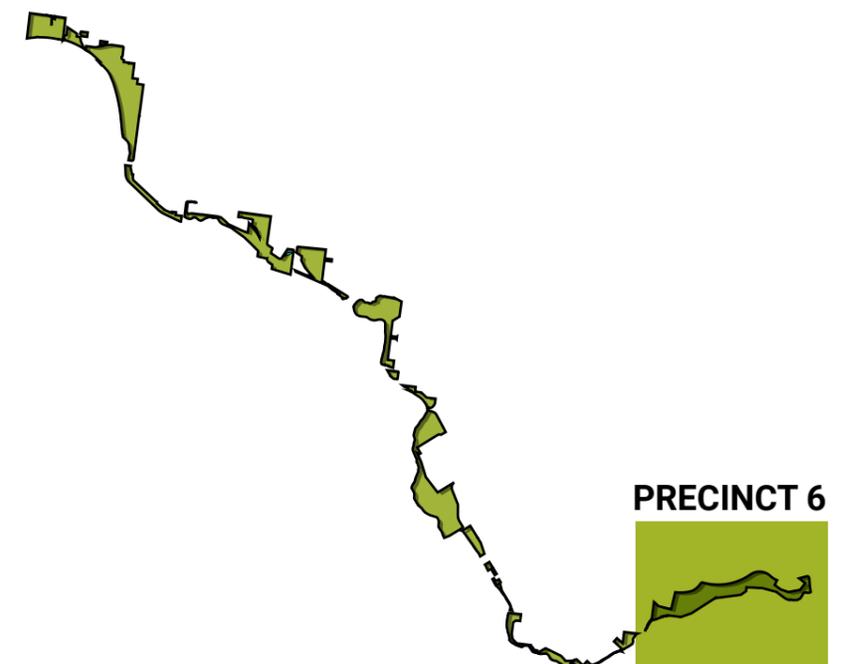
There are opportunities to improve gateway treatment at Warrigal Road, and opportunities for further widespread planting to the park.

There are opportunities to better connect visitors to the nature trail adjacent to Gardiners Creek (refer to image 31).

Refer to the adjacent plan for State Government advocacy initiatives.

Actions:

Refer page 32 for the detailed master plan actions schedule.



j. Key plan with precincts

10. Guiding Principles for Site Specific Initiatives

As identified on page 18, the below is a detailed breakdown of the 'Site Specific Initiatives'.



Permeability

1. Ensure concrete is removed from site and disposed of ethically/appropriately
2. Ensure soil is sufficiently remediated to restore its natural absorbing properties
3. Ensure soil nutrient balance is restored prior to planting
4. When planting indigenous garden beds, refer to the Biodiversity Asset Management Plan (Part Two) for the appropriate Ecological Vegetation Class (EVC). Ensure species is of local provenance.



Water Sensitive Urban Design

1. Water Sensitive Urban Design initiatives are typically in-ground raingardens and swales, in accordance with the latest Melbourne Water standards
2. When planting indigenous garden beds, refer to the Biodiversity Asset Management Plan (Part Two) for the appropriate Ecological Vegetation Class (EVC). Ensure species is of local provenance.



Links and loops

1. Gravel trails should be constructed in accordance with Council's standard details and should include timber edging
2. Implementation of gravel trails should not encroach or impact existing sensitive vegetation including tree protection zones.



Primary gateways

1. All signage that is worn/faded or damaged is to be updated in accordance with the latest Boroondara Signage Style Guide, ensuring maximum visibility to users of the Gardiners Creek Trail
2. Any new signage to be implemented is required to be designed in accordance with the latest Boroondara Signage Style Guide, ensuring maximum visibility to users of the Gardiners Creek Trail
3. Signage under this category should include a directional map at major entrances to the trail
4. New outdoor furniture such as bins, bollards and seats should be installed in accordance with Council's standard details and latest style guides
5. Minimum 8m² allocation to garden beds. When planting indigenous garden beds, refer to the Biodiversity Asset Management Plan (Part Two) for the appropriate Ecological Vegetation Class (EVC). Ensure species is of local provenance.



Education

1. New interpretive signage to be implemented to align with other interpretive signage styles in the area and should be in accordance with the latest Boroondara Signage Style Guide. All signage should be accessible via a gravel path.



Pause points

1. New outdoor furniture should be installed in accordance with Council's standard details and latest style guides.



Secondary gateways

1. All signage that is worn/faded or damaged is to be updated in accordance with the latest Boroondara Signage Style Guide, ensuring maximum visibility to users of the Gardiners Creek Trail
2. Any new signage to be implemented is required to be designed in accordance with the latest Boroondara Signage Style Guide, ensuring maximum visibility to users of the Gardiners Creek Trail
3. Signage under this category should include small-scale direction street signage
4. New outdoor furniture such as seats should be installed in accordance with Council's standard details and latest style guides
5. Minimum 4m² allocation to garden beds. When planting indigenous garden beds, refer to the Biodiversity Asset Management Plan (Part Two) for the appropriate Ecological Vegetation Class (EVC). Ensure species is of local provenance.



Recognition and celebration of Aboriginal histories cultures and knowledges

The following interventions are required to be undertaken in collaboration with the Traditional Owners, the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation, and Aboriginal stakeholders.

1. New interpretive signage to be implemented to provide insights into the Aboriginal histories and cultures of the area and/or indigenous flora and fauna
2. Integrate indigenous plants into garden bed planting
3. New interpretive public art
4. New spaces to gather such as circular seating spaces made out of natural materials.

11. Master Plan Action Schedule

Where funding is required, this will be considered as part of City of Boroondara's annual budget process. Council is not directly responsible for funding the Major Strategic and Collaborative Opportunities (these are collaborative opportunities only). These opportunities would require substantial funding from other levels of government and present an advocacy opportunity for the City of Boroondara.

Major strategic and collaborative opportunities

As identified in section 9 (precinct plans).

| Ref. | Identified action |
|------|---|
| - | Advocate to the Victorian Government to increase access and connectivity to the Gardiners Creek Trail by investigating potential new link to Scotch College. |
| - | Advocate to the Victorian Government, VicRoads and Transurban for vertical WSUD, treating water from the motorway before returning into the creek. |
| - | Advocate to the Victorian Government to upgrade the existing suspended shared user path to create separate pedestrian and cyclist paths with improved lighting for safety and break out/rest stops to increase usability and enhance cyclist and pedestrian safety. |
| - | Advocate to stakeholders including the Victorian Government for increased naturalisation of the concrete channel. |
| - | Advocate to State Government for an improved underpass at Toorak Road that is less prone to flooding and silt build-up. Advocate to Melbourne Water for an improved silt cleaning regime for the short term. Advocate to Department of Transport for review and rectification of any potential safety hazards associated with barrier fencing and lighting. |
| - | Develop opportunities and feasibility for the widening of the Gardiners Creek shared trail via a cantilevered structure subject to Melbourne Water review and approval. |
| - | Advocate to State/Federal Government for support to upgrade bridge to meet Australian Standards (width, angle, handrail and surface grade upgrades) x6 quantity. |
| - | Investigate and advocate for new alignment for Gardiners Creek Trail (to connect to Markham Avenue Reserve). |

Catchment wide initiatives

As identified on page 17.

| Ref. | Identified action |
|------|--|
| - | Work collaboratively with the regional collaboration project to explore and share research on the various issues affecting the entire catchment. |
| | Collaboratively seek funding for projects that are within and/or beyond our municipality boundaries. |

Catchment wide initiatives (cont.)

As identified on page 17.

| Ref. | Identified action |
|------|--|
| - | Consider the initiatives of the Gardiners Creek (Kooyongkoot) Master Plan when reviewing and updating our future strategies. |
| | Continue to commit to ongoing annual revegetation to biodiversity sites across the catchment within the City of Boroondara. |
| | Continued contribution to revegetation programs, including establishing a continuous riparian vegetated buffer where possible, and maintain existing vegetation. |
| | Continue to support community groups and build capacity through citizen science and cultural engagement. Actively continue to advocate and work collaboratively with other levels of government, relevant agencies and key stakeholders to improve the health of the catchment. |
| | Deliver a program of habitat restoration and the installation of nest boxes. |
| | Where a mutually beneficial opportunity exists, we may seek negotiations with these property owners to consider subdivision or leasing arrangements. When land that is situated on the river corridor is offered for sale, Council will investigate purchasing this land to amend property boundaries (to return the creek frontage to the public domain). The remaining land and associated property will then be re-sold in accordance with Section 112, LGA 2020. |
| - | Investigate stormwater irrigation locations including sporting ovals and garden beds. Continue to increase water harvesting opportunities where possible. |
| | Support flood management activities in a way that better protects properties from flooding while also protecting the environment, amenity and function of Council assets that are our responsibility. |
| | Continued contribution into projects to minimise impervious surfaces, reuse water on site, incorporate detention and retention basins to reduce peak flows, and use biofiltration systems or wetlands to remove pollutants. |
| | Through any building projects explore opportunities for associated Water Sensitive Urban Design projects. |

Catchment wide initiatives (cont.)

As identified on page 17.

| Ref. | Identified action |
|------|--|
| - | Explore ways to make clear the alternative routes available for different users. e.g. linemarking, signage and/or surface treatments to inform users of alternative routes. |
| | Continue ongoing safety audits to our shared paths in accordance with the relevant standards. Ensure path surfacing, grades and path drainage is appropriate for use |
| | Separate paths for pedestrians and bicycle riders should be provided on high volume routes (where possible). Other shared path upgrades to be considered are drainage improvements, kerb ramps and amenities, such as water fountains and seating. |
| | Ensure all furniture on the Gardiners Creek Trail is accessible. Where appropriate include a gravel access path connecting to the asset. |
| | Promote consistency in furniture styles (in accordance Boroondara's latest furniture styles). |
| - | Develop a Pollution and Litter Reduction Plan, an objective from the Climate Action Plan to be delivered this financial year (22/23). |
| | Advocate and work collaboratively with other key stakeholders such as Melbourne Water, Yarra Valley Water, Environmental Protection Authority and local councils to better identify and manage sources of pollution and litter. |
| | Investigate markers and contact information on proposed signage to support the community in reporting pollution |
| | Continue to support community groups through 'Clean Up Australia' and the various 'friends of' groups associated with the catchment. |
| | Ensure Council's practices, including weed management, are conducted in a way to avoid pollution of the creek or creation of litter. |
| - | Opportunity to recognise the Traditional Owners, the Wurundjeri Woi-wurrung people, and the Aboriginal histories and cultures of the area. |

Precinct 1 (Short-term priorities)

As identified on page 18 and page 31.

| Ref. | Identified action |
|------|--|
| 1A | Secondary gateway: 4m ² garden bed planting. |
| 1B | Secondary gateway: Small-scale directional street signage. |
| 1C | Permeability: Remove excess concrete (~30m ²). |
| 1D | Permeability: 30m ² garden bed planting. |
| 1E | Primary gateway: Install seat. |
| 1F | Primary gateway: Install recycling bin. |
| 1G | Primary gateway: Install directional map. |
| 1H | Primary gateway: 8m ² garden bed planting. |
| 1I | Links and loops: 450 lin. m gravel path. |
| 1J | Primary gateway: Install bollards to key entrances to exclude private vehicles from Gardiners Creek Trail. |
| 1K | Recognition of Aboriginal histories, cultures and knowledges: Refer page 31 for suggested actions. |

Precinct 2 (Short-term priorities)

As identified on page 18 and page 31.

| Ref. | Identified action |
|------|--|
| 2A | Secondary gateway: 4m ² garden bed planting. |
| 2B | Secondary gateway: Small-scale directional street signage. |
| 2C | Secondary gateway: 4m ² garden bed planting. |
| 2D | Secondary gateway: Small-scale directional street signage. |
| 2E | Primary gateway: Install seat. |
| 2F | Primary gateway: Install litter and recycling bin. |
| 2G | Primary gateway: Install directional map. |
| 2H | Primary gateway: 8m ² garden bed planting. |
| 2I | Secondary gateway: 4m ² garden bed planting. |
| 2J | Secondary gateway: Small-scale directional street signage. |
| 2K | Secondary gateway: 4m ² garden bed planting. |
| 2L | Secondary gateway: Small-scale directional street signage. |
| 2M | Secondary gateway: Install seat. |
| 2N | Education: Install interpretive sign facing wetland. |
| 2O | Links and loops: ~70 lin. m gravel path. |
| 2P | Primary gateway: Install litter and recycling bin. |
| 2Q | Primary gateway: Install directional map. |
| 2R | Primary gateway: 8m ² garden bed planting. |
| 2S | Secondary gateway: 4m ² garden bed planting. |
| 2T | Secondary gateway: Small-scale directional street signage. |

Precinct 2 (Short-term priorities) cont.

As identified on page 18 and page 31.

| Ref. | Identified action |
|------|---|
| 2U | Investigate opportunities to Toorong Road underpass such as climbing wall, bike track, feature lighting public art etc. |
| 2V | Investigate opportunities to Burke Road underpass such as improved lighting, public art etc. |
| 2W | Recognition of Aboriginal histories, cultures and knowledges: Refer page 31 for suggested actions. |
| 2X | Recognition of Aboriginal histories, cultures and knowledges: Refer page 31 for suggested actions. |

Precinct 3 (Short-term priorities)

As identified on page 18 and page 31.

| Ref. | Identified action |
|------|--|
| 3A | Secondary gateway: 4m ² garden bed planting. |
| 3B | Secondary gateway: Install seat. |
| 3C | Secondary gateway: Small-scale directional street signage. |
| 3D | Secondary gateway: 4m ² garden bed planting. |
| 3E | Secondary gateway: Install seat. |
| 3F | Secondary gateway: Small-scale directional street signage. |
| 3G | Links and loops: ~150 lin. m gravel path. |
| 3H | Primary gateway: Install litter and recycling bin. |
| 3I | Primary gateway: Install directional map. |
| 3J | Primary gateway: 8m ² garden bed planting. |

PRECINCT 4 (Short-term priorities)

As identified on page 18 and page 31.

| Ref. | Identified action |
|------|---|
| 4A | Secondary gateway: 4m ² garden bed planting. |
| 4B | Secondary gateway: Small-scale directional street signage. |
| 4C | Secondary gateway: 4m ² garden bed planting. |
| 4D | Secondary gateway: Small-scale directional street signage. |
| 4E | Primary gateway: Install litter and recycling bin. |
| 4F | Primary gateway: Install directional map. |
| 4G | Primary gateway: 8m ² garden bed planting. |
| 4H | Pause point: Install seat. |
| 4I | Recognition of Aboriginal histories, cultures and knowledges: Refer page 31 for suggested actions. |
| 4J | Water Sensitive Urban Design: Exact extent of treatment area to be confirmed on-site to ensure site suitability and successful establishment. |
| 4K | New decking structure adjacent to creek (Dorothy Laver Res. West). |

PRECINCT 5 (Short-term priorities)

As identified on page 18 and page 31.

| Ref. | Identified action |
|------|---|
| 5A | Primary gateway: 8m ² garden bed planting. |
| 5B | Primary gateway: Install directional map. |
| 5C | Primary gateway: Install recycling bin. |
| 5D | Education: Install interpretive sign facing Winton Community Garden. |
| 5E | Links and loops: ~210 lin. m gravel path. |
| 5F | Recognition of Aboriginal histories, cultures and knowledges: Refer page 31 for suggested actions. |
| 5G | Pause point: Install seat. |
| 5H | Water Sensitive Urban Design: Exact extent of treatment area to be confirmed on-site to ensure site suitability and successful establishment. |
| 5I | Secondary gateway: 4m ² garden bed planting. |
| 5J | Secondary gateway: Small-scale directional street signage. |
| 5K | Pause point: Install seat. |
| 5L | Primary gateway: 8m ² garden bed planting. |
| 5M | Primary gateway: Install directional map. |
| 5N | Primary gateway: Install litter and recycling bin. |
| 5O | Primary gateway: Install seat. |
| 5P | Links and loops: ~850 lin. m gravel path. |

PRECINCT 6 (Short-term priorities)

As identified on page 18 and page 31.

| Ref. | Identified Action |
|------|---|
| 6A | Water Sensitive Urban Design: Exact extent of treatment area to be confirmed on-site to ensure site suitability and successful establishment. |
| 6B | Education: Install interpretive sign facing community garden. |
| 6C | Links and loops: ~150 lin. m gravel path. |
| 6D | Pause point: Install seat. |
| 6E | Links and loops: ~120 lin. m gravel path. |
| 6F | Pause point: Install seat. |
| 6G | Links and loops: ~130 lin. m gravel path. |
| 6H | Water Sensitive Urban Design: Exact extent of treatment area to be confirmed on-site to ensure site suitability and successful establishment. |
| 6I | Water Sensitive Urban Design: Exact extent of treatment area to be confirmed on-site to ensure site suitability and successful establishment. |
| 6J | Primary gateway: 8m ² garden bed planting. |
| 6K | Primary gateway: Install directional map. |
| 6L | Primary gateway: Install litter and recycling bin. |
| 6K | Primary gateway: Install seat. |

12. Glossary and References

Master plan: A long-term guide to the future development of a site and to ensure appropriate planning and allocation of resources. They are often a means of implementing the objectives, strategies and outcomes identified in a structure planning process. Master plans are also undertaken when there are issues or opportunities within a place that need to be resolved to meet the changing needs of the community. Master plans ensure that the short and long-term interests and needs of the community are appropriately addressed. Master plans do not represent a commitment to implement all components of the plan, which will be reviewed at regular intervals and may be subject to change. Implementation of master plan recommendations are considered annually as part of the Council budget process, in conjunction with all Council Plan and Budget priorities.

Catchment: A catchment is an area of land where water collects when it rains. As the water flows over the landscape it finds its way into streams and down into the soil, eventually feeding the river. Some of this water stays underground and continues to slowly feed the river in times of low rainfall.

Corridor: A river corridor includes lands adjacent to and including the course of a river.

Council: Indicates the City of Boroondara as a geographical area and also refers to the entity which has the authority to make decisions on behalf of the Boroondara community.

Open space: 'Open Space' is defined as, but not limited to, gardens, parks, sports grounds, road reserves, bush reserves, major leisure facilities and crown land reserves owned or managed by Council.

WSUD: Acronym for Water Sensitive Urban Design.

Water Sensitive Urban Design: The integration of urban planning with the management, protection and conservation of the urban water cycle that ensures urban water management is sensitive to natural hydrological and ecological cycles.

