



# Urban Forest Strategy

## 2022-2040

Bayside City Council acknowledges the Traditional Owners and custodians of this land, the Bunurong people, and we pay our respects to their Elders past, present and emerging.





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Photo of *Leptospermum laevigatu m* – Coast Tea-tree taken by Pauline Reynolds



## Traditional Owners acknowledgement

Bayside City Council acknowledges the Traditional Owners and custodians of this land, the Bunurong people, and we pay our respects to their Elders past, present and emerging.

Indigenous culture and heritage is respected and appreciated by the Bayside community who will work together to create a better future for all Australians.

Bayside City Council recognises the distinctive relationship that Indigenous people have with local land and waters, including trees, hills and valleys, creeks and foreshore of Bayside.

**Photo of *Banksia integrifolia* – Coastal Banksia (near Ricketts Point) taken by Pauline Reynolds**





## Executive Summary

Across Bayside, tree and vegetation retention and protection has become an increasingly urgent issue to address. As our climate continues to change, including increasing urban heat, it is important that our community can come together and respond to the challenges that will be faced by the next generation and restore biodiversity and ecosystem functions in our municipality. The actions we take today will positively impact the challenges we face tomorrow.

As a municipality, Bayside serves many purposes. A place to call home, a place to play, a place to live and to explore. Trees, grass, shrubs, under-storey planting and gardens are all highly valued fundamental pieces of what makes an open space and helps provide a connection to nature and pride of place to our residents and visitors.

It is these fundamental pieces that are also building blocks to the ecosystem that we are part of and are the answer to improving biodiversity and restoring Bayside into a more ecologically connected city. Streetscapes, public open spaces and private gardens provide opportunities and space to integrate habitats that increase biodiversity. By transforming our city to allow for more native under-storey, planting of more diverse and resilient trees and other forms of fauna, we can improve the ecosystem we are part of and help tackle the impacts of climate change, alongside a myriad of other benefits. While being a main player in this transformation, it will also be important that Council foster inclusion and participation through its efforts and inform the community of these values and benefits as it is happening, taking residents along the journey of restoring Bayside's biodiversity.

Before considering the benefits, the historic 'why' and 'need' is critical to explain. In December 2019, Bayside City Council declared a climate emergency and has since prepared a Climate Emergency Action Plan 2020-2025. Climate change is a very real challenge and without making any changes to our environment or the way we behave as a society, there will be very real impacts. Increasing urban heat will leave our urban forest vulnerable, compromising the benefits derived from urban nature like cleaner air and water, reduced heat and habitat for wildlife. Extreme weather events like flooding, heatwaves and droughts will become more frequent and harsher, and this will severely impact our residents and our resiliency.

In responding to the impacts of climate change, there are fundamental changes that we as a society have to make together. As an organisation, we have been tackling climate change for many years. We have taken many actions: installing solar panels, introducing food waste recycling, and low emission fleet vehicles as well as purchasing renewable energy and becoming carbon neutral. Expanding the Bayside Urban Forest is the next step for us, and one which will be challenging and that we need to take together with our community to help cool the urban environment in which our residents live.

Increased tree and vegetation cover helps reduce heat island effect, will improve the habitat diversity and connectivity and conserve our biodiversity. To ensure this, we know we must increase our promotion of indigenous plants in Bayside, and will work towards creating a healthy, resilient and diverse urban forest by 2040. Bayside City Council has endorsed *Living*

*Melbourne: Our Metropolitan Urban Forest* in 2019, which sets out regional targets for tree and vegetation canopy cover to be reached by 2030, 2040 and 2050.

By coming together as a community to increase the tree canopy cover and improve the overall biodiversity functions of our urban forest, we will become more resilient in more ways than one. This Strategy has been developed to align with Council's existing Strategic Planning Framework while also setting the strategic direction for future years to ensure the continued expansion, diversification, good health and retention of a resilient urban forest.

Growing the health and resilience of the Bayside Urban Forest is recognised as both a key challenge and objective of this Strategy. It is approximated that the City of Bayside has 16.07% tree canopy cover. To grow the urban forest, we must not only plant new trees and vegetation, but also continue to monitor and retain existing trees to allow for improved survival rates and lifespan. Increasing the species diversity within the Bayside Urban Forest will assist in "future proofing" the urban forest in the face of a challenging climate which is predicted to be drier and windier.

This document has identified key challenges impacting the Bayside Urban Forest. These challenges were categorised into three major groups being Environmental, Development and Social challenges. To address these challenges, actions have been identified under five key themes; increase, healthier ecosystems, monitor, retain and learn & celebrate.

## Our Vision

***"Bayside's urban forest will support and contribute to a cooler, greener and ecologically connected Bayside through increased vegetation and canopy cover, that provides areas of habitat for biodiversity to thrive, enhances the amenity and character of the municipality, and builds on our community's connection to nature."***

## Our Goal

We have three major goals to ensure the increase and improvement of the Bayside Urban Forest and the functions it serves.

**Goal 1:** Bayside City Council, alongside the Bayside community, State Government, and other agencies, will aim to achieve an increase in the municipal tree canopy cover from 16.01 per cent to 30% by 2040. Specifically, on Council-managed land, we will aim to achieve:

- Tree canopy cover over parks and reserves to increase from 20.3% to 30%
- Tree canopy cover over roads and streets to increase from 24% to 35%
- Tree canopy cover on Council owned car parks to increase from 15.6% to 25%
- Tree canopy cover on the foreshore and other areas\* to increase from 17.4% to 30%

*\*Other areas also include any existing or future public gardens that aren't within parks or reserves, and driving ranges.*

While we will encourage and support the increase of tree canopy cover on private land to help reach this target, it is recognised that the uptake of tree planting can only be enforced through better planning mechanisms, education and advocacy. It is acknowledged that reaching this goal by 2040 will not come without its challenges. We will aim for these increases and do our best to drive change however knowingly this will require increased financial contributions and resources.

**Goal 2:** In recognising the importance of the Urban Forest as a whole, through partnership with the community, Council will raise awareness of the biodiversity gains that can be provided in backyards, front yards, nature strips and beyond. We will support the community and do our best to increase vegetation cover across Bayside, focussing on understorey planting in particular, for the benefit of our current and future residents and the ecosystem we are within.

**Goal 3:** Council will seek to increase understorey planting throughout Council streets, parks and reserves to improve native biodiversity, provide habitat and food sources for a range of fauna.

## **Strategic Objectives of the Strategy**

This Strategy identifies the following Strategic Objectives:

- Increase tree canopy from 16.01% at present to 30% by 2040;
- Prioritise and strengthen the support for retaining existing trees on public and private land;
- Support and enhance our local biodiversity by improving connectivity for habitat;
- Adapt to climate change and maximise environmental outcomes including the retention of rainwater;
- Reducing heat exposure;
- Raise the level of community awareness and participation;
- Maximise community health and wellbeing outcomes from increased tree and vegetation cover and spread the word on both big and little wins;
- Strengthen Council's ability to retain and monitor trees on both public and private land.

Supporting each objective are a series of strategies and actions to deliver the outcomes from this Strategy.

### **Key Action – Precinct Plans**

The Urban Forest Strategy identifies a range of actions to be undertaken over the next four years. A key focus is the preparation of Precinct Plans for each suburb in Bayside. Each Precinct Plan will be informed by community consultation and will provide set targets to respond to the individual needs, challenges and aspirations for the locality.

# Introduction

## ***The Bayside History***

The Bayside community has a long and passionate history in protecting and actively caring for areas of natural habitat on public land, both on the foreshore and within the inland bushland reserves. Bayside's foreshore is highly valued for its combination of the beach and the associated coastal vegetation, whilst the inland bushland reserves contain important remnants of indigenous heathland vegetation. Conservation and retention of this indigenous vegetation has come about through the voluntary work of many people over the decades, in conjunction with Council and the Department of Environment Land Water and Planning. Bayside currently has 18 'Friends of' groups working in both coastal and bushland reserves whose members are hands-on volunteers caring for the local natural environment.

In 1978, the then Sandringham Council was one of the first municipalities in Australia to establish a nursery that collected seeds from local vegetation communities to propagate and grow local indigenous plants. The nursery is still in operation and supplies around 10,000 tubes per year for use in managing and restoring local bushland and coastal vegetation, as well as retailing local plants for local private gardens.

There are many volunteers that work at the Bayside Community Nursery, and/or are part of Friends of Parks groups in Bayside, which support activities, projects and programs to enhance and protect biodiversity in Bayside. Council supports the community's role in development and acknowledges the mammoth effort and work that volunteers have provided over the years. Community planting, propagation, weeding and conservation work helps to develop an understanding and skill for planting and tree retention on both public and private property, and this Strategy recognizes this work as a major strength to assist the expansion of the Bayside urban forest.

With the support of Council, community involvement should continue to be strengthened to bring more people together and build our community's awareness and education on the importance of a healthy and resilient urban forest. Building community resilience will allow the Bayside community to grow together and strengthen the connection to local land.

Engaging the community in activities such as tree plantings and maintenance can have a great impact on Bayside's tree population. It provides residents with a platform to become involved with Bayside's urban forest while also educating them on the best ways to care for their own trees at home. This will provide Council with a pathway to influence the tree population that exists on private land and help residents maintain their physical and mental health.

## ***The changing environment***

As our population continues to grow, so does the number of dwellings in Bayside. Urban landscapes are highly fragmented, often containing patches of remanent vegetation and/or semi-natural habitats surrounded by a matrix of land uses that support human activities (residential, commercial, parks and roads). As our environment changes, so does the ability of these land uses to facilitate or impede species movement (or as referred to also as habitat



connectivity).<sup>1</sup> That's why it is important to not only encourage the increase of greening in private and public places, but also ensure that these places can be functionally connected by utilising particular species to facilitate movement.

With over 60% of land in Bayside being privately owned, trees and vegetation on private property evidently make up a significant proportion of Bayside's urban forest as well as habitat connectivity and movement. The removal of vegetation on private property is a significant and challenging issue to address as the management of "private" trees, to some extent, falls into the hands of individual property owners. There is, however, a regulatory framework that governs tree removal, which is primarily the Bayside Planning Scheme and Local Law No.2. In administering these frameworks, Council has encountered several challenges in how they operate and how data is recorded in relation to protecting trees and vegetation on private property. The Urban Forest Strategy examines these processes and determines areas for improvement.

The frameworks often overlap, particularly when a planning process involves the removal of a Local Law protected tree. Further to this, there are limitations to regulating vegetation removal where tree protection becomes a challenge in the face of ongoing development pressure and individual (community) attitudes towards trees on private property.

By undertaking a number of process improvements and streamlining Council's biodiversity, tree and other related strategies, this will result in a more clarified set of outcomes that will increase the growth of Bayside's urban forest.

Undertaking a precinct-based approach to the protection, retention and enhancement of the urban forest will allow Council to consider the local opportunities for vegetation and tree plantings, process improvements and other locally specific issues.

This Urban Forest Strategy is informed by the existing tree canopy and vegetation cover data for the Bayside municipality, the health and conditions of the Council managed tree population, and tree removal data collection for local law and planning permits. The *Living Melbourne; Our Metropolitan Urban Forest*, as well as State and Local government plans, policies, strategies, guides and procedures have shaped the key themes and actions of this Strategy.

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<sup>1</sup> Taylor, P.D., Fahrig, L., Henein, K. & Merriam, G. (1993). 'Connectivity is a vital element of landscape structure.' Published by Wiley on behalf of Nordic Society Oikos.

# Bayside's Urban Forest

## What is an Urban Forest?

The urban forest encompasses all the trees, shrubs, grasslands, and other vegetation – and the soil and water that support them – within Bayside, on both public and private land. The urban forest incorporates vegetation in streets, parks, gardens, plazas, campuses, river and creek embankments, wetlands, railway corridors, community gardens, home gardens, green walls, balconies and roofs.<sup>2</sup> Fauna is an important component too, with complex interrelations between animals and plants helping to maintain the urban forest.

For metropolitan Melbourne, the urban forest plays a significant role in making our city a place where we can all thrive. But Melbourne's urban forest is also under pressure. A denser urban form and concerns about the impact of trees on private and public infrastructure has increasingly limited opportunities for trees. There is a need to transform our perspective and approach to design around trees. A changing climate and higher urban temperatures put physical stress on the forest and need to act now to combat these challenges.

Bayside's urban forest is made up of native, indigenous, and exotic trees, shrubs, grasslands, and other vegetation, growing on public and private land, and the soil and groundwater that support them. This includes vegetation in parks, reserves, private gardens, along railways, waterways, main roads and local streets, and on other green infrastructure such as green walls and roofs. The urban forest provides habitat to a wide range of fauna.

Urban forest strategies have become increasingly recognised as important in addressing the issues associated with urbanisation and tree loss, combined with the emerging impacts of climate change, including urban heat islands created by a prevalence of hard surfaces.

## Benefits of Urban Forest

Trees and vegetation have an intrinsic value, from an environmental perspective, but also from an economic, amenity and character perspective.

Trees and vegetation are an integral part of Bayside's neighbourhood and urban character, contributing to the liveability of our suburbs, encouraging active participation in the form of walking, running, cycling and social gatherings and interaction. In Bayside, the urban forest plays a critical role in providing for a high amenity urban environment, fostering habitat and biodiversity, contributing to neighbourhood character, and providing a range of environmental benefits, which include:

- providing shade and cooling the urban environment,
- providing relief from (reducing) the urban heat island effect,
- filtering air pollutants,
- providing wind protection,
- locking up carbon and releasing oxygen into the air,

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<sup>2</sup> Resilient Melbourne, Living Melbourne Strategy, 2018, available at: [https://resilientmelbourne.com.au/wp-content/uploads/2019/09/LivingMelbourne\\_Strategy\\_online3.pdf](https://resilientmelbourne.com.au/wp-content/uploads/2019/09/LivingMelbourne_Strategy_online3.pdf)

- reducing storm water run-off,
- providing habitat and connectivity corridors for wildlife,
- acting as a screen for privacy, dampening noise,
- preventing erosion and stabilizing the soil, particularly for coastal environments,
- soften and beautify the urban environment,
- improving urban amenity and therefore community pride of place,
- providing cool green space for active and passive recreation,
- supporting our mental health and feeling of well-being, and
- protection/conservation of remnant indigenous vegetation.

While an increase in trees has many benefits, increasing the level of under-storey planting surrounding these trees in turn improves biodiversity, protects the root zones for canopy trees and increases moisture retention. While this Strategy looks to increase tree canopy cover across the municipality, it is important to recognise that increased tree canopy cover may not be appropriate for all areas and more benefits may arise by increased vegetation cover to enhance biodiversity



## The existing Urban Forest in Bayside

In the City of Bayside, there is approximately 16.07% tree canopy cover (measured in 2018). In 2014, there was approximately 16.89% of tree canopy cover (a decrease of 0.82%).

Of this 16 per cent, approximately 7% of canopy cover is on Council-owned land, being provided by Council managed trees in streets, parks and reserves. Street trees are a major contributor to the overall tree canopy cover and when planted appropriately, can act as a habitat corridor which links to nearby parks and reserves and trees on private property.

Council managed street and park trees are a major contributor to the Bayside Urban Forest. There are over 60,000 trees managed by Council, spread throughout the municipality.

In terms of vegetation cover, there is approximately 18.56 per cent across Bayside. This comprises of shrubs and grass. Of this 18.56%, shrubs make up for approximately 8%.

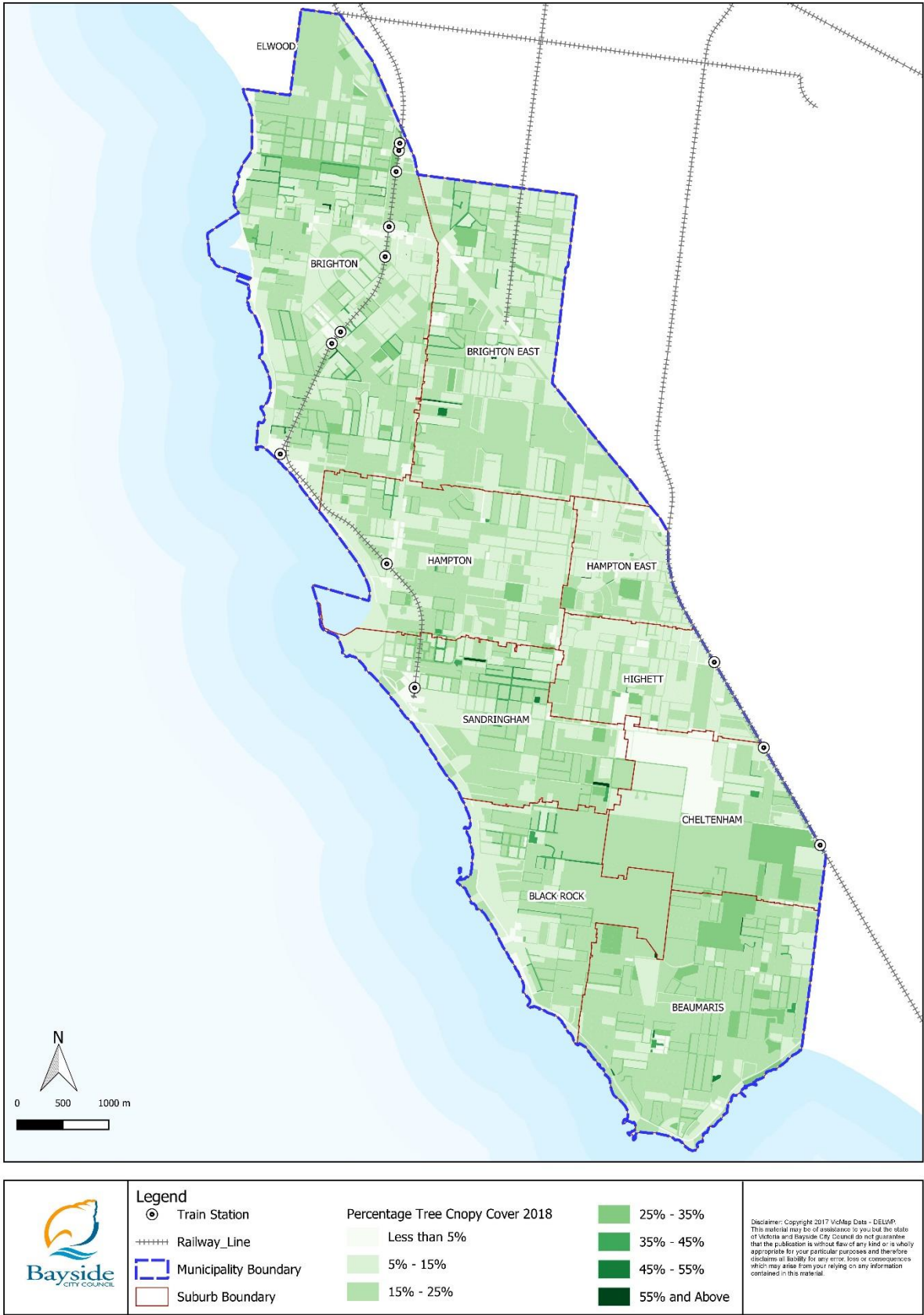
Areas that provide the most opportunity for additional tree and vegetation planting are those that currently comprise of a small percentage of cover currently. This includes the Bayside Business District, housing growth areas and activity centres as well as along the foreshore and our golf courses. Many of our parks can also accommodate more tree and under-storey planting with careful selection and placement. The redevelopment of the former Golf Course to a Nature Reserve at Elsternwick Park is an excellent example of a new opportunity for increased tree planting and under-storey planting to enhance biodiversity.

The creation of the Chain of Ponds at Elsternwick Park Nature Reserve will improve the conditions of our natural environment in Bayside and provide greater ability for animals to move throughout the landscape. As we start to identify other locations to improve habitat connectivity in Bayside, this wildlife movement and migration through Bayside will increase further, allowing our municipality to be more ecologically connected than ever before

Artist Impression of the Chain of Ponds at Elsternwick Park Nature Reserve

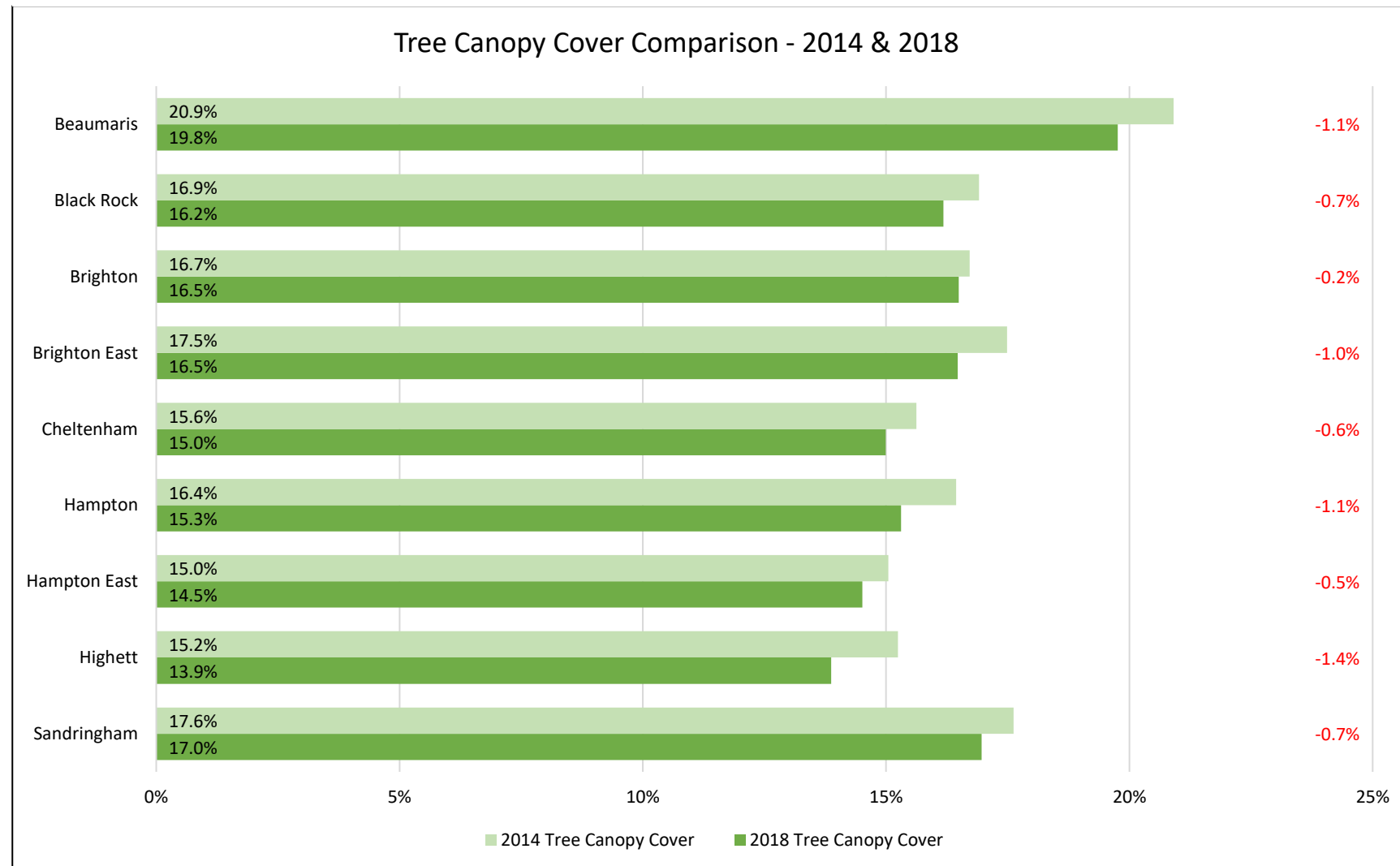


Map 1 Tree Canopy Cover in Bayside 2018



By utilising the State Government tree and vegetation canopy cover data from 2018, Council's GIS team was able to analyse and approximate the tree canopy cover per suburb and compare this to the tree canopy cover in 2014. The data identifies a slight decline in tree canopy cover, with the biggest changes being felt in Highett, Hampton, Beaumaris, and Brighton East.

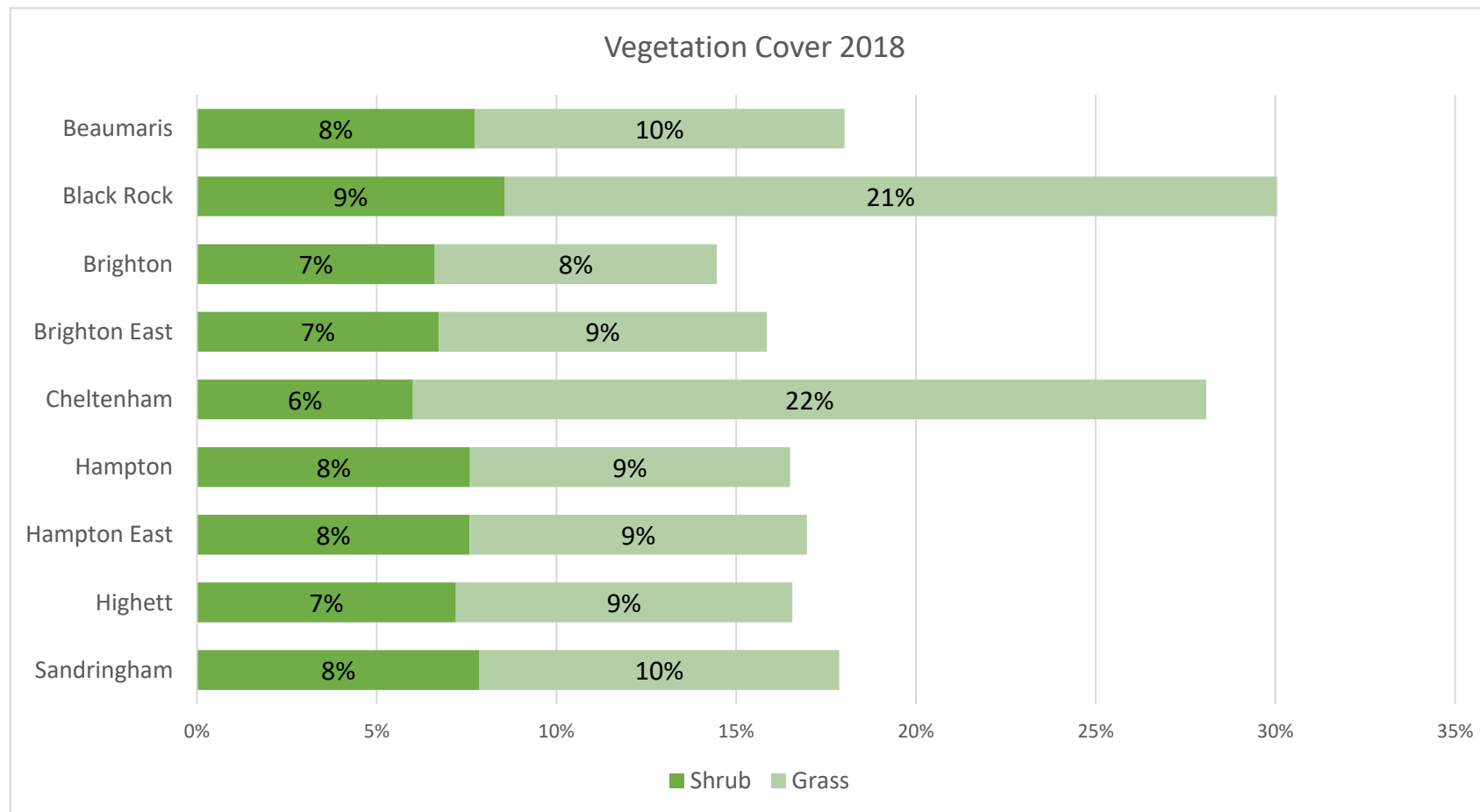
**Figure 1:** Suburb wide Tree Canopy Cover in 2014 and 2018





**Figure 2:** Suburb Wide Vegetation Cover in Bayside 2018

State Government Vegetation Cover data from 2018 was also utilised and separated into shrub and grass percentage cover per each Suburb in Bayside. Cheltenham and Black Rock notably have an influx in vegetation cover likely due to the public golf courses within these suburbs. The overall vegetation cover for Bayside is 18.56%



## The Council managed tree population

There are over 60,000 trees in parks and streets in the City of Bayside. Each year, Council plants over 1,400 trees in streets, parks and reserves in Bayside. Depending on the number of street upgrades, proposed park planting and other opportunities that arise to plant trees, this can sometimes increase to over 2,000 trees per year.

Council has a tree inventory to help Council officers manage and monitor the Council managed tree population in Bayside. The tree inventory is regularly updated as monitoring, pruning, removal and planting works on individual trees are undertaken. The species, age, health and estimated useful life expectancy of each tree is recorded in the inventory and this data has been used to develop a profile of the Council managed street and park trees in Bayside.

Factors such as tree species, health, maturity, and useful life expectancy play key roles in ensuring the longevity and resilience of the Council managed tree population, and have been utilised in this Strategy to inform the key challenges, actions and objectives.

### Species Diversity and Improving Habitat Connectivity

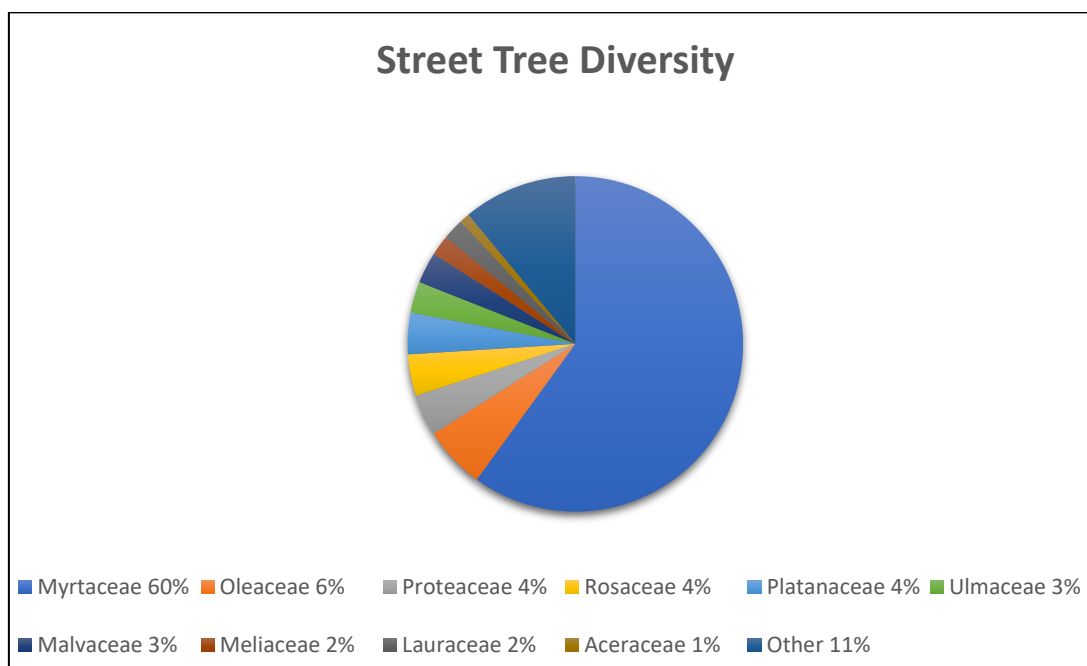
A resilient urban forest has a diverse range of species from different families. Not only does a diverse species selection reduce the likelihood of pests or diseases attacking a particular species, it also improves the biodiversity and ecosystem services.

Birds often migrate through Bayside to and from breeding grounds, travelling through Bayside streets, gardens and foreshore and stopping during daylight to refuel on insects and flying by night. Many indigenous trees can and are a food source for these birds and are an essential component of environmentally sustainable urban design.

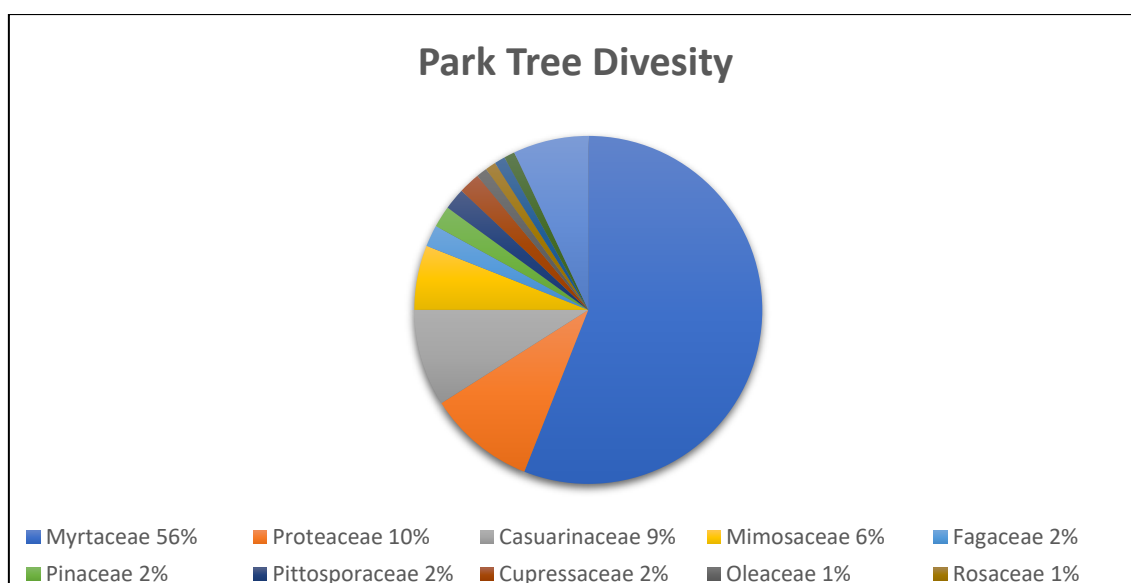
Increasing the use of native and indigenous tree species is one key action and an obvious approach to improving habitat within Bayside. Swapping out alien-species for indigenous plants will be vital to rebuilding the ecological foundations and set the stage for environmental recovery in Bayside. There are plenty of trees that are indigenous that are both aesthetic and functional form the basis of an environmentally friendly street tree.

In order to improve species diversity, Council is undertaking further investigations through its Park Improvement and Habitat Linkage Plan to understand what species (trees and vegetation) would best support specific locations in Bayside and encourage this rebuilding of the ecological foundations in Bayside. Currently, Bayside's street and park tree population is largely dominated by the Myrtaceae family (eucalypts etc) (as seen in Figure 2 and 3), making up 60% of all street trees and 56% of all park trees, with no other family making up more than 10%.

**Figure 3** Street Tree Diversity



**Figure 4** Park Tree Diversity



The Myrtaceae family has been so highly utilized as it is known to have a number of native and indigenous species that are resilient and well suited to the conditions in Bayside. This over-use of a single family can leave the overall tree population at risk of mass decline if a pest or disease was to attack. Diversification of the family composition of the urban forest was a key challenge that was previously identified in Council's Tree Selection Guide.

It is therefore important that Bayside plants more suitable alternatives to species within the Myrtaceae family. The Drooping She-oak and the Black Wattle species are two types of trees that have been encouraged as street and park trees that provide great benefits when planted (and do little to sustain Noisy Miner birds). Diversity targets will assist in setting future benchmarks for a more diverse tree population.



To address this issue, Council must continue its work in identifying, documenting and planting trees and vegetation that are diverse and support the improvement of biodiversity functions in Bayside and the role of the ecosystem we are within.

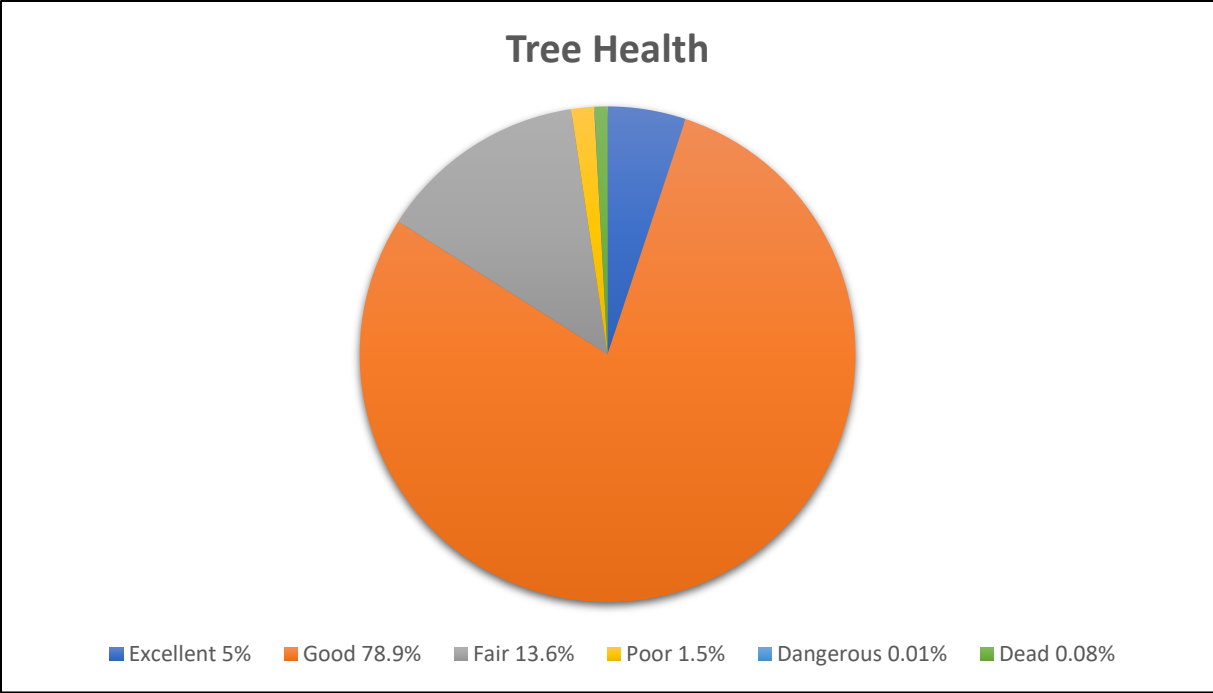
## Tree Health and Age

Urban environments can be very impactful on the health and condition of trees and ensuring these challenges can be appropriately addressed is key to a healthy and resilient urban forest.

The climate and soil conditions in Bayside require further understanding in order to establish trees. The changing climate will continue to be challenging, and this affects a trees ability to grow and mature. Bayside soils are Sand and Clay Plains from the Cainozoic period which drain well but are low in nutrients. For tree planting, this may require frequent establishment watering. At the eastern and southern extremities of the municipality, a dark grey sand is more likely to be found. Drainage may sometimes be impeded by a clay subsoil or perched water table. These soil types have been considered when recommending species for each nature strip type. However, urban soils are generally highly disturbed, often highly compacted and the soil profile at any particular site may differ significantly from an adjacent site. Trees planted in streets close to Port Phillip Bay must be tolerant, to some extent, of salt spray and salinity.

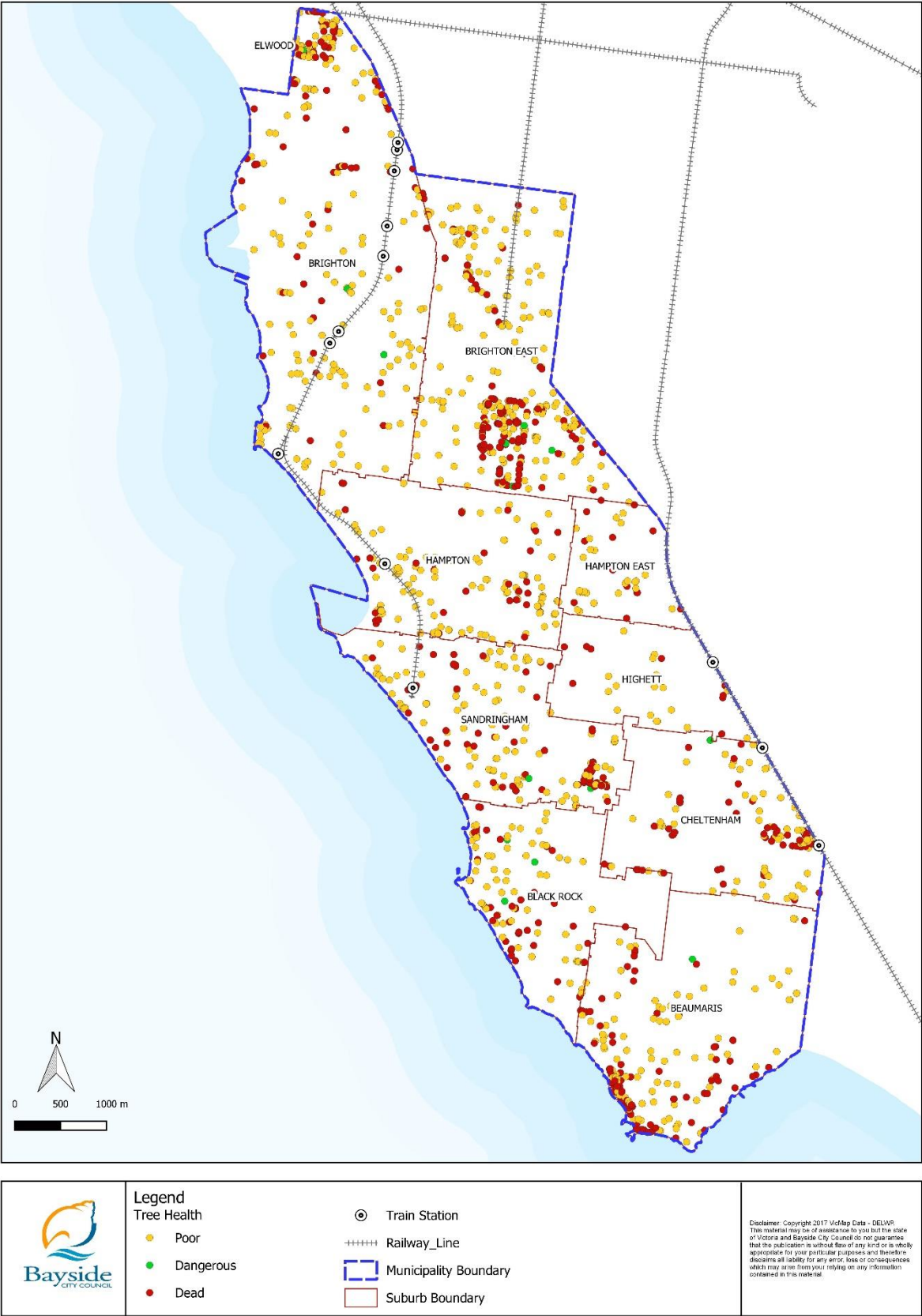
In June 2020, 78.9% of the Council-owned street and park trees were classified as being in 'good health', while 5% was classified as 'excellent'. Trees that are classified as poor, dangerous or dead make up for 1.59% of street trees and trees in parks.

**Figure 5 Health of Council Managed Trees in Bayside**



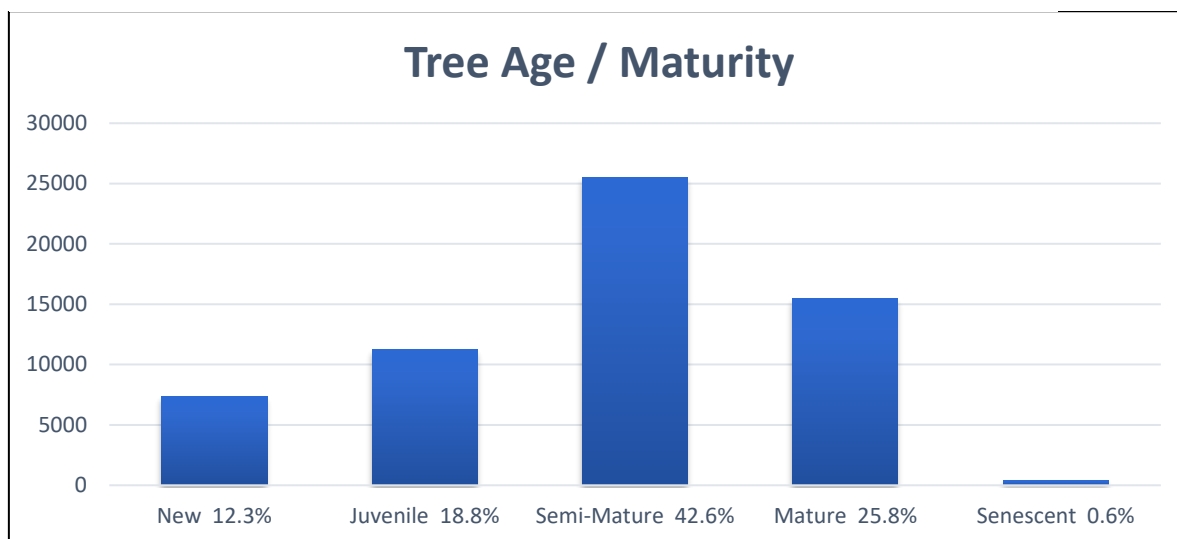
Map 2 identifies trees that are below 'fair' health in Bayside which makes up for 1.59% of street and park trees. While most of these trees are scattered throughout the municipality, there are several locations where the number of trees in bad health are notably heightened.

Map 2: Council Managed Trees in Bayside below 'fair' health



Diversity of tree age will ensure the Bayside urban forest is resilient and able to adapt to harsh climates. Data on tree age/maturity demonstrates a reasonable level of diversity in the age of Bayside's trees. As seen in Figure 5 the highest proportions are semi-mature and mature making up 42.5% and 25.8% respectively.

**Figure 6** Age / Maturity of Council Managed Trees in Bayside



## Useful Life Expectancy

Estimating the useful life expectancy of the Council managed tree population is regularly undertaken and can inform the future management options for trees that have limited useful life left. The assessment of a tree's useful life expectancy provides an indication of health and tree appropriateness and involves an estimate of how long a tree is likely to remain in the landscape based on species, stage of life (cycle), health, amenity, environmental services contribution, conflicts with adjacent infrastructure and risk to the community. It is not a measure of the biological life of the tree within the natural range of the species, and more a measure of the health status and the tree's positive contribution to the urban landscape.<sup>3</sup>

There are 7,799 trees managed by Council that will not survive in the Bayside landscape after the next 10 years. By 2040, a total of 51,400 Council managed trees will have reached the end of their useful life expectancy and may need to be replaced. It is vital that the replacement trees are diverse in species and planted intermittently to enable for varying ages and maturity. Figure 7 identifies the trees and their anticipated remaining useful life.

While some trees may be removed and replaced at the end of their useful life, others can continue to provide important habitat for fauna. Trees are assessed for potential retention as habitat trees using TRAQ, the Tree Risk Assessment tool approved by the International Society of Arboriculture (ISA). Where possible, planting new trees and under-storey vegetation is encouraged to assist fauna to forage over a longer period and encourage return nesting.

<sup>3</sup> Department of Health and Human Services, 'Arboricultural Assessment Holland Court, Flemington– 3.7 Useful Life Expectancy(ULE)', 2017, Available at [https://www.planning.vic.gov.au/data/assets/pdf\\_file/0011/105500/SHRP-SH1-15.a.-Tree-Logic-Rpt\\_Holland-Court,-Flemington.pdf](https://www.planning.vic.gov.au/data/assets/pdf_file/0011/105500/SHRP-SH1-15.a.-Tree-Logic-Rpt_Holland-Court,-Flemington.pdf)

**Figure 7** Useful Life Expectancy (ULE) of Trees in Bayside

Suburb	NULL	1-5 Years	6-10 Years	11-20 Years	20+ Years	Grand Total
BEAUMARIS	1	157	815	4522	3088	8583
BLACK ROCK	72	52	279	3197	499	4099
BRIGHTON	806	196	1152	10313	1725	14192
BRIGHTON EAST	789	196	1052	8758	1426	12221
CHELTENHAM	10	52	165	2972	509	3708
HAMPTON	148	76	670	5168	1058	7120
HAMPTON EAST	66	64	218	2240	353	2941
HIGHETT		29	230	2131	901	3291
SANDRINGHAM	137	56	311	4300	1862	6666
<b>Grand Total</b>	<b>2029</b>	<b>878</b>	<b>4892</b>	<b>43601</b>	<b>11421</b>	<b>62821</b>

## Our Targets

Council aims to increase tree and vegetation cover across the City of Bayside from 16% to 30% by 2040, while also encouraging the increase of under-storey planting across private and public land. While this Strategy has a 20-year horizon, the actions identified within Appendix 1 are outlined over a four-year period. Following this, Council will undertake a review of the Strategy and the successes of the implementation at this

To achieve this, a targeted and purposeful approach is required for Council's tree planting program to increase canopy over Council managed land, requiring new canopy tree plantings on private land, whilst minimising losses on private and public land and actively monitoring tree removal and replacement on private property.

Through this Strategy, Council has identified actions to overcome the key issues and challenges that impact the Bayside Urban Forest to allow for the increase of tree and vegetation canopy cover.

The preparation of Precinct Plans for each suburb within the Bayside municipality will provide the best opportunity to increase tree canopy cover and set quantifiable targets that respond to the needs, opportunities, and constraints of local areas.



# Planning Framework

*‘We lead our community and influence change to address the climate emergency, and significantly contribute to reducing its impact on the health of our community, environment and the planet.’ – From the Bayside Council Plan 2021-2025*

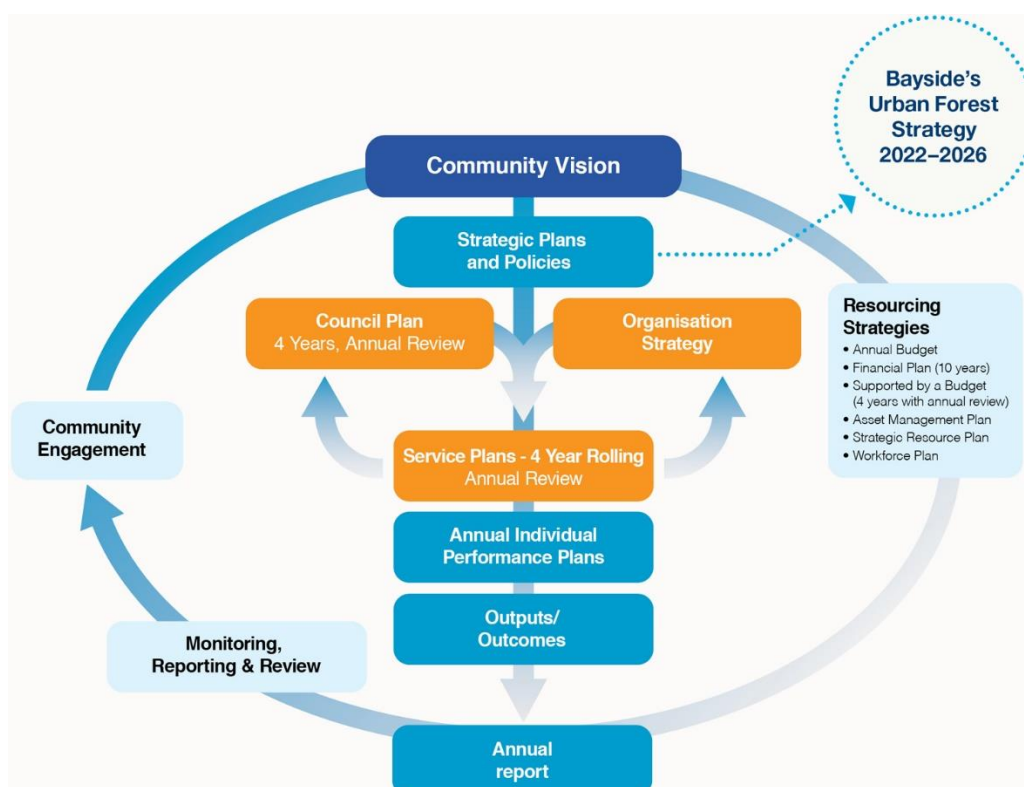
Bayside City Council has a robust strategic planning framework in place which aligns with the preparation and implementation of an Urban Forest Strategy. The *Climate Emergency Action Plan 2020* initially listed the preparation and implementation of this Strategy as a high priority action in response to declaring a climate emergency.

The *Bayside Community Vision 2050* is also key to this framework and highlights the community’s wishes for increased protections for natural ecosystems, trees and vegetation, with the desire to improve the health of natural ecosystems, protect trees and vegetation from climate-change related impacts, and to enhance green spaces for the benefit of the broader community.

The Council Plan 2021-2025 has also identified the adoption and implementation of the Urban Forest Strategy as a major initiative. This is outlined under Goal 1 Our Planet. This Strategy is important and forms part of our work and commitment as a Council, as stated in Goal 1 of the Council Plan:

*As custodians, we will lead, act and advocate on the critical issues of environmental sustainability and Climate Emergency, and on our shared responsibility to care for and protect Earth’s vitality, diversity, beauty and the community of life.*

In **Appendix 2**, relevant State and local plans, policies and strategies have been grouped by theme to understand each of their broad connection to resilience, climate change, and the urban forest.



## Community Views

Through the various community engagement exercises Council has undertaken in recent years, it is clear that the Bayside community strongly values trees for their character, amenity and environmental values.

### Outcomes of Bayside Community Vision 2050 Engagement

Recent engagement results for the Bayside Community Vision 2050 revealed that the top 3 issues relate directly to the Urban Forest:

1. *Preserving our neighbourhoods (reducing congestion, noise, development)*
2. *Combatting heat and drought with more vegetation and tree cover*
3. *Protecting the biodiversity of the local area (flora, fauna, clean air/water)*

When asked what the people of Bayside wanted to keep in the future, the top three themes related to the local environment:

- *Open space / parkland*
- *Beaches / coastline / foreshore*
- *Trees / tree-lined streets / vegetation*

The group also considered a list of topics of interest to Bayside residents and ranked priorities from 1-5 in order of importance (1 = most important and 5 – least important). More tree cover protection – the biodiversity of the local area was identified as a 1st priority.

### Recent Feedback from Council's Local Law Review

Whilst developing the Urban Forest Strategy, Council has also been undertaking community consultation in relation to its Local Law (Tree Protection). There has been a range of feedback but importantly, the following views have been expressed:

- *many parks have space to add more trees (some hardly have any). I think the council should review all parks (mostly the smaller suburban parks) and take every opportunity to plant wherever it is possible.*
- *the current Local Law No 36 (part 2 – Tree Protection), should be urgently reviewed, as it is allowing too many large, canopy trees to be removed by property developers and residents.*

### Engagement with the Community

The Urban Forest Strategy primarily seeks to grow the urban forest through the retention of existing trees and an expanded Council tree planting program across Bayside. Community engagement will be essential in growing the urban forest on private land, and Council will continue to be proactive in communicating the benefits of trees and vegetation on private land.

Community engagement, education and awareness is an essential component to the success of the Bayside Urban Forest Strategy. Community involvement in the processes that will shape Bayside into the future will ensure that there is active participation in achieving the objectives of this Strategy.

As part of the preparation of this Strategy, Council has undertaken Focus Group Sessions for the first phase of engagement to better understand the varying community views. The second phase of community engagement was undertaken at much broader level so that the entire community could participate in the decision-making process and allow Council to understand the views the Bayside community.

## Outcomes of the Urban Forest Strategy Focus Group Sessions

To inform the finalisation of this Urban Forest Strategy, Council requested Expressions of Interest from residents and community organisations to bring local expertise and lived experience into the Strategy. The self-nominated residents were independently selected by Activate Consulting through a stratified process to broadly represent the Bayside population in terms of suburb, age and gender. The community organisation focus group comprised up to two representatives from environmental/conservation focussed community groups and organisations in Bayside.

Participants from Focus Group 1 (individual residents) identified a range of potential actions to support the achievement of the following four objectives:

Increase	Diversify	Monitor	Maintain
<ul style="list-style-type: none"> <li>• Focus efforts on public space for significant canopy gains</li> <li>• Community education and support for private land owners</li> <li>• Incentivising tree planting and retention on private land</li> <li>• Stronger regulation and enforcement of development</li> <li>• More flexibility in council guidelines</li> <li>• Focussing on all types of planting (trees and vegetation)</li> </ul>	<ul style="list-style-type: none"> <li>• Council to lead by example, set and monitor targets</li> <li>• Ensure a pragmatic approach and carefully consider appropriate species</li> <li>• Provide resources, support and incentives for the community</li> <li>• Diversify the available local tree supply</li> <li>• Greater regulation and enforcement for developers</li> </ul>	<ul style="list-style-type: none"> <li>• Suggestions around different methods of monitoring</li> <li>• Recommendations about the type of data to collect and how it should be used</li> <li>• Considerations for an effective Urban Tree Monitoring Program</li> </ul>	<ul style="list-style-type: none"> <li>• More flexible approach to tree removal and replacement that is site specific</li> <li>• Education and support for the community</li> <li>• Greater enforcement capability coupled with incentives</li> <li>• Foster tree stewardship and pride</li> </ul>

Participants from both focus groups were asked to consider a series of key challenges and opportunities that were identified in the Urban Forest Strategy Background Report and identify actions or approaches to address them. The responses received have been summarised as themes (specific ideas have been listed in the Urban Forest Background Report):

**Question 1:** Participants from both groups were asked *'How can we support older people and vulnerable residents to manage trees on private property?'*

- Proactive communication and a flexible approach.
- Provision of free tree maintenance services, but mixed views on who should provide them.
- Improving processes and information. Ideas included:

**Question 2:** Participants from both groups were asked *'What is the acceptable level of Council regulation of trees and vegetation on private land?'* The feedback received by individual residents in comparison to the community organisation feedback varied.

### **Individual resident feedback**

A small number in this group cited issues with developers removing trees and the need for better regulations and follow up about new planting requirements, such as 'enforcing larger minimum surface permeability and minimum of at least one tree per title (of appropriate size)'.

Yet, overall, this group **did not want any further Council regulation on private land** than currently exists: 'Council has not paid for my property so why do they get so much say in how I use my property?' and 'The general pop(ulation) does not appreciate Council involvement on private land.'

A number of participants felt that **some regulation is acceptable** 'as long as the property owner has some control and there is transparency' around decision making. They wanted more flexibility to 'allow for practical solutions'.

In addition some commented that **regulations should be consistent with Council practice**, for example 'Council assesses a tree to stay but on the other hand, the nature strip hardly has any tree', **and what developers are permitted to do**, 'We should not be penalising those that have bigger back yards by making them keep (and keep planting) inappropriate trees while others that subdivide blocks can easily get rid of their trees.'

The majority of participants agreed that Council should **focus canopy growth on public land**, 'Council would get more bang for its buck throwing resources at planting trees on public land' and 'Concentrate planting of canopy trees on public spaces, state schools, cemeteries, public housing vacant lands, car parks'. It was suggested on private land 'the focus shouldn't be solely on tree canopy, but also the garden density or the undergrowth.'

### **Community organisation feedback**

There was strong support and discussion **for greater Council regulation and enforcement around development** to protect, retain and replace trees, 'Council needs to push harder to ensure design of development retains more trees' and 'ensure that appropriate space is provided to plant canopy trees and not just minimum landscaping/shrubs.' Suggestions proposed included:

- 'Need to get the balance right – developers need to be prepared to consider a lesser yield in favour of the greening outcome'.
- 'Tree canopy cover is a key element that needs to be integrated with development outcomes'.
- 'Decks and pools should be considered part of the building footprint and not the open space component for planning permits'
- 'Advocate for the removal of the VicSmart provisions'



- 'Increase enforcement and issue appropriate fines for trees being lost in protected areas' (vegetation Protection Overlay)

A popular suggestion was for **Council to put a financial value on trees**, 'put a \$ value on a tree to ensure that the financial element is considered.'

The group commented about the need for **Council's planning and local laws to be strong and aligned**, 'ensure that Planning Scheme and local laws are working together and are more robust, and consistent', **and appropriate for different areas**: 'not a one size fits all, different contexts require different approaches', for example parks, golf courses and schools.

It was also suggested that **incentivising tree retention** was important to complement regulation, 'how can we look at ways to ensure developers are getting what they need, while the environmental and landscape outcomes are being delivered.'

**Community education and communication about the need for trees** was also a strong suggestion, 'Aim to educate from the young upwards about the 'why''. This included 'emphasising appropriate trees in appropriate places', 'celebrating what is happening to encourage others to have an opinion, and 'raising awareness that developers have a responsibility'.

**Question 3:** Participants from both focus groups were asked '*How can we better incentivise tree protection and retention on private property?*' or '*How can we better encourage/achieve compliance with tree plantings on private property?*'

- Education and awareness activities around the benefits of trees.
- Financial incentives, short and long term.
- Ensuring regulation and incentives work together.
- Promote and align the community around a strong blue and green identity for Bayside.
- Council advice and support around planting and maintenance.
- Offer more flexible, tailored policies around tree planting and retention.
- Increasing and encouraging planting on nature strips.

**Question 4:** Participants from the Community Organisation focus group were asked '*What are the strengths of our many community organisations and how can these be leveraged to increase Bayside's urban forest?*'

- Education programs with schools and young people.
- Greater Council funding and strategic approach to planting and management.
- Council playing a coordination role between contractors, the Bayside Community Nursery and community organisations.
- Council facilitating community planting days.

Participants from Focus Group 2 (community organisations) were also asked '*What is the change you would like to see through this Strategy?*'. The responses related to:

- An increased diversity of trees and vegetation
- Greater regulation, accountability, and transparency, particularly for developers
- A focus on more appropriate, native planting
- Greater community awareness, appreciation and commitment with the urban
- Habitat connectivity

- Appropriate rules for private property
- Prioritising protection of existing canopy and mature trees

### **Other feedback and comments**

During the focus group, participants offered additional feedback and discussion not specifically related to a question, but important to capture to inform the Strategy. Key themes included:

- Tree canopy target – some participants commented that the proposed target of 25% tree canopy by 2030 should be more ambitious, citing Melbourne City Council's target of 40% tree cover by 2040
- Tailored approach to planting by area – some participants commented that tailored plans should be developed broken down beyond suburb level to ensure each local neighbourhood is considered.
- Safety – where dense planting is undertaken it also needs to consider lighting and other related issues to ensure the community feel safe, especially women using the space
- Powerlines – a long-term consideration would be to move powerlines underground.

### **Summary**

The feedback received from focus group participants indicated an overall support for the increase in tree canopy cover, however the enforcement of this increase and how Council meets this goal was of varying opinions.

Council recognises that regulating tree removal on private property will continue to be a balancing act into the future and throughout the implementation of this Strategy. The feedback received, especially those in relation to tailoring private property regulation for different areas and circumstances has been considered by Council and has informed the actions set in this Strategy.

There was much discussion and feedback from the focus groups in relation to the types of financial incentives that Council could provide to enable greater tree retention and maintenance on private property. Council will continue to seek feedback on types of incentives through the broader community engagement period on this Urban Forest Strategy.

The discussions had with both focus groups highlighted the need for a larger focus on community engagement, education, information, and resources. Council has taken this on board and identified 'educate' as a fifth key theme of this Strategy. Through this key theme, Council will focus on how best to educate the community on the benefits of trees and vegetation, what is appropriate to plant and where, and how best to plant, care and maintain trees and vegetation.

## **Outcomes of the Urban Forest Strategy Broader Community Engagement**

A total of 632 people participated in this community consultation (phase 2) that commenced on 19 August to 26 September 2021. Given the interest in this project participation numbers are an estimate, there is likely duplication in numbers due to participants participating in more than one engagement activity.

From the consultation it is clear that the need to increase tree canopy and coverage across the Bayside municipality is supported, with 89% (474) of participants in agreement that Bayside needs more trees (89%) and only 9% (48) participants in disagreement and 2% (13) unsure. Likewise, 51% of participants supported Council's target to increase tree canopy on public and private land from 16% to 25% by 2030, and a further 33% wanted the target to be more ambitious. Participants with this view were more likely to live in Cheltenham, where 54% (20) of 37 participants who live in Cheltenham felt that the target was not ambitious enough. Of these participants 15% (26) are in the 50-54 years old and 13% of them are 65-69 years old. Differences in opinion were mostly in regard to the speed and way in which they hoped Council would approach this.

Feedback and comments – areas for focus:

- Planting additional trees, particularly in new large-scale developments was strongly preferred.
- Partnering with the State Government to increase tree and vegetation cover on state-managed land, including schools, public housing, and transport corridors.
- Advocating for the State Government to fund the undergrounding of powerlines in priority locations (e.g. areas of extensive tree canopy).
- Providing a support service to help residents and communities to maintain trees on their property.

The majority of additional feedback provided by participations related to Council's own operations and planning controls used to prevent the unlawful removal and damage to trees.

General participants want Council to use available controls, regulation and enforcement abilities to both bring the objectives of this Strategy to life and work with the community in a reasonable manner to green Bayside. The following is a summary of the actions for Council's consideration:

- Council extends overlays (VPO and SVO) into areas where it is trying to increase the amount of vegetation, not just in green areas. Rather using it as a tool to increase tree and canopy cover.
- Cancellation of permits for wrongful activity.
- Advocating to increase powers of control and authority to prevent Council's decisions being overturned by VCAT.
- Harsher penalties and tougher fines given to people that wilfully cause damage to significant trees or vegetation.
- Put in regulations that help to address climate change while the tree canopy is catching up (light coloured roofs, WSUD, smaller mass size on blocks).
- Altering the permit system on construction sites to include monitoring trees on the subject property in addition to street trees.
- Extend the duration of landscape audits longer than 2 years to increase the survival rate of vegetation.
- Keep a photographic record to support landscape audits before the issue of a Certificate of Occupancy, with audits repeated at 2, 6 and 10 years.

Most participants want to know that Council is aligning its own operations to the objectives of the Strategy and that it is using all of its contractors, staff, activities and assets to achieve the target. Following is a summary of the actions for Council's consideration:

- Tightening their internal operations to match the delivery of the strategy.

- Making sure Council is maximising tree canopy coverage on its assets and within parks and gardens.
- Maintaining parks and gardens well, water and care for during summer and prune within reason.
- Consideration of where and what trees and vegetation are selected for sites, taking into consideration the expected height of trees and needs of the local community.
- Making sure all contractors and staff that have a responsibility for maintaining green spaces and areas understand Council's intent to increase canopy cover.
- Advocate, fund for power lines and cables to be put underground to reduce impact on tree canopy through pruning.
- Use nature strips more effectively to increase canopy cover.

Through the finalisation of the Urban Forest Strategy, various amendments have been made throughout this document to incorporate the aforementioned considerations where appropriate.

## Key Issues and Challenges

This section of the Strategy identifies key challenges to be addressed to ensure Council can increase, diversify and improve the health of, monitor, and maintain the Bayside Urban Forest while partnering with our community and continuing to foster care for trees across the municipality.

### Environmental Challenges

#### Impacts of climate change

Climate change is the long-term change in average weather patterns due to an increase in carbon in the atmosphere.<sup>4</sup> The impacts of climate change on the tree population are difficult to assess based on the available current data. However, reduced annual rainfall and hotter, drier summers are causing heat stress to many species of trees and vegetation and is assumed to have affected the survival rates of privately owned trees as well as council managed street and park trees. The rate of tree attrition for Council managed trees recorded from 2009 – 2019 has indicated that Council's current management of street and park trees needs to be greatly modified to enable the urban forest to provide increased canopy cover in future years, as the climate gets warmer and drier. Already, Council officers have utilised this data to justify and increase the establishment watering for trees each year.

Another impact of climate change on Bayside's tree population is the likelihood of extreme weather events (including heat waves, drought, floods, sea-level rise, and coastal erosion) occurring is forecasted to increase. Trees that are not prone to these extreme weather events will become increasingly sparse. Therefore, planning for the decline of the tree population is important and factoring in the effects of climate change, with heat stress and drought conditions predicted to be significant factors.

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<sup>4</sup> NASA, 'Overview: Weather, Global Warming and Climate Change', 2020, available at: <https://climate.nasa.gov/resources/global-warming-vs-climate-change/>



As all trees, including trees on private property, are being affected by climate change, it is important that Council continues to encourage residents to plant climate resilient trees and vegetation on their property and front nature strips. To support this, the provision of readily accessible information and useful tips on how to best plant these types of trees and vegetation will be of great value. Council will also need to ensure its species palette for streets and parks will include the use of more climate resilient trees and vegetation.

### **Tree Health, Age and Useful life expectancy**

Urban environments can be very impactful on the health and condition of trees.

Council has a reasonable level of trees that are semi-mature (42.5%) and mature (28.5%) that make up the Council managed tree population, and the health of these trees must be retained to ensure they can continue to provide a positive contribution to Bayside.

As aforementioned in this Strategy, approximately 7,799 trees will reach the end of their useful life expectancy over the next 10 years and a total of 51,400 trees by 2040. This will likely result in tree loss and impact the Bayside Urban Forest and habitat. To combat this challenge, Council must undertake a more extensive and diverse tree planting program that is geographically spread and evenly paced in process to allow for a diversity of age and species. A diversity of tree age will allow for a more resilient and healthy urban forest.

Council will also need to more broadly encourage the retention of dead trees that have been found to provide habitat for fauna. Through the continued use of the Tree Risk Assessment Tool, Council will retain those trees and vegetation that provide a service to the ecosystem.

### **Species diversity**

A resilient urban forest has a diverse range of species from different families. A limited list of successful species may provide good results in the short term but may result in a vulnerable tree population in the future if a pest or disease attack occurs to one or more of the selected species.

For the Bayside Urban Forest to become more resilient, there needs to be a transition away from the use of the Myrtaceae family in favour of other, less represented 'Australian native' and 'indigenous to the Sandbelt region for South Eastern Melbourne' species. An increase in species diversity across public tree plantings will ensure a range of species are incorporated to minimise the potential of large impacts of losses on Bayside's canopy.

Planting equally resilient trees that can mature and align with the character of streets is continuously strived for by Council and is a challenge previously identified in Council's Tree Selection Guide.

### **Bayside conditions impacting on tree survival**

Each tree's ability to grow to a mature age is impacted by a range of factors including soil conditions, rainfall and water retention, watering schedules, tree maintenance and impacts from climate change and urban heat island effect. Through this Urban Forest Strategy, it is important that Council can recognise and address these factors that impact tree survival in Bayside. Larger mature trees generally provide greater benefits in comparison to small trees, so ensuring trees can grow and reach a mature age is vital to the success of the urban forest.

Large trees provide habitat for fauna and flora and facilitate important ecological cycles. Further, there is also a greater cultural value placed on large and mature trees. Further investigation into the different types of soils prevalent and identifying different tree species that are best suited to these soils will provide the best opportunity to reduce tree attrition rates. Council should also further investigate those locations that under-storey planting would likely improve tree survival and in turn improve the health of flora and fauna in the area. This could reduce maintenance and increase resilience to weather events (and therefore resident's safety) which is of utmost importance.

A review of the maintenance program for new public trees should be undertaken to ensure Council is able to increase the survival rates of trees. Already, Council has amended the watering schedules. A review of the program should consider lengthening the current two-year maintenance period from when a tree is planted. It should also consider a lengthened management of trees that are inspected following the end of the maintenance period which appear to be in bad health.

## **Development Challenges**

### **Population and Housing Growth**

The City of Bayside Estimated Resident Population for 2021 is 109,376, with a population density of 28.92 persons per hectare. It is forecasted to grow to 128,169 by 2041.<sup>5</sup> With population growth comes housing growth, and the residential development forecasts assumes the number of dwellings in Bayside will increase by an average of 480 dwellings per annum to 53,273 in 2041 with the average household size falling from 2.57 to 2.49 by 2041.<sup>6</sup> This decrease in household size reflects the type of development that has started to occur in Bayside with dual occupancy, townhouse and apartment developments all becoming increasingly popular within and around Bayside's activity centres. Ensuring there is a diverse mix of household sizes in new developments will be important as group households, single-person households and couple households (without dependents) are all forecasted to increase within Bayside.

The *Bayside Housing Strategy* 2019 recognises that housing growth will occur at varying levels of density across the municipality, setting the direction of growth to Bayside's Activity centres, Housing Growth Areas and Strategic Redevelopment Sites.

The continuous increase in housing stock, especially high and medium density developments, has significant implications for Bayside's urban forest and neighbourhood character as various types of developments change the physical and aesthetic landscape of Bayside's suburbs, and contributes to the lack of tree canopy cover. For activity centres and other areas designated for higher density, localised controls are still supporting the provision of canopy trees and vegetation that align with the areas preferred character. However, there is scope for this to be expanded.

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<sup>5</sup> i.d. Consultants, 'City of Bayside Population Forecast', 2016, available here:

<https://forecast.id.com.au/bayside/population-summary>

<sup>6</sup> i.d. community, 'Residential Development', 2016, Available at: <https://forecast.id.com.au/bayside/residential-development>

Recognising suburbs and activity centres that are most prone to housing growth is important as these locations will likely require more specific mechanisms to ensure the Urban Forest is enhanced, and not detrimentally impacted through development. It is recommended that Council prepare precinct based urban forest plans as a next step to specify actions to increase and diversify tree canopy cover in response to the makeup of private and public land, land uses and zoning designations for each suburb. Actions should be inclusive of and encourage the increased utilisation of green walls and green roofs in these areas as it is recognised that the provision of canopy trees can be challenging.

### **Local law permits to remove trees on private land**

Under the Local Law, a permit is required for the removal of a tree that is on the Significant Tree Register or a canopy tree that has a single or combined trunk greater than 155 centimetres measured at 1m above ground level. Between 2015 to 2020, there have been 1,537 local law tree removal permits approved, with the highest volume of approvals being in Brighton (437), followed by Brighton East (278), Hampton (217) and Sandringham (209).

### **Planning permits involving vegetation removal**

There are several mechanisms currently in place within the Bayside Planning Scheme that require a planning permit to be granted for tree removal. These mechanisms include but are not limited to the Vegetation Protection Overlay (VPO), Significant Landscape Overlay (SLO), Heritage Overlay (HO) and Erosion Management Overlay (EMO). In 2020, there were 112 requests for tree removal within the VPO3, 69 of which were approved.

It is difficult to approximate the number of trees removed from private land each year under a planning permit as this is not separately recorded (and one application can be for multiple tree removals), let alone the extent of tree removal that is legal or illegal. Impacts on the health of Council owned street trees due to construction activity from nearby or adjacent property development sites are also contributors to tree loss in Bayside.

### **Trees removed from public land**

Over the years, the Bayside foreshore has been prone to vandalism and has been earmarked as a location for replanting.

Between 2014 and 2019, the percentage of tree removals due to vandalism was recorded as 0.4%. While this is a relatively low figure, the loss it brings comes to a total of 40 trees across Bayside. In an effort to deter vandals, Council has adopted a strong stance on vandalism and has installed signs and advertised on social media platforms an offering of rewards for information when an act of vandalism has occurred.

Trees are also removed from public land where it is found that it is at the end of its useful life. Any removal of a Council managed tree should be recorded for transparency and fairness. Where a tree is being removed due to it being at the end of its useful life, Council should inform the community within the surrounding locality, prior to any scheduled works occurring.

## **Competing with surrounding infrastructure**

Within an urban environment, tree planting locations can become limited when competing with surrounding infrastructure and assets. Street trees are located alongside public and private assets which include footpaths, roads, fences, overhead powerlines, and underground services. In activity centres, there can also be conflict between the demand for car parking, shop awnings, street lighting and road signage, sight lines to bus stops and more. This pressure is similarly felt on private property for medium and high density developments where there are competing uses and infrastructure to be sited.

These conflicts also exist outside of Bayside's activity centres and housing growth areas, providing challenges for street trees throughout the entire municipality. While there are management and design techniques that can mitigate most of these issues, it is not always easy, particularly with established trees. Established trees have larger roots that can impact footpaths and roads, creating potential hazards that need to be fixed. While conflicts occur with both new and established trees, Council must aim to minimise these conflicts by ensuring any new tree planting is undertaken appropriately on Council owned land, and similarly ensuring this on private property through planning and local law permits for new trees.

## **Social Challenges**

When planning for the expansion of Bayside's Urban Forest, it is important to understand the challenges faced in both geographical areas as well as the population groups experiencing higher levels of vulnerability. Understanding how tree coverage can have both a positive and negative impact on our community is important and is recognised as a challenge within this Strategy.

### **Socio-Economic vulnerability**

Increase in tree canopy cover is proven to mitigate urban heat island impacts, as well as improve mental health and wellbeing, cool the air and reducing the need for active household heating and cooling.

This is of particular importance for financially vulnerable communities who need to keep household costs to a minimum as ability to save money on energy consumption can be attributed to an increase in tree canopy cover and may be living in a household that has limited private open space, and relies heavily on the surrounding locality for tree canopy cover and all its benefits.

The SEIFA index identifies that Highett and Hampton East have the highest level of disadvantage in Bayside.<sup>7</sup> These two suburbs also rank last and second-last in Bayside for tree canopy cover with Highett having approximately 13.9% and Hampton East having approximately 14.5% coverage in 2018 (Figure 1). It is expected that these suburbs, alongside Bayside's activity centres, schools, hospitals, public housing estates, kindergartens, medical centres and aged care facilities are areas that could benefit most from increased tree canopy coverage.

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<sup>7</sup> i.d. Consultants. City of Bayside, Index of Relative Socio-economic Advantage and Disadvantage. Available here: <https://atlas.id.com.au/bayside/maps/seifa-index>



This does not mean to focus the Strategy on these locations, but simply to take into account the challenges and need to address the increase of tree canopy cover where it is currently at its least.

### **Older people, children and people with disabilities and carers**

The largest increase in persons between 2016 and 2026 is forecast to be in ages 75 to 79, which is expected to increase by 1,537<sup>8</sup>. As of 2016, there were 3624 residents over 85 years of age, making up for 3.7% of the Bayside population, which exceeds Greater Melbourne average of 2%<sup>9</sup>. Already, Bayside's aging population has influenced local employment, with Health Care and Social Assistance being the largest employer in the City of Bayside, making up 17.3% of total employment.<sup>10</sup>

More vulnerable members of the community include older people, young children and people with disabilities and their carers. While trees bring many benefits, they can also create challenges for these population groups. Maintenance of trees can be challenging for older people or people living with disabilities. Particularly large trees that overhang private property or within the property that can become hazardous through debris that create trip and slip risks. Aging and/or disability can prevent some residents from being able to manage the debris from trees requiring the use of private gardening services.

Bayside has a significant aged population with one of the highest number of people aged over 85 years in Metropolitan Melbourne. Navigating the private system for reputable and affordable garden services is challenging. For those on a limited or low income such as a pension, the use of gardening services at the regularity required to maintain their property to maximise safety as well as independence is not possible. Council provides a limited range of gardening support through its Community Services Department under a specific set of eligibility criteria targeted at those most vulnerable. It is recommended that Council investigate a range of options to support older people and people with a disability to manage the impact of trees on their safety and independence, such as the establishment of a panel of private garden services that would charge a more affordable rate for vulnerable people as well as volunteer support for tree management.

Seeking information regarding tree management can also be challenging for older people and people with a disability. The management of trees is undertaken by a number of departments across Council which can create challenges in the consistency and accuracy of information provided. Information is increasingly available online and or required to be submitted electronically. This creates exclusion for those with limited or no access to the internet. Information should be made available on Council's website, in hard copy and in person at Bayside's Corporate Centre as well as more accessible through the use of plain language.

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<sup>8</sup> i.d. Consultants, 'City of Bayside Population Forecast', 2016, available here: <https://forecast.id.com.au/bayside/population-summary>

<sup>9</sup> i.d. Consultants, 'City of Bayside Five Year Age Groups', 2016, available here: <https://profile.id.com.au/bayside/five-year-age-groups>

<sup>10</sup> i.d. Consultants, 'City of Bayside Economic Profile', 2016, available here: <http://economy.id.com.au/bayside/employment-census>

Older people and people with a disability can also require advocacy support to navigate the required tree management processes. Some vulnerable residents have a limited capacity to participate fully in tree management processes, such as form completion, gathering of evidence, (i.e. arborist reports) and meetings. Council could consider the establishment of an internal tree management committee to ensure that vulnerable residents experiencing an impact from trees are being provided the accurate and timely information in relation to their individual circumstances.

### **Women's safety**

The OECD Better Life Index found that only 61% of Australian women reported feeling safe when walking alone at night in the area where they live, compared to 77% of men.<sup>11</sup> There are a number of elements that contribute to women feeling unsafe including low visibility and lack of passive surveillance from nearby residents and/or other groups. Within streets, Council plants and maintains trees to be clean trunked, so there is no foliage to block sightlines. Trees can contribute to this problem if not managed correctly as they have the potential to block visibility from the street if planted too close together.<sup>12</sup> Tree locations may also provide areas that attackers can use to hide as well as block light on the space. It is vital that these factors, mostly sightlines, are considered when planting trees so that the Bayside community and visitors can feel safe. Increased focus on programs that seek to prevent violence against women also play a role here.

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<sup>11</sup> OECD, 'OECD Better Life Index 2020', 2020, available at: <http://www.oecdbetterlifeindex.org/topics/safety/>

<sup>12</sup> Womens Health East, 'Creating Safe and Inclusive Public Spaces for Women', 2020, available at: [https://whe.org.au/wp-content/uploads/sites/3/2020/05/WHE-Creating-Safe-and-Inclusive-Public-Spaces-for-Women-Report\\_Digital.pdf](https://whe.org.au/wp-content/uploads/sites/3/2020/05/WHE-Creating-Safe-and-Inclusive-Public-Spaces-for-Women-Report_Digital.pdf)

# Expansion of Urban Forest – Key Directions

As outlined in this Strategy, we must identify opportunities and act on them to build a healthier more resilient urban forest.

This section of the Strategy outlines the key challenges and opportunities that are underpinned by the five themes and how they align with the following objectives and strategies. To ensure the vision and goals of this Strategy will be met, the Action Table in Appendix 1 has outlined the key objectives, strategies and key performance indicators that have been set to ensure we can keep ourselves accountable to the progression and completion of actions over the next four years.

## INCREASE

***Objective 1: Increasing tree and vegetation cover to reach 30% across the municipality by 2040.***

Identifying opportunities to plant more trees should be undertaken to increase habitat connectivity, advance neighbourhood character, and ensure the safety of the Bayside community and visitors is not lessened by low visibility, limited lighting, or lack of passive surveillance.

Both public and private land have a role to play in reaching the target and a nuanced approach tailored to the regulatory framework and conditions will be considered.

***Strategy 1.1: Consider the individual needs of Bayside's suburbs and ensure that the approach to increasing canopy cover and urban forest outcomes is tailored to the conditions of each area.***

- **Prepare Precinct based Urban Forest Plans to respond to site specific challenges and identify opportunities for increased planting**

In order to increase tree canopy cover across the entire municipality, it is important that Council understands and recognises the key challenges, especially those that are site specific and contributing to low canopy cover within that suburb. A key action of this Strategy will be to prepare precinct based urban forest plans to identify:

- priority areas for increased planting, including hotspots, areas of declining canopy or aging trees, highly trafficked pedestrian routes and gaps/vacancies in public planting;
- areas of significant landscape character,
- potential hotspots and potential habitat/biodiversity corridors across both public and private land.
- Opportunities for boulevard plantings and the creation of improved streetscape outcomes;

Once precinct based urban forest plans have been adopted by Council, a planning scheme amendment will be undertaken to implement these plans and to ensure the appropriate vegetation related controls are in place across Bayside.

- **Planning for Habitat Connectivity as part of our operational framework**

Bayside City Council currently manages a combined total of nearly 60,000 trees including more than 47,000 street trees and over 14,000 park trees. Bayside's reserves provide a high level of quality habitat, however this connectivity to other

areas in Bayside is limited. Habitat connectivity has been identified as a key issue to address in the *Biodiversity Action Plan* and this involves identifying the suitable locations in which to prioritise tree and understorey planting. Identifying potential habitat and biodiversity corridors across both public and private land will be further investigated through the preparation of Precinct based Urban Forest Plans and through the implementation of the 'Park Improvement and Habitat Linkage Plan' to understand where further opportunities are to increase habitat connectivity and improve biodiversity.

- **Investigate opportunities to create new public open space and increase tree and vegetation planting**

Utilising the Open Space Matrix Tool, Council should investigate opportunities to create new public open space where a major outcome of the open space would be the increased provision of tree canopy and understorey planting, that is provided in a way that is complimentary to the surrounding locality and supports the existing Ecological Vegetation Community.

- **Prepare and implement plans to create conservation reserves for public land at Elsternwick Park Nature Reserve and Highett Grassy Woodland (the former CSIRO site) in Highett**

Implementing masterplans for these sites into our operational work as well as within the Bayside planning scheme will ensure the conservation of these sites is embedded and upheld for years to come and that the use of the sites are protected accordingly.

- **Rezoning land to the Public and Resource Conservation and Resource Zone**

Identify open space areas that can be rezoned to the Public Conservation and Resource Zone for the purpose of conservation and to promote biodiversity within these areas as Ecological Vegetation Communities, with reference to any former local Ecological Vegetation Communities on the site, with reference to any former local Ecological Vegetation Communities on the site.

***Strategy 1.2: Reframe Council's approach to major capital and infrastructure renewal projects as opportunities to increase urban forestry outcomes.***

- **Increasing tree and vegetation cover through Councils Capital Projects**

Site specific opportunities to scope tree planting in Councils Capital projects like streetscape upgrades and the renewal or development of community buildings and sports clubs can be undertaken to increase tree and vegetation cover in Bayside. These projects provide the best opportunities to increase tree canopy cover and planting new and diverse trees and vegetation should form part of the scope and delivery of these projects.

The siting of new development on Council owned land must also consider any existing vegetation on the site, particularly if an existing habitat corridor exists. Council officers must ensure that any new building footprint is of minimal impact and avoids tree and vegetation removal.

- **Opportunity for increased tree planting**

Council's contractor (Citywide) maintains a database of identified vacant sites that have become available or alternate sites to replace the trees that have been removed, and this database is used for future tree planting. There are currently 4,023 vacant sites identified in Council's database. This database will continue to be utilised as an 'easy wins' to identifying locations for increased tree planting in Bayside.

Through the preparation of precinct based urban forest plans, Council will identify more locations for new trees by setting priority to areas that have high urban heat vulnerability, low tree canopy cover, declining canopy or aging trees. Highly trafficked pedestrian routes and areas undergoing an increase in development will also be targeted as places for boulevard planting and improved streetscape opportunities.

Through promotion and incentivisation, Council will encourage the increase of tree planting on private land and share information and support on how to best manage and maintain trees.

As a starting point, Council has committed to increase tree planting per year to a minimum of 2200 trees as part of the 2022 Annual Tree Planting Program.

- **Opportunity for increased understorey planting**

Council's contractors are responsible for the delivery of tree planting and understorey planting.

Through the findings of the Park Improvement & Habitat Linkage Plan and the Urban Forest Precinct Plans, Council will identify locations to deliver understorey planting projects to increase habitat connectivity and improve biodiversity functions.

***Strategy 1.3: Through the Bayside Planning Scheme, require development to provide increases to the number of canopy trees and high-quality landscaping outcomes.***

- **Once finalised and adopted, Council will incorporate the Precinct based Urban Forest Plans**

Where the Precinct plans have identified the need to amend or introduce new controls on a site or suburb specific basis, this will also be incorporated into the Bayside Planning Scheme alongside the Precinct Plans.

- **Incorporating the reviewed Bayside Landscape Guidelines in the Bayside Planning Scheme and seek greater greening objectives for residential and non-residential uses**

Council will update the Bayside Landscape Guidelines to ensure they provide further guidance on species selection, sizes, and trees suitable for private property and introduce the guidelines into the Bayside Planning and identify any possibilities to require greater landscaping requirements for specific types of development.

Currently, the Bayside Landscape Guidelines provide limited guidance on the landscaping of new development that is not of residential use and this should be further investigated and updated to ensure



An amendment to the Planning Scheme will seek to introduce the landscaping requirements and any permeability requirements in applicable Zoning Schedules, and amend the Schedule to the Incorporated Documents to include the Bayside Landscape Guidelines.

- **Seek greater outcomes for activity centres where open space is constrained**

Through an amendment to the Bayside Planning Scheme, Council will seek to increase the utilisation of green walls and roofs in Activity Centres, as these locations are usually more constrained and are less likely to provide for increased canopy cover. It is important that these types of outcomes are accounted for as we continue to see an increase in high and medium density developments.

Council will also seek greater outcomes for landscaping on nature strips as part of new development proposals, where it is evident that minimal landscaping can be supplied on the site itself, and predominant nature strip landscaping would be appropriate and in keeping with the neighbourhood character.

- **Encourage the appropriate inclusion of Environmentally Sustainable Development**

There are many opportunities to integrate living (green) walls and green roofs in high to medium density developments and the introduction of the State-wide ESD (Environmentally Sustainable Development) provision will assist the integration of ESD in Bayside.

It is important that the longevity of these solutions, particularly the ongoing maintenance, are able to be achieved. The installation and siting of green walls and roofs should allow for long-term benefits and continual provision.



Photo of *Acacia pycnantha* (Golden Wattle) taken at Beaumaris Reserve by Anne Tournay

## HEALTHIER ECOSYSTEMS

### ***Objective 2: Create a diverse and healthy urban forest that reinforces greater outcomes for biodiversity***

Improving biodiversity outcomes to build healthier ecosystems is a key objective of this Strategy. As humans, we must do our bit to ensure the environment we live within is surviving and thriving as we face the impacts of climate change. Where biodiversity loss is felt, impacts will be too, and we will see a lack of fauna migrating through Bayside, and an overall decline in the health of our ecosystem.

A diverse mix of tree species that are able to be a food source to fauna is important to maintain a healthy and resilient urban forest with vast biodiversity functions. As the climate continues to change, it is important to provide a wider range of species that can tolerate harsher climates and continue to provide habitat for fauna and flora. A diverse range of tree species will also lessen the urban forests' vulnerability to pests and diseases and when done correctly, it can improve habitat connectivity throughout our municipality.

Increasing the use of native and indigenous tree will help provide food sources and improve habitat connectivity within Bayside. Swapping out alien-species for indigenous plants will be vital to rebuilding the ecological foundations and set the stage for environmental recovery in Bayside.

### ***Strategy 2.1: Increase the tree and vegetation cover that is of a diverse range of species across Bayside***

- **Update Council regulation to ensure a diverse range of species are being planted in Bayside**

Currently, Council has two guidelines in place to provide criteria of tree species for planting in Bayside.

- Street and Park Tree Selection Guide, which applies to Council owned land; and
- Bayside Landscape Guidelines, which applies to private land.

Through the implementation of the Precinct based Urban Forest Plans and this Urban Forest Strategy, it is envisaged that the Street and Park Tree Selection Guide will be superseded.

The Park Improvement and Habitat Linkage Plan will inform the Precinct Plans and the review of the Bayside Landscape Guidelines as to whether any further diversification of species selection should be achieved through these documents.

Species diversification will also be encouraged through the Annual Tree Planting Program, Council capital projects and understorey planting initiatives. Council will work with the community to encourage greater use of vegetation that can act as an attractive contribution to private property while also being a food source to habitat and improving connectivity for migration of animals in Bayside.

- **Increase the utilisation of different species in Councils Public Tree Planting Program**

Council plants approximately 1,400 trees per year in Streets and parks. As the number of trees being planted increases, so should the diversity in species.

The public tree planting program provides a great opportunity to increase species diversity, habitat and local character. A general rule of thumb that should be applied is the 10:20:30 rule, where the urban tree population includes no more than 10% of any one species, 20% of any one genus, or 30% of any family.

While increasing the use of different species is of importance, it is equally imperative to note that in natural areas within Bayside, protection of indigenous flora is and will remain priority. Balancing these priorities will be an important aspect when preparing the Precinct based Urban Forest Plans for each suburb.

- **Implement the findings of the 'Park Improvement and Habitat Linkage' Plan**  
Council is currently undertaking investigations through the Park Improvement and Habitat Linkage Plan to diversify our current Council managed tree and vegetation stock by identifying opportunities to increase habitat connectivity and improve biodiversity outcomes within Council's parks and reserves (and surrounds). The findings of this Plan will then be incorporated into Council's Annual Planting Program and where appropriate, through other Council capital works, volunteer work and community initiatives.
- **Be part of and lead community initiatives that encourage habitat gardens**  
An important aspect of this Strategy will strive to enforce is the inclusion of community in responding to climate change and being able to work together to recognise the rewards for each other and future generations.

Hosting community initiatives like habitat garden programs on both private and public land is an easy way to foster community care and inspire others around us to get involved and pass on their learnings to their own social network. Habitat gardens provide a great amount of benefit to our ecosystem and can assist the long-term population viability for specific species.

## **Strategy 2.2: Ensure humans and wildlife can simultaneously and safely access densely vegetated areas, streets and reserves.**

- **Ensuring artificial lighting is designed with the needs of both humans and fauna in mind**  
Bayside is a very active community with pockets of densely vegetated parks and reserves that are commonly utilised to play sports or to walk, cycle or run through. Where lighting is provided (or proposed as part of a new development) that adjoins or is within an open space, lighting and visibility should be considered from both a human perspective (the lack of lighting may impact personal safety) and fauna perspective (artificial lighting that isn't wildlife friendly will create impacts to habitat).

Council has adopted the Wildlife Friendly Lighting Policy which was developed using the *National Light Pollution Guidelines for Wildlife* 2020. When new lighting requests are received or existing lighting is to be replaced, the Policy recommends considering the Best Practice Lighting Design principles that are outlined within the Policy.

Council will advocate to Standards Australia for the consideration of Wildlife Friendly Lighting for sportsgrounds, sports facilities and street and road lighting.

- **Advocate for the State government to fund the undergrounding of powerlines**  
The provision of overhead powerlines continues to impact the quality of wildlife habitat due to ongoing and required pruning of trees. Further, trees are shorter and provide for less canopy cover are more commonly being utilised under overhead powerlines to reduce the need for ongoing pruning. While this reduces pruning costs and maintenance, it limits the habitat connectivity and ultimate green canopy that provides many benefits to our community.

In hope that powerlines can be undergrounded in future years, Council will advocate to the State Government to fund this initiative in identified priority locations.

## MONITOR

### ***Objective 3: Improve the ability to monitor and track Bayside's urban forest.***

Expanding the Bayside Urban Forest while also ensuring its healthy and resilient status requires an effective and integrated approach across Council. It is important that practices and processes for administration, planning, delivery and knowledge sharing are of high standard and complement Council's ability to accurately monitor the Bayside Urban Forest as it grows and diversifies.

### ***Strategy 3.1: Improve, implement, and facilitate Council processes and procedures to assist the monitoring of the urban forest***

- **Implementing the Urban Tree Monitoring Project**  
Council will continue to develop the Urban Tree Monitoring Project to ensure Council is able to track and measure tree canopy cover across Bayside. The Tool will allow Council to continue monitoring the loss and gain of trees over time, and health of the urban forest as new trees start to develop.

Following the implementation of the Tool, the data collected could expand to identify tree height and species on private property and identify and predict areas that are vulnerable to potential heat island effect.

- **Improving Council's Local Law and Planning Permit data collection**  
To ensure Council can retain and look to increase tree and vegetation cover on private property, it is important that Council continue its enforcement and compliance program to ensure that replacement plantings are provided and retained. Improvements to Councils data collection processes through both local law and planning permits should capture and monitor trends relating to locations and species for removal and ensure that all new replacement plantings are captured spatially and recorded as part of Councils Urban Tree Monitoring Project.

- **Monitoring the health of trees impacted by construction activity**  
As development continues to increase, so does the impacts on trees due to construction activity. The number of Council owned street trees that have been indirectly impacted due to construction activity upon nearby or adjacent property development sites is unknown.

Council's ability to retain mature Council managed trees can be strengthened by undertaking a pilot project to observe the health of trees nearby development sites and whether any impacts are attained during the construction phase.

The findings of this project would justify any strengthening of Council's asset protection and the application of tree bonds on street trees.

- **Enhancing our enforcement and compliance programs**

Continue Council's enforcement and compliance program for Local Law Tree Removal Permits to ensure that replacement plantings are provided and retained, at the point of completion for new development, and at 2 and 10 years after, with an aim for a minimum of 75% target compliance.

Currently, Council undertakes a landscape audit prior to issuing the Certificate of Occupancy. Similarly to the Local Law enforcement and compliance, Council should investigate the extension of the landscape audit and compliance to also be undertaken at 2 and 10 years after.

## **MAINTAIN**

### ***Objective 4: Maintain our existing canopy cover across the Bayside municipality and avoid further decline.***

Whilst new planting of trees and vegetation is a key tool to support increased canopy and biodiversity outcomes, it will not be sufficient to rely on new plantings alone to be able to meet these targets. Ensuring that the existing tree and vegetation population does not decline will be an important avenue to meet targets and ensuring that Bayside's valued character is protected. In order to ensure that outcomes are delivered across both public and private land, it will be necessary to ensure that private land are delivering positive outcomes in terms of climate, canopy and biodiversity, and that this is matched by local and state government initiatives. There are a number of strategies to consider as part of maintaining the 16% tree canopy cover, and 18.5% vegetation cover that currently exists across Bayside.

#### ***Strategy 4.1: Ensure the tree removal process is transparent and equitable..***

- **Develop a program to support vulnerable residents to assist the maintenance of canopy trees on their property**

There is opportunity to support the pruning and maintenance of these trees and Council should investigate the creation of a volunteer network to be able to support clean-up of debris and leaf litter. Given the aging population, maintenance of trees is expected to be an issue that continues to grow and ensuring that mechanisms are in place to reduce tree removal could be a key outcome from the Strategy.

Providing an advisory service to support residents that are considering whether to cut down trees with options around pruning and maintenance that may avoid the removal of the tree.

- **Provide an advisory service to support residents when considering whether to cut down trees with their options around pruning and maintenance that may avoid removal of the tree.**

Council must act proactively and provide upfront support to property owners that have a large tree on their property. Ensuring that residents have the right information when making a decision to remove a tree is key, and pruning and other maintenance should be considered before removal is proposed.

The advisory service should assist residents on how to best maintain trees on their property, aiming to increase the education levels in the community about how important trees are in our urban environment.

- **Ensure reasons for tree removal on Council-owned land are captured and recorded and is only undertaken as a last resort.**

For this Strategy to be implemented successfully, it must be done so in a transparently and equitably across the board. Council is responsible for not only assessing and administering local law and planning permits for tree removal, but also the capital delivery of projects for the benefit of our community. These projects should consider trees and vegetation in the same way that any proposal for tree removal on private property is.

***Strategy 4.2: Reframe our planning and policy framework to give greater priority to existing trees and vegetation when siting new development and ensuring the longevity of any new trees or vegetation by ensuring it is appropriately sited nearby surrounding hard surfaces or infrastructure.***

Siting new development around existing trees and vegetation will continue to be a challenging issue in the face of housing and population growth, and it is time that we looked at this challenge and created an opportunity. Ensuring our Planning Scheme, policies and practices prioritise the longevity of trees and vegetation will ensure our urban forest is thriving with more trees able to reach beyond maturity.

- **Amend the Vegetation Protection Overlays to ensure new development considers the effects on trees and vegetation and considers alternative siting methods to retain existing trees and vegetation onsite.**

Through a Planning Scheme Amendment, Council will seek to amend the objectives, application requirements and decision guidelines of the Vegetation Protection Overlays by strengthening Council's ability to consider alternative siting methods to retain existing trees and vegetation onsite.

- **Increasing the ability to protect Significant Trees**

Through a Planning Scheme Amendment, Council will seek to protect Significant Trees through the Bayside Planning Scheme by introducing a new Schedule within the Environmental Significance Overlay.

The new schedule will seek to preserve Significant trees and provide greater consideration to the effect of any new development on the tree and the trees ability to grow to maturity as well as whether any alternatives, including the redesign or relocation of proposed new development are possible.

- **Advocate to the State Government for the removal of VicSmart provisions in relation to tree removal**

VicSmart applications provide a streamlined process where assessment and decision making is to be undertaken within 10 business days,

Streamlined processes are beneficial to planning applicants, however can also limit Council's ability to recommend alternative siting methods (where the proposed tree removal is to provide for a new building or addition).



To seriously tackle climate change and the loss of tree canopy cover in urban environments, it is these streamlined processes that need to be reconsidered.

**Strategy 4.3: Enhance Council's ability to retain existing trees on private property through increased regulation of tree removal.**

- **Tree protection and management on Private Property**

Council will review the *Neighbourhood Amenity Local Law 2021* in relation to tree protection and management on Private Property and infringement penalties. Through engagement on the draft Urban Forest Strategy, a high percentage of participants were supportive of Council reducing the current local law tree size requirement for tree removal permits. It is envisaged that the current tree circumference trigger of 155cm can be reduced to 110cm, as notably set in other municipalities.

As we welcome an increase in native and indigenous plantings, there is a need to reduce this tree circumference size and ensure the assessment of slender trunk trees to increase the protection of more diverse species in Bayside.

The review of the *Neighbourhood Amenity Local Law 2021* should also consider, but not be limited to, the following:

- Increasing the number of Infringement Notice Penalty Units for unlawful tree and vegetation removal, pruning or lopping activity;
- Consider superseding the 'Management of the Tree Protection on Private Property' Policy by updating the Bayside Landscape Guidelines and ensuring their application applies to both planning and local law permit applications.

A review of the guidelines should also be undertaken to ensure advice on species selection and the outcomes expected on private property is well detailed.

Council will look to undertake an amendment to the Bayside Planning Scheme to strengthen the permit requirements to remove, destroy, lop or prune vegetation protected under the Vegetation Protection Overlay to increase the effectiveness of the policy tool and maximise the retention of protected vegetation.

Enhancing Council's ability to retain existing trees on private property will also see an investigation take place into the expansion of the Vegetation Protection Overlay to other areas within Bayside, with further work to be undertaken through the Urban Forest Precinct Plans. Where appropriate, the Precinct Plans will investigate and make recommendation on the introduction of new Vegetation Protection Overlays.

- **Increasing the number of trees on the Significant Tree Register**

Council will undertake work to increase the number of trees of the Significant Tree Register on both private and public land. To ensure the protection of these trees is maximised, Council will incorporate the identified significant trees with those currently listed on the Significant Tree Register.

**Strategy 4.3: Support the maintenance and retention of trees on public land.**

- **Increase the survival rates of Council Street and Park trees**

A high proportion of street and park trees planted and have struggled to survive, either during or after their initial period of high maintenance (first 2 years).

Expanding the urban forest and increasing tree canopy coverage will be challenging, especially if high tree attrition continues to occur. If increased tree canopy coverage is to be achieved, the tree population must be increased and maintained at higher numbers and attrition rates of the Council managed tree population must be improved for this to occur.

Council officers will continue its review of the maintenance program for new public trees to ensure Council is able to increase the survival rates of trees. Already, Council has amended the watering schedules for these trees. Through Council infrastructure projects, the utilisation of stormwater to irrigate Council managed trees in streets, parks and reserves, is becoming more common. This is an action identified within the 'Water for Bayside' *Integrated Water Management Plan 2019-2039* which will assist keeping these trees alive for longer while also reducing Councils potable water use.

A review of Councils maintenance program should consider lengthening the current two-year period from when a tree is planted. It should also consider a lengthened management of trees that are inspected following the end of the maintenance period which appear to be in bad health.

- **Prioritise the retention of tree and vegetation cover through Councils Capital Projects**

There is a need to reframe and place higher value on the retention of trees and vegetation as part of Council Capital projects like streetscape upgrades and the renewal or development of community buildings and sports clubs. By reframing these projects to put the urban forest at high consideration and priority in the initial scoping of these projects, it will allow for various forms of capital delivery to be primarily focused on the contribution it can make to the urban ecology through the works. This could be through the siting of a building to have the minimum environmental footprint, or for streetscape renewal works to prioritise the planting of trees, water sensitive infrastructure and other opportunities to improve urban forest outcomes in the public realm.

- **Apply the Tree Amenity Valuation Procedure for Council trees adjoining private development sites**

Through Council's *Tree Amenity Valuation Procedure 2017*, a bond may be imposed on developers to ensure that Council trees are protected from development on nearby private property. The bond is calculation using the methodology in the valuation procedure and consists of the tree's amenity value as well as removal and replacement costs. Should any damage occur to Council tree(s) as a direct result of activities associated with the development, Council may withhold part, or all, of the bond depending on the extent of the damage.

To ensure the retention and longevity of Council-managed trees nearing construction activity, the Tree Amenity Valuation Procedure should continue to be applied adjoining private development sites.

- **Set a minimum target for street and park trees within 'good' or 'fair' condition**

Evidently, trees are more likely to grow beyond maturity and play an important part of the Bayside urban forest if they are in good health. Council's contractor (Citywide) monitors the health of Council-managed trees and records this within the tree inventory.

To ensure our urban forest is healthy and resilient, a minimum target should be set for Council-managed trees that are in healthy condition.

- **Retain dead trees and trees at the end of their useful life expectancy as habitat**  
While some trees may be removed and replaced at the end of their useful life, others can continue to provide important habitat for fauna. Continue to assess trees that have limited useful life expectancy or are dead for potential retention as habitat trees using TRAQ.

## LEARN & CELEBRATE

***Objective 5: Learn together, educate each other, encourage and celebrate greater care and protection of the Bayside Urban Forest.***

Educating and encouraging greater care and protection of the Bayside Urban Forest is recognised as a key objective that supports Council's ability to both increase tree and vegetation cover and retain existing tree canopy cover in Bayside all while fostering and building a greater connection with the environment. Delivering a resilient and healthy urban forest relies on community acceptance, participation, and awareness.

The outcomes from this Strategy are not something that Council can deliver on its own – all Bayside residents will have a role to play in increasing, diversifying and maintaining our urban forest which will in turn grow our knowledge and connections to our surrounding environments. Bayside has a strong network of volunteer organisations and can leverage their support to drive change across Bayside.

***Strategy 5.1: Increase Council's capacity to provide advice and build community appreciation to tree planting in Bayside***

- **Creating an Urban Forest Planner position**  
There is a need for a centralised resource to oversee the successes of this Strategy and embedding the values of the Urban Forest Strategy across the organisation.

The position will provide advice, build community appreciation and encourage greater care and protection of the Bayside Urban Forest and support Council to implement the change and actions from the Strategy.

- **Preparation and Implementation of a Communications and Engagement Strategy targeted to private property and business owners**

Through information sharing, partnering with community groups and through community participation in tree planting on private and public land, the Bayside Urban Forest will flourish.

Involving the community in tree planting can provide educational benefits as it can teach the community what needs to be done to ensure trees grow to be healthy and resilient. It can also increase neighbourhood ties, sense of community, and lead to a positive social effect<sup>13</sup>

Engaging the community in activities such as tree plantings, the take up of community gardens and increased nature strip gardens through volunteer programs, as well as maintenance can have a great impact on Bayside's tree population. It provides residents with a platform to become involved with Bayside's urban forest while also educating them on the best ways to care for their own trees at home.

Council will also investigate opportunities to provide free tree and vegetation giveaways to residents. This will provide Council with a pathway to influence the tree and vegetation cover that exists on private land and help residents maintain the health of their trees and gardens. Bayside already has a strong network of 'Friends of groups and community volunteers who carry out tree and vegetation plantings and would be great allies in this work.

Council will encourage landowner participation in greening, particularly for areas identified as having lesser canopy cover. This will be undertaken through a coordinated urban forest communications and engagement strategy that has a focus on education, awareness of the benefits of trees, and participation in increased tree planting through nominated planting days, giveaways, and information seminars.

**Strategy 5.2: *Continue to build upon Council's green image and utilise this platform to advocate and partner with key stakeholders to provide greener outcomes across Bayside, metropolitan Melbourne and Victoria.***

- **Advocate for greener community infrastructure**

Council should look to partner with State Government to increase tree and vegetation cover on Government owned schools, public housing, cemeteries, VicTrack and VicRoads land.

As the types of land uses that are owned by State Government departments are of varying kinds, any actions to increase tree and vegetation cover will require Council to liaise with relevant agencies to advocate and promote tree planting and greening initiatives. Council has been involved in many conversations with the State Government in relation to various working groups on different projects where the proposal of increased tree and vegetation canopy cover can be discussed.

- **Publicise and communicate Council's achievements in attaining a healthy and resilient urban forest**

Council has received certification for being Carbon Neutral in Council operations. As we continue to achieve more milestones, and as implementation of this Urban Forest Strategy commences, successes should be acknowledged and shared with the broader community to raise awareness and foster support for these milestones we will achieve together.

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<sup>13</sup> Plants People Planet, 'The Benefits of Trees for Liveable and Sustainable Communities', 2019, <https://nph.onlinelibrary.wiley.com/doi/full/10.1002/ppp3.39>

**Strategy 5.3: Leverage from the strengths of our network of volunteers, community groups, State Government departments, neighbouring local governments, academics and professionals to support the delivery of community education, information sharing and creating partnerships.**

- **Partnering with our community groups** will allow Council to draw upon our highly engaged network of volunteers to support the delivery of programs and information across our community. There is a range of skills and experience available within these groups that Council can draw upon to promote and educate people on the benefits of a healthy urban forest and the role that they can play.

- **Knowledge and Data Sharing**

It is important to bring together industry, business, government, academia and individuals, providing tools, resources and networks necessary to reach our shared goal of greener and more climate friendly cities.

Programs that bring peers together to exchange and build knowledge have been and will be important to achieve our shared aspirations for a connected and enhanced urban forest.

- **Speaking louder together**

Collaborate with other municipalities when advocating for planning reform and green initiatives in relation to tree protection and environmentally sustainable design. Bayside is not alone in its aspirations for a greener municipality and shared advocacy and partnerships can support the delivery of shared objectives.



*Volunteers pictured at the Bayside Community Nursery*

## APPENDIX 1: Four Year Action Plan

Whilst the vision of this Strategy seeks change over 20 years, this action plan identifies the approach to implementing the Strategy over the next four years. It is anticipated that the actions can be updated to inform the next four year cycle of the Strategy.

INCREASE							
Theme	Objective	Strategy	Action	Timeframe	Responsibility	Resources required	Measure
Increase	<i>Increasing tree and vegetation cover to reach 30% across the municipality by 2040.</i>	<b><i>Consider the individual needs of Bayside's suburbs and ensure that the approach to increasing canopy cover and urban forest outcomes is tailored to the conditions of each area.</i></b>	<p>Prepare precinct based urban forest plans to respond to site specific challenges and identify opportunities for increased planting, by identifying:</p> <ul style="list-style-type: none"> <li>a) Priority areas for increased planting, including hotspots, areas of declining canopy or aging trees, highly trafficked pedestrian routes and gaps/vacancies in public planting;</li> <li>b) Areas of significant landscape character;</li> <li>c) Connections to conservation</li> </ul>	Year 1 onwards	Urban Strategy	Operating Budget for technical advice and consultation	All Precinct Plans are adopted and implemented by June 2023.



			<p>reserves and areas with high biodiversity value/attributes;</p> <p>d) Strategic opportunities for the undergrounding of powerlines;</p> <p>e) Potential hotspots and potential habitat/biodiversity corridors across both public and private land; and</p> <p>f) Opportunities for boulevard plantings and the creation of improved streetscape outcomes.</p>				
Increase	<i>Increasing tree and vegetation cover to reach 30% across the municipality by 2040.</i>	<b><i>Consider the individual needs of Bayside's suburbs and ensure that the approach to increasing canopy cover and urban forest outcomes is tailored to the conditions of each area.</i></b>	Identify potential habitat and biodiversity corridors across both public and private land and prioritise and increase planting in these locations.	Year 1	Urban Strategy and Open Space, Recreation and Wellbeing	Budget previously allocated in 2021/22.	Finalise and implement the Park Improvement Habitat Linkage Plan and the Urban Forest Precinct Plans by end of 2022.

Increase	<i>Increasing tree and vegetation cover to reach 30% across the municipality by 2040.</i>	<b><i>Consider the individual needs of Bayside's suburbs and ensure that the approach to increasing canopy cover and urban forest outcomes is tailored to the conditions of each area.</i></b>	Prepare and implement plans to create conservation reserves for public land at Elsternwick Park Nature Reserve and Highett Grassy Woodland (the former CSIRO site) in Highett.	Year 1 onwards	Urban Strategy and Open Space, Recreation and Wellbeing	<p>Operational costs.</p> <p>Masterplans for both sites are to be finalised by the Open Space team and should clearly outline the key uses, accesses, habitats and environment, wayfinding and movement and any other key design elements. Masterplans should also investigate and outline any measures to be put in place in relation to biodiversity impacts or threats and opportunities for water reuse and increased habitat connectivity.</p> <p>Strategic Planning Officers are to incorporate the Masterplans as</p>	Masterplans are finalised and incorporated through the Planning Scheme Amendment to rezone to the Public Conservation and Resource Zone by 2024.
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						part of the Year 2 Planning Scheme Amendment to rezone both sites within the Public Conservation and Resource Zone. Within this zone schedule, both Masterplans are to be listed as 'Incorporated Plans.'	
Increase	<i>Increasing tree and vegetation cover to reach 30% across the municipality by 2040.</i>	<b><i>Consider the individual needs of Bayside's suburbs and ensure that the approach to increasing canopy cover and urban forest outcomes is tailored to the conditions of each area.</i></b>	Identify open space areas that can be rezoned to the Public Conservation and Resource Zone, with reference to any existing or former Ecological Vegetation Communities on the sites.	Year 3	Open Space, Recreation and Wellbeing	This can be considered as part of the Open Space Strategy review and can be considered with the resourcing of that project.	Rezone Elsternwick Park Nature Reserve and Highett Grassy Woodland (the former CSIRO site) by 2024.  Consideration within the Open Space Strategy.

Increase	<i>Increasing tree and vegetation cover to reach 30% across the municipality by 2040.</i>	<b><i>Consider the individual needs of Bayside's suburbs and ensure that the approach to increasing canopy cover and urban forest outcomes is tailored to the conditions of each area.</i></b>	Investigate opportunities to create new public open space, pocket parks, micro-forests, and habitat corridors, ensuring that the design of these spaces are contributing to Bayside's urban forest outcomes and the existing Ecological Vegetation Community.	Year 1 onwards	Open Space, Recreation and Wellbeing	<p>This can be considered as part of the Open Space Strategy review and can be considered with the resourcing of that project.</p> <p>Open Space Officers should utilise the Open Space Matrix Tool to consider opportunities.</p> <p>Where recommendations from the Park Improvement and Habitat Linkage Plan is to improve existing or provide new habitat corridors, this should form part of the Annual Tree Planting Program and understory planting programs.</p>	Council to adopt list of potential open space sites by 2023.
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Increase	<i>Increasing tree and vegetation cover to reach 30% across the municipality by 2040.</i>	<b><i>Reframe Council's approach to major capital and infrastructure renewal projects as opportunities to increase urban forestry outcomes.</i></b>	<p>Adopt an approach where trees are prioritised in planning for Council capital projects (including civil renewal/upgrades), in particular:</p> <ul style="list-style-type: none"> <li>• Where an existing habitat corridor is upon the site, ensure the siting of any new building footprint is of minimal impact;</li> <li>• Avoid tree and vegetation removal.</li> </ul> <p>Consider the planting of new trees and vegetation at the Project Scope stage.</p>	Ongoing	City Assets	Additional budget may be required for individual projects to ensure urban forestry outcomes are within scope.	Increasing the number of projects where habitat and biodiversity are within scope.

Increase	<i>Increasing tree and vegetation cover to reach 30% across the municipality by 2040.</i>	<b>Reframe Council's approach to major capital and infrastructure renewal projects as opportunities to increase urban forestry outcomes.</b>	Increase the number of trees planted to a minimum of 2200 per annum.	Year 1 onwards	Open Space, Recreation and Wellbeing	Budget will be required to increase the number of trees being planted.  Planning for the Annual Tree Planting Program is undertaken by Open Space Officer.  Delivery provided by CityWide.	2200 trees per annum.
Increase	<i>Increasing tree and vegetation cover to reach 30% across the municipality by 2040.</i>	<b>Reframe Council's approach to major capital and infrastructure renewal projects as opportunities to increase urban forestry outcomes.</b>	Increase the use of vegetation cover, particularly under-storey planting, in public areas to increase greening and improve biodiversity without impacting on accessibility or existing uses.	Year 3 onwards	Open Space, Recreation and Wellbeing	Understorey planting and maintenance projects will require allocated budget.  Projects are to be facilitated by an Open Space officer in liaison with CityWide.	Measure to be developed.
Increase	<i>Increasing tree and vegetation cover to reach 30%</i>	<b>Through the Bayside Planning Scheme, require development to provide increases</b>	Undertake a planning scheme amendment to implement the Precinct Plans and where appropriate, introduce	Year 2	Urban Strategy	Operational costs only to prepare and submit the	Planning Scheme Amendment to



	<i>across the municipality by 2040.</i>	<b>to the number of canopy trees and high-quality landscaping outcomes</b>	new controls on a site specific or suburb basis to provide for improved greening outcomes.			Planning Scheme Amendment.	be adopted by 2024.
Increase	<i>Increasing tree and vegetation cover to reach 30% across the municipality by 2040.</i>	<b>Through the Bayside Planning Scheme, require development to provide increases to the number of canopy trees and high-quality landscaping outcomes.</b>	<p>Incorporate the reviewed Bayside Landscape Guidelines in the Bayside Planning Scheme through a Planning Scheme Amendment to seek greater greening objectives for residential and non-residential uses.</p> <p>The Planning Scheme Amendment should seek to introduce:</p> <ul style="list-style-type: none"> <li>• Greater landscaping, canopy cover and permeability requirements in applicable zoning schedules</li> <li>• Amend the Schedule to the Incorporated Documents to include the Bayside</li> </ul>	Year 2 onwards	Urban Strategy	<p>Operational costs – no additional budget required to prepare and progress the Planning Scheme Amendment.</p> <p>There may be associated costs to undertake a peer review of the Bayside Landscape Guidelines.</p>	Planning Scheme Amendment to be adopted by 2024.

			Landscape Guidelines.				
Increase	<i>Increasing tree and vegetation cover to reach 30% across the municipality by 2040.</i>	<b><i>Through the Bayside Planning Scheme, require development to provide increases to the number of canopy trees and high-quality landscaping outcomes.</i></b>	<p>Through a Planning Scheme Amendment, seek greater outcomes for activity centres where open space is constrained:</p> <ul style="list-style-type: none"> <li>• Increase the utilisation of green walls and roofs in Activity Centres, particularly where the planting of canopy trees are more constrained or where large walls are significant views from neighbouring properties.</li> <li>• Where appropriate, encourage new medium and high-density development to provide for predominant nature strip landscaping</li> </ul>	Year 3 onwards	Urban Strategy	Operational costs – no budget required to prepare and progress the Planning Scheme Amendment.	Planning Scheme Amendment to be adopted by 2025.
Increase	<i>Increasing tree and</i>	<b><i>Through the Bayside Planning</i></b>	Through a Planning Scheme Amendment,	Year 1	Urban Strategy	Operational costs – no budget required.	Planning Scheme

	<i>vegetation cover to reach 30% across the municipality by 2040.</i>	<b><i>Scheme, require development to provide increases to the number of canopy trees and high-quality landscaping outcomes</i></b>	introduce a new Local Planning Policy for Environmentally Sustainable Development.				Amendment adopted by end of 2022.
Healthier Ecosystems	<i>Create a diverse and healthy urban forest that reinforces greater outcomes for biodiversity</i>	<b><i>Increase the tree and vegetation cover that is of a diverse range of species across Bayside</i></b>	Update Council regulation to ensure a diverse range of species are being planted in Bayside, by utilising the findings from the Park Improvement and Habitat Linkage Plan.	Year 1	Open Space, Recreation and Wellbeing, Development Services, Amenity Protection and Urban Strategy	Within Council officer capacity – no additional budget required.	Updated species palettes for streets, parks and nature strips are to be provided within the Urban Forest Precinct Plans and adopted by 2023.
Healthier Ecosystems	<i>Create a diverse and healthy urban forest that reinforces greater outcomes for biodiversity</i>	<b><i>Increase the tree and vegetation canopy cover that is of a diverse range of species across Bayside.</i></b>	Increase species diversity across public tree plantings to ensure a range of species are incorporated to minimise the potential of large impacts of losses on Bayside's canopy.	Year 1 onwards	Open Space, Recreation and Wellbeing	Costs to be incorporated as part of the Annual Tree Planting Program and site-specific Capital Projects.	The 10-20-30 species diversity target is reached by 2025.

Healthier Ecosystems	<i>Create a diverse and healthy urban forest that reinforces greater outcomes for biodiversity</i>	<b><i>Increase the tree and vegetation canopy cover that is of a diverse range of species across Bayside.</i></b>	<p>Review the Bayside Landscape guidelines to require greater emphasis on native and indigenous plantings and encouragement of habitat gardens and understorey planting.</p> <p>Ensure that new development that provides a Landscape Plan in accordance with the Bayside Landscape Guidelines and references the preferred landscape character of an area, identifies existing trees to be retained and/or removed and if required, also provides a Sustainability Management Plan.</p>	Year 1	Open Space, Recreation and Wellbeing, Development Services, Amenity Protection and Urban Strategy	Budget will be required to undertake expert review of the Bayside Landscape Guidelines. It is expected that this can be accommodated through operating budgets.	The review of the Bayside Landscape Guidelines is to be finalised by end of 2022 and ready to be incorporated into the Bayside Planning Scheme, through a Planning Scheme Amendment, that is adopted by 2024.
Healthier Ecosystems	<i>Create a diverse and healthy urban forest that reinforces greater outcomes</i>	<b><i>Increase the tree and vegetation canopy cover that is of a diverse range of species across Bayside</i></b>	Be part of and lead community initiatives that encourage habitat gardens within our community.	Ongoing	Open Space, Recreation and Wellbeing	Within Council officer capacity – some budget may be required for community and engagement activities and materials.	Habitat Garden community program to be in place by end of 2022.

	<i>for biodiversity</i>						
Healthier Ecosystems	<i>Create a diverse and healthy urban forest that reinforces greater outcomes for biodiversity</i>	<b>Ensure humans and wildlife can simultaneously and safely access densely vegetated areas, streets and reserves</b>	Ensure that visibility, including at night, for personal safety be a consideration in planting and vegetation management. Artificial lighting should be designed with the needs of both humans and fauna in mind.	Ongoing	Open Space, Recreation and Wellbeing	No additional budget required. Individual project needs can be considered as part of project budgets.	Adoption and implementation of the Wildlife Friendly Lighting Policy.  Utilise the Best Practise Lighting Design principles for new lighting requests.
Healthier Ecosystems	<i>Create a diverse and healthy urban forest that reinforces greater outcomes for biodiversity</i>	<b>Ensure humans and wildlife can simultaneously and safely access densely vegetated areas, streets, and reserves</b>	Advocate to the State government to fund the undergrounding of powerlines in identified priority locations.	Ongoing	Urban Strategy	No budget required.	A commitment made to underground powerlines by 2025.
Monitor	<i>Improve the ability to monitor</i>	<b>Improve, implement, and facilitate Council</b>	Continue to develop the Urban Tree Monitoring	Ongoing	Information Technology	Budget required to continue the ongoing	The development of the Urban Tree

	and track Bayside's urban forest.	<b>processes and procedures to assist the monitoring of the urban forest.</b>	<p>Tool to ensure Council can:</p> <ul style="list-style-type: none"> <li>a) Track and measure canopy cover and tree numbers</li> <li>b) Strengthen the model to aim to create modelling and forecasting scenarios</li> <li>c) Aim to expand the software to be able to identify tree height and species in the longer term.</li> <li>d) Aim to expand the software to identify different types of vegetation cover below 3 metres in height</li> <li>e) Aim to embed a heat mapping tool within the model to be able to predict future areas vulnerable to potential urban heat island effect.</li> </ul>			development of the Urban Tree Monitoring Tool.	Monitoring Tool has reached its full potential by 2025.
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			f) Present the spatial representation of tree and vegetation species and diversity across Bayside.				
Monitor	<i>Improve the ability to monitor and track Bayside's urban forest.</i>	<b><i>Improve, implement, and facilitate Council processes and procedures to assist the monitoring of the urban forest.</i></b>	<p>Improve Council's data collection processes through its local law permits, planning permits and asset protection to capture and monitor trends in relation to:</p> <ul style="list-style-type: none"> <li>a) Reasons for tree removal;</li> <li>b) Identify trends and track locations and species for removal;</li> <li>g) Ensure new replacement plantings are captured spatially and recorded into Council's GIS/Urban Tree Monitoring Tool.</li> </ul>	Ongoing	Information Technology and Amenity Protection	Costs likely to be associated with the continued development of the Urban Tree Monitoring Tool	Continued quarterly performance Reports on Local Law permits and increased ability to see and act on trends (utilising this information for strategic justification of any amendments to policy and practices).



Monitor	<i>Improve the ability to monitor and track Bayside's urban forest.</i>	<b><i>Improve, implement, and facilitate Council processes and procedures to assist the monitoring of the urban forest.</i></b>	Undertake an investigation audit on the health of trees impacted by construction activity within Tree Protection Zones.	Year 1-2	Open Space, Recreation and Wellbeing	Investigation audit to be undertaken by Open Space officer over the course of a year.	Investigation Audit to be finalised by end of 2023.
Monitor	<i>Improve the ability to monitor and track Bayside's urban forest.</i>	<b><i>Improve, implement, and facilitate Council processes and procedures to assist the monitoring of the urban forest.</i></b>	Continue Council's enforcement and compliance program to ensure that replacement plantings are provided and retained, at the point of completion for new development, and at 2 and 10 years after.	Ongoing	Amenity Protection	Additional budget is expected to be required to resource the increased auditing and compliance program. This may be funded from increased permit applications from local law permit requirement changes, introduced from Year 2.	Aim for a minimum of 80% target compliance.  Target for 10-year compliance to be determined.
Monitor	<i>Improve the ability to monitor and track Bayside's urban forest.</i>	<b><i>Improve, implement, and facilitate Council processes and procedures to assist the</i></b>	Continue Council's landscape auditing program for landscape plans prior to issuing Certificate of Occupancy.	Ongoing	Development Services and Amenity Protection	Additional budget is expected to be required to resource the increased auditing and compliance program. This may	Aim for a minimum of 80% target compliance.

		<b><i>monitoring of the urban forest.</i></b>	Expand this auditing to undertake an enforcement and compliance program to landscaping plans 2 and 10 years after.			be funded from increased permit applications from local law permit requirement changes, introduced from Year 2.	Target for 10-year compliance to be determined.
Monitor	<i>Improve the ability to monitor and track Bayside's urban forest.</i>	<b><i>Improve, implement, and facilitate Council processes and procedures to assist the monitoring of the urban forest.</i></b>	Develop a health and wellbeing indicator related to trees and the urban forest in future revisions to Council's Municipal Health and Wellbeing Plan.	Year 4	Community Wellbeing	Resourcing and budget implications to be further explored.	Measure to be determined as part of the Municipal Health and Wellbeing Plan.
Maintain	<i>Maintain our existing canopy cover across the Bayside municipality and avoid further decline.</i>	<b><i>Ensure tree removal process is transparent and equitable.</i></b>	Embed strategies to support the individual needs of vulnerable residents in relation to trees and vegetation on private property, consistent with the Community Resilience Plan 2021-2025.	Year 1	Community Services	No budget required assuming demand can be managed within existing resources.	Set a target for positive feedback received after providing support that is specific to trees and vegetation on private property and surrounds.

Maintain	<i>Maintain our existing canopy cover across the Bayside municipality and avoid further decline.</i>	<b>Ensure tree removal process is transparent and equitable.</b>	Investigate a service model to provide an advisory tree service to support residents when considering their options regarding trees on their properties, such as regular maintenance, pruning or tree removal.	Year 3	Amenity Protection	<p>This service should be provided by Council's Local Law Arborists.</p> <p>Additional budget is expected to be required to resource position, however this may be funded from increased permit applications from local law permit requirement changes, introduced from Year 2.</p>	Monitor uptake and value from service.
Maintain	<i>Maintain our existing canopy cover across the Bayside municipality and avoid further decline.</i>	<b>Ensure the tree removal process is transparent and equitable, and tree removal is a last resort.</b>	Ensure that the reasons for the removal of Council-managed trees are recorded.	Ongoing	All teams responsible for the removal of a tree on Council-owned land.	No budget required.	Tree removal on Council-owned land is to be recorded in quarterly performance Reports.
Maintain	<i>Maintain our existing canopy</i>	<b>Reframe our planning and policy framework</b>	Through a Planning Scheme Amendment, amend the Vegetation	Year 1	Urban Strategy	Operational costs – no budget required to prepare and	Planning Scheme Amendment to

	<i>cover across the Bayside municipality and avoid further decline.</i>	<b><i>to give greater priority to existing trees and vegetation when siting new development and ensuring the longevity of any new trees or vegetation by ensuring it is appropriately sited nearby surrounding hard surfaces or infrastructure.</i></b>	<p>Protection Overlays to ensure that adequate information is provided that describes how buildings have been designed to avoid and minimise vegetation loss.</p> <p>Review opportunities to strengthen the Vegetation Protection Overlay and ensure it is achieving its intended purpose.</p>			progress the Planning Scheme Amendment.	be adopted by 2024.
Maintain	<i>Maintain our existing canopy cover across the Bayside municipality and avoid further decline.</i>	<b><i>Reframe our planning and policy framework to give greater priority to existing trees and vegetation when siting new development and ensuring the longevity of any new trees or vegetation by ensuring it is appropriately sited</i></b>	Through a Planning Scheme Amendment, Council will seek to increase protection of Significant Trees by introducing a new Schedule within the Environmental Significance Overlay.	Year 1	Urban Strategy	Operational costs – no budget required to prepare and progress the Planning Scheme Amendment.	Planning Scheme Amendment to be adopted by 2024.

		<b><i>nearby surrounding hard surfaces or infrastructure.</i></b>					
Maintain	<i>Maintain our existing canopy cover across the Bayside municipality and avoid further decline.</i>	<b><i>Reframe our planning and policy framework to give greater priority to existing trees and vegetation when siting new development and ensuring the longevity of any new trees or vegetation by ensuring it is appropriately sited nearby surrounding hard surfaces or infrastructure.</i></b>	Advocate to the State government for the removal of VicSmart provisions in relation to tree removal and how this is weighted in priority in relation to development.	Ongoing	Urban Strategy	Operational costs – no budget required.  Opportunities to advocate will likely be through any inquiries, consultation periods on relevant State government planning frameworks and where appropriate, as general correspondence to the Minister for Planning.	Success will be measured through reforms to the VicSmart provisions.
Maintain	<i>Maintain our existing canopy cover across the Bayside municipality</i>	<b><i>Reframe our planning and policy framework to give greater priority to existing trees and vegetation when</i></b>	For newly planted Council managed trees, Council should minimise conflicts between these new plantings and the above and below ground infrastructure.	Ongoing	Open Space, Recreation and Wellbeing	No budget required.	A reduction in tree attrition rates for Council-managed trees.

	<i>and avoid further decline.</i>	<b>siting new development and ensuring the longevity of any new trees or vegetation by ensuring it is appropriately sited nearby surrounding hard surfaces or infrastructure.</b>					
Maintain	<i>Maintain our existing canopy cover across the Bayside municipality and avoid further decline.</i>	<b>Enhance Council's ability to retain existing trees on private property through increased regulation of tree removal.</b>	<p>Amend the Neighbourhood Amenity Local Law, Management of Tree Protection on Private Property 2015, and related documents to:</p> <ul style="list-style-type: none"> <li>• Amend the tree size requirements for a tree removal permit to capture the assessment of slender trunk trees to increase protection of more diverse species in Bayside.</li> </ul>	Year 1	Amenity Protection	<p>Operational costs – no budget required for the change.</p> <p>This is expected to result in increased costs in administering the Local Law as an increased number of trees will now require permission for removal. It is assumed that the additional fees generated by the change will offset the costs of assessing the</p>	Amendment to the Neighbourhood Amenity Local Law adopted by end of 2022.

			<ul style="list-style-type: none"> <li>• Increase the number of Infringement Notice Penalty Units for unlawful tree and vegetation removal, pruning or lopping activity.</li> <li>• Supersede the 'Management of the Tree Protection on Private Property' Policy by updating the Bayside Landscape Guidelines and ensuring their application applies to both planning and local law permit applications.</li> </ul>			application and auditing and compliance programs.	
Maintain	<i>Maintain our existing canopy cover across the Bayside municipality and avoid further decline.</i>	<b><i>Enhance Council's ability to retain existing trees on private property through increased regulation of tree removal.</i></b>	Undertake a Vegetation Character Assessment to identify Significant Trees on private and public land that are not currently listed within the Significant Tree Register.	Year 2	Amenity Protection	<p>Budget will be required to undertake and finalise assessment.</p> <p>Operational costs will be involved to incorporate the trees within the Significant Tree</p>	Vegetation Character Assessment adopted by end of 2023.



						Register that is to be incorporated into the Bayside Planning Scheme	
Maintain	<i>Maintain our existing canopy cover across the Bayside municipality and avoid further decline.</i>	<b>Support the maintenance and retention of trees on public land.</b>	Review the maintenance program for new public trees to ensure that we are increasing survival rates including post-establishment period inspections.	Year 2	Open Space, Recreation and Wellbeing	If review requires changes made to the maintenance program which result in additional costs, this will need to be considered in Council's financial budgets for 2023 onwards.	Review finalised by end of 2023.
Maintain	<i>Maintain our existing canopy cover across the Bayside municipality and avoid further decline.</i>	<b>Support the maintenance and retention of trees on public land.</b>	Prioritise the retention of trees and vegetation cover through Council's Capital Projects.	Ongoing	Open Space, Recreation and Wellbeing and City Assets	This may have budget impacts however this will be specific to individual projects and consideration can be given at that time.	Reduced number of trees and vegetation removed annual through Council capital projects
Maintain	<i>Maintain our existing canopy cover across the Bayside</i>	<b>Support the maintenance and retention of trees on public land.</b>	Apply the Tree Amenity Valuation Procedure for Council trees adjoining private development sites.	Ongoing	Open Space, Recreation and Wellbeing	This may have budget impacts and require increased Council officer capacity, however this will	Reduced number of trees dying / impacted from

	<i>municipality and avoid further decline.</i>					need to be monitored.	construction activity.
Maintain	<i>Maintain our existing canopy cover across the Bayside municipality and avoid further decline.</i>	<b>Support the maintenance and retention of trees on public land.</b>	Set a minimum target for street and park trees within the 'good' or 'fair' condition.	Year 2	Open Space, Recreation and Wellbeing	Budget may be required to replace trees that are not in good health, however this requires further scoping as part of the delivery of this action.	Annual target to be determined.
Maintain	<i>Maintain our existing canopy cover across the Bayside municipality and avoid further decline.</i>	<b>Support the maintenance and retention of trees on public land.</b>	Continue to assess trees that have limited useful life expectancy or are dead for potential retention as habitat trees using TRAQ (Tree Risk Assessment tool).	Ongoing	Open Space, Recreation and Wellbeing and Development Services	No additional budget required.	Increased number of dead trees retained for habitat.
Learn & Celebrate	<i>Learn together, educate each other, encourage and</i>	<b>Increase Council's capacity to provide advice and build community appreciation to</b>	Create an Urban Forest Officer position within Council to oversee the delivery of the Urban Forest Strategy projects and embed the changes	Ongoing	Open Space, Recreation and Wellbeing	Budget will be required to support a fixed term position.	The Urban Forest Officer is responsible for the timely delivery of

	<i>celebrate greater care and protection of the Bayside Urban Forest</i>	<b><i>tree planting in Bayside</i></b>	required to deliver the actions within the organisation.				actions within this Strategy.
Learn & Celebrate	<b><i>Learn together, educate each other, encourage and celebrate greater care and protection of the Bayside Urban Forest</i></b>	<b><i>Increase Council's capacity to provide advice and build community appreciation to tree planting in Bayside</i></b>	<p>Prepare a Communications and Engagement Strategy targeted to private property owners and the wider community to:</p> <ul style="list-style-type: none"> <li>a) Increase awareness of the role of landscape character in neighbourhoods, and how residents can contribute to and enhance the landscape character of an area;</li> <li>b) Increase awareness of the cost savings and benefits that trees provide;</li> </ul>	Updated annually	Communication and Engagement	Budget will be required to implement the Communications and Engagement Strategy.	<p>Utilise engagement evaluation matrix to measure success.</p> <p>Increased number of community members involved in activities.</p> <p>Increased demand from residents for a street tree</p>

			<ul style="list-style-type: none"> <li>c) Appropriate species selection;</li> <li>d) Case studies and examples of good practice gardening;</li> <li>e) Understanding the risks, benefits and protections for canopy trees;</li> <li>f) Advice on pruning, protecting gutters, putting in root barriers to protect walls and pools, general maintenance and volunteering opportunities;</li> <li>g) Advice on how to grow the urban forest on residential land;</li> <li>h) The support available to residents to assess whether a tree poses a risk to life or property;</li> <li>i) Minimisation of tree vandalism;</li> </ul>				outside their house.
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			j) How surfaces can be changed to provide more permeable solutions in gardens and driveways.				
Learn & Celebrate	<i>Learn together, educate each other, encourage and celebrate greater care and protection of the Bayside Urban Forest</i>	<b><i>Increase Council's capacity to provide advice and build community appreciation to tree planting in Bayside</i></b>	Partner with the community by engaging in activities such as tree plantings, the take up of community gardens through volunteer programs, and free tree giveaways to residents.	Year 2 onwards	Urban Strategy, Open Space, Recreation and Wellbeing	Budget will be required per annum and resourcing costs associated with the storage of plants for giveaway	Set a target of 80% uptake of giveaway trees per year  Increased number of community members involved in activities
Learn & Celebrate	<i>Learn together, educate each other, encourage and celebrate greater care and</i>	<b><i>Continue to build upon Council's green image and utilise this platform to advocate and partner with key stakeholders to provide greener</i></b>	Advocate and Partner with the State government through initiatives like the Suburban Parks Program and Local Parks Program to increase tree and vegetation cover on Government owned	Ongoing	Urban Strategy, Open Space, Recreation and Wellbeing	No budget required	Increased tree and understorey planting on State Government land

	<i>protection of the Bayside Urban Forest</i>	<b>outcomes across Bayside, metropolitan Melbourne and Victoria</b>	schools, public housing, cemeteries, VicTrack and VicRoads land.				
Learn & Celebrate	<i>Learn together, educate each other, encourage and celebrate greater care and protection of the Bayside Urban Forest</i>	<b>Continue to build upon Council's green image and utilise this platform to advocate and partner with key stakeholders to provide greener outcomes across Bayside, metropolitan Melbourne and Victoria</b>	Publicise and communicate Council's achievements to address climate change, improve biodiversity and provide for a healthy and resilient urban forest.	Ongoing	Communications and Engagement	Where any publication is of a cost, this can be accommodated for within Council's operational budget.	Increased support for climate and sustainability initiatives in Council's community satisfaction survey.
Learn & Celebrate	<i>Learn together, educate each other, encourage and celebrate greater care and protection of the</i>	<b>Leverage from the strengths of our network of volunteers, community groups, State Government departments, neighbouring local governments, academics and</b>	Partner with volunteers and community groups to support the delivery of programs and information across our community, further embedding the objectives of this Urban Forest Strategy.	Ongoing	Open Space, Recreation and Wellbeing	No budget required.	Measure to be determined.

	<i>Bayside Urban Forest</i>	<b>professionals to support the delivery of community education, knowledge sharing and creating partnerships.</b>					
Learn & Celebrate	<i>Learn together, educate each other, encourage and celebrate greater care and protection of the Bayside Urban Forest</i>	<b>Leverage from the strengths of our network of volunteers, community groups, State Government departments, neighbouring local governments, academics, and professionals to support the delivery of community education, information sharing and creating partnerships.</b>	Expand and grow connections between councils, industry, business through data sharing, partnerships, education campaigns and collaborating with tertiary institutions.	Ongoing	Urban Strategy and Open Space, Recreation and Wellbeing	Budget will be required per annum to allow Council to partner and connect with key agencies and will support the delivery of the Urban Forest Strategy.	Increased partnerships with other Councils / industries / academics.
Learn & Celebrate	<i>Learn together,</i>	<b>Leverage from the strengths of our</b>	Collaborate with other municipalities when	Ongoing	Urban Strategy	No budget required	Number of joint submissions /



	<p><i>educate each other, encourage and celebrate greater care and protection of the Bayside Urban Forest</i></p>	<p><b><i>network of volunteers, community groups, State Government departments, neighbouring local governments, academics and professionals to support the delivery of community education, knowledge sharing and creating partnerships.</i></b></p>	<p>advocating for planning reform and green initiatives in relation to tree protection and environmentally sustainable design.</p>				<p>partnerships / collaborative projects with other municipalities.</p>
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## Appendix 2: Policy Context

### Bayside Council Strategies relating to the Urban Forest Strategy:

State Policy Context	
POLICY	OBJECTIVE
Plan Melbourne 2017-2050	<p><i>Plan Melbourne 2017-2050</i> is a strategy that identifies key areas of importance for improvement of the Melbourne metropolitan area into the future. Plan Melbourne acknowledges that Melbourne's environment will change along with climate-change, impacting vulnerable demographic groups and challenging natural environments. Protection of natural environments (including trees, groundcover vegetation and ecosystems) and biodiversity are identified as essential to the protection for Melbourne to remain a healthy and productive city.</p> <p>"Outcome 6: Melbourne is a Sustainable and Resilient City" focuses on improving Melbourne's environmental sustainability and protecting Melbourne's biodiversity and natural assets. The Strategy acknowledges the urgent need for Melbourne to adapt to climate change and make the transition to a low-carbon city. The sections of this outcome that are relevant to the Strategy are listed below:</p> <p><b>Direction 6.4 Make Melbourne cooler and greener</b></p> <p>This Direction states that to "<i>mitigate the impacts of increased average temperatures, Melbourne needs to maintain and enhance its urban forest of trees and vegetation on properties, lining transport corridors, on public lands, and on roofs, facades and walls</i>". This statement is supported by the following policies:</p> <p><i>Policy 6.4.1</i></p> <p><i>Support a cooler Melbourne by greening urban areas, buildings, transport corridors and open spaces to create an urban forest</i></p> <p><i>Policy 6.4.2</i></p> <p><i>Strengthen the integrated metropolitan open space network</i></p>

	<p><b>Direction 6.5 Protect and restore natural habitats</b></p> <p>This Direction focuses on the need to maintain and improve the overall extent and condition of natural habitats and is supported by the following policies:</p> <p><i>Policy 6.5.1</i></p> <p><i>Create a network of green spaces that support biodiversity conservation and opportunities to connect with nature</i></p> <p><i>Policy 6.5.3</i></p> <p><i>Protect the coastlines and waters of Port Phillip Bay and Western Port</i></p>
Victoria's Climate Change Strategy	<p><i>Victoria's Climate Change Strategy</i> is a roadmap to a net-zero emissions and a climate resilient Victoria by 2050. The Strategy outlines various initiatives to be undertaken to support communities and businesses to reduce the impacts of climate change and continue to support our economy to grow.</p> <p>The Victorian Government has set a target to reduce the state's greenhouse gas emissions from 2005 levels by 28-33% by 2025 and 45-50% by 2030 by:</p> <ul style="list-style-type: none"> <li>• Transitioning the state to a clean energy future that will create jobs, cut costs for households and businesses and strengthen our energy system</li> <li>• Investing in innovative technologies, such as zero emissions vehicles and hydrogen, and partner with businesses and communities to set Victoria up for their adoption</li> <li>• Recognising and safeguarding the role of our natural environment in reducing emissions, and ensuring farmers are well placed to embrace new technologies and practices that reduce emissions</li> <li>• Supporting Victorian businesses and communities to cut emissions and thrive in a net-zero emissions future.</li> </ul>
Built Environment Climate Change Adaptation Action Plan 2022-2026	<p><i>The Built Environment Climate Change Adaptation Action Plan 2022-2026</i> sets out how the Victorian Government intends to address challenges that climate change has on the built environment. It focuses on key hazards that pose a risk to the built environment – bushfires, extreme heat, drought, coastal inundation and flash flooding.</p> <p>The Action Plan undertook consultation from July – August 2021 and is to be finalised in late 2021.</p>

Protecting Victoria's Environment: Biodiversity 2037	<p><i>Protecting Victoria's Environment - Biodiversity 2037</i> is the Victorian Government's plan to stop the decline of biodiversity and achieve overall biodiversity improvement over the next 20 years.</p> <p>The Plan establishes long-term vision and goals that are underpinned by specific targets. Targets set include a net improvement in the outlook across all species by 2037, so that:</p> <ul style="list-style-type: none"> <li>• No vulnerable or near-threatened species will have become endangered</li> <li>• All critically endangered and endangered species will have at least one option available for being conserved ex situ or re-established in the wild (where feasible under climate change) should they need it.</li> <li>• We achieve a net gain of the overall extent and condition of habitats across terrestrial, waterway and marine environments.</li> </ul>
Living Melbourne: Our Metropolitan Urban Forest Strategy	The <i>Living Melbourne: Our Metropolitan Urban Forest Strategy</i> is a strategy which identifies a common metropolitan vision for an urban forest. The strategy seeks to identify and address a series of challenges that are currently, and projected, to be impacting the viability and health of the urban forest across metropolitan Melbourne. The strategy highlights protection of trees and groundcover vegetation, enhancement of existing environmental assets, collaboration with other stakeholders to plan forest strategies into the future and underpin a broad consensus on what the urban forest should look like.
Bayside Planning Scheme – State Planning Policy Framework	<p>The following Clauses in the Planning Policy Framework relate to the protection and enhance of green spaces, tree canopies and natural ecosystems:</p> <ul style="list-style-type: none"> <li>- Clause 13 – Environmental Risks and Amenity;</li> <li>- Clause 13.01 – Climate Change Impacts;</li> <li>- Clause 13.01-1S – Natural Hazards and Climate Change; and</li> <li>- Clause 13.01-2S – Coastal Inundation and Erosion.</li> </ul>
<b>Council Policy and Framework</b>	
<b>POLICY</b>	<b>OBJECTIVE</b>
Bayside Council Plan 2021-25	The <i>Bayside Council Plan 2021-25</i> identifies the adoption and implementation of the Urban Forest Strategy as a major initiative. This is identified within Goal 1 Our Planet which focuses on leading our community and

	influencing change to address the climate emergency, and significantly contribute to reducing its impact on the health of our community, environment and the planet.
Bayside Community Plan 2025	The <i>Bayside Community Plan 2025</i> has identified that improvements to open and green spaces, and the importance of protecting and supporting the natural ecosystem, are key aspirations identified by the community for the future. Residents also indicated their aspiration to protect both mature and established trees, along a stronger enhancement in garden landscapes to protect tree canopies and vegetation.
Bayside Community Vision 2050	The <i>Bayside Community Vision 2050</i> highlights the community's wishes for increased protections for natural ecosystems, trees and vegetation, with the desire to improve the health of natural ecosystems, protect trees and vegetation from climate-change related impacts, and to enhance green spaces for the benefit of the broader community.
<b>Health and Wellbeing</b>	
Bayside's Municipal Public Health and Wellbeing Plan 2021-2025	<p><i>Bayside's Municipal Public Health and Wellbeing Plan 2021-2025</i> outlines the health and wellbeing priorities for Bayside City Council over the next four years. Goal 1 of the Plan is 'Connected and thriving community' Key objectives that underpin this, and align with the actions of the Urban Forest Strategy are:</p> <p>1.1 Improve community mental wellbeing and resilience; and 1.2 Increase and support for volunteerism.</p> <p>The Urban Forest Strategy recognises the importance of a connected and thriving community and ensuring people of all ages and abilities have access to services and resources and volunteer opportunities.</p>
<b>Planning and Housing</b>	
Housing Strategy 2019	The <i>Bayside Housing Strategy 2019</i> identifies the key challenges of climate change – including recognition of the urban heat island effect - and sustainable development. The Strategy recognizes sustainable design and inclusion of plants and trees in new developments as key objectives that can improve tree canopy and vegetation cover as well as enhance natural ecosystems.
Neighbourhood Character Review 2011	The <i>Bayside Neighbourhood Character Review 2011</i> identifies the protection and enhancement of street trees and vegetation as key approach to maintain neighbourhood character.

Bayside Planning Scheme – Planning Policy Framework	<p>The <i>Bayside Planning Scheme – Planning Policy Framework</i> identifies the following as key local planning policies relating to the protection and enhancement of green spaces, tree canopies and natural ecosystems:</p> <ul style="list-style-type: none"> <li>12.01-1L Protection of Biodiversity; and</li> <li>12.02-1L Protection of Coastal Areas</li> <li>15.01-1L: Urban Design;</li> <li>15.01-2L: Building Design;</li> <li>15.01-3L: Subdivision Design;</li> <li>15.01-5L: Neighbourhood Character;</li> <li>15.02-1L: Energy and Resource Efficiency; and</li> <li>15.03-1L: Heritage Conservation</li> </ul>
<b>Economy and Business Activity</b>	
Retail, Commercial and Employment Strategy 2016	The <i>Bayside Retail, Commercial and Employment Strategy 2016</i> identifies key areas for retention and enhancement of greenspaces (including tree canopies) in the improvement of retail, commercial and employment opportunities across Bayside.
Economic Development Strategy 2014	The <i>Bayside Economic Development Strategy 2014</i> identifies measures relating to addressing climate change and enhancing local livability through concerted efforts to maintain and protect natural resources and ecosystems in the face of economic development.
Bayside Tourism Strategy 2013	The <i>Bayside Tourism Strategy 2013</i> identifies environmental assets critical to the enhancement and promotion of tourism across Bayside, specifically relating to natural assets such as parks and neighbourhood character (specifically trees and vegetation), and emphasises continued efforts to protect, enhance and grow natural elements across Bayside.
<b>Mobility, Access, and Participation</b>	

Integrated Transport Strategy 2018-28	The <i>Bayside Integrated Transport Strategy 2018-28</i> identifies key areas relating to transport, specifically emphasising the need to address climate change, and the promotion of transport methods that reduce the impact on the environment.
Bayside Walking Strategy 2015	The <i>Bayside Walking Strategy 2015</i> identifies the protection and enhancement of natural assets such as trees, groundcover vegetation and significant ecosystems, to aid in the promotion of walking and create natural environments that influence sustainable methods of exercise and travel.
<b>Environment, Sustainability and Public Spaces</b>	
Bayside Climate Emergency Action Plan 2020-25	The <i>Bayside Climate Emergency Action Plan 2020-25</i> prioritises addressing climate change through measures that increase tree canopies, protect groundcover vegetation, and emphasis the importance of strong and healthy ecosystems that can aid in the responses to climate change and its effects. A Theme of the action plan seeks to address the finalisation and implementation of the Urban Forest Strategy, with goals to minimise the effects of the urban heat island effect, increasing tree canopy and strengthening ecosystems.
Environmental Sustainability Framework Action Plan 2019-23	The <i>Bayside Environmental Sustainability Framework Action Plan 2019-23</i> identifies actions to prioritise environmental sustainability, with the aim to maintain and enhance environmental assets, protect existing vegetation and natural assets, and grow tree canopies and groundcover vegetation.
Bayside Biodiversity Action Plan 2018-2027	<p>The <i>Bayside Biodiversity Action Plan 2018-2027</i> identifies the need to protect and enhance the biodiversity of green spaces across Bayside, with particular attention to the diversity of trees in public environments, enhancement of groundcover vegetation species and promotion of strong and healthy ecosystems that can adapt to the changing environment in the face of climate change.</p> <p>This Urban Forest Strategy seeks to implement various actions identified within the Bayside Action Plan. This Strategy supports the increase of vegetation and canopy cover, for the benefit of increasing habitat for biodiversity. While this Strategy interacts with the Biodiversity Action Plan, it is the Biodiversity Action Plan which provides greater emphasis on the benefits of biodiversity and key actions to improve outcomes within Bayside.</p>
Bayside Coastal Management Plan 2014	The <i>Bayside Coastal Management Plan 2014</i> identifies environmental issues relating to the coastal areas of Bayside, highlighting the need for continued protections of coastal tree and groundcover species, and the enhancement of green spaces to adapt to continued coastal challenges, and climate change.



Open Space Strategy 2012	The <i>Bayside Open Space Strategy 2012</i> outlines key policy responses on how open spaces can be improved across Bayside, with the protection of green spaces (inclusive of trees and ground cover vegetation) highlighted as a key component of protecting and enhancing open space across Bayside.
Bayside Tree Strategy	The <i>Bayside Tree Strategy</i> defines key issues currently facing trees across Bayside, with climate change, insufficient growth space and natural characteristics (disease, insects, etc.) being significant contributing factors to the health and sustainability of tree coverage across Bayside.
Sustainability Infrastructure Policy 2017	The <i>Bayside Sustainability Infrastructure Policy 2017</i> sets out Council's commitment and approach to Environmentally Sustainable Design (ESD) principles in the design, construction, operation and maintenance of Council owned/managed infrastructure. This includes objectives around urban ecology such as the protection of existing canopy trees and guidelines around landscaping and plant selections.

## Appendix 3: Glossary

**Biodiversity:** ‘all components of the living world: the number and variety of plants, animals and other living things (including fungi and micro-organisms) across our land, rivers, coast, and ocean. It includes the diversity of their genetic information, the habitats and ecosystems within which they live, and their connections with other life forms and the natural world’.<sup>14</sup>

**Canopy cover** is the layer formed by the branches and crowns of plants or **trees**. The **cover** can be continuous, as in primary forests, or discontinuous - with gaps as in an urban area. Canopy is defined in Living Melbourne as vegetation above three metres in height <sup>15</sup>

**Canopy tree** - A tree which has, or at maturity is likely to have, sufficient height and canopy characteristics to make a positive contribution to local amenity, sense of place, microclimate and/or biodiversity. Minimum 8 metres in height x 4 metres in canopy width.

**Climate change** refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer.<sup>16</sup>

**Climate change adaptation** is the process of adjustment to actual or expected climate and its effects.<sup>17</sup>

**Climate change mitigation** is the human intervention to reduce the sources or enhance the sinks of greenhouse gases.<sup>17</sup>

**Climate Emergency** refers to the catastrophic changes to the climate brought about by human activity that poses a dangerous threat to all life on the planet.<sup>17</sup>

**Environmentally Sustainable Development:** Environmentally Sustainable Development that is designed, constructed and managed to optimise climate resilience, energy efficiency, integrated water management, indoor environment quality, the circular economy, low carbon transport and urban ecology.<sup>18</sup>

**General Residential Zone (GRZ)** is applied to land in areas where growth and housing diversity is anticipated. It is expected that the type of housing provided will evolve over time to provide more diverse forms of housing, but not at the expense of existing open garden character.<sup>19</sup>

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<sup>14</sup> The State of Victoria Department of Environment, Land, Water and Planning, ‘Protecting Victoria’s Environment – Biodiversity 2037’, 2017, Available at <https://www.environment.vic.gov.au/biodiversity/biodiversity-plan>

<sup>15</sup> CID Bio-Science, ‘Forest and Plant Canopy Analysis – Tools and Methods’, 2019, Available at <https://cid-inc.com/blog/forest-plant-canopy-analysis-tools-methods/>

<sup>16</sup> Definition has been sourced from ‘Bayside’s Climate Emergency Action Plan 2020-2025 – Glossary’, 2019, Available at [https://www.bayside.vic.gov.au/sites/default/files/sustainability\\_and\\_environment/climate\\_emergency\\_action\\_plan\\_v1.2\\_140920\\_for\\_web.pdf](https://www.bayside.vic.gov.au/sites/default/files/sustainability_and_environment/climate_emergency_action_plan_v1.2_140920_for_web.pdf)

<sup>17</sup> Department of Health and Human Services, ‘Arboricultural Assessment Holland Court, Flemington– 3.7 Useful Life Expectancy(ULE)’, 2017, available at [https://www.planning.vic.gov.au/\\_data/assets/pdf\\_file/0011/105500/SHRP-SH1-15.a.-Tree-Logic-Rpt\\_Holland-Court,-Flemington.pdf](https://www.planning.vic.gov.au/_data/assets/pdf_file/0011/105500/SHRP-SH1-15.a.-Tree-Logic-Rpt_Holland-Court,-Flemington.pdf)

<sup>18</sup> Bayside Sustainable Building and Infrastructure Policy (updated 2021)

<sup>19</sup> Victorian Planning Authority, ‘Reformed Residential Zones – General Residential Zone’, 2017, Available at [https://www.planning.vic.gov.au/\\_data/assets/pdf\\_file/0023/103865/General-Residential-Zone.pdf](https://www.planning.vic.gov.au/_data/assets/pdf_file/0023/103865/General-Residential-Zone.pdf)

**Greenways** – Greenways are a form of landscape planning. They are linear open space corridors in the built or natural environment, which preserve biodiversity or other aspects of a sustainable environment, and generally engage the community in recreational use.<sup>20</sup>

**Habitat** - All the physical and biological things that collectively make up the place where a plant or animal lives.<sup>21</sup>

**Habitat Corridor** - A habitat corridor is a linear two-dimensional landscape element that differs from the surrounding vegetation, in both vegetation structure and form, and connects two or more patches, of otherwise isolated, habitat that have been connected in historical time, this is meant to function as a conduit for both plants and animals.<sup>22</sup>

**Heat Vulnerability Index** – The heat vulnerability index (HVI) is represented by a scale of 1 to 5 based on quintiles, with 1 representing low exposure, low sensitivity or high adaptive capacity and 5 representing high exposure, high sensitivity or low adaptive capacity. We integrated indicators of heat vulnerability to calculate a Heat Vulnerability Index (HVI) at SA1 level. The index consists of three component layers: heat exposure, sensitivity to heat, and adaptive capability. Integration was accomplished by summing the scores from the three vulnerability components, dividing the SA1s into quintiles, and attributing SA1s with a Heat Vulnerability Rating scaled from 1 to 5.<sup>23</sup>

**Neighbourhood Residential Zone (NRZ)** is applied to land that has been identified as having specific neighbourhood, heritage, environmental or landscape character values that distinguish the land from other parts of the municipality or surrounding area.<sup>24</sup>

**Permeability** - The readiness with which a surface, whether man-made (such as a paved road) or natural (such as soil or rock) allows water, air or plant roots to penetrate or pass through.<sup>25</sup>

**Residential Growth Zone (RGZ)** is considered a substantial change area where medium density housing growth and diversity of housing types is encouraged for example townhouses and apartments around activity centres and close to train stations.<sup>26</sup>

**Resilience:** the capacity of individuals, institutions, businesses and systems within a city to adapt, survive and thrive no matter what kind of chronic stresses and acute shocks they experience.<sup>17</sup>

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<sup>20</sup> University of New South Wales, 'The future of greenways in Sydney,' by P. Crawshaw, 2009, available at: [https://www.be.unsw.edu.au/sites/default/files/upload/pdf/schools\\_and\\_engagement/resources/\\_notes/5A2\\_41.pdf](https://www.be.unsw.edu.au/sites/default/files/upload/pdf/schools_and_engagement/resources/_notes/5A2_41.pdf)

<sup>21</sup> Resilient Melbourne and The Nature Conservancy, 'Living Melbourne – Our metropolitan Urban Forest', 2019, Available at [https://resilientmelbourne.com.au/wp-content/uploads/2019/05/LivingMelbourne\\_Strategy\\_online.pdf](https://resilientmelbourne.com.au/wp-content/uploads/2019/05/LivingMelbourne_Strategy_online.pdf)

<sup>22</sup> Definition as used in 'Corridors for Habitat and Biodiversity Conservation in the Act with Links to the Region' from 'The theory of wildlife corridor capability – in Nature Conservation 2: The role of corridors', 1991 by Soulé, M. E. and M. E. Gilpin, Available at

[https://www.parliament.act.gov.au/\\_data/assets/pdf\\_file/0008/381077/PE\\_06\\_Environment\\_attach.pdf](https://www.parliament.act.gov.au/_data/assets/pdf_file/0008/381077/PE_06_Environment_attach.pdf)

<sup>23</sup> Department of Environment, Land, Water and Planning, Victorian Government 'Urban Vegetation, Urban Heat Islands and Heat Vulnerability Assessment in Melbourne, 2018', Available at

[https://www.planning.vic.gov.au/\\_data/assets/pdf\\_file/0018/440181/UHI-and-HVI2018\\_Report\\_v1.pdf](https://www.planning.vic.gov.au/_data/assets/pdf_file/0018/440181/UHI-and-HVI2018_Report_v1.pdf)

<sup>24</sup> Victorian Planning Authority, 'Using the residential zones – Planning Practice Note 91, Clause 32.09', 2019, Available at [https://www.planning.vic.gov.au/\\_data/assets/pdf\\_file/0033/445389/PPN91-Using-the-residential-zones.pdf](https://www.planning.vic.gov.au/_data/assets/pdf_file/0033/445389/PPN91-Using-the-residential-zones.pdf)

<sup>25</sup> DELWP, 'Land for Wildlife' available at: <https://www.wildlife.vic.gov.au/protecting-wildlife/land-for-wildlife>

<sup>26</sup> Victorian Planning Authority website, 'Frequently Asked Questions – What is a Residential Growth Zone (RGZ)', 2017, Available at <https://vpa.vic.gov.au/faq/berwick-residential-growth-zone-rgz/>

**SEIFA:** Socio-Economic Indexes for Areas (SEIFA) measures the relative level of socio-economic disadvantage and/or advantage based on a range of Census characteristics.<sup>27</sup>

**Significant Landscape Overlay (SLO)** - The Significant Landscape Overlay (SLO) is the most appropriate planning scheme tool for protecting and managing significant landscapes. Its purpose is to identify significant landscapes, and conserve and enhance their character. The SLO can require a permit to construct a building or construct or carry out works, construct a fence, and remove, destroy or lop any vegetation.<sup>28</sup>

**Significant Tree** - Some trees, through age, size, and rarity of planting or association with historical events achieve a higher level of importance on private or public land. identifies the following the categories used to define significant trees as scientific, social, historic, and aesthetic.<sup>29</sup>

**Social Equity** – a concept that aims to reduce social inequity by providing communities with the same level of benefits and access to services. It is flexible and is inherently different for any one person or community, and benefits vary for each person and community, as the inherent goals of equity is to ensure that all are supported.<sup>30</sup>

**Tree Canopy** - The uppermost trees or branches of trees in a forest, forming an almost continuous layer of foliage. The topmost layer of bioactivity in a forest setting<sup>31</sup>

**Urban Forest** - All of the trees, shrubs, grasslands, and other vegetation – and the soil and water that support them. Urban forest incorporates vegetation in streets, parks, gardens, plazas, campuses, river and creek embankments, wetlands, railway corridors, community gardens, green walls, balconies and roofs.

**Urban Heat Island Effect** - The phenomenon of dense urban areas having significantly warmer air and land surface temperatures than surrounding rural areas.

**Useful Life Expectancy (ULE)** - Assessment of useful life expectancy provides an indication of health and tree appropriateness and involves an estimate of how long a tree is likely to remain in the landscape based on species, stage of life (cycle), health, amenity, environmental services contribution, conflicts with adjacent infrastructure and risk to the community. It is not a measure of the biological life of the tree within the natural range of the species. It is more a measure of the health status and the tree's positive contribution to the urban landscape.<sup>32</sup>

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<sup>27</sup> Id community, 'Demographic Resources', Available at <https://profile.id.com.au/bayside/seifa-disadvantage-small-area?WebID=10>

<sup>28</sup> Victorian Planning Authority, 'DPCD South West Victoria Landscape Assessment Study – Regional Overview Report', 2013, Available at [https://www.planning.vic.gov.au/\\_data/assets/pdf\\_file/0023/94820/ROR-Chapter-5-Implementation-Part-2.pdf](https://www.planning.vic.gov.au/_data/assets/pdf_file/0023/94820/ROR-Chapter-5-Implementation-Part-2.pdf)

<sup>29</sup> Bayside City Council, 'Significant Tree Management Policy 2020', 2020, Available at [https://www.bayside.vic.gov.au/sites/default/files/trees\\_parks\\_and\\_beaches/significant\\_tree\\_management\\_policy\\_2020.pdf](https://www.bayside.vic.gov.au/sites/default/files/trees_parks_and_beaches/significant_tree_management_policy_2020.pdf)

<sup>30</sup> The University of Melbourne, 'What is Social Equity?' by B. McSherry, 2013, available at: <https://socialequity.unimelb.edu.au/stories/what-is-social-equity>

<sup>31</sup> Resilient Melbourne and The Nature Conservancy, 'Living Melbourne – Our metropolitan Urban Forest', 2019, Available at [https://resilientmelbourne.com.au/wp-content/uploads/2019/05/LivingMelbourne\\_Strategy\\_online.pdf](https://resilientmelbourne.com.au/wp-content/uploads/2019/05/LivingMelbourne_Strategy_online.pdf)

<sup>32</sup> Department of Health and Human Services, 'Arboricultural Assessment Holland Court, Flemington– 3.7 Useful Life Expectancy(ULE)', 2017, Available at [https://www.planning.vic.gov.au/\\_data/assets/pdf\\_file/0011/105500/SHRP-SH1-15.a.-Tree-Logic-Rpt\\_Holland-Court,-Flemington.pdf](https://www.planning.vic.gov.au/_data/assets/pdf_file/0011/105500/SHRP-SH1-15.a.-Tree-Logic-Rpt_Holland-Court,-Flemington.pdf)

**Understorey vegetation** – Understorey vegetation includes small trees, shrubs, herbs, grasses, mosses and lichens that occupy the vegetation layers below the canopy of taller trees. Some habitats have mixtures of these plants, whilst others, such as grassy woodlands, have mostly grasses and a few shrubs. The combined presence of understorey vegetation with diverse fauna and fungi helps maintain high biodiversity and healthy ecosystem processes.<sup>33</sup>

**Vegetation Protection Overlay (VPO)** - The VPO focuses on the protection of significant vegetation, including native and introduced vegetation in urban environments. The overlay can be applied to individual trees, groups of trees or areas of significant vegetation. It requires a landowner to obtain a permit to remove, destroy or lop any vegetation specified in a schedule to the overlay subject to a list of exemptions. Some of those exemptions apply to particular types of vegetation and others apply to specific situations, for example, to clear vegetation from electricity lines and to ensure emergency access.<sup>34</sup>

**Vulnerability** – Exposure to contingencies and stress, and the difficulty in coping with them. This can apply to ecosystems, trees, people and places.<sup>35</sup>

**Water Sensitive Urban Design (WSUD)** is a more sustainable approach to urban planning and design to make use of stormwater and reduce the harm it causes to our natural waterways.<sup>36</sup>

## Appendix 4: Methodology & Stakeholders

The Urban Forest Strategy assesses the level of tree canopy cover across the Bayside municipality to determine whether there are varying levels of change across different locations and land types, and to address the issues that are affecting Bayside's urban forest, and changes in canopy cover that have been observed through analysis. This was undertaken by preparing and utilising the following data and research:

- Tree canopy data has been utilised from the State Government's aerial imagery and has been analysed by Council's GIS (Geographical Information System) to determine an approximate level of tree and vegetation canopy cover per suburb.
- Council's tree planting and removal data reveals a number of different data sets that have helped inform key topics such as tree selection and species diversity, tree health and age, and planting attrition rates.
- Planning permit analysis which has assisted in understanding the key trends in terms of tree removal in the Vegetation Protection Overlay Schedule 3.
- Local Law tree removal application process which has provided insights into the number of permits approved each year, and tree replanting that subsequently occurs.

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<sup>33</sup> Land for Wildlife Queensland, 'The Value of Understorey Vegetation' Note V6, available at:

<https://www.lfwseq.org.au/wp-content/uploads/2016/11/The-Value-of-Understorey-Vegetation.pdf>

<sup>34</sup> Victorian Law Reform Commission, '4. Planning law and regulation affecting trees on private land - Vegetation Protection Overlay, Available at <https://lawreform.vic.gov.au/content/introduction-34>

<sup>35</sup> GreenFacts, 'Vulnerability (in ecosystems)', available at: <https://www.greenfacts.org/glossary/tuv/vulnerability-ecosystems.htm>

<sup>36</sup> Melbourne Water, 'Introduction to WSUD', available at: <https://www.melbournewater.com.au/building-and-works/stormwater-management/introduction-wsud>

### **Key stakeholders**

This Urban Forest Strategy has been created with the assistance and input from the following units within Council:

#### **Urban Strategy**

The Urban Strategy team prepares and implements strategies and plans to guide Bayside's urban landscape. The team has developed this strategy, with the assistance of the key internal stakeholders listed below.

#### **Development Services**

Development Services have been responsible for implementing Council's decision making in relation to development and tree removal through planning permits. There are several planning ordinances and overlays within the Bayside Planning Scheme related to vegetation protection including the Heritage Overlay, Significant Landscape Overlay and Vegetation Protection Overlay. The Development Services Team assisted in the preparation of this strategy by providing Planning Permit data on tree and vegetation removal. This was broken down into the number of applications that were refused and approved over recent years.

#### **Amenity Protection**

The Amenity Protection team assist in the regulation of Local Law policy, specifically neighbourhood amenity. The team has assisted in the preparation of this strategy by providing data on Local Law tree removal applications and the number of applications that have been refused and approved over recent years.

#### **Open Space, Recreation and Wellbeing**

The Open Space team is responsible for the development and implementation of the Biodiversity Action Plan and works alongside Council's contractor CityWide who undertakes tree planting, maintenance and removal. The team also undertakes masterplan works at parks and reserves and identifies opportunities for tree planting and habitat connectivity.

#### **Sustainability and Transport**

The Sustainability and Transport team has developed the Climate Emergency Action Plan 2020. This Plan identifies the actions Council will take to respond to the Climate Emergency and support our local community to take action to reduce their impact on the environment. A key action identified in the Action Plan is the implementation of Bayside's Urban Forest Strategy by 2025.

#### **Community Services**

The Community Services Team provides a comprehensive and integrated range of assistance to support Bayside residents who are experiencing vulnerability to connect them with the specialist services that they require. The Community Services team regularly responds to issues regarding tree maintenance and removal on or near private property where the owner has limited mobility and/or has been impacted upon by a tree. The team's input and ability to share the experience of vulnerable residents has identified the need to expand our assistance and support in relation to this issue.

#### **IT (GIS Specialist)**

The GIS team has assisted the development of this strategy by preparing and providing maps which display the tree and vegetation canopy cover for Bayside. The GIS team has also implemented data from council's contractor, CityWide which has allowed Council to identify tree health, age, species diversity, useful life expectancy and vacant tree sites in Bayside.

This Strategy assesses the level of tree canopy cover across the Bayside municipality to determine whether there are varying levels of change across different locations and land types, and to address the issues that are affecting Bayside's urban forest, and changes in canopy cover that have been observed through analysis. This was undertaken by preparing and utilising the following data and research:

- Tree canopy data has been utilised from the State Government's aerial imagery and has been analysed by Council's GIS (Geographical Information System) to determine an approximate level of tree and vegetation canopy cover per suburb.
- Council's tree planting and removal data reveals a number of different data sets that have helped inform key topics such as tree selection and species diversity, tree health and age, and planting attrition rates.
- Planning permit analysis which has assisted in understanding the key trends in terms of tree removal in the Vegetation Protection Overlay Schedule 3.
- Local Law tree removal application process which has provided insights into the number of permits approved each year, and tree replanting that subsequently occurs.
- There has been internal consultation with various stakeholders within Council on the key issues that have emerged during the creation of this report.





Photo of *Allocasuarina verticillata* – Drooping She-oak taken by Pauline Reynolds