Urban Forest Strategy 2023

MITCHELL
SHIRE COUNCIL

Acknowledgement of Country

Mitchell Shire Council acknowledges the Taungurung and Wurundjeri Woi Wurrung people as the Traditional Owners of the lands and waterways in the area now known as Mitchell Shire. We pay our respects to their rich cultures and to Elders, past, present and emerging, as well as other Aboriginal and Torres Strait Islander people who live, work and play in the area.
We recognise the composition of Aboriginal communities in Mitchell is multifaceted. True self-determination within municipal boundaries ensures all cohorts in the community are represented with equitable voice, and that decisions which effect Aboriginal and Torres Strait Islander communities in Mitchell are explored and undertaken in partnership with local communities.

Taungurung

Taungurung people are the Traditional Owners of a large part of central Victoria and lived on this Country for more than a thousand generations. The Taungurung people are many clans sharing one language and deep spiritual connection with Country. The current generation of Taungurung people is strongly committed to the resurgence of their cultural knowledge and practice, reversing the dire effects of colonisation.

"When our Country is sick, we are sick. When our Country is healthy, we can become healthy. Taking an active role in caring for Country makes us strong and unites us as a community. Our active engagement with other land managers benefits Country for all. To achieve this aspiration, we require our own People participating as land managers from decision-making inceptions through day-to-day work on Country. We need to build our two ways knowledge and skills to do this:

1. Taungurung Knowledge, strategies and tools
2. Contemporary knowledge, strategies and tools

Together we can accelerate healing for Country. Everybody wins." (Source: Taungurung Country Plan, 2021)

Wurundjeri Woi Wurrung

Wurundjeri Woi Wurrung people take their name from the Woiwurrung language word 'wurun' meaning the Manna Gum (Eucalyptus viminalis) which is common along 'Birrarung' (Yarra River), and 'djeri ', the grub which is found in or near the tree. Wurundjeri are the 'Witchetty Grub People' and their Ancestors have lived on this land for millennia.

Contents

1. Executive Summary

Mitchell Shire's urban forest is a critical and valuable community asset and includes trees, vegetation and grasslands within townships.

Trees in both the public and private realm provide shade (cooling effect), intercept stormwater, store carbon, provide habitat, enhance amenity and property values, and improves general health and wellbeing. These trees provide 12% of canopy coverage across the shire. The northern and central townships have higher canopy cover (Tallarook, Kilmore East, Wandong, Seymour) than those in the south (Beveridge and Wallan).

Council manages around 56,000 trees in road reserves, parks and other public land. We have an estimated 12,000 vacant street tree sites, which is a major opportunity to increase canopy coverage across the shire.

In addition, the private realm also plays an important role in increasing the shire's canopy coverage.

Our Urban Forest faces many challenges including:

- **Climate Change** – harsher conditions for trees to establish, survive and thrive.
- **Urban Development** – loss of canopy due to development across the shire.
- **Community Perception** – a negative perception of trees from a risk, litter or infrastructure damage perspective.
- **Emergency Management** - bushfires, floods and storms have already caused significant impacts to some of our communities in our very recent past, and the financial and health and wellbeing strain can be overwhelming. Damage from these events can be exacerbated by trees or branches.
- **Funding and Resources** – finite funding makes increasing tree planting and other opportunities difficult, especially when competing with other services.

The Urban Forest Strategy ('strategy') aims to mitigate these challenges by setting clear objectives, actions and targets to be delivered over 10, 20 and 50 years.

A key focus of the strategy will be to increase canopy coverage within road reserves and parks andidentify opportunities to improve tree retention and protection on private land.

To achieve this, council has identified the following key targets for this strategy:

Target	Timeframe (Yrs)	Year of delivery
Increase planting of trees within road reserves and parks to fill 95% of vacant sites	10	2033
Average township canopy coverage of 20%	20	2043
Average township canopy coverage of 30%	50	2073
Increase average of road reserve tree canopy coverage from 11% to 20%	50	2073
Increase average open space tree canopy coverage from 7% to 30%	50	2073

1.1 Scope

This strategy covers all trees and shrubs within the urban boundaries of established and growing settlements in the shire, within the public and private realm. It sets the strategic direction on how to protect, enhance and manage our urban forest over the next 10, 20 and 50 years.

The Action Plan (section 9) is a 10-year plan that applies to a range of vegetation types, irrespective of species, origin or ownership. Priorities are based on short (1-3 years), medium (4-6 years) and long term (beyond 7-10 years) timeframes as well as ongoing actions.

1.2 Funding the Urban Forest Strategy Implementation

The strategy will assist in directing council resources to locations of highest priority. Budgets will be prepared for each of the short, medium, long and ongoing actions aligning to timeframe years of delivery. This will include both Capital and Operational funding avenues as appropriate.

1.3 Monitoring and Evaluation

The Action Plan (Section 9) will be reviewed every four years. This review will include evaluation of the progress, targets and indicators outlined throughout the strategy.

Image 2: The scope of this Strategy includes all of the townships in the image above excluding Puckapunyal.

2. Introduction

This is the first strategy of its kind for our shire. It celebrates the unique and deep reaching social, environmental and economic benefits that our urban forest, provides to our local communities and our local environment. Our local Traditional Owners value the importance of caring for and healing country and our urban forests are a key part of this process.

An Urban Forest is the collection of trees, understory and grassland, growing within and around townships. It is the collective sum of all vegetation in these locations, both on public and private land.

Looking after our urban forests is one of the most effective ways to help mitigate and adapt to climate change. Trees cool our townships, intercept stormwater, cycle nutrients into the soil and provide habitat and food for wildlife. Our urban forest also provides the soft green backdrop to each of our townships and new urban area, enriching landscape character and our sense of place. When valued for some of its core environmental benefits and structural value, our urban forest is worth in excess of $140 million.[1]

We currently manage around 41,000 street and 15,000 park trees across our townships. We have been working hard to improve the way we care for and manage these trees as part of protecting and enhancing our urban forest including trialling new species that will thrive under changing climate, planting more trees in our streetscapes and working more closely with developers to find better outcomes to protect and increase canopy cover.

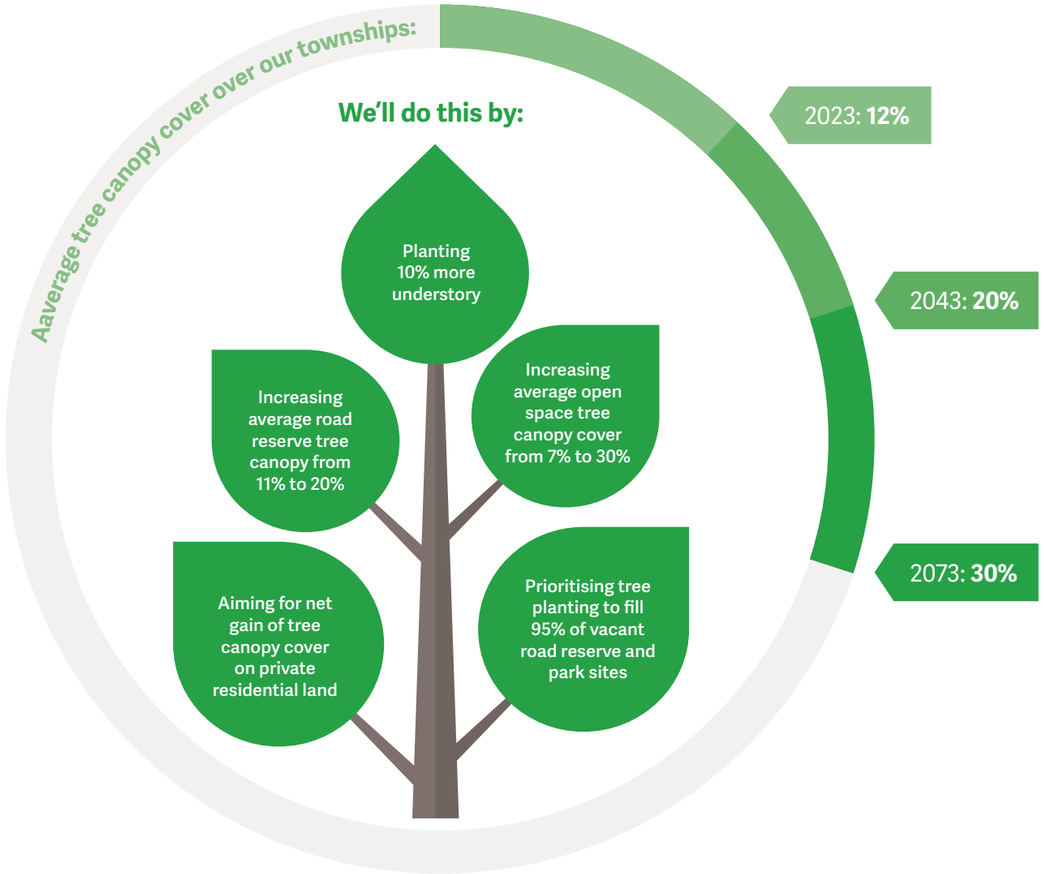
We also recognise that there are things that need improving, namely tree protection and enhancement, both in the public and the private realm. A majority of all land within Mitchell Shire (70%) is privately owned, with 75% of our urban forest . This means that privately owned land is critical for supporting our urban forest. Currently, we have limited protections or incentives in place to retain trees on private land. Our community have told us that new developments are not doing enough to protect existing trees on development sites. In addition, the community is concerned that new developments are not providing ample space on new allotments to adequately enable the planting of future trees.[2]

Our urban forest faces a number of key challenges that we need to address in partnership with our community, other government agencies, developers and landholders. Climate change, a fast-developing urban growth area, infill development pressures, changing community perceptions and preferences have all impacted on our ability to deliver a sustainable urban forest.

This strategy targets our key focus areas for the next 10, 20 and 50 years so that we can work towards meeting our organisational net zero targets, help care and heal our country and create liveable, breathable communities for the future.

The strategy provides a clear pathway in meeting our Community Strategic Vision of being *"a healthy, vibrant and connected community that values nature, diversity and innovation".*

To achieve this vision, we're aiming to increase average tree canopy cover over our townships incrementally:



[1] I Tree Eco Suite of Tools

[2] Mitchell Shire Council Urban Forest Community Engagement Survey 2023

3. Our Plan

Growing and caring for our urban forests is important to the health and wellbeing of our community, as highlighted in the Nature and Parks theme of the Mitchell 2050 Vision, which includes the community aspiration: 'In 2050, Mitchell will be home to a vibrant and thriving natural environment where nature is part of resident's everyday life'. Our urban forests help maintain the relaxed country feel of our shire, cool and beautify our townships, while providing critical wildlife habitat as well as social and economic benefits.

At council, we value the significant community benefits of our urban forests which includes all of the trees, shrubs and gardens on public and private urban land. We are dedicated to managing, protecting and enhancing urban forests into the future.

3.1 Benefits of Urban Forests

3.2 Vision

Our urban forest plays a crucial role in helping us achieve our 2050 Community Vision, which states: 'We are a healthy, vibrant and connected community that values nature, diversity and innovation'.

We are committed to working with and supporting our communities to build healthier, greener and more resilient places throughout the shire.

Our urban forest does this by;

- being one of the most cost effective and efficient mechanisms for adapting our townships to climate change
- reducing daytime and surface temperatures and providing shade during hot weather
- contributing to neighbourhood character and streetscape amenity
- encouraging pedestrian and cyclist activity along our streets and in our parks
- improving energy efficiency in our homes
- reducing speed of motorists along treed avenues
- improving mental wellbeing and physical health
- providing fresh air and absorbing carbon dioxide
- creating habitat for local flora and fauna
- increasing economic activity in retail areas by creating well landscaped and ambient spaces.

We commit to achieving this vision by working with and supporting our communities to build healthier, greener and more resilient places and spaces throughout our shire.

3.3 Objectives

This strategy and our ongoing urban forest management program, seeks to meet the following strategic objectives for council:

1. **Adapt and mitigate our townships to climate change.**

   Work towards a climate adapted, resilient, net zero emissions Shire by protecting our existing urban forest, increasing tree canopy cover in areas of need and planning for extreme weather events.

2. **Support and enhance our natural environment.**

   Protect and grow our urban forest to strengthen the ecological value of our streets, parks and urban waterways.

3. **Grow healthy and happy neighbourhoods.**

   Ensure the right trees and vegetation are planted where they are needed the most to provide more natural shade, enhance our township amenity to support vibrant and sustainable neighbourhoods, green-up our public spaces and encourage healthier more active and engaged communities.

4. **Become a regional leader in managing our urban forest.**

   We have a responsibility and opportunity to provide leadership within the regional Victorian context around the management and protection of our urban forest. This strongly relates to emergency management and how we plan for the future.

3.4 Targets

We aim to achieve the following measures through the delivery of the Strategy:

1. **We will increase average township tree canopy cover to 20% by 2043 and to 30% by 2073 by meeting the following targets:**
   - Average Road reserve tree canopy from 11% to 20%
   - Average Open space tree canopy cover from 7% to 30%
   - Aiming for net gain of tree canopy cover on private residential land within township boundaries.

   We will do this by:
   - targeting a street and open space tree planting program towards areas of need to reduce urban heat, provide shade in our more vulnerable neighbourhoods and improve township amenity
   - improving tree cover within high pedestrian areas including cycling routes of our townships including main streets, thoroughfares, town centres and retail nodes, train stations and transport nodes and future open space reserves.
   - requiring new development estates to achieve a minimum of 30% tree canopy cover over public land (VPA guidelines)
   - ensuring that all newly built community hubs and community infrastructure such as schools achieve 30% urban forest (tree and shrub) cover
   - filling our vacant street and park sites to 95% capacity by 2033 in line with Street Tree Planting Guidelines to maximise diversity and ecological resilience.
   - ensuring all new public carparks or upgrades meet a minimum of one canopy tree per 5 spaces
   - ensuring all open space capital and upgrade works meet a net gain tree canopy cover post completion.
   - encouraging and incentivising residents and other landholders to plant more trees on their land
   - better protect our existing and viable trees on private land in established areas.
2. **We will increase understory plantings across all of our townships**

   We will do this by:
   - revegetating along waterways and key bio links on council managed land
   - include understory and ground cover species in landscaping projects
   - implementing Integrated Water Management principles, including the use of vegetation
   - protecting and enhancing council's environmental reserves.

"Trees are integral to the social, economic and environmental values of our townships. Trees create a sense of place, a connection to nature, shade, shelter, build resilience to climate change, biodiversity, habitat."

Community feedback

4. Our Urban Forest

Our urban forest consists of trees, shrubs and grasses over private and public land within our townships. Council manages an estimated 41,000 street trees and over 15,000 park trees. We do not have the data to tell us how many trees are on privately owned or other state government owned land.

4.1 Value

Our public urban forest, i.e., trees managed by Council, are worth an incredible $140 million based on an assessment through I-Tree Eco, a widely used and industry accepted tree valuation tool. This is how much it would cost to replace all of our trees to the same size and extent they are now, delivering the same benefits.

Further to this, our public trees store an estimated $586,000 worth of carbon dioxide and provide over $80,000 in annual benefits including stormwater interception, air pollution reduction and carbon sequestration.

It's worth noting that other environmental benefits such as biodiversity, habitat provision, and improvements in community mental and physical wellbeing are equally important, however it's much harder to put a dollar value on them and therefore they are not included in the I-Tree Eco tool.

Based on current I-Tree Eco modelling, if we meet our tree canopy targets, our urban forest could be worth an estimated $224 million.

Table 1: I-Tree Eco environmental values of our street and some park trees[1]

Number of assessed trees	**47,000**
Replacement value	$140 million
Carbon Stored	$586,000 or 26 metric tonnes
Total annual benefits:	$81,000
Pollution removed	$30,900 per year or 13.3 metric tonnes
Carbon sequestered	$16,300 per year or 713 metric tonnes
Avoided stormwater runoff	$34,000 per year or 15,000 cubic metres
Oxygen produced	1,900 metric tonnes per year

[3] I Tree Eco Suite of Tools

4.2 Tree canopy

Tree canopy cover is the extent of tree biomass and therefore shade, covering an area. Tree canopy cover includes all vegetation over 3m in height, so newly planted trees, which may have significant future canopy, are not likely to be captured.

Tree canopy across both public and private land, covers 12% of the shire's townships. If shrubs and grasses are included and defined as urban forest cover, the coverage is much higher (70% of township area). This is indicative of regional landscapes with historically low-density development and large amounts of grass cover.

Tree canopy cover varies between townships with the highest recorded for Tallarook at 24% and the lowest in our urban growth areas, including Wallan and Beveridge.

This tree canopy however is not evenly distributed over public and private land. As stated previously, 70% of the land area of our townships is under private ownership and 75% of our urban forest lies on private land. The breakdown of the amount of tree canopy on public and private land is shown in image 4 below.

Image 3: Tree canopy cover (vegetation over 3m in height) by township.

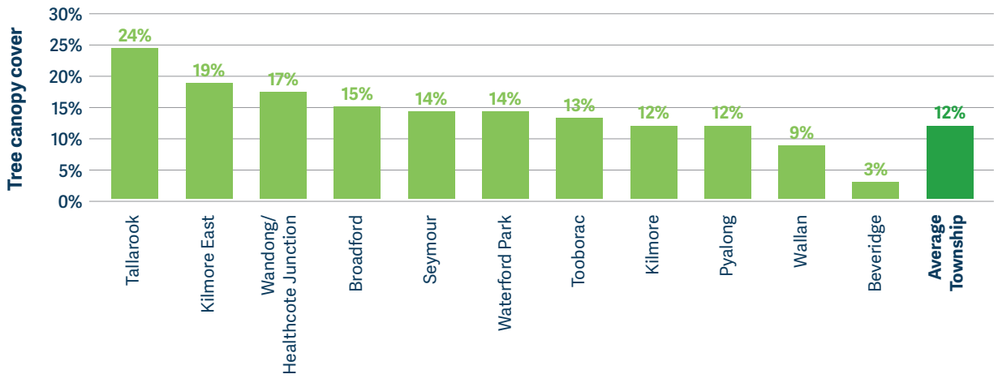
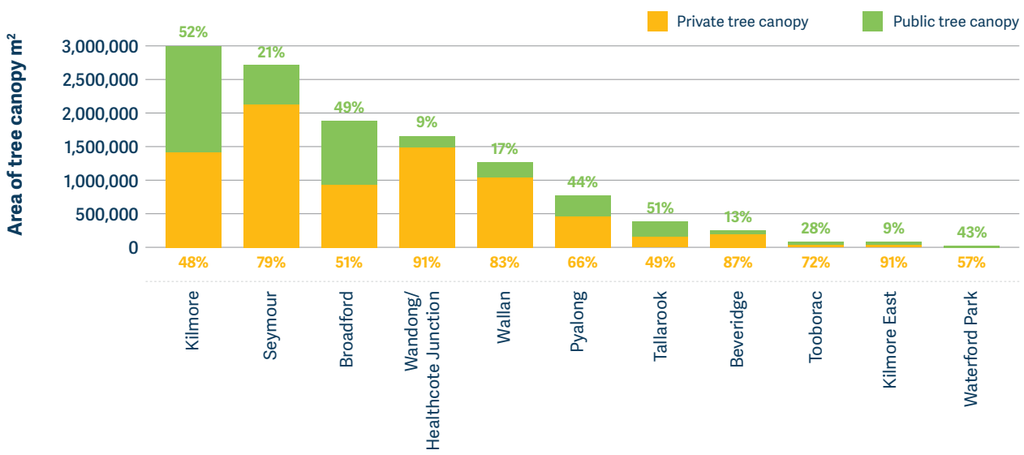


Image 4: Tree canopy in m² over private and public land for each township.



I-Tree Eco, based on our tree data, has identified the ten most important species within our township for their contribution to tree canopy area. They are also the species that store more carbon, intercept more stormwater and filter more air pollution. They are as follows:

Table 2: Top 10 species by importance for tree canopy cover

Species Name	Common Name	Percent Population	Percent Leaf Area	Importance value
Eucalyptus camaldulensis	River Red Gum	8.40%	7.7	16.1
Eucalyptus melliodora	Yellow box	5.90%	5.4	11.3
Eucalyptus microcarpa	Grey box	6.40%	3.4	9.8
Pyrus calleryana	Ornamental Pear	5.10%	4.4	9.5
Eucalyptus viminalis	Manna gum	3.50%	5.5	9
Eucalyptus leucoxylon	Yellow Gum	3.50%	5.2	8.7
Eucalyptus polyanthemos	Red box	2.80%	4.1	6.9
Eucalyptus sideroxylon	Red ironbark	2.40%	4	6.4
Eucalyptus cephalocarpa	Silver stringybark	1.50%	4.2	5.7
Eucalyptus goniocalyx	Long leaved box	2.90%	2.6	5.5

Unsurprisingly, the most important tree species are those that are native to the region and are larger in stature. All except one are native. Pyrus calleryana, the ornamental pears, are seen as providing significant value to our overall tree canopy.

However, it is worth noting that there is an over-representation of these trees in some new developments creating diversity issues. While we wouldn't seek to actively remove these trees given their value, we need to limit any future plantings of these and cease any new plantings in new developments.

Benchmarking Canopy Cover

Research from Australia and overseas suggests that optimal tree canopy cover should be somewhere between 30-40% depending on the climate, bioregion and vegetation type. This is the optimal level required to appropriately reduce urban heat and improve urban cooling as well as intercept stormwater to a level that sees a reduction in stormwater flows. Even at the lower end of the optimal scale, i.e. 30%, our 12% average is low. To put this into context, other regional councils record the following baseline urban tree canopy cover and respective targets in Table 3.

Canopy Cover by Land Use

Our canopy cover by land use type or zone, differs significantly as well. Environmental Reserves naturally have high canopy cover at 31%, however our open spaces have very low canopy at just 7%. This open space includes all of our sporting fields, local parks in our residential areas and new parks in our subdivisions. Some of these new parks show very little tree canopy cover as they either have just been planted or are waiting to be planted out.

Table 3: Existing and targeted tree canopy cover for comparable townships in Victoria

Local Council	Baseline Tree Canopy Cover	Target Tree Canopy Cover
City of Greater Bendigo (urban area only)	20.9%	25% by 2030 35% by 2050
Whittlesea (urban area only)	11%	20% increase by 2040
Township of Shepparton	18%	40% by 2037
City of Ballarat	17%	40% by 2040
Campaspe Shire Council (Echuca)	11%	20% by 2045
Campaspe Shire Council (Rushworth)	33%	Maintain

Table 4: Existing tree canopy cover by land use type or zone

Land use type/zone	Baseline Tree Canopy Cover
Townships	12%
All privately owned land in townships	11%
All publicly owned land (including roads, open space, Council property and state govt managed land) in townships	18%
Township open space	7%
Township road reserves	13%
Township Environmental Reserves	31%
Public Schools	8%
Residential zoned land (GRZ, LDRZ, NRZ, TZ)	13%

4.3 Street Tree Species Diversity

The top ten most common tree species in our streets include:

Table 5: Top 10 most common tree species in our urban streets

Species Name	Common Name	Count	% of street tree population
Eucalyptus camaldulensis	River Red Gum	3,979	8.4%
Eucalyptus microcarpa	Grey box	3,017	6.4%
Eucalyptus melliodora	Yellow box	2,771	5.9%
Pyrus calleryana	Ornamental Pear	2,414	5.1%
Eucalyptus leucoxylon	Yellow gum	1,660	3.5%
Eucalyptus viminalis	Manna Gum	1,649	3.5%
Acacia melanoxylon	Blackwood	1,493	3.2%
Eucalyptus goniocalyx	Long leaved box	1,380	2.9%
Eucalyptus polyanthemos	Red box	1,307	2.8%
Eucalyptus sideroxylon	Red ironbark	1,152	2.4%

All but one of these are native to Australia, with the only exotic being the ornamental pear. However, this does not reflect the types of species that council has planted in streets over the last 5 years. It is possible that some of the larger specimens of the Eucalypts are remnant trees and therefore highly valuable as they also store and sequester more carbon than smaller or other varieties.

The most commonly planted species in our streets over the last 5 years are:

Table 6: Twenty most commonly planted street trees in the last 5 years

Species Name	Common Name
Quercus palustris	Pin oaks
Angophora costata	Smooth barked apple myrtle
Pyrus calleryana 'Capital'	Callery Pear 'Capital'
Eucalyptus melliodora	Yellow box
Eucalyptus sideroxylon	Red ironbark
Eucalyptus leucoxylon	Yellow gum
Ulmus parvifolia	Chinese elm
Eucalyptus polyanthemos	Red box
Lagerstroemia indica	Crepe myrtle
Corymbia maculata	Spotted gum

Species Name	Common Name
Eucalyptus scoparia	Wallangarra white gum
Pyrus calleryana	Callery pear
Corymbia citriodora	Lemon scented gum
Fraxinus pennsylvanica 'Cimmzam'	Green ash 'Cimmzam'
Acer rubrum	Red maple
Brachychiton acerifolious 'Jerilderie Red'	Kurrajong 'Jerilderie red'
Acacia melanoxylon	Blackwood
Corymbia eximia	Yellow bloodwood
Ulmus parvifolia 'Todd'	Chinese elm 'todd'

This list of most commonly planted street tree species in the last 5 years, demonstrates a much greater diversity of species. It reflects the active decision making by council to diversify its species palette to account for a changing climate, increase tree vitality, reduce conflicts with infrastructure and improve overall township amenity. Of the 20 most commonly planted street tree species, 12 are native to Australia and only six are Eucalypts. The remainder being exotic deciduous trees such as Ornamental Pears, Oaks, Ash and Elms. We aim to continue this diversity of species planting to ensure a resilient and diversified urban forest into the future.

4.4 Vacant Sites

We've mapped approximately 12,000 vacant street tree sites across our townships. There are many more open space and reserve planting sites available but they have not yet been mapped.

Our current planting program is budgeted to plant 600 trees annually. At these levels, it would take around 95 years to fill all vacant sites. We should be aiming to fill these street tree sites within a 10-year timeframe. This means increasing our current program from 600 trees annually to planting almost 2,000 street trees each year: 500 – 600 trees on average per year to replace those that are removed and an additional 1,200 trees to fill vacant sites. Whilst this will require significant investments, we will continue to look at ways to reduce costs of planting through species selection, size of trees planted in strategic areas and maintenance practices over time.

The following table lists the number of vacant street tree sites identified within each township:

Table 7: Vacant Street tree planting sites by township

Township	Vacant Street Tree Sites
Wallan	3,935
Seymour	2,709
Kilmore	2,222
Broadford	1,210
Wandong /Heathcote Junction	873
Pyalong	470
Beveridge	185
Tallarook	83
Tooborac	60
TOTAL	**11,747**

4.5 Urban Heat

Urban heat was mapped for each township (December 2022) to determine areas of high heat impact.

Seymour (pictured below) showcases large dark roofs, wide roads with no tree cover and open dirt patches as the highest heat loads (shown as red). The irrigated parks and river corridors and industrial buildings with white reflective roofs are showing as the coolest areas (blue).

Image 5: Thermal heat mapping of Seymour in December 2022 showing hotspots in red

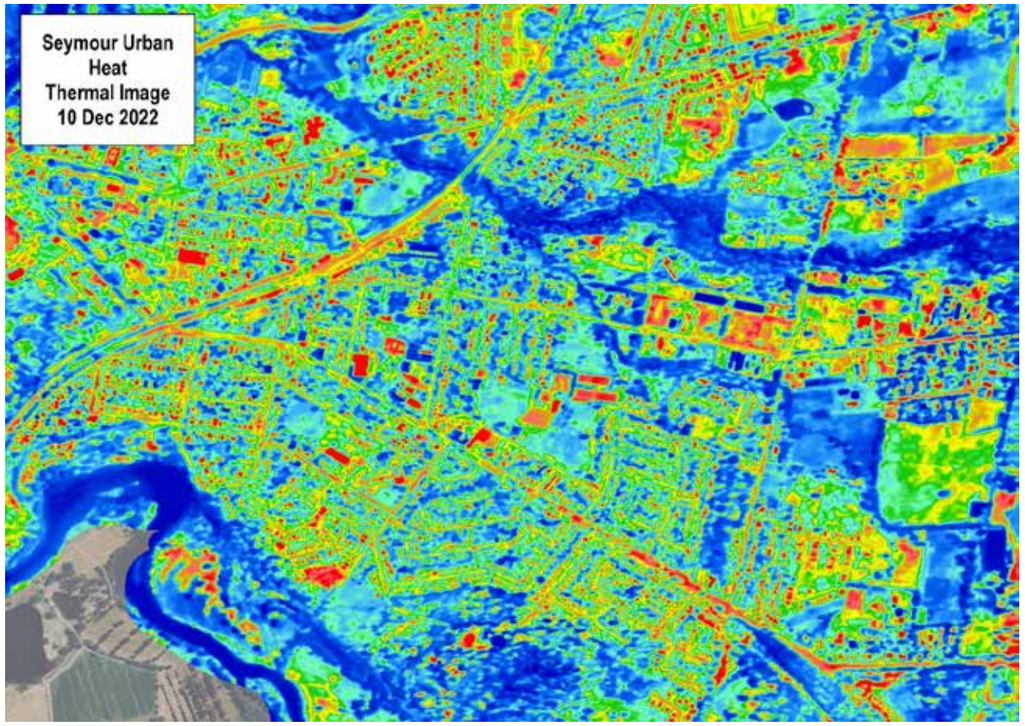


Image 6: Building in Seymour. The dark roof is almost 20 degrees hotter than the white roof

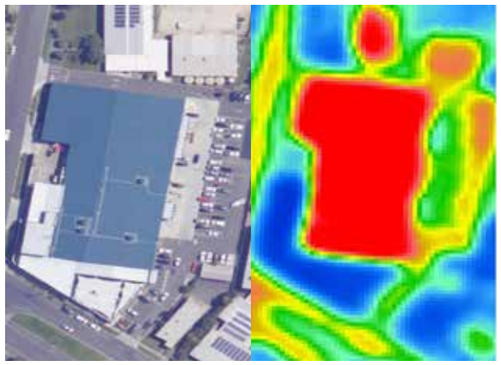
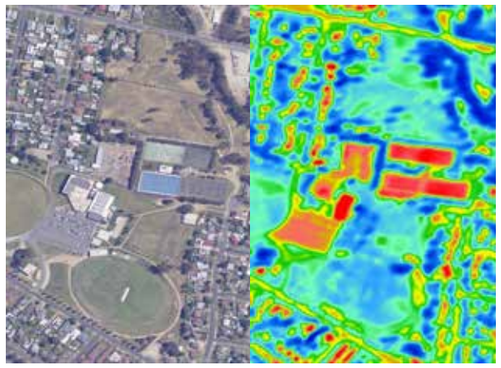


Image 7: Chittick Park, carpark, tennis complex and Seymour Sports and Aquatic Centre



Below is a ground based thermal image of the IGA Supermarket carpark in Seymour, which also shows as a hot spot in the aerial thermal mapping. Surface temperature at the recorded site is 50 degrees Celsius compared to the concrete shaded by trees which is 24 degrees Celsius. This provides clear evidence for large canopy trees to cool hardstand areas, especially within car park areas.

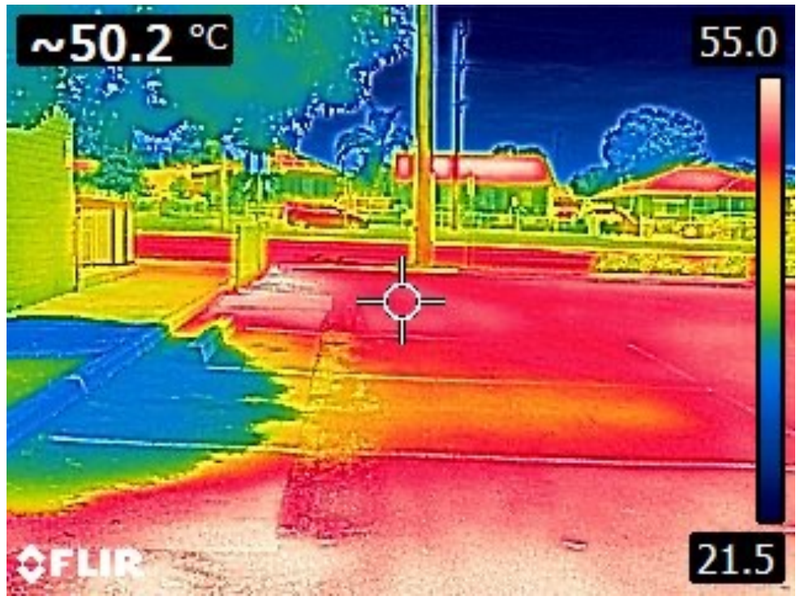


Image 8: Thermal image of Seymour's IGA Supermarket carpark showing the temperature difference between exposed concrete and tree shaded concrete

The image below shows the surface temperature differentials in the carpark of Broadford Primary School. The majority of the carpark reaches up to 52 degrees (coloured red) while the tree on the footpath cools one carpark to 35 degrees while the grass verge is only 21 degrees.

Image 9: Thermal image of Broadford Primary School carpark

5. How we Manage our Urban Forest

5.1 History

The shire is home to a great diversity of bioregions. It sits at the junction point where the Victorian Volcanic Plains meets the Northeast Victorian highland bounded by the hills of the Macedon Ranges and incorporating the Goulburn River. As a result, our native landscapes provide a richly diverse backdrop to our townships.

Past tree and plant species selection in our townships has been heavily influenced by our natural landscapes but also by our rich heritage. The gold mining era and its legacy of infrastructure prompted the planting of more European style plantings such as large deciduous Elm and Oak trees. More recently, the Defence Force base in Puckapunyal and our commitment to honouring ex-service men and women has brought attention back to the use of native species, e.g. at the Vietnam Veterans Memorial in Seymour.

We are now graced with urban areas that provide a diversity of value to our diverse communities, which is worth protecting and celebrating.

5.2 Responsibilities

While the protection and growth of our urban forest is everyone's responsibility, our varied spheres of influence means that overall responsibility for things like risk, is complicated. Different trees are governed by different policies and management regimes depending on who manages the land on which they grow. A number of agencies, departments and individuals govern our urban forest as outlined below:

Authority	Role in growing and maintaining our urban forests
Mitchell Shire Council	• All street and park trees on Council owned and managed land. • Emergency management. • Administration of the *Planning and Environment Act 1987.* • Community engagement and education. • Administration of the Mitchell Shire Planning Scheme.
Regional Roads Victoria	• Roadside trees along Regional Roads Victoria roads.
Parks Victoria	• Trees and shrubs within Parks Victoria managed parks and reserves.
Utility Service Providers (Electricity, Gas, Water)	• All have regulated clearance zones around their assets and must undertake pruning etc to keep these clearance zones safe.
Residential	• Trees and shrubs in backyards and front gardens.
Traditional Owners and Custodians	• Take an active role in caring for and healing country for future generations which includes protecting parks, reserves and culturally significant trees and vegetation.
Victorian Planning Authority	• Guides the master planned development outcomes for growth areas.
Developers	• Retaining, large established trees and planting new trees subdivision development of new homes and communities.
CFA and SES	• Emergency Management including bushfire, flood and heat wave events.
Department of Environment, Energy and Climate Action (DEECA)	• Trees and shrubs within DEECA managed parks and reserves (crown land). • Administration of the *Planning and Environment Act 1987*.
Catchment Management Authorities	• Riverine and waterway health.

5.3 Strategic Context

The current governance of our public urban forest, i.e. our street, park and reserve trees and vegetation within our townships, is influenced by a number of our key documents. It is worth noting that council has limited local planning controls to protect vegetation and primarily relies on state government vegetation protection policy.

Document	Relevance
Community Vision 2050	• Vibrant Communities – access to high quality community infrastructure (which includes trees) • Working, Learning and Tourism – proud of our natural assets • Travelling and getting around – travel will be environmentally sustainable, better walking and green spaces • Shaping Neighbourhoods – retain the small-town character • Nature and Parks – increase native vegetation and taking advantage of natural assets • Climate Action – cooler, greener and cleaner urban spaces and carbon neutral
Council Plan 2021-2025	• Establish Council as a recognised leader in sustainable environmental management
Environment Strategy 2014-2024	• Bio link projects • Review planning provisions for vegetation protection • Develop significant tree register • Expand and implement Water Sensitive Urban Design (WSUD) • Better Environmentally Sustainable Development (ESD) outcomes in new developments • Build resilient communities
Net Zero Action 2023	• Increase carbon uptake through afforestation and canopy cover in townships
Open Space Strategy 2023	• TBA
Goulburn Murray Climate Alliance Naturally Cooler Towns 2022	• Recognising the role that urban trees in helping our towns adapt to climate change. Highlights opportunities for the 13 member Councils to work together e.g. tree stock procurement, data collection, compliance
Living Melbourne – Our Metropolitan Urban Forest	• 32 metropolitan councils, state government agencies, non-government and community organisations united around a common vision for Melbourne's urban forest – "our thriving communities are resilient, connected through nature"
Urban Tree Management Policy 2021	• Council is committed to responding to our changing climate by increasing canopy cover by planting tree species that are adaptable to local conditions as well as protecting, enhancing and properly managing its urban tree population
Operational Tree Management Procedures	• Stipulates technical guidelines for all aspects of tree management
Electrical Line Clearance Management Plan	• Articulates Council's vegetation management processes and strategies to care for its trees that are in the vicinity electricity assets
Municipal Emergency Management Plan 2021-2024	• Increase capacity and capability within the community to improve MSC's preparedness for emergency events
Environment Policy 2020	• Practice, promote and encourage sustainable, innovative and adaptive land management that responds to climate change. • Protect, restore and connect landscapes by increasing the extent and quality of native habitat • Reduce water use • Environmentally Sustainable Design is a core principle for all new developments.
Climate Emergency Action Plan	• To reduce the impact of extreme heat across Mitchell Shire • To protect and enhance the natural environment and support a climate resilient agricultural sector in Mitchell Shire
Township Development, Local and Precinct Structure Plans	• Provide planning and urban design frameworks for the growth and renewal of our townships.
Neighbourhood Character Study	• An assessment of the values contributing to neighbourhood character for each township including trees

5.4 Public Trees (Council Managed)

We plan for, plant and maintain all trees under our control including street, open space trees and environment reserve trees. These trees are actively inspected on our routine basis, data is collected on each one of them and utilised to inform management decisions and programs.

Other vegetation, such as shrubs and understory, is less actively managed and as a result there is limited data available.

Our policy for managing our public trees as stated in our Urban Tree Management Policy is:

Council is committed to responding to our changing climate by increasing canopy cover by planting tree species that are adaptable to local conditions as well as protecting, enhancing and properly managing its urban tree population.

We will do this by:

1. Protecting, maintaining and enhancing existing council managed trees by implementing the Australian Standards for the protection of council trees
2. Seeking compensation for the loss of our trees as a result of development by placing a monetary value (Amenity value based on an adapted City of Melbourne method) on all council managed trees – this value is then held as a bond and if the tree is damaged or requires removal, the amenity value must be paid to council.
3. Removing only trees that meet the criteria set out within our Operational Procedures that include:
   a. dead, dying or immediately hazardous
   b. documented evidence of causing damage to infrastructure or property
   c. where approved as part of a development where all other options for tree retention have been exhausted by the applicant.
4. Supporting the enhancement of streetscapes and amenity throughout the shire
5. Being considerate of areas prone to bushfire including urban areas interfacing rural communities, when selecting tree species and planting location
6. Implementing Integrated Water Management principles such as Water Sensitive Urban Design (WSUD) methods where feasible to help promote a sustainable tree population
7. Enhancing biodiversity and habitat connectivity through urban areas.

"Council has a responsibility to improve the natural environment for residents and make the shire a greener and more attractive place, with benefits such as providing more shade, improving biodiversity and helping mitigate the impacts of climate change."

Community feedback

5.4.1 What We're Doing Well

Over the last five years we've made some significant changes to our urban forest management program, including:

- We've invested in collecting high quality data about our urban forest to help us make quicker and more evidence-based decisions about tree management.
- We're trialling the use of new species that are likely to perform well into the future under a changing climate.
- We run annual National Tree Day community Planting events and support local schools through our Grants for Plants program to plant native vegetation on school grounds.
- Our engineers and landscape officers seek to find better outcomes for trees in their daily work. We focus on putting the right tree in the right place, to maximise benefits and minimise risks.
- We've been working alongside some developers to explore better outcomes for trees in our growth area, including specifying protection requirements for trees on development sites.
- We retain dead trees with hollows and stags (a tree with all live branches removed leaving branch stubs and trunk only) where feasible and safe to provide much needed habitat for our wildlife.
- All of our street trees are now inspected on a 3–5-year rotation so we can undertake proactive works to minimise known risks and maximise the values of our trees.

Developer trees are inspected every 3 months in the first 2 years of establishment.

5.4.2 What We Can Improve

A gap analysis has revealed the following key opportunities:

- Historically funds for current annual planting programs only enable the number of council trees being planted to cover the number of trees being removed. So we are not making any headway into reducing the number of vacant sites (net gain).
- Most of our trees planted each year are in streets and not parks. Trees are primarily only planted in parks during capital works projects.
- While we have detailed data on the useful life expectancy of our trees, we are yet to develop a strategic tree renewal program to ensure succession of trees reaching the end of their useful lives.
- Not all trees are planted by our Tree Management team, which leads to management inconsistencies and sometimes poor outcomes such as poor maintenance. All Council tree planting programs need to be brought in-house so they can be managed by the Tree Management team. Developers will continue to plant their own trees with guidance from council as to species and locations.
- Council currently has no strategic plan or guidelines for street tree planting to prioritise those areas that would benefit most.
- Our resourcing only allows us capacity to focus on our day-to-day activities, which means we don't spend enough time sharing knowledge or integrating our planning schedules with other council asset teams or external stakeholders such as utility service maintenance agencies, the state government or developers.
- Council has not engaged previously with the community around the importance of our urban forest. We recognise we play a lead role in educating our residents on the value of the urban forest but also encouraging and incentivising the community to contribute to our urban forests.

5.4.3 Current Challenges

Climate Change

Despite our urban forest being one of the most effective mechanisms for adapting our towns to climate change, it is also highly vulnerable to the effects of ever changing climatic conditions. Certain species, including native to the region, will not cope with a warming climate or changes in rainfall and wind patterns. The risk of pest and disease incursions increases as our climate patterns change, making diversity within our urban forest paramount.

We must also face the challenges of extreme weather such as storm events, heatwaves, bushfires and floods, which all increase the vulnerability of our community and our urban green spaces. Urban heat causes not only ecological distress for plants and animals but also social vulnerability amongst our community. We must consider the risks of bushfires and floods and how best to plant and select certain species to reduce this risk.

All of this means that we have to take a forward-thinking and asset-based management approach to our urban forest. This includes relying on the key principles of diversity and resilience, optimising proactive maintenance and renewal, allocating appropriate funding and continual monitoring and evaluation.

Council's Climate Emergency Action Plan is another key document that will adress current and future challenges and work in conjucntion with the Urban Forest Strategy to do so.

Urban Development

Our new communities within developing areas will rely heavily on the public realm to derive environmental benefits. As a result, we need to ensure that our new streets and open spaces are fit for the future and are creating adequate ecological benefits such as tree shade, amenity, biodiversity corridors, stormwater retention in landscapes and good soil. The new Victorian Planning Authority (VPA) Guidelines include a recommendation to set a 30% mature tree canopy cover target over the public realm of all new Precinct Structure Plan's (PSP's). It is noted however that there are other growing urban areas that these guidelines don't apply to, in addition to infill development occurring in our established areas.

There is a clear and urgent need for council to provide clear direction to developers to improve the compliance of permit conditions to create adequate space to plant trees in public spaces within our developing and emerging communities.

Community perceptions of the urban forest

Despite an exceptionally positive response to our urban forest community survey which encourages council to invest in more trees, there is still a strong theme of negative community perceptions towards trees as assessed through our community service requests. Common complaints from our community include:

- tree risk
- inappropriate species
- mess from leaves, branches and bark
- polarisation of attitudes towards native and native to the regions tree species.

Further to this, the impact of the 2009 Black Saturday and 2019 bushfires, plus storm events and flooding has naturally increased our community's awareness of the risk of trees throughout the shire.

These issues will always proliferate so any decision making related to the urban forest by council must be backed by evidence, and more real-life stories which demonstrate benefits. We also must ensure that our urban forest maintains asset status in the same way as roads, footpaths, playgrounds and buildings do so we can appropriately manage known risks.

Lastly, we need to better integrate the urban forest and its management principles into our community discussions about addressing the climate emergency, reducing the impacts of heatwaves, better planning for emergency management such as bushfire, improving the character and amenity of our townships and improving overall health and wellbeing.

There are many positive messages including the promotion and education around risk-benefit and undertaking risk-benefit analysis, when it comes to the urban forest, and we need to tell them more frequently and through different channels.

Emergency Management

Changing climatic conditions and extreme weather events, combined with the challenges of urbanisation and growing populations, have made some of our communities vulnerable to emergencies outside of their control. Bushfires, floods and storms have already caused significant impacts to some of our communities in our very recent past, and the financial and health and wellbeing strain can be overwhelming. Damage from these events can be exacerbated by trees or branches.

In planning our future urban forest, we must be aware of these potential impacts and minimise them where possible. As with emergency/disaster recovery planning, reducing the likelihood of impacts involves good planning from all agencies, the community and council. This includes:

- Buffering our urban areas from bushland with fire resistant tree species in areas such as rural interfaces, hospitals, schools and other high-risk areas.
- Liaising with authorities such as Fire Rescue Victoria (FRV) to identify high risk areas
- Ensuring electrical line clearances are adequate.
- Assessing and managing large trees in high pedestrian areas and pruning where appropriate to minimise hazards.
- We abide by our Municipal Emergency Management Plan 2021-2024.

We recognise that emergencies are inevitable, and the following recoveries need to be swift, which may mean tree removal for access or maintaining safety. We will always prioritise community safety and access.

"Trees are the most cost-effective way to combat climate change locally."

Community feedback

5.5 Private Trees

While currently we have limited local planning controls to protect vegetation on privately owned land, we recognise that there are opportunities to strengthen these controls through implementation of a number of upcoming strategic projects, including the Neighbourhood Character Studies and review of the Environmental Strategy. Council has a key role to play in ensuring adequate planning mechanisms are in the Planning Scheme to protect and enhance vegetation on private land, provide incentives for residents and developers to retain and plant trees on private land and to improve the communities understanding of their own backyard trees.

5.5.1. What We're Doing Well

Planning controls are currently limited, although we have the following mechanisms and strategies in place to manage and protect trees on private land through development:

- Planning overlays to manage vegetation on private land including:
  - Vegetation Protection Overlay (VPO)
  - Environmental Sustainability Overlay (ESO)
  - Heritage Overlay that stimulate vegetation requirements (HO)
  - Precinct Structure Plans including vegetation protection requirements.
- Planning permit conditions that stipulate protection of specific vegetation or providing offsets for lost vegetation.
- Working closely with developers to ensure better outcomes regarding loss of vegetation.
- Incentive programs for residents to plant their own trees.

5.5.2. What We Can Improve

A gap analysis has revealed the following key opportunities:

- We have very limited protection for private trees, through the provisions of the *Planning and Environment Act 1987* and Mitchell Planning Scheme.
- Council has identified the need to update its policies. This includes reviewing the Environment Strategy to identify locations of vegetation and environmental significance to form the basis of future planning scheme overlay protections regarding bio links and habitat corridors, etc. This work will also identify key strategic bio links to integrate with Councils urban forests.
- Council has also recognised and resourced the preparation of 4 Neighbourhood Character Studies for each of the townships of Kilmore, Wallan, Broadford and Seymour. This important work will look at introducing greater protection for vegetation in residential locations.
- There is an identified need to set up and maintain a significant tree register. This register will enable a list of significant trees to be assessed for potential vegetation protection controls.
- Assessment of Precinct Structure Plans (PSPs) to ensure priority to provide areas of high vegetation value on land planned for public use.
- Currently there is limited capacity to monitor and enforce appropriate controls in a proactive manner.
- Council recognise that improving education and awareness amongst our community about the importance of trees and vegetation on privately owned land is critical.
- Council recognises that regulation needs to be supported by incentives to encourage private landholders to both protect trees and plant the next generation of the urban forest on their land.

5.5.3. Challenges for private trees

Urban Development

Our shire is Victoria's fastest growing municipality. The state government's Victoria in Future report noted that with an average annual growth rate of 4.5% the shire is growing faster than any other municipality. Every suburb across the shire will experience growth. While all towns will grow, Beveridge will experience the most significant growth over the coming decades. With this change comes environmental impacts, including tree and other vegetation loss. The area is predominantly rezoned agricultural land and has been previously cleared of the great majority of canopy, however there remain stands of trees that are of significant value. Our community is acutely aware of and concerned about the tree and private open space loss associated with new developments.

With smaller lot sizes, set backs and reduced back yards in new developments, there is simply no room left after the housing has been built for trees to be planted on private lots.

The majority of our urban forest is privately owned

Currently 74% of our municipal area is freehold land that is privately owned. Crown and council owned land make up just 12% of our shire. With 75% of our urban forest on privately owned land, the stark reality of how we deliver on our targets comes into focus. No amount of tree planting on streets or in parks and reserves will mitigate the amount of loss that is likely to be occurring on private land. Therefore, it is essential that all private landowners in the shire play a role to grow and maintain our urban forest and thereby reap the benefits.

As yet, we don't have access to data to tell us if we are losing or gaining canopy cover over time. However, if we look to other Metropolitan Melbourne Council's the data is clear: Melbourne is losing more tree canopy cover on private land than is being gained in the public realm. Given that our shire does not have planning controls in place over private realm trees, other than the state native vegetation provisions and limited heritage controls over trees, it is likely to be a similar story here.

Our community survey suggests there is strong recognition that private trees are important in contributing to the entire urban forest. It also suggests that there is a community appetite for greater regulation over private trees, plus strong support for greater incentives and community education to improve awareness of the issue.

Community Perceptions of private trees

While many of our residents value the trees within their back and front yards, many don't. And understandably, some of these trees when viewed through a risk lens, particularly in the face of extreme weather events, are seen more as a liability than an asset. There is often a disconnect among residents between the tree in their back yard versus the desire for more green space, urban cooling and shade. Every tree counts in the urban forest and so we have a role in helping our community to better understand and value the benefits that their private trees provide.

"Trees are a natural, beautiful resource that provide homes and refuges for native animals and birds as well as helping decrease our environmental impact."

Community feedback

6. Our community and the Urban Forest

We engaged with over 300 members of our community to understand how our community feels about the urban forest, their concerns and where they saw opportunities.

Overwhelmingly, the majority of people told us they want to see more trees planted, maintained, and protected on both public and private land. But there was a strong emphasis on doing this properly by planting the right tree in the right place, with consideration to surrounding infrastructure (e.g. power lines), fire risk, and limb drop.

What our community wants us to focus on:

- Ensuring new developments retain large, established trees and contribute new trees.
- Growing and maintaining the public urban forest.
- Supporting and incentivising residents to grow and maintain the urban forest on private land.
- Planting more trees in nature strips, parks, sports grounds, shopping strips, schools and along waterways.
- Native trees that, support local wildlife, medium sized trees and those that are resilient to climate change.
- More regulatory protection for trees on both private and public land.
- More education and awareness programs for residents.
- The opportunity to participate in tree planting events.

What the community are concerned about:

- risk associated limb and bark drop
- bushfires
- gum trees (some people love them but others believe they are not appropriate in dense urban areas)
- tree removals and lack of space for trees in new developments
- poor tree selection or the wrong type of tree being planted on both public and private land
- council is not doing enough to maintain both newly planted and established trees
- poor outcomes for trees under power lines, particularly in regard to aesthetic appeal after pruning.

How we responds to these concerns:

- We Inspect high risk locations and trees on a cyclical basis and undertake any works required to reduce identified risk.
- We are beginning to plant species of trees that are less flammable as per Country Fire Authority (CFA) guidelines.
- We only plant eucalypts that are structurally sound and viable (trees that provide significant benefits to our landscapes).
- We are seeking to better protect our trees through a range of mechanisms.
- We have significantly improved the types of species we plant and where we plant them to minimise future conflicts.
- We use a fit for purpose tree asset management system called Forestree to ensure all newly planted trees are recorded, then watered and established properly.
- Past decision-making means that some trees under powerlines simply should never have been planted. We will be seeking to renew poorly performing species under powerlines to reduce the amount of pruning required.

At council, we value the significant community benefits of our urban forests which includes all of the trees, shrubs and gardens on public and private urban land. We are dedicated to managing, protecting and enhancing urban forests into the future.

7. Priority Planting Areas

We have prioritised our road and open space networks to determine where tree planting is in greatest need. The criteria for prioritisation are listed below.

The resulting priority roads and open spaces are coloured red and orange in the following maps and these will help inform our annual tree planting program.

Roads	Open Space
Less than 10% tree canopy cover	Less than 10% tree canopy cover
High social vulnerability to heat: young children, older lone people, SEIFA disadvantage and social housing	High social vulnerability to heat: young children, older lone people, SEIFA disadvantage and social housing
Urban hotspot	Urban hotspot
No of vacant street tree sites	Biodiversity proximity
High pedestrian activity: contains commercial/ retail area, school, open space	

7.1 Beveridge

Priority Roads

- 0-2 Low
- 2-3
- 3-5 Medium
- 5-7
- 7-9 High

Priority Open Space

- 1 Low
- 2
- 3
- 4 High

"Trees are an undervalued resource, and we should be encouraging more trees not less."

Community feedback

7.2 Broadford

Priority Roads

- 0-2 Low
- 2-3
- 3-5 Medium
- 5-7
- 7-9 High

Priority Open Space

- 1 Low
- 2
- 3
- 4 High

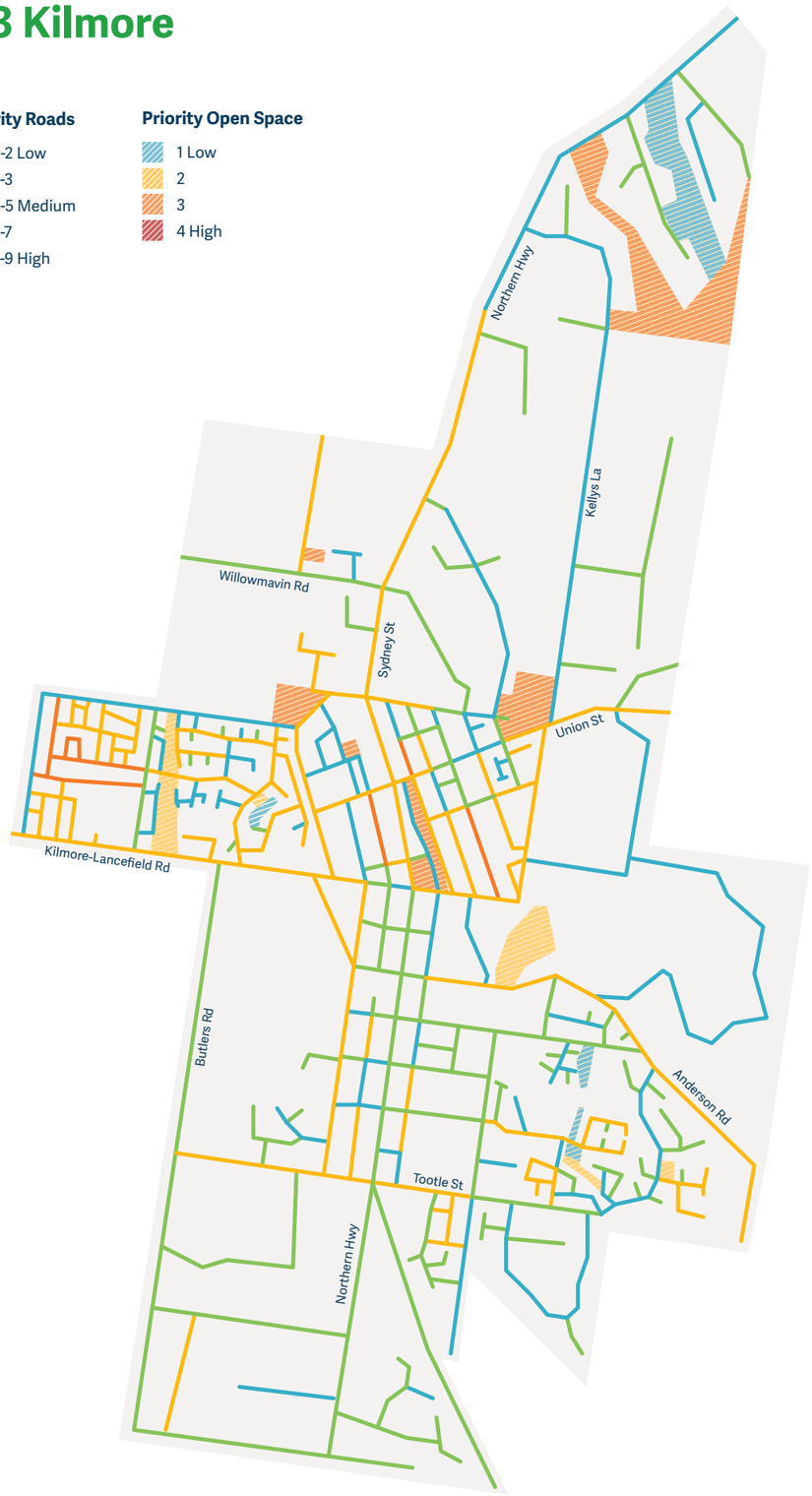
7.3 Kilmore

Priority Roads

- 0-2 Low
- 2-3
- 3-5 Medium
- 5-7
- 7-9 High

Priority Open Space

- 1 Low
- 2
- 3
- 4 High



7.4 Pyalong

Priority Roads

- 0-2 Low
- 2-3
- 3-5 Medium
- 5-7
- 7-9 High

Priority Open Space

- 1 Low
- 2
- 3
- 4 High

"Our urban forest adds beautiful scenery, gives a sense of peace and calmness."

Community feedback

7.5 Seymour

Priority Roads

- 0-2 Low
- 2-3
- 3-5 Medium
- 5-7
- 7-9 High

Priority Open Space

- 1 Low
- 2
- 3
- 4 High

"There is a need to protect existing trees on private property. However, there are circumstances where trees should be allowed to be removed, providing that the canopy space is replaced in some capacity."

Community feedback

7.6 Tallarook

Priority Roads

- 0-2 Low
- 2-3
- 3-5 Medium
- 5-7
- 7-9 High

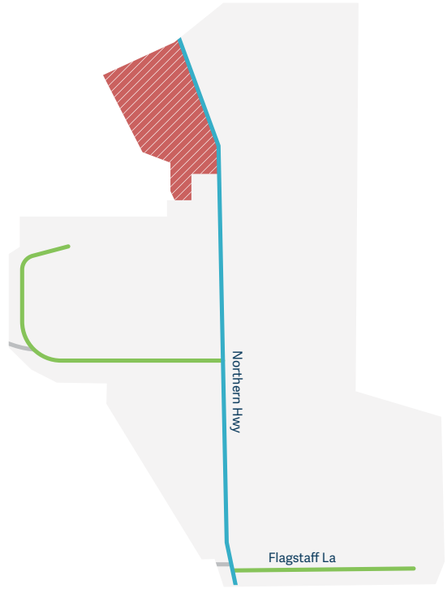
Priority Open Space

- 1 Low
- 2
- 3
- 4 High

7.7 Tooborac

Priority Roads
- 0-2 Low
- 2-3
- 3-5 Medium
- 5-7
- 7-9 High

Priority Open Space
- 1 Low
- 2
- 3
- 4 High



7.8 Waterford Park

Priority Roads
- 0-2 Low
- 2-3
- 3-5 Medium
- 5-7
- 7-9 High

Priority Open Space
- 1 Low
- 2
- 3
- 4 High

7.9 Wallan and Hidden Valley

Priority Roads
- 0-2 Low
- 2-3
- 3-5 Medium
- 5-7
- 7-9 High

Priority Open Space
- 1 Low
- 2
- 3
- 4 High

"It gives the place its character and helps you feel like you are not in the city or suburbs!"

Community feedback

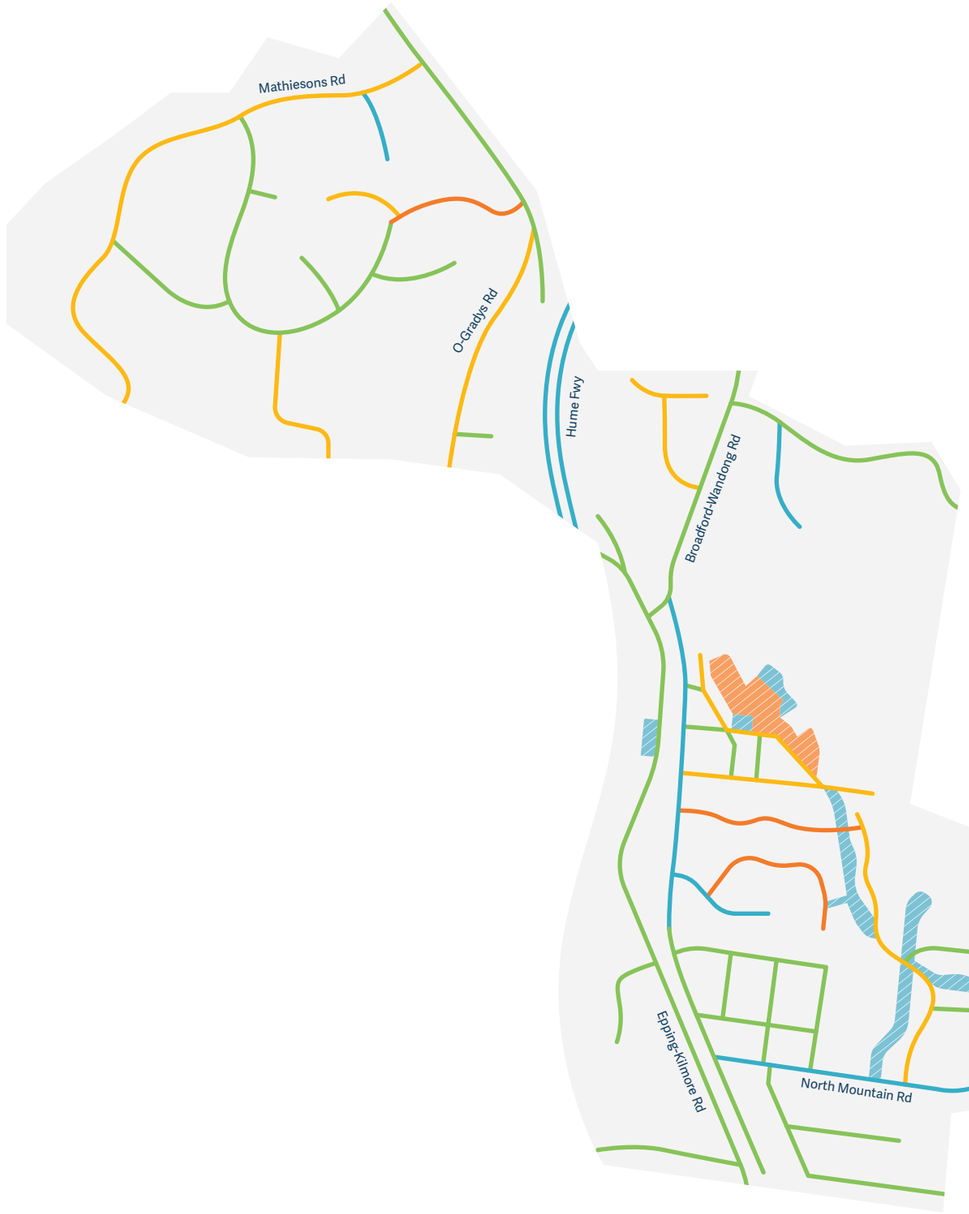
7.10 Wandong/Heathcote Junction

Priority Roads

- 0-2 Low
- 2-3
- 3-5 Medium
- 5-7
- 7-9 High

Priority Open Space

- 1 Low
- 2
- 3
- 4 High



8. Focus Action Areas for our Urban Forest

8.1 Tree Planting Themes

Prioritising what we plant and where we plant is pivotal due to the limited resources available to deliver these programs. Planting themes are also required to create consistency throughout the shire, relating to tree planting and the attraction to our townships.

Key opportunities for tree planting include:

Priority areas

Where urban heat, low tree canopy cover and high social vulnerability to heat intersect as defined in this Strategy. Large and medium canopy trees will be prioritised for these areas.

Town entrances

The shire is fast becoming both a tourist destination and preferred regional living destination and our natural landscapes play a significant role in this attraction. Avenues or boulevards of statement or signature large canopy deciduous trees along our township entranceways is cost effective and high impact.

Main feeder and connector streets

To increase tree canopy and/or support a bio link through the planting of native to the region trees to the region where practical.

Main streets

Which should reflect the current theme of existing townships and seek to make bold statements through visual appeal and provision of shade with large canopy deciduous trees a focus where practical. Water sensitive urban design would be suited to these locations. This theme should continue into streets feeding into main street avenues.

Shopping or activity streets

Should create shaded and cool landscapes that attract people to spend more time in them, shopping, eating and wandering. Likely to require smaller canopied trees given confinement of underground and above ground space. Feature or avenue style trees would suit these locations.

Residential streets

These should align with the overall township theme and seek to support a diversity of species that provide shade and cooling but also support biodiversity and survive climatic conditions.

Waterways and bio links

Planted with local native to the region and native species to enhance ecological outcomes.

Town fringes

These will provide the buffer between natural areas and townships. Any species planted here should abide by the CFA tree planting guidelines to reduce bushfire loading and risk.

Future Community Hubs

22 new community centres will be built to support the residential housing development in the urban growth corridor. Given they will be neighbourhood hubs supporting the social needs of our communities, it is critical that any hard infrastructure is supported by tree shade, landscaped gardens and permeability to maximise cooling and amenity.

Parks and open spaces

There are significant opportunities to increase urban forest cover and species diversity within our open spaces especially along rail trails, creek lines, around playgrounds, within undeveloped open spaces, along drainage reserves and along pedestrian and cycling tracks. There is also a strong opportunity for planting to support distinctive urban characters and develop a community sense of place.

Car parks

Improve tree canopy cover in new car parks, whether Council or privately owned or any retrofit or redesign of existing carparks, whether Council or privately owned. Ideally one canopy tree should be planted for every 5 car spaces.

In developments

As part of subdivisions and infill development to provide shade and cooling as well as improved neighbourhood amenity. We should be encouraging each new residential allotment to have space for 1 mature tree (whether on the street or within the front setback).

Industrial areas

Large to medium canopy trees should be planted to reduce the heat loading from these areas and improve overall amenity.

8.2 Tree Protection

Key opportunities for tree protection include:

1. Develop a Significant Tree Register that sets the criteria for registering a trees significance. Use this register as a basis for further assessment and preparation of strategic assessment to support a planning scheme amendment to introduce Vegetation Protection Overlays for identified significant trees.
2. Review the planning scheme and its potential controls to better protect trees on private property.
3. Review the Environment Strategy to identify locations of significant vegetation and environmental values (including bio links) to help identify locations for introduction of Environmental Significant Overlays and Vegetation Protection Overlays to better protect trees on private property.
4. Continue to develop Neighbourhood Character Studies for Seymour, Wallan, Broadford and Kilmore to identify those precincts with tree coverage and support tree protection controls to be included in the schedules to residential zones.
5. Improve our capacity to better assess, enforce and undertake compliance, including the use of appropriate fines, where trees have been illegally removed, to ensure our significant and canopy trees are protected and new trees are planted for future resilience as part of development in both subdivisions infill development.
6. Refine current tree amenity valuation method and build into an asset protection bond for trees to better protect street and park trees from development. If the tree is impacted or requires removal, Council should seek to recoup the full amenity value of that tree.
7. Ensure areas of high vegetation value are protected within all precinct structure plans and development plans for all new and emerging community locations.
8. Develop Urban Development Guidelines to support better urban greening outcomes in subdivisions for the public realm.
9. Continue to develop Landscape Design Guidelines for subdivisions to improve species selection for future viability, deep soil provision and maximisation of tree canopy, appropriate placement of underground electrical cables to maximise plantable space.

9. Action Plan

This action plan has been fully costed with additional budget implications set out through timeframe periods and funding source opportunities. Based on implementation timeframes of Short (1-3 years), Medium (4-6 years) and Long (7-10 years) to be fully implemented. Assumption have been made that actions with an Ongoing timeframe will have an annual cost to fully implement over the 10 years life of this strategy.

Objective 1
Adapt to Climate Change

Actions		Timeframe	Responsibility	Additional Cost	Funding Source
1.1	Increase the tree planting program to ensure all vacant sites are filled by 2033. Estimate 2,000 each year (700 replacement trees and 1,300 vacant site trees)	Ongoing	Tree Management	$400,000 annually $4,000,000 over 10 years	Subject to business case/grant opportunities
	Continue to select climate adapted species and plant the right tree in the right place	Ongoing	Tree Management	Existing	
1.2	Develop Urban Development Guidelines to support better urban greening outcomes in subdivisions including: • expanded landscape verge widths • wider street frontages • service locations away from plantable space • consolidated cross overs with consideration of different surface types • strive for 30% mature tree canopy cover over the public realm • adequate space in front setbacks to plant a canopy tree • tree outstands to support additional trees and act as traffic calming measures • larger soil volumes for trees • passive treatment of stormwater that helps to irrigate street trees • minimum street tree densities and canopy cover targets per streetscape typology	Short	Strategic Planning Urban design Engineering	$80,000	Subject to business case/grant opportunities

Actions		Timeframe	Responsibility	Additional Cost	Funding Source
1.3	Employ a Planning Arborist*	Long	Statutory Planning	$120,000 annually $1,200,000 over 10 years	Subject to business case
1.4	Work with developers to encourage and utilise Urban Development Guidelines to meet or even exceed the public realm tree canopy cover target of 30% and to explore better ESD and urban greening outcomes for new developments	Medium	Statutory Planning Tree Management	Existing*	Assuming Planning Arborist is Employed (Action 1.3)
1.5	Work with all developers and landowners seeking to apply for a planning permit to achieve better outcomes for streetscapes and the urban forest	Ongoing	Statutory Planning Tree Management	Existing *	Assuming Planning Arborist is Employed (Action 1.3)
1.6	Continue to develop Landscape Design Guidelines for subdivisions to improve species selection for future viability, deep soil provision and maximisation of tree canopy, appropriate placement of underground electrical cables to maximise plantable space	Ongoing	Landscape Planning	Existing	
1.7	Ensure that all submitted Landscape Plans show extent of proposed mature canopy to be both protected and planted to demonstrate how development will meet 30% tree canopy cover over the public realm	Ongoing	Statutory Planning Tree Team	Existing*	Assuming Planning Arborist is Employed (Action 1.3)
1.8	Ensure all asset renewal and capital works projects seek a net gain in tree canopy cover post completion	Short	Capital Works Engineering Transport and Subdivision Tree Management	Existing*	
1.9	Seek to encourage better landscape and tree canopy outcomes for commercial and industrial developments	Medium	Strategic Planning	Existing*	Assuming Planning Arborist is Employed (Action 1.3)

Objective 2
Enhance Natural Environment

Actions		Timeframe	Responsibility	Additional Cost	Funding Source
2.1	As part of the Environmental Strategy review and Biodiversity Strategy development, Identify and map all biodiversity corridors (bio links) within the shire and seek to protect them through an appropriate planning overlay	Short	Environmental Management	$85,000	Subject to grant opportunities
2.2	Develop a bio links enhancement and planting program based on the directions of the Environment Strategy	Medium	Environment Management Tree Management	$15,000	Subject to grant opportunities
2.3	Increase the existing tree renewal program to also include the replacement trees with a low Useful Life Expectancy, poor health, of poor structure or in an inappropriate location	Ongoing	Tree Management	$150,000 annually $1,500,000 over 10 years	Subject to business case/grant opportunities
2.4	Identify priority parks and implement a dedicated parks trees planting program. Develop a prioritised open space planting plan to determine where and how trees should be planted to meet the canopy cover targets. Create plans for revegetation works to include appropriate maintenance.	Ongoing	Tree Management	$150,000 annually $1,500,000 over 10 years	Subject to business case/grant opportunities
2.5	Provide statutory planners with a list of noxious weeds and preferred tree species, including species native to the region, to provide to development applicants, for public space planting	Short	Tree Management	Existing	
2.6	Specify a clear definition of "significant" and "canopy" trees for the purpose of exploring appropriate protection mechanisms	Short	Strategic Planning Statutory Planning Tree Management	Existing	
2.7	Develop and implement a Significant Tree Register and include criteria for including trees with habitat value	Medium	Strategic Planning Tree Management	$250,000	Subject to grant opportunities

Actions		Timeframe	Responsibility	Additional Cost	Funding Source
2.8	Implement the Environment Strategy, Significant Landscape Study, Neighbourhood Character Studies and implement appropriate planning overlays in the Mitchell Shire Planning Scheme to protect significant vegetation	Medium	Strategic Planning Environmental Management	$200,000	Subject to business case/grant opportunities
2.9	In partnership with the community, develop a sustainable garden program, including Gardens for Wildlife	Ongoing	Environmental Management	$15,000 annually $150,000 over 10 years	Subject to business case/grant opportunities

Objective 3
Grow Happy and Healthy Neighbourhoods

Actions		Timeframe	Responsibility	Additional Cost	Funding Source
3.1	Develop Street Tree Planting Precinct Plans to map out how and where Council will meet its targets. This will further inform the annual tree planting program (action 1.1)	Long	Tree Management	$250,000	Subject to business case/grant opportunities
3.2	Ensure Neighbourhood Character Review includes reference to the Urban Forest Strategy, its vision and outcomes	Short	Strategic Planning	Existing	
3.3	As part of the implementation of strategic work identified in action 2.8, Review and update the planning scheme controls to better protect trees on private property. As part of this, seek to require replacement plantings or payments for new trees when approvals are given to remove any protected trees covered by these overlay controls.	Medium	Strategic Planning	$250,000	Subject to business case/grant opportunities
3.4	Restore Avenues of Honour and develop specified maintenance schedule for all avenues of honour	Ongoing	Urban Design Tree Management	$250,000	Subject to business case/grant opportunities
3.5	Seek out partnerships to support more community tree planting days and continue to run National Tree Day events	Ongoing	Environmental Management	Existing	
3.6	Continue to offer Grants for Plants to participating local schools	Ongoing	Environmental Management	Existing	
3.7	Continue to provide opportunities for community to discuss ways in which they can contribute towards the urban forest	Ongoing	Tree Management Environmental Management	Existing	
3.8	Provide customer service officers with scripts in relation to urban forest management to both educate customers but also reduce the amount of customer requests	Short	Tree Management	Existing	
3.9	Curate local stories of the urban forest and its benefits from all perspectives (e.g., stories from council, local residents, kids, businesses and even stories from the perspective of local wildlife). Utilise as comms tools and include on website.	Short	Communications Tree Management	Existing	
	Develop a suite of incentives to residents to better protect existing trees and plant new ones e.g., free tree giveaways, subsidised independent arboriculture advice for significant or canopy trees	Ongoing	Environment Management Tree Management	$25,000 annually $250,000 over 10 years	Subject to business case/grant opportunities
3.10	Investigate opportunities (including advocating to state government) to update existing ResCode (schedules of Clause 54, 55 and 56) of the Mitchell Planning Scheme to include requirements for planting canopy trees in front setbacks and the provision of deep soil zones to retain plantable space such as is done in Merri-Bek, Knox, Whitehorse, Banyule and other councils	Medium	Strategic Planning	$250,000	Subject to business case/grant opportunities

Objective 4

Leadership in UF Management

Actions		Timeframe	Responsibility	Additional Cost	Funding Source
4.1	Develop a Tree Protection Policy and guidelines and educate all council staff and contractors	Short	Tree Management	Existing	
4.2	Tree planting and protection to be included as a planning consideration in all capital and asset renewal projects	Ongoing	Tree Management	Existing	
4.3	Streamline all tree planting for council through the tree management team	Ongoing	Tree Management	Existing	
4.4	Council assessment of landscape plans and functional layout plans to be conducted together to avoid conflicts that result in sub-optimal outcomes for canopy trees and other vegetation. Introduce a permit condition that Landscape Plan to be received prior to engineering drawings so that permeable space can be protected, and services and hard surfaces can be located together.	Ongoing	Statutory Planning	Existing*	Assuming Planning Arborist is Employed (Action 1.3)
4.5	Create a checklist and set of guidelines for council's statutory planners to undertake streamlined and easier assessments of applications regarding urban forest outcomes. This should include appropriate standard permit conditions for infill and subdivisions plus process for assessing against future planning controls related to the protection of "significant" and "canopy" trees.	Medium	Tree Management Statutory Planning	Existing	
4.6	All development applications must be accompanied by an Independent Arborist Report that explains the proposed impact to trees on both private and public land from development. Report must go through the Tree Management Team for assessment	Ongoing	Statutory Planning Tree Management	Existing*	Assuming Planning Arborist is Employed (Action 1.3)
4.7	Resource a dedicated inspecting arborist to assist in assessing planning applications and enforcing conditions to protect significant vegetation	Ongoing	Tree Management	$120,000 annually $1,200,000 over 10 years	Subject to business case/grant opportunities
4.8	Maintain a preferred panel of consulting arborists who can assist council when needed	Short	Tree Management	Existing	
4.9	Develop a Vehicle Cross-Over Policy to be included in the Planning Scheme that provides the rules around number of and width of cross overs in the shire so as to maximise nature strip planting space for canopy trees. As an interim, this should form part of the guidelines envisaged by 4.5.	Medium	Strategic Planning	Existing	
4.10	Improve follow up and compliance of replacement trees from infill development. Certificate of occupancy to be denied if tree replacement has not occurred	Short	Strategic Planning	Existing*	Assuming Planning Arborist is Employed (Action 1.3)
4.11	Enforce Australian standard tree stock quality for developers (AS 2303:2018) Tree Stock for Landscape Use. Require this as permit condition on landscape plan and ensure checks and audits are undertaken. Landscapes that fail will not pass handover stage.	Ongoing	Strategic Planning	Existing*	Assuming Planning Arborist is Employed (Action 1.3)
4.12	Advocate for increased penalties for the damage or removal of vegetation without approvals as per the Planning and Environment Act 1987	Ongoing	Tree Management Statutory Planning		

Actions		Timeframe	Responsibility	Additional Cost	Funding Source
4.13	Integrate all developer tree data into Forestree at handover	Ongoing	Tree Management	Existing	
4.14	Collect Open Space tree data	Ongoing	Tree Management	Existing	
4.15	Advocate to Ausnet to reconsider their offsets from electrical connection joints or get them to consider locating these under crossovers	Ongoing	Landscape Planning	Existing	
4.16	Further develop Council's environmental education materials and programs to raise community awareness about the importance of trees and vegetation on privately owned land	Ongoing	Environmental Management	10,000/year over ten years $100,000 total	Subject to business case/grant opportunities
4.17	Continue to collaborate and advocate with the state government and the Victorian Planning Authority regarding state based policy and planning clauses under ResCode that seeks to improve outcomes for the urban forests including accounting for emerging issues such as smaller frontages and larger cross overs	Ongoing	Strategic Planning	Existing	
4.18	Encourage and partner with other agencies to plant on their land: VicTrack, Yarra Valley Water, Goulburn Valley Water, Department Energy, Environment and Climate Action (DEECA), VicRoads, Regional Roads Victoria, Social Housing – Homes Vic, Committees of Management, Golf clubs etc.	Ongoing	Environmental Management Tree Management	Existing	
4.19	Remeasure tree canopy cover and urban heat for each township every three years	Ongoing	Tree Management	$120,000 every three years $360,000 over 10 years	Subject to business case/grant opportunities
4.20	Continue advocacy to the state government when opportunity arises, to decrease density limits in developments, creating larger block sizes and frontages for greater opportunity to plant trees in private property and road reserves	Ongoing	Advocacy	Existing	

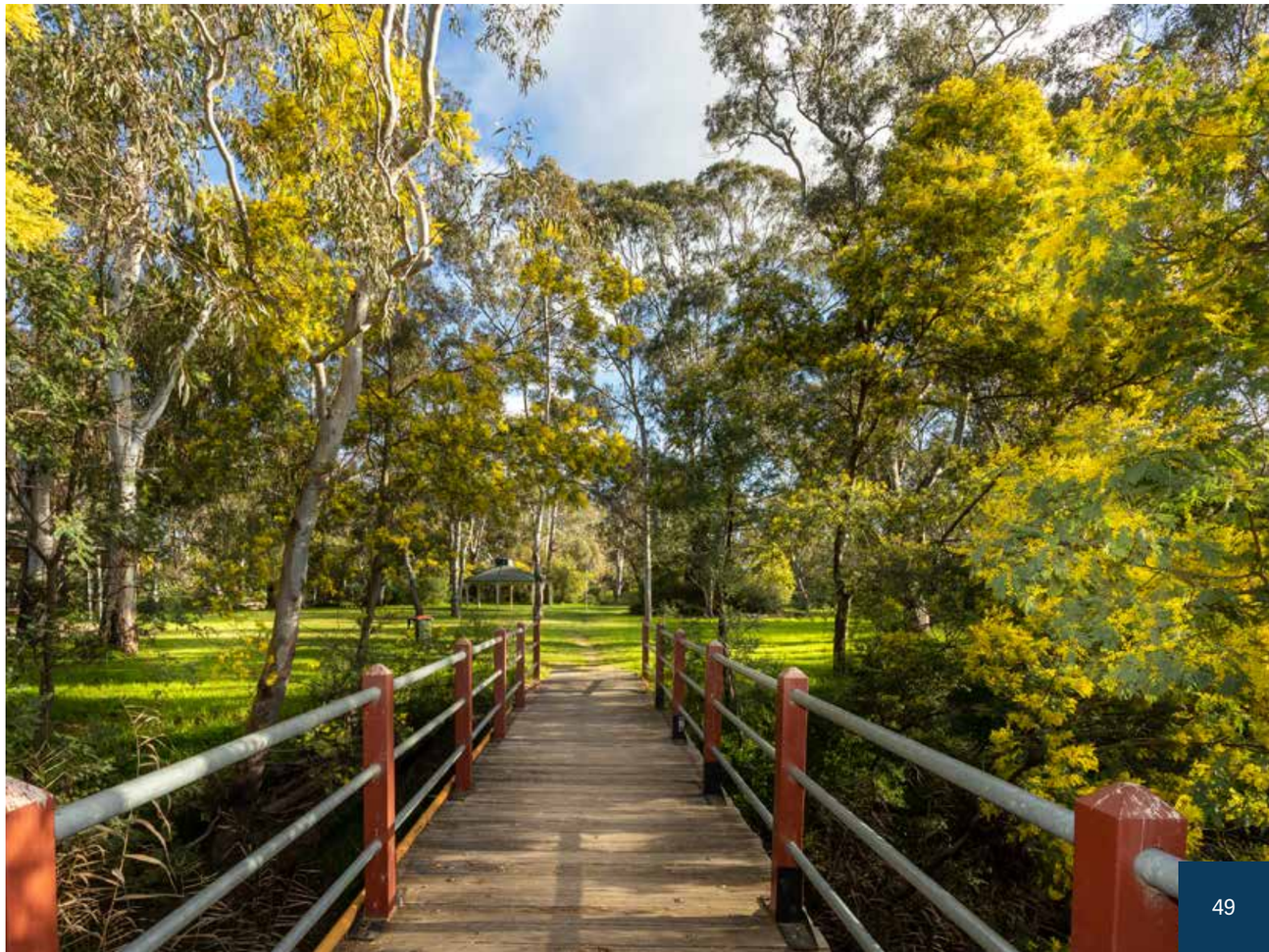
9.1 Action Plan Timeframe Costing

Over the 10-year life of this strategy, the full cost of implementing the action plan is $12.390 million.

The below table breaks down cost including annual costs of 'ongoing' actions.

Year (timeframe)	Additional Cost Implication
2024-2026	$3,330,000
2026-2029	$4,130,000
2030-2033	$4,430,000
TOTAL	**$11,890,000**

The action plan will be heavily reliant on grant opportunities to achieve a large portion of the actions within this plan.



Glossary

Forestree	An Australian built tree asset management system.
Integrated Water Management	A holistic approach to water that promotes the sustainable use of all available water resources in ways that best deliver multiple community objectives.
I tree Eco	A model built by the United States Forestry Service that analyses certain tree parameters in conjunction with air quality measures to determine an environmental value of a tree. The value includes air pollution, carbon sequestration and storage, energy saving benefits, stormwater flow reductions and a structural value, allocating an overall figure of worth on a population of urban trees.
Park tree	Any tree situated in public open space.
Remnant trees	The patches of or individual native trees that remain in the landscape.
Reserve tree	Any tree situated within a reserve.
Residential land	Where there are one or more dwellings on the land or a parcel of land on which there is a building under construction that, when completed, will constitute one or more dwellings.
Stormwater interception	The halt or reduced flows of stormwater into the drainage system for re-use.
Street tree	A tree situated on the verge, median or within the road reserve itself on public land.
Tree canopy cover	The extent of tree canopy over an area.
Understory	Vegetation found under trees such as shrubs and grasses.
Urban forest cover	The area of tree canopy and shrubs that covers an area.
Vacant street tree site	A site that has been identified as suitable for planting a street tree and does not need any alteration.
Water sensitive urban design	The integration of the water cycle into urban planning and design by recognising all water streams in the urban environment as a potential resource. For example:rainwater, stormwater, grey water and blackwater. WSUD is often used to describe the infrastructure built to capture and reuse stormwater.

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