

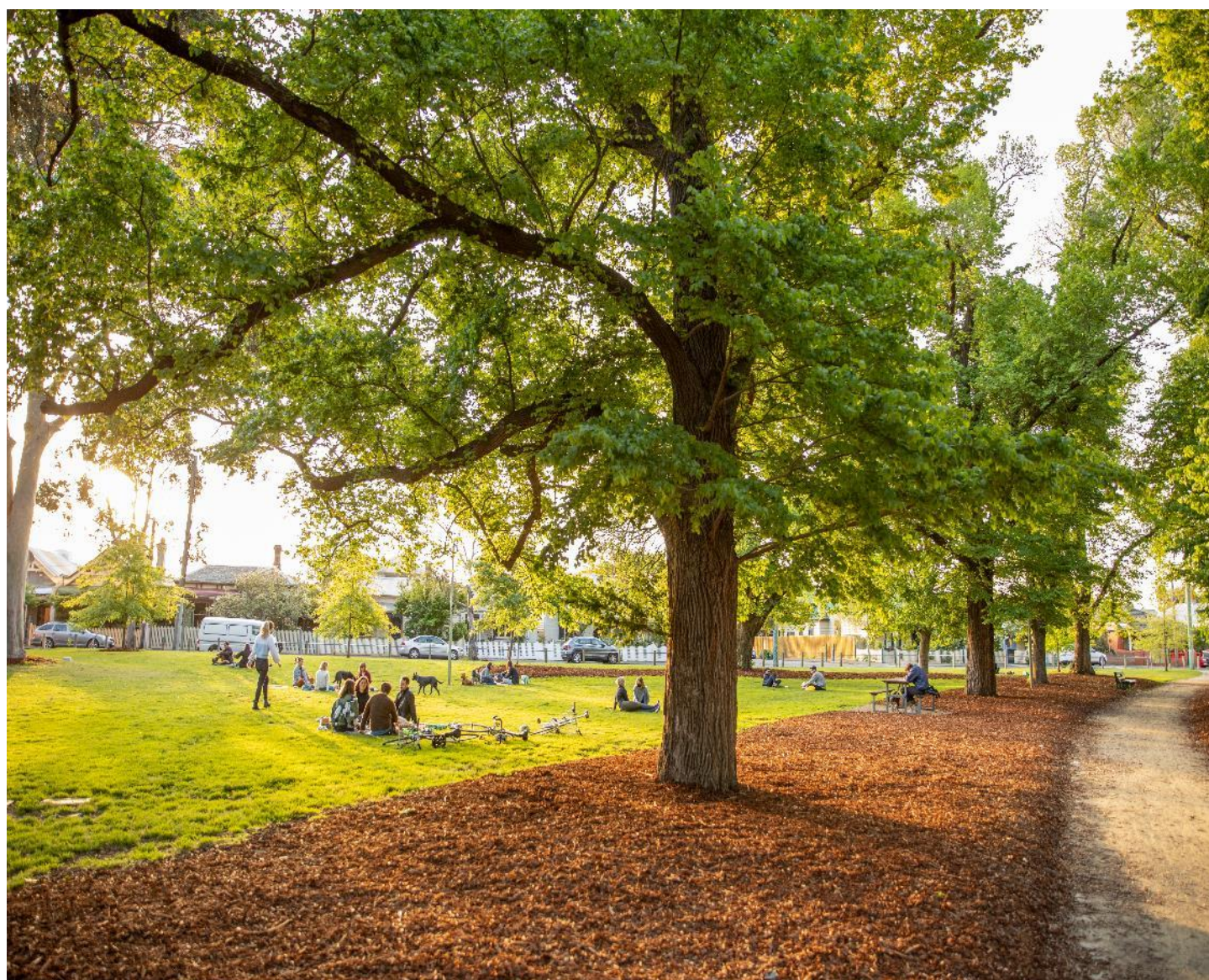


Merri-bek
City Council

Urban Forest Strategy

Report 2022

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Executive summary

Delivering Council's Urban Forest Strategy 2017-2027

The Urban Forest Strategy was adopted by Council in 2017 and 2021 marks the half-way point along the strategy implementation plan timeline. Three Key Performance Indicators have been adopted in the Strategy with measures listed for each desired outcome intended to be reported to Council every four years. This report covers the first four-year period to 2021.

Update on progress of Urban Forest Strategy Key Performance Indicators

KPI 1 - Canopy Cover on Council Land – progress from 4.31% in 2016 to 5.77% in 2021 with a target of 8.62% by 2030, suggests Council is at risk of not achieving a doubling of Council Land canopy cover by 2030. This is the case despite Council consistently achieving the tree planting quotas and planting more trees than are being removed annually.

KPI 2 – Health of the Forest and diversity – while survival rates of new trees planted by Council are at 91.7%, there is a lack of data available to confidently assess tree age and health, however data on urban forest species diversity is up to date.

- In 2021 a new reporting methodology was developed to improve the accuracy of reporting tree survival rates.
- Further work is planned to improve data capture processes and implement TreePlotter as the asset management program used by Council to manage trees. This work will enable officers to report on the distribution of tree age and health.
- The goal to increase the number of integrated water and vegetation projects is being achieved with 47 new sites implemented since the adoption of the Urban Forest Strategy.

KPI 3 - Community Satisfaction – Council scored well when its urban forest maintenance practices were compared with other Victorian local governments, achieving a satisfaction score of 76%. In addition, in 2021 there was widespread community support for the nature strip beautification program and positive feedback on urban forest projects. To further improve the measure of community satisfaction with our maintenance of the urban forest a customised survey will be developed.

Council Land Contribution to 2050 Canopy Cover Target of 29%

The Urban Forest Strategy (2017) has set an aspirational municipal canopy cover target of 29% cover by 2050. Upon initial analysis, this target poses a significant challenge considering the 10.43% 2016 baseline of canopy cover (lower than the 14.2% estimated when the 29% target was set).

Council only has full control over trees that are located on Council land, and so it is on this land (our streets and parks) that a significant portion of the canopy cover growth will need to occur. While there is a target to double canopy cover on Council land by 2030, there is no correlating 2050 target.

Council officers need to undertake further analysis to determine the capacity of the landscape to accommodate large numbers of new trees on Council land. The analysis will investigate the practical, technical and financial feasibility of planting and maintaining trees to determine a realistic target.

Next Steps

Implement use of Tree Plotter software to address identified data availability gaps to enable reporting on progress against Urban Forest Strategy Key Performance Indicators.

Develop a comprehensive community engagement plan and advocate state government for reforms to canopy protection, reductions in powerline clearance requirements and increase funding for tree planting initiatives.

Introduction

About the Urban Forest Strategy

The Urban Forest Strategy 2017 - 2027 guides Council policies and processes to increase and protect its urban forest. The vision of the Urban Forest Strategy is:

To promote and encourage a municipality where healthy trees and vegetation are a core part of the urban environment.

Council will achieve this vision for greening the municipality by nurturing a healthy, attractive and diverse urban forest and will utilise traditional and innovative greening solutions to improve the health and wellbeing of its citizens. The Urban Forest Strategy includes the following seven core objectives:

- Protect and enhance the urban forest in both the public and private realm.
- Value the urban forest as a core element of our urban space.
- Create a diverse urban forest of trees and other vegetation that will enhance urban ecology.
- Maintain the health of the urban forest.
- Manage and mitigate urban forest risks.
- Monitor and review progress to measure success and best practice.
- Strengthen community custodianship and engagement of the urban forest.

The Urban Forest Strategy commits to track progress using three Key Performance Indicators (KPIs) relating to canopy cover, urban forest health and community satisfaction. These are to be reported on every four years.

This report includes the first update on progress with these indicators, utilising data collected primarily in 2021.

Key Performance Indicators

The KPIs set out for the Urban Forest Strategy are as follows (from p.99, Urban Forest Strategy):

Table 1. Urban Forest Strategy KPIs

Indicator	Desired outcome	Reportable measure (every four years)
Canopy cover	Double public realm canopy cover across the municipality between 2017 and 2030 by increasing public and private canopy cover	Total urban forest canopy cover in the public and private realm (by suburb, vegetation type and land use)
Health of the urban forest	A healthy and diverse urban forest	At least 85% of new tree plantings survive at least 3 years 90% of trees in good health Well distributed age and species diversity Number of integrated water and vegetation projects
Community satisfaction	The community is satisfied with actions taken to maintain the urban forest	Level of satisfaction with Council actions

Methodology and Definitions

Canopy cover measurement

The Urban Forest Strategy was prepared at a time when techniques for measuring canopy cover were still emerging and was based solely on advanced aerial imagery. There have been two significant improvements in the methodology to date, namely, use of Light Detection and Ranging (LiDAR) - which is like a three-dimensional radar dataset that enables calculation of tree height - and Artificial Intelligence ('AI') technology.

The application of these improvements resulted in a retrospective re-baselining of the 2016 tree canopy data, which was a significant reduction in that figure (municipality wide) from 14.2% of total area to a more accurate 10.43%. This methodology is best practice in the urban forest industry and is the methodology that has been used in the baseline reporting on KPI 1 – Canopy cover – in this report.

The changes to this measurement approach were reported to and endorsed by Council in August 2021 and will continue to be used for future canopy cover target setting and measurement.

Land ownership

The other important set of definitions relating to the Urban Forest Strategy are the definitions of land category. Ownership and control over each type of land makes a large difference to Council's level of influence over tree canopy in each land category. In addition, the use of the land significantly impacts what is possible in terms of canopy cover.

Table 2 lays out the main land categories, their extent in the municipality, and the levers available to Council to influence canopy outcomes.

Table 2. Land categories and Council role

Land category	Includes	Extent (km ²)	Council role in canopy cover
All land	All land within the municipality	51.01 km ²	Varies
Public realm	Umbrella term for publicly accessible land, controlled by Council and Other agencies		
Council land	Council owned land and waterways Municipal roads & footpaths Nature strip area of state roads	15.80 km ²	Direct control – planting and tree maintenance, decisions to remove trees, community partnerships
Other agency land	State roads and rail reserves Golf courses and cemeteries	4.37 km ²	Influence through relationship, community partnerships
Private land	Residential, commercial and industrial land	30.83 km ²	Influence through planning, enforcement, community education and partnerships

Note that this set of definitions is different to the Urban Forest Strategy tree definitions of “park trees, street trees and private trees”. The mapping of these and the transition to the use of the new

definitions was reported to Council in August 2021. The rationale behind the change relates to clarifying Council's role in each category based on land owner and controller, rather than on the type of environment trees are planted in.

KPI 1: Canopy cover

Status report

Previous methodology

Table 3. Progress with KPI 1 – Hybrid methodology

Indicator & desired outcome	Reportable measure (every four years)	Baseline (2016)*	Target	Progress (2021)^	Comments
Canopy cover: Double public realm canopy cover across the municipality between 2017 and 2030 by increasing public and private canopy cover	Total urban forest canopy cover in the public and private realm (by suburb, vegetation type and land use)	Public realm canopy cover from publicly managed trees (4.31%)	8.62%	5.77%	Further work to be undertaken to confirm the investment required to achieve this and the 2050 canopy cover targets.

* Note that the 2016 baseline figure is based on the enhanced aerial imagery methodology for calculating canopy cover (resulting in the municipality-wide 2016 figure of 10.43%)

^ Note that the progress figure for 2021 includes the use of LiDAR, resulting in a more accurate representation of tree canopy, but notably a different methodology.

The first KPI requires that Council report total urban forest canopy cover every four years with a target of doubling “public realm” canopy between 2017 – 2030. The reportable measure for indicator 1 was last communicated to Council in August 2021, with canopy cover analysis undertaken in 2020 using the updated methodology. Council endorsed use of the 10.43% baseline as a resolution of the report.

The methodology that was used to report on the 2021 progress defines “public realm” canopy cover as the canopy cover provided by trees over publicly managed land. The analysis showed that of the total of 10.43% of canopy cover for the municipality, canopy cover for the “public realm” (4.31%) made up less than half. Rather than refer to this ongoing as the “public realm”, it is more accurately described as Council land. This reduces confusion, as the Other agency land (including a private golf course) was also considered part of the “public realm” in the endorsed Urban Forest Strategy 2017 despite Council having minimal influence over tree management on that land (see the definitions in Table 2).

Revised methodology

The proposed future methodology that will be used to track progress with the Council land canopy cover is presented in Table 4 below. In talking about canopy cover targets, it has become apparent

that it can be confusing quoting as a percentage, as we find ourselves quoting percentages of percentages.

To reduce confusion, it is proposed to move to referencing the actual areas covered by canopy, and then quoting percentages that result from the growth in those areas, within each land type. For example, in the table below, we can read left to right for each land type, understanding what proportion of each land type is covered by tree canopy in percentage (%) and square kilometers (km²).

Table 4. Progress with KPI 1 – LiDAR methodology with artificial intelligence

Land use type	Total land area (km ²)	Canopy cover area – 2017 (km ²)	Proportion of area covered – 2017 (%)	Canopy cover area – 2021 (km ²)	Proportion of area covered – 2021 (%)	Total growth in canopy cover area 2017 to 2021 (km ²)
Municipality in total	51.01	6.10	11.96%	6.85	13.42%	0.74
Council Land	15.80	2.19	13.86%	2.94	18.63%	0.75
Other	4.37	0.63	14.40%	0.77	17.61%	0.14
Private	30.83	2.47	8.01%	3.13	10.16%	0.66

For Council land, there is a total of 15.8 square km in the municipality (Council land includes municipal road reserves, nature strips of arterial roads, and open space). At 2017 (using the enhanced LiDAR method) there was 2.19 square km of canopy, (just under 14% of all Council land) and by 2021, this had reached 2.94 square km (which is almost 18.65%). This is a growth rate of 0.75 square km, or 2.5 MCG's (including the grandstands) per year over the 5 years measured.

Not shown in the table, but if this growth rate were able to continue, by 2030 we would have 3.14 square km of Council land covered in tree canopy, which is not the target to which we aspire, i.e., a 100% increase (or doubling) of canopy cover to 8.62%. Further consideration is needed to determine future tree canopy cover targets for Council land.

The 2021 analysis also shows that of the three land categories analysed, canopy cover has increased most substantially on private land with the majority of new tree growth recorded in the suburb of Brunswick West since 2018.¹

Accounting for proposed new tree plantings

By combining LiDAR with Artificial Intelligence (AI) officers were able to measure that municipal tree canopy cover had actually grown 2.73% between 2011 – 2021 or 0.27% per annum. Over the same period canopy cover had increased the most on Council land (1.59%), followed by private land (0.83%) and land managed by other agencies (0.31%).

It is important to note the difference between the canopy cover growth observed on Council land and other agency land, which can be explained because Other agencies do not have the same intentional tree planting programs as Council. These figures reflect the increase in canopy cover achieved since tree planting and improved tree protection and management practices commenced in earnest after the Urban Forest Strategy was endorsed in 2016.

The exercise also identified that each public tree that was over 3m tall in the municipality grew approximately 3.2% on average over that 10-year period.

¹ Tree Ledger Report, Moreland City Council (2021 - D22/179657)

Summary position

KPI 1: Canopy cover

While at first glance, achievement of 5.77% canopy cover being attributed to Council land (public realm) appears to show good progress towards the target of doubling this canopy cover by 2030, the disjointed measurement methodology between the target (aerial imagery) and progress (aerial imagery supplemented by LiDAR and Artificial Intelligence) means that the gains may not be as great as indicated.

Approaching the analysis commencing from 2017 where the first LIDAR data is available, it is clear that more work is needed to achieve a doubling by 2030 from 2016. However, the annual rate of expansion in canopy cover provides a source of optimism about the impact of the accelerated tree planting program that commenced after the Urban Forest Strategy was endorsed, and officers are confident that these trees will begin to show as canopy gains in future iterations of the canopy cover analysis.

In addition, whilst it is not articulated as part of KPI 1, when considering the aspirational 2050 target of 29%, it is also clear that rates of growth in canopy cover will need to be significantly higher than those currently experienced (i.e. 0.27% pa) to meet the target.

Achievement of 2050 target of 29% canopy cover

Extending the analysis shown in Table 4 for the whole municipality (rather than only Council land) and extrapolating the results out to 2050 would lead to canopy cover of 15%. This is short of the aspirational target to achieve 29% coverage by 2050 and suggests that strategic work to achieve higher rates of growth (and avoidance of canopy removal) for Other agency and Private land types over the next three decades is required.

One of the key findings of this analysis is that Council need to quantify the capacity of Council land to accommodate trees, compare this to the capacity on Other agency land and Private land, and determine Council's component of the 29% municipal-wide target for 2050.

Resourcing of tree planting

Council's aspirational canopy cover target is to achieve 29% canopy cover across the entire municipality by 2050 (comprising Council land, other agency land and private land trees). Council has committed \$500,000 per annum in addition to Council's \$1.145m tree establishment budget to support this, with most of the budget spent on watering and tree establishment maintenance.

However, preliminary modelling indicates that this aspirational target is not achievable without considerable additional investment in staff and resources required to plant the necessary trees on public land, and advocacy for tree planting in the Private realm and on land managed by Other authorities.

Actions taken on canopy cover protection

Whilst tree planting plays a large role in increasing overall canopy cover, both canopy cover losses and gains occur. This phenomenon is referred to as churn and its factors are classified as 'Persistent' and 'Dynamic' canopy cover. Persistent canopy cover (growth from established trees) is consistently observed throughout the study period while Dynamic canopy cover is the combination of losses (tree removals) and gains (new plantings) observed through the study period.

The 2021 analysis as referenced above shows that the amount of dynamic canopy cover has been increasing steadily since 2018 and comprises approximately 3% of the total 13.42% canopy cover

measured.² This indicates that tree planting programs are contributing to a net increase in trees across the municipality. It is also important to consider that overall canopy cover also increases when the trees increase the spread of their canopy because of their improved overall condition. Therefore, finding a way to supply water to existing trees in an environment of low water supply (future drought) is critical to ensuring overall canopy cover is not impacted negatively by projected climate changes.

The Urban Forest Strategy highlights that protection of existing trees is also critical for Council to meet the 2050 target of 29% canopy cover. Since 2017, Council has introduced tree protection measures by strengthening policy, the planning scheme and the general municipal law to increase its ability to influence the management of trees in the Private realm. In 2021, Council made progress in its mandate to protect private trees with officers compiling a Significant Tree Register. In 2022, Council officers are planning to nominate trees on the register to the National Trust with the hope that they are added to the National Trust Significant Tree register and afforded greater statutory protection.

² ibid

KPI 2: Health of the urban forest

Status report and future improvements

The health of the urban forest is measured using four different indicators, referred to as KPI 2.1 to 2.4.

Table 5. Progress with KPI 2

Indicator & desired outcome	Reportable measure (every four years)	Baseline (2016)	Target	Progress (2021)	Comments
Health of the urban forest: A healthy and diverse urban forest	2.1- At least 85% survival of new tree plantings survive at least 3 years	14%*	85%	91.7%	New reporting Methodology Proposed to meet Council Plan requirements
	2.2- 90% of trees in good health	95%+	90%	82% of tree condition data is unspecified	Incomplete data; to be updated
	2.3- Well distributed age (life expectancy); and species diversity (family, genus, species)	40% of trees have an Estimated Life Expectancy of 30-50 years; 66% Myrtaceae, 25% Callistemon, 10% Callistemon viminalis	Well distributed age; No more than 40% of one family. No more than 15% of one genus. No more than 5% of one species	No data on life expectancy; 65% Myrtaceae, 32.1% Eucalyptus, 19.1% Eucalyptus leucoxylon	Incomplete data on estimated life expectancy. Species data was updated using field-based verification.
	2.4- Number of integrated water and vegetation projects	66 sites	Increase	113 sites	Reliant on Urban Design projects, CAPEX and grant funding

KPI 2.1: Survival rates

The reportable measure for this indicator is associated with the survival rate of new tree plantings, the condition of the urban forest, its age, diversity and the number of integrated water management sites involving trees. Data used to report on progress for this KPI is held in Council's Tree Inventory and updated using TreePlotter, a web-based tree inventory management system.

When the Urban Forest Strategy was adopted, a goal of planting 5,000 trees per annum was set with additional establishment and maintenance resources provided to ensure their survival (~\$500,000 per annum). In previous iterations of the Urban Forest Strategy update report it was reported that this goal had been achieved (Table 6).

Table 6. Number of trees planted per planting season by year

Financial Year	Total number of new trees planted
2016/2017	5,957
2017/2018	5,642
2018/2019	5,058

Source: 2019 UFS Strategy Update Council Report

The total number of new trees planted presented in Table 6 included both juvenile trees (those planted in pots greater than 18cm wide) and trees planted as tubestock in native bushland settings that are intended to provide an ecological function to natural flora and fauna. Best practice methodology adopted in the native bushland management sector is to assume that 25% of all tubestock trees planted will not survive beyond the first year.

There is no data available to enable officers to accurately report on the survival rate of tube stock. Despite this, the 2021 canopy cover analysis shows that significant gains have been achieved through tree planting activities undertaken within bushland settings since 2009. Therefore, it is critical that Council continue to support these activities to improve the ecological functionality of those unique natural environments.

Officers have determined that the most accurate way to report tree establishment success rates is to report on street and park tree planting of juvenile trees. The Tree Inventory indicates that in 2021, only 4.9% of trees planted have failed to thrive, and that in 2020 and 2019 this figure was 11.0% and 10.9% respectively. These results indicate that establishment maintenance practices applied to street and park tree planting has been improved and removal of tube stock from tree planting counts will improve reporting accuracy.

Going forward, reporting on the progress of KPI Indicator 2.1 will be based on the survival rates of juvenile trees planted and covered by the establishment maintenance program. The report will be prepared annually as a requirement of the reporting associated with the Council Plan 2021 – 2025 and will ensure Council and the Community remain updated on the progress of tree planting associated with the urban forest strategy.

KPI 2.2: Trees in good health

At 31 January 2022, there were 69,181 trees in the Tree Inventory, 12,998 have condition data (18.78%) and 7,540 (58%) of these have been classed as being in Good or Excellent 'Health'. However, most trees with a health condition rating are less than 5 years old (77%) because only part of the tree maintenance team have been using TreePlotter to map and manage the trees they are responsible for maintaining.

Therefore, it would be inaccurate to infer that only 58% of the entire tree population are in Good/Excellent health because this data does not represent the health condition of the entire tree population.

To address this data quality gap, a refresh of critical Tree Inventory data is proposed to be completed in 2022/23 FY using funds sourced from the Urban Forest Strategy operational budget. This will improve the quantity and quality of these data and report on these KPI measures more accurately in future.

KPI 2.3: Diversity of age and species

Data relating to the distribution of tree age (Life expectancy and Maturity) across the public realm is not reliable because over 41,000 (59%) trees do not have a specified level of maturity. However, reporting on the distribution of species planted in the public realm is now at our fingertips within the tree management system called TreePlotter.

The data in TreePlotter indicates that the distribution of plant families is still dominated by Myrtaceae (Figure 1) though the prevalence of this family has dropped 0.8% since 2017.

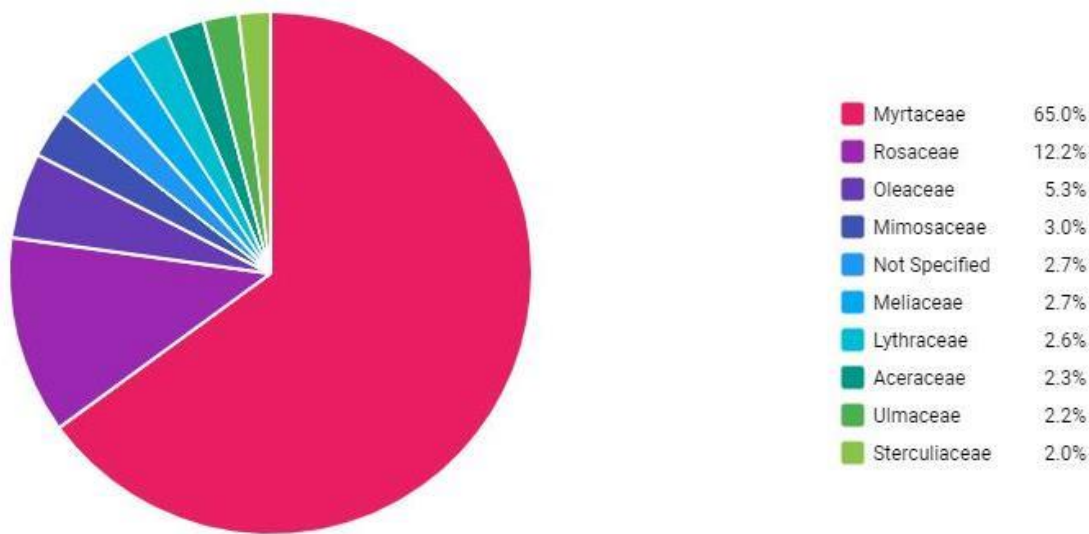


Figure 1: Top 10 botanical families recorded in the Tree Inventory as at 31/01/2022

The data also shows that the order of the top 10 most common genus has changed (Figure 2) with the top 5 genus now being:

- *Eucalyptus* (Gum) comprising 32.1% (formerly 20%).
- *Callistemon* (Bottlebrush) 24.7% (formerly 25%).
- *Pyrus* (Pear), *Melaleuca* (Paperbark) and *Prunus* (Plum) remain in the top 5 though their order of prevalence has changed slightly.

Overall, the diversity data suggests that Council need to actively diversify its tree population and implement planting strategies that aim to reduce the prevalence of the Myrtaceae plant family, and the genera *Eucalyptus* and *Callistemon*.

KPI 2.3: Number of integrated water management sites involving trees

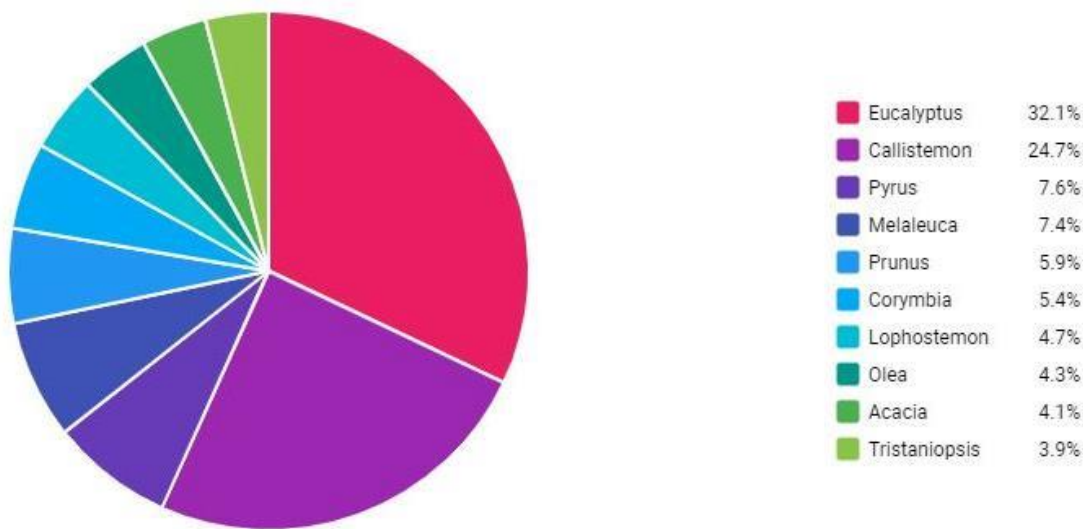


Figure 2: Top 10 genus recorded in the Tree Inventory as at 31/01/2022

The more integrated water management sites there are associated with trees, the faster our trees will grow and be able to adapt to predicted climate changes in the near future. According to a review undertaken by the Sustainable Built Environment unit in 2021, there are 134 trees that have been incorporated into integrated water management sites using tree pits and other water sensitive urban design solutions. This is an increase of 197.78% since the Urban Forest Strategy was endorsed in 2017. To date these projects have been delivered by various units within Council and with funding from CAPEX project budgets and grants obtained from various water authorities.

KPI 3: Community satisfaction

Status report

Table 7. Progress with KPI 3

Indicator & desired outcome	Reportable measure (every four years)	Baseline (2016)*	Target	Progress (2021)	Comments
Community satisfaction: The community are satisfied with actions taken to maintain the urban forest	Level of satisfaction with Council actions	Proposed to be included in Council's annual satisfaction surveys	Increase	Question was not included in Council's annual satisfaction survey. Overall Best Practice Score of 76% satisfaction with Council's Park Maintenance services in 2020 Yardstick^ report	Council's research team have suggested that a customised survey should be developed and results reported.

There are currently no specific reports that Council officers can draw upon that measure the community's level of satisfaction with actions taken to maintain the urban forest. Therefore, other measures are reported below, serving as proxies for such an indicator.

Nature strip beautification satisfaction

One implementation action has been to encourage residents to beautify their nature strips. In a recent survey of 570 residents who have beautified their nature strips, Council asked landowners and occupiers to make contact if they no longer wanted to manage those beautified nature strips; only a small number of responses (N=3) were received. This suggests widespread community satisfaction with the nature strip beautification program and that Council should continue to support the program.

Improved maintenance and planting processes

Other actions linked to gauging community satisfaction with actions taken to maintain the urban forest relate to Council maintenance processes, activities that involve increasing tree planting in unconventional sites, and other urban forest-related community engagement activities.

Council is involved in the 'Yardstick' program along with 25 Councils across Australia including 11 in Victoria. 'Yardstick' is a collaborative partnership of various international industry organisations including the New Zealand Recreation Association (NZRA), World Urban Parks (WUP), Institute of Public Works Engineering Australasia (IPWEA). Yardstick collect a wide range of information from member organisations to identify asset provision, costs, service delivery, strategic planning and asset management best practice.

The Yardstick key performance indicators rate the provision of park land, sports parks, playgrounds, street trees and horticultural plantings and measures management performance based on a selected range of management tasks that are considered "key" to the management and delivery of parks services provided within each full financial year. The Yardstick report compares Council's performance against neighbouring municipalities such as the City of Melbourne, City of Darebin and Hume City Council annually and places us within the Australian peer group (AU). In 2020, our practices were ranked at 76%, an improvement of 24% since the adoption of the UFS and well above the mean for the AU peer group (D21/4092).

Road refurbishments and in-road plantings

Tree planting continues in complex urbanised landscapes in areas experiencing high exposure to the Urban Heat Island Effect (UHIE) within socially vulnerable communities. These plantings are typically located within the roadway, kerb outstand areas or in cul-de-sacs. This type of planting is explored on a case-by-case basis and often aligned with Council's road resurfacing or reconstruction programs.

In 2021, Henkel Street, Brunswick (South Ward) was refurbished through a collaboration between the Engineering Services and Open Space teams. The collaboration resulted in the implementation of a streetscape layout that would improve future tree canopy coverage for the community. Improvements included installation of eight additional footpath cut-outs and a new permeable kerb outstand (Figure 3). This work leverages the success of Cumming Street, Brunswick West (South Ward) which was completed in 2019.

However, not all efforts to undertake road refurbishments were successful in 2021. Attempts were made to engage the community in Council's plans to construct a new centre median with trees along Cohuna, Guthrie, and Mincha streets in Brunswick West. Work-related COVID-19 restrictions impacted on officers' ability to undertake the typical form of community engagement that is employed on these types of projects (i.e., face-to-face interactions). This affected resident perceptions of the impact of the project, resulted in the community expressing dissatisfaction with the proposal and the project being cancelled.

Upcoming community engagement activities planned for the remainder of 2022 include Hillview Ave, Pascoe Vale (Passive irrigation trial in the North-West Ward), and investigations into greening opportunities in Brown Street, Coburg (North-East Ward), and Eddy, Queen and Louisa streets, Brunswick (South Ward).



Figure 3: A comparison between the nature strip outside 68 Henkel St, Brunswick in 2019 (Google streetview, left) and what it looks like in 2021 (officer supplied; right). Kerb outstands and cut out widening have significantly improved the landscape and tree amenity for the community.

Engaging with the community on other agency land tree health

Three residents of Woolacott Street, Coburg (North-East Ward) wrote separately to Council expressing concern about the impact of work undertaken by the Level Crossing Removal Project (LXRP) because the street had become dusty, barren and hot. The residents raised concerns that the interface with the new footpath network was inadequate and requested more street trees, a greener landscape and greater canopy coverage.

Open Space officers assessed the streetscape and confirmed their concerns, noting that many of the existing trees were in poor condition. The officers met with the residents of the street to discuss alternative designs and street tree species; one resident remarked that “it was the first time residents in the street had gotten together about anything”.

Council and the community in Woolacott St worked together to improve the streetscape. New, elongated nature strips were installed within the footpath and residents were encouraged to plant and maintain small shrubs therein. Access from Woolacott St to the new LXRP-installed footpath was also improved to meet the needs of people with mobility impairment, and a new garden bed was installed at the interface between the LXRP works and the street.

Residents were involved in tree selection and planted out their own elongated nature strips. The nature strips have been planted with alternating exotic *Fraxinus pennsylvanica* cv. (Green Ash) and native *Brachychiton* ‘Bella Pink’ and ‘Jerilderee Red’ (Kurrajong) cultivars. The co-created design gives the street a green look all year-round, provides colour in autumn and summer and allows the light to penetrate the streetscape in winter. The nature strip design facilitates the expression of individual diversity outside each home, with shrubs and grasses improving the streetscape aesthetic with splashes of colour.

These changes have brought the community of Woolacott St together, will improve canopy coverage, reduce the impacts of the UHIE on this area and beautify the neighbourhood for generations. This work leverages the success of Cumming Street, Brunswick West and was delivered using the Streetscapes Improvement budget.

Individual feedback from members of the community who were affected by these activities indicates that the community are very satisfied with the actions Council has taken to improve the urban forest.

Changes in approach to measuring community satisfaction

Considering the breadth of interest in measuring community satisfaction it is intended that further work will be undertaken on community satisfaction measures. This could include measures that assess the community's satisfaction with Council's:

Approach to tree canopy growth (including direct tree planting and tree health measures).

Partnership with community in delivering shared programs.

Advocacy and planning initiatives to support tree canopy targets on private and other agency land.

In addition, a broader community engagement strategy is to be developed. Ahead of this, a Conversations Merri-bek webpage will be established dedicated to Urban Forest related projects.

Implementation actions

Overview of progress with implementation actions

A plan was developed to support the achievement of the KPIs in the Urban Forest Strategy, it contains 90 actions and categorises them into short, medium, long term or ongoing timeframes. Of the 90 actions, 40 actions have been achieved with the remaining 50 started and pending completion. Actions that require prioritised attention are within the core objectives related to achievement of canopy cover targets, improving the way the urban forest is valued and protected, and how we monitor, review and measure our success.

Next steps

The priority actions for implementation are:

Continue analysis and modelling on tree canopy cover targets to develop a more detailed implementation plan for Council to endorse including 2050 canopy cover targets for the public realm (Council land and other agency land) and private realm.

Continue to improve quality of tree data, and implement use of TreePlotter software to:

- Manage our urban forest to address identified gaps in metrics available to report on progress against Urban Forest Strategy Key Performance Indicators.
- Provide the public with a spatial platform from which they can obtain information about our urban forest.
- Allow analysis and modelling on life cycle costing to better forecast future tree maintenance-related resource requirements.

Develop a comprehensive community engagement plan that includes how Council will engage with the public on all urban forest-related activities and better understand levels of community satisfaction with urban forest maintenance.

Continue to advocate state government for reforms to canopy protection, reductions in powerline clearance requirements and increase funding for tree planting initiatives.

Engage and partner with other responsible authorities/management organisations who control large tracts of open space to encourage tree retention and promote additional tree planting.