

Banyule Urban Forest Strategy 2022-2032

Actions and Measures Supplement

Acknowledgements

Banyule City Council is proud to acknowledge the Wurundjeri Woi-wurrung people as traditional custodians of the land and we pay respect to all Aboriginal and Torres Strait Elders, past, present and emerging, who have resided in the area and have been an integral part of the region's history.

Our community is made up of diverse cultures, beliefs, abilities, bodies, sexualities, ages and genders. Council is committed to access, equity, participation and rights for everyone; principles which empower, foster harmony and increase the wellbeing of an inclusive community.



Document history

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Message from the Mayor

Banyule City Council residents have a strong connection to natural and green spaces including its population of more than 150,000 public trees and with much more living in the private realm. Banyule recognises the vital contribution the Urban Forest provides both for biodiversity and habitat as well as neighbourhood character and designed amenity. With pressures of growth and climate change the importance of the ecosystem services, these trees provide, including shade and cooling, will be essential for Banyule to provide a liveable city to present and future generations. This strategy has been developed by working closely with the community and undertaking direction to include the community as joint custodians of the Urban Forest.

Draft - For Consultation

Executive Summary

Banyule City Council has a long history of valuing and improving its management of the city's urban forest, trees and greening, and developed its first Urban Forest Strategic Plan in 2015. In 2019 Council declared a Climate Emergency and recognised the need for an updated approach to managing its urban forest.

This strategy provides a summary of the:

- benefits of the urban forest
- challenges for urban forestry
- current state of the urban forest in Banyule
- strategic framework that will guide action (definition, vision, principles and key directions)
- major actions to be taken over the next ten years
- measures of success

The Strategy builds on the foundation of the 2015 Urban Forest Strategic Plan (UFSP). All 9 goals set in 2015 UFSP match to a principle and strategic area in the Strategy. Of the 40 measures were identified in the 2015 UFSP 26 are retained and enhanced in the UFS, 7 are replaced with an improved alternative target and 7 are discarded as no longer appropriate. Of the 94 actions were set in the 2015 UFSP 15 have been achieved, 41 are retained, 34 are replaced with an improved alternative action, 4 are discarded as no longer appropriate

This refreshed Strategy has been developed with input from a wide range of stakeholders including the Urban Forest Community Reference Group, Banyule Environment and Climate Action Advisory Committee (BECAAC), Councillors, Council officers, other agencies, and the wider Banyule community through Shaping Banyule (Banyule's community engagement portal). The feedback from these stakeholders has informed the future direction by:

- clarifying what the term urban forest means for Banyule
- drafting a vision for the urban forest (a 50+ year vision)
- confirming the five principles by which the urban forest will be managed
- developing six key directions with major actions for Banyule

The structure of the strategy and the relationship of the vision to the measurements of success are in the following figure.

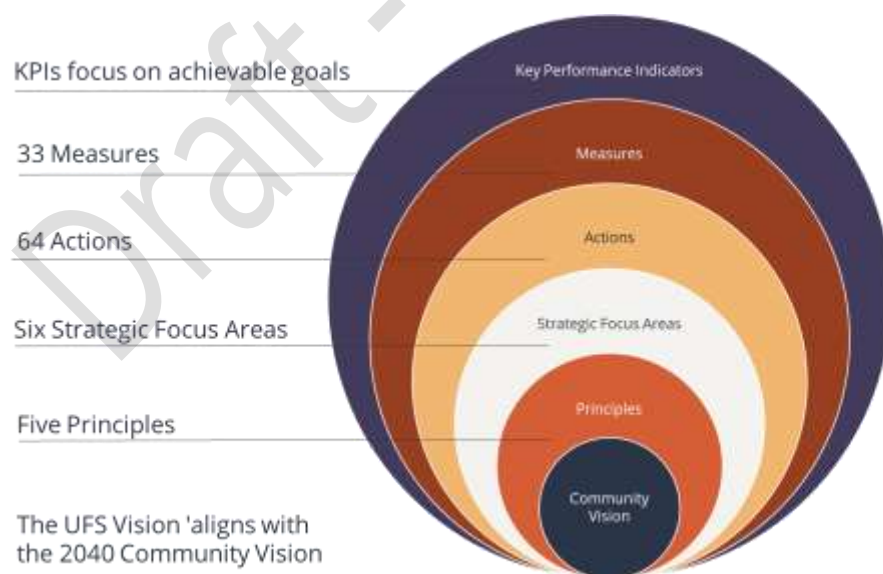


Figure 1: The structure of the Urban Forest Strategy

The five principles developed through the consultation are:

1. We believe the urban forest is an essential asset for Banyule, shared by all and crucial for the health and wellbeing of the community and natural environment.
2. We believe a healthy urban forest is the result of strong partnerships between Council and community.
3. We act today to respond to the changing climate and to leave a positive legacy for the future community, and we act responsibly, using evidence-based practice in our leadership and management of the urban forest.
4. We plan, design and deliver for the people, places and natural environments of Banyule including:
 - a. Climate change and reduction of the urban heat island effect
 - b. Liveability, amenity and neighbourhood character
 - c. Banyule's ecosystems and biodiversity
5. We protect and enhance the Banyule's natural environment to care for flora and fauna.

The strategy emphasises improving governance and management along with building the capacity of all parts of Council to integrate the urban forest needs into their work. This approach will see greater efficiencies in the planning, design and delivery of infrastructure as green assets are managed alongside and in concert with other non-living (grey) infrastructure.

Six strategic focus areas will be delivered using a combination of existing and new staff resources, new grant funding, community and volunteer resources and new initiative funding.

The strategic focus areas are:

1. Prioritise urban forest improvements in the most vulnerable suburbs and places across Banyule
2. Increase the diversity of the Urban Forest for biodiversity and habitat with ground cover and shrub layer plantings
3. Manage the Urban Forest across public and private land for resilience to climate change
4. Take a long term, asset management approach to the Urban Forest
5. Build and maintain partnerships with others in the protection and management of the Urban Forest
6. Integrate urban forest principles in all parts of Council services

Under the six strategic focus areas there are 64 actions described to allow immediate and ongoing work which will respond to the challenge that the urban forest faces, including impacts of climate change and increasing urban development. With this Urban Forest Strategy Council will focus its efforts on the actions needed today and over the next ten years so that by 2032 Banyule is well on its way to achieving the long-term Banyule Community Vision.

33 measures are established with reporting intervals to report on the progress towards the vision over the life of the strategy.

KPIs are also established to focus reporting on the critical outcomes. Specific, achievable and timely measures have been set for; canopy cover across the suburbs (27% by 2050 with no loss in suburbs exceeding the target), canopy cover across the footpath network (45% by 2040 with no loss in suburbs exceeding the target) and completing the planting of all viable vacant street tree sites (currently approximately 10,000).

The development of an endorsed tree management framework will include clear and transparent process, procedure and applications, including, but not limited to, managing tree risk, processes for removal, process for reporting and customer engagement, planning planting and species and managing complaints and disputes. This action will integrate existing policy and process and develop new outcomes where gaps exist.

The Strategy will be reviewed every four years and annual results published in Banyule's State of the Environment report.

Implementation of Major Actions - 2022-2032

The details of the actions in each Strategic Area are listed in the following table with classification of their timeframe, investment commitment level, funding model and departments to lead the action.

The following classifications are used:

Existing	Council can adopt these actions within the current proposed budgets. They can be integrated into existing programs or investigated without additional staff or infrastructure requirements.
\$	<\$10k. Low-cost action
\$\$	\$10k-\$100k. Council should plan for budget beyond the current proposed budget. Investment in additional research, infrastructure, staffing or funding is required to realise the action.
\$\$\$	>\$100k. Council will require significant additional budget to realise the action, due to the need for new infrastructure, additional staff or introduction of regulations and / or requirements.
Short Term	1 - 3 years
Medium	4 - 8 years
Long term	9 - 18 years
Ongoing	Commencing from 2023. Note: Ongoing actions with budget requirement are counted in each short, medium and long-term column

Summary of Investment and Timeframe

No. of all actions	Actions using Existing capacity	Short term 2023 - 26	Medium term 2027 - 30	Long term 2030 - 40
67	25	31 actions over years 1 - 3 \$900k - \$1.3m (\$300k - \$450k pa)	23 actions over years 4 - 8 \$800k - \$1.7m (\$200k - \$400k pa)	15 actions over years 9 - 18 \$1.8 - 2.6m (\$300k + pa)

Actions detail: Investment, Timeframe and Project Lead

Actions	Further Detail	Timeframe	Investment	Project or Ongoing	Lead Department / Team	Additional Departments / Teams
Strategic Area 1: Prioritise urban forest improvements in the most vulnerable suburbs and places across Banyule						
S1.1 - Develop an agreed urban forest prioritisation method that is based on the Urban Forest Principles to identify areas in most need of planning and intervention.	Determine a weighting for combining spatial factors of canopy cover, socio-economic disadvantage, UHI priority, flooding, wildlife corridors etc. The output is a map to allocate the relative priority of taking action in different locations.	Short	\$\$	Project	Urban Forestry	
S1.2 - Train staff in all areas about the prioritisation method and engage the key teams in the process to deliver increased understanding and integration into other programs and annual plans.	Training will require documentation for procurement, customer service and an induction process as well as a program to hold regular discussions with teams during meetings.	Ongoing	Existing	Ongoing	Urban Forestry	
S1.3 - Review the urban forest priorities every 3 years (using the prioritisation method) and include actions in asset management and annual operational plans.	To be reflected in service levels and annual operational plans with a workshop review with the output of a report.	Medium	Existing	Ongoing	Urban Forestry	
S1.4 - Develop and improve the urban forest prioritisation method as new data become available.	Update the matrix as new information becomes available such as census, canopy or ecological data.	Medium	\$	Ongoing	Urban Forestry	
S1.5 - Program annual planting in areas with highest priority.	Focus annual street and park planting, and replacement of underperforming trees, in locations of high priority.	Ongoing	\$	Ongoing	Urban Forestry	
S1.6 - Identify vacant street tree sites and program infill plantings to be completed in the medium to long term.	Plant out the approximately 10,000 vacant street tree sites by 2027.	Medium - Long	\$\$\$	Project	Urban Forestry	
S1.7 - Work with local indigenous plant nurseries or community nurseries to provide local provenance.	Obtain tree and plant stock from locally sourced seed. Engage nurseries to grow trees to advanced stage for street tree planting or bring in-house to council.	Short	\$	Ongoing	Urban Forestry	Bushland
Strategic Area 2: Increase the diversity of the urban forest for biodiversity and habitat with ground cover and shrub layer plantings						
S2.1 - Identify suitable sites in reserves, roadsides and underutilised land where mown turf can be improved to include trees, shrubs, native grasses or groundcovers.	Year 1, map suitable locations and develop a program for implementation.	Ongoing	\$	Project	Parks & Natural Environment	Open Space Planning, Environment
S2.2 - Establish and maintain new planting locations of shrubs, native grasses and groundcovers.	Year 2 would be a pilot program of a small number of sites. Funding sought in Year 3 to roll out to larger number of sites. Resource staff to establish and maintain planting locations.	Short - Medium	\$\$\$	Project	Parks & Natural Environment	Urban Forestry
S2.3 - Investigate the co-management of new planting sites within the Urban Forest with the community.	Initial target groups will be community groups such as friends' groups or scouts.	Ongoing	\$	Ongoing	Urban Forestry	Community Engagement
S2.4 - Develop the nature strip planting program, provide guidelines, and promotion of the benefits to residents	Implement through a permit system and or change to the local law to allow residents to plant nature strips where appropriate.	Medium	\$	Project	Open Space Design	Urban Forestry, Local Laws, Community Engagement
S2.5 - Map the ecological corridors (wildlife connection and known fauna movements) to integrate with the urban forest data to identify opportunities for planting sites	This will include spatial mapping based on fauna movement from an urban ecologist.	Short	\$\$	Project	Environment	Bushland / Urban Forestry
S2.6 - Provide recommended species lists for a fit for purpose urban forest i.e., the 'right-tree-right-place'. This will include species that are climate ready, suitable for the site and consider the benefit for urban ecology.	Develop an online, location-based list of appropriate species for public and private plantings including a set of suitable substitutes to overly used or inappropriate species.	Short	\$\$	Project	Urban Forestry	Open Space Design
S2.7 - Provide training and information for Council staff on the urban forest - its definition, vision and principles and what it means for their work.	This will run in tandem with S1.2 'Staff training' specifically including the induction process.	Short	\$	Ongoing	Urban Forestry	
Strategic Area 3: Manage the urban forest across public and private land for resilience to climate change						
S3.1 - Provide support for the protection and survival of listed significant trees on private lands, include tree owners and neighbours in the communication and engagement around significant trees.	Support may include access to a grant for arboricultural tree assessments and/or tree works. The amount of investment will be reviewed annually.	Ongoing	\$	Ongoing	Environment	Planning / Urban Forestry
S3.2 - Provide care and protection of listed significant trees on public land.	After an annual arboricultural inspection for each significant tree, care may include additional pruning, watering, mulching and understory planting or risk reduction by moving targets.	Ongoing	\$	Ongoing	Urban Forestry	Environment / Planning
S3.3 - Work with private and non-council land holders to improve the urban forest on their land via place-based programs and development applications.	As an example, this may include schools, encumbered open space under transmission power lines and water easements.	Ongoing	\$	Ongoing	Urban Forestry	Environment / Planning
S3.4 - Implement passive irrigation (WSUD) for public realm trees and make this business as usual for capital projects and new developments.	Run a trial of small scale WSUD systems that can be easily replicated, incorporate into standard kerb and street tree planting design.	Ongoing	\$	Ongoing	Environmental Operations	Capital works / Urban Forestry
S3.5 - Provide the public with a recommended species lists for a fit for purpose urban forest i.e., the 'right-tree-right-place'. This will include species that are climate ready, suitable for the site and consider the benefit for urban ecology.	Share and promote the recommended species list with the public. The place-based plans will be available online for residents to view which neighbourhood place/area they are in.	Short	\$	Project	Urban Forestry	
S3.6 - Review the recommended species lists annually or when new information comes to light and communicate to community and Council staff.	The list will be maintained in a live format that will enable easy updating as tree species and climate data becomes available.	Ongoing	\$	Ongoing	Urban Forestry	Planning Arborists

Actions	Further Detail	Timeframe	Investment	Project or Ongoing	Lead Department / Team	Additional Departments / Teams
Strategic Area 4: Take a long term, asset management approach to the urban forest						
S4.1 - Develop place-based plans to manage the urban forest taking into account use, neighbourhood character and climate. Including: In-fill planting program, maintenance, street tree renewal.	The place-based plans will be available online for residents to view which place/area they are in.	Short	\$\$	Project	Urban Forestry	
S4.2 - Implement a tree valuation policy including amenity value and ecological value.	Tree amenity and ecological valuation methodologies use are widely used by local governments around Melbourne. Revenue for trees that are removed for development would be expended through the Future Canopy fund (\$6.3.3)	Short	\$	Project	Urban Forestry	Planning
S4.2.1 - Link the urban forest amenity value to current asset management processes.	Track the amenity and ecosystem service value of trees in the tree asset system, link the tree asset records to Council's central asset management system (Assetic)	Short	\$	Project	Asset Management	Urban Forestry
S4.3 - Adopt a canopy cover assessment method to measure canopy gains and losses annually.	Acquire canopy data and analyse the drivers for canopy losses and gains on public and private land	Short	\$\$\$	Project -> Ongoing	Urban Forestry	Planning
S4.4 - Develop a comprehensive urban forest database to allow the analysis of effort and outcome of the urban forest strategy and asset management programs.	Essential systems upgrade to allow for the core delivery of the Urban Forest Strategy including tree planting program.	Short	\$\$\$	Project -> Ongoing	Urban Forestry	IT
S4.5 - Develop a comprehensive urban forest interactive mapping portal that includes information on:	Essential system upgrade to enable management of the existing tree population, design future plantings and collect tree risk data.	Medium	\$\$	Project	Urban Forestry	Urban Forestry
S4.5.1 - Street, facility and park trees.	Facility trees surround council owned buildings such as kindergartens, halls and community centres.	Short	Existing			
S4.5.2 - Urban Forest understory plantings.	Inclusions for external engagement item such as ward newsletters, Banyule banner as well as digital platforms.	Medium	Existing			
S4.5 - Develop a comprehensive urban forest interactive mapping portal that includes information on:	Resilience and benefits provided by trees such as shade and cooling, are linked to the health, complexity and diversity of the urban forest. Structural diversity will be increased with the focus on shrubs and non-tree vegetation.	Medium	\$	Project -> Ongoing	Urban Forestry	IT
S4.5.4 - Develop an "Our Trees App" using collected data for residents to engage with the urban forest.	A public facing web-based tool that is accessible from mobile devices to allow for generation of requests and has potential for citizen science.	Medium	\$\$	Project	Urban Forestry	Customer Service / IT
S4.6 - Prepare a communication and engagement plan and program that includes reporting to share information with internal and external audiences - focus reporting against elements of the vision.	Inclusions for external engagement item such as ward newsletters, Banyule banner as well as digital platforms.	Short	Existing	Project	Communications	Urban Forestry
S4.7 - Build relationships with key research partners to investigate the benefits of 'smart planting' programs for street trees and quantify the benefits of the urban forest including carbon sequestration.	Opportunity for universities to have masters or PhD students work on several projects. This may also include WSUD and new tree trials.	Medium	\$	Ongoing	Urban Forestry	Urban Forestry
S4.8 - Develop tree asset and risk management guidelines for the urban forest work on public lands.	An asset, risk and customer focused approach to tree management that includes a documented method for the controls for tree risk including a proactive inspection regime in streets, facilities and open space for all trees Banyule is responsible for and that is consistent with Banyule's risk management framework and risk appetite.	Short	\$\$	Project	Urban Forestry	Risk
S4.8.1 - Continue to build on community engagement programs and educate the public about the importance of individual tree removal decisions on the urban forest.	Transparent data should be available for residents when trees must be removed for example due to risk.	Short	\$	Ongoing	Environment / Planning	Urban Forestry / Comms
S4.8.2 - Review and refine Council's policy and process to manage resident requests for street tree removal.	Clear and transparent process, procedure and application for managing tree removal & tree planting customer workflows from requests to completion or complaints and disputes that recognises risk profiles for person & property.	Short	\$	Ongoing	Urban Forestry	Risk
Strategic Area 5: Build and maintain partnerships with others in the protection and management of the urban forest						
S5.1 - Ensure advisory committees are engaged and informed throughout implementation of the Urban Forest Strategy.	Advisory committees will be updated on the progress and timing of actions being implemented and when new data on the success of the Strategy is available	Ongoing	Existing	Ongoing	Environment	Urban Forestry
S5.2 - Engage with community through a range of educational activities, such as Spring Outdoors, to build understanding & value of the urban forest.	Ensure events within the spring outdoor program inform the community about Urban Forestry.	Ongoing	\$	Ongoing	Environment	Urban Forestry
S5.3 - Incorporate citizen science data into Banyule's annual monitoring programs.	Greater use will be made of data sourced from citizen science initiatives to report on biodiversity in Banyule and aid our annual monitoring programme. Sources such as Birdlife Australia, frog ID and iNaturalist.	Ongoing	\$	Ongoing	Environment	Urban Forestry
S5.4 - Engage with Wurundjeri NARRAP team on the implementation of this strategy.	The Wurundjeri Narran team is an established Natural Resource Management team of the Wurundjeri Council.	Ongoing	Existing		Bushland	
S5.5 - Engage specific community groups in the design and delivery of particular urban forest projects, especially in priority areas.	These areas may be near encumbered open space or near sensitive biodiversity reserves.	Short	Existing	Ongoing	Urban Forestry	Urban Forestry
S5.6 - Celebrate the neighbourhood character trees for each area.	Specific trees and avenues are vital to recognise to continue to have strong neighbourhood character in specific areas.	Medium	\$\$	Project	Urban Forestry	Urban Forestry
S5.7 - Celebrate trees and the urban forest through becoming a recognised Tree Cities of the World - apply for recognition in July 2023.	The Tree Cities of the World Program is an international effort to recognise cities and towns committed to ensuring that their urban forests and trees are properly maintained, sustainably managed, and duly celebrated. Currently 7 cities in Australia are recognised and none from Victoria.	Short	Existing	Project	Urban Forestry	Urban Forestry
S5.8 - Implement a program to give a free tree to all residents in Banyule	To increase vegetation on private land this program will be promoted through Council's channels offering a free tree to all residents who request one. The program will be supporting the planting of trees on private land and influencing the diversity and climate suitability of trees that are planted.	Short	\$	Project	Urban Forestry	Environment

Actions	Further Detail	Timeframe	Investment	Project or Ongoing	Lead Department / Team	Additional Departments / Teams
Strategic Area 6: Integrate the urban forest principles into all parts of Council services						
S6.1 - Integrate the Banyule urban forest principles into the operational plans for all teams across Council.	Integral to the Strategy being a living powerful document, we need Council to work as a holistic team for implementation.	Ongoing	Existing	Ongoing	Urban Forestry	All
S6.2 - Advocate with Vic Government agencies and public authorities about the Banyule Urban Forest Strategy and seek support for the vision and actions	This may include ensuring funding, protecting or planting vegetation on land not controlled by council.	Ongoing	Existing	Ongoing	Strategic Planning	Urban Forestry
S6.3 - Work with capital works and public realm design teams (parks, streets, town centres) to:	Many projects are already passed design stage for FY22-23 and FY23-24, and this will be reflected with limited influence until FY24-25.	Ongoing	Existing	Ongoing	Capital Works	Assets, Operations, Urban Forestry
S6.3.1 - Integrate urban forest principles and action into public domain design and delivery and make space for trees and vegetation in the design through a Blue-Green Working Group / Design Review Panel.	Design capital projects that will include successful tree canopy such as through passive irrigation, adequate root volumes, supplementary irrigation.	Ongoing	Existing	Ongoing	Capital Works	All
S6.3.2 - Program design work a year ahead of implementation to allow for value add, resourcing.	An integrated team during the design stage with lead in times is required to achieve Urban Forestry outcomes.	Ongoing	Existing	Ongoing	Capital Works	Urban Forestry
S6.3.3 - Create a future fund for canopy and greening enhancement to capital projects	The fund should have \$250k for expenditure on capital projects to achieve 30% canopy cover where possible, and greening outcomes to improve human comfort when 30% canopy is not achievable. To be funding through budget allocation and revenue collected as amenity value for trees that are removed for external and internal projects.	Medium - Long	\$\$\$	Project	Capital Works	Urban Forestry
S6.3.4 - Develop maintenance plans for the new works.	An allocation of resources for maintaining vegetation planted as part of capital projects is vital for high quality ongoing outcomes.	Ongoing	Existing	Ongoing	Capital Works	Urban Forestry, Open Space Planning
S6.4 - Develop guidelines and training for streetscape vegetation design and maintenance.	This will include technical planting specifications, passive irrigation and WSUD (Water Sensitive Urban Design).	Short	Existing	Ongoing	Open Space Design	Urban Forestry
S6.5 - Revise tree protection policies and procedures for private and public trees to make protection a key outcome.	This includes tree protection during development and other stage to ensure no gaps in protection.	Short	existing	Project	Strategic Planning	
S6.6 - Share data and analysis of canopy / tree losses in the private domain and focus responses on priority causes.	Using the canopy data acquired in S4.3 the results will be shared with the public to increase awareness of the drivers for the changes. Areas with losses will be targeted with information on how to make positive changes such as encouraging the take up of council tree give-away program (\$1.8).	Medium	Existing	Project	Planning	
S6.7 - Regularly review and update approach to enforcement in response to trends in Urban Forest actions.	Currently audits take place, but numbers are conditioned and recorded. We require a target to measure success.	Medium	Existing	Ongoing	Planning	
S6.9 - Trial small scale passive irrigation to benefit tree growth with a long-term goal to move toward a new standard.	WSUD stand for water sensitive urban design.	Short	\$\$	Project	Environmental Operations	Urban Forestry
S6.10 - Make space for large trees in urban places and plan for trees to maximise the use of the available space for tree canopy	If space allows, a canopy tree should be planted as many locations are under pressure from development and urbanisation.	Ongoing	Existing	Ongoing	Urban Forestry	
S6.11 - Improve data and knowledge about the species that contribute to "neighbourhood character". To assist in planning for tree replacement in private and public spaces.	This will be part of the digital information available to residents.	Short	Existing	Project	Urban Forestry	
S6.12 - Integrate urban forest principles and outcomes into initiatives, programs and strategies as they are developed and reviewed.	As strategies and initiatives are developed or reviewed the principles of the Urban Forest Strategy will be incorporated to ensure all parts of council are working towards the community's Urban Forest vision.	Ongoing	Existing	Ongoing	All	
S6.13 - Investigate urban forest opportunities while considering current zones and overlays e.g., Environmental planning overlay.	Urban Forest principles should be considered with strategic planning work.	Ongoing	Existing	Project	Strategic Planning	
S6.14 - Masterplan avenues and gateways for urban forest.	Key avenues and gateway roads will have vegetation masterplans developed to ensure the long-term character is maintained and enhanced.	Medium	\$\$	Project	City Futures	Urban Forestry
S6.15 - Guidance from Planning on vegetation selection through landscape plans and permit conditions will use the latest vegetation information.	Recommended species lists to guide landscape plans and tree replacement conditions will be through a living document.	Ongoing	Existing	Project	Planning	
S6.16 - Undertake analysis to determine reasons for tree loss through in the private realm and any related outcomes that affect the extent, health and diversity of the urban forest.	Accurate and ongoing mapping of the Urban Forest is required to aid in these investigations.	Medium	\$\$	Project	Strategic Planning	
S6.17 - Update the Banyule Tree Planting Zone Guidelines January 2011 to best practice and to support the UFS. Include the guidelines in the Banyule Planning Scheme as an incorporated document (e.g., plantings to have access to water and deep soils, drip line and tree root protection).	Terminology such as drip lines requires modernisation and alignment with Australian standards.	Short	\$	Project	Strategic Planning	Urban Forestry
S6.18 - Continue to use General Local Law No. 1 (2015) and Planning conditions to recognise and protect street trees as a Council asset.	Local law will be the on-ground protection of public trees.	Ongoing	Existing	Ongoing	Local Laws / Development Planning	Urban Forestry

Monitoring and Evaluation of this Strategy

This Urban Forest Strategy has been prepared with a vision for the far-future (50 years +) and with a set of principles, strategic areas and major actions to be implemented over a ten-year period. The implementation of the Strategy is to be managed by the Parks and Natural Environment department, however there is a role for all areas of Council. Being accountable to the community on the delivery of the strategy is to be done through measures of success that will be reported, with the timeframes and data sources detailed below.

It is recommended that the Strategy is reviewed after five years to assess, refine and update major actions.

It is important that Council can track its progress towards the Urban Forest Vision, against the achievement of the ten-year strategic areas and against the major actions.

To support the monitoring and evaluation of the Strategy there are three scales of measures:

1. A series of **Key Performance Indicators** (KPIs) against each of the major – to be measured throughout the life of this Strategy.
2. A series of **indicators** to measure progress on the Vision – these are to be measured throughout the life of this Strategy and beyond
3. A series of **measures** that have been carried over from the 2015 Urban Forest Strategic Plan

Key Performance Indicators of Major Actions

Suburb Canopy Cover Target

Through being a signatory to the Northern Metropolitan Framework Plan Banyule has committed to achieving the target of 27% canopy by 2050. With the principle that the Urban Forest should be shared by all the communities in Banyule this level of canopy cover should be the minimum target for all suburbs, not just for Banyule as a whole.

The Draft UFS proposes a minimum canopy target of at least 27% for all Banyule suburbs by 2050, and ensuring no net canopy loss for suburbs that currently meet or exceed 27%

Footpath Canopy Cover Target

Trees in streets provide shade for daily activities and influence the way that people access and experience active travel options such as walking and cycling. Shade from trees provide protection from UV exposure and a comfortable walking environment. Closely spaced shade trees are described as an essential ingredient for designing 'walkable communities for pedestrians'. Street trees also make a substantial contribution to the visual attractiveness of the streetscape and provide important habitat and movement pathways animals. The value the community places on trees in streets is reflected in the higher prices paid for houses on leafy streets.

The Draft UFS proposes the footpath canopy target is that 45% of footpaths in every suburb will be shaded by tree canopy by 2050.

Accelerated Infill Planting Program

Action S1.6 is for the delivery of a program to promptly plant street trees in all vacant viable spaces. In 2022 the street tree inventory has a figure of nearly 10,000 vacant sites.

Each year there are removals from the streets that need replacing, either trees that have been removed as they have less than 5 years useful life expectancy or that have prematurely been lost from pest, weather or other damage.

The current capability of the Parks and Natural Environment depot nursery and the contractor panel arrangements does not allow jumping from the current planting level to 5,000 trees per annum. It is proposed to increase capability progressively to allow time to improve facilities and to ensure that all sites are mapped with appropriate species in line with the numerous actions that deliver recommended species lists, decision making guidelines and place-based plans.

Street tree planting rising to 5,000p.a. in 2026 and 2027 would fill all vacancies, the total number of trees to be planted in the initiative period is 16,000. After 2027 the planting level would return to the current funding level of approximately 2,000 trees which enables the continued maintenance of the inventory.

The Draft UFS proposes to fill all viable street tree vacancies by 2027

Table 1: Measuring progress towards the Urban Forest vision

	Indicator	Data source	Frequency	Channel
Resilient and thriving	Diversity - species, structure, size	Tree inventory + maintenance program data	Annual	State of the Environment
	Climate ready species	Tree inventory Recommended Species lists	Annual	State of the Environment
	Abundant urban ecology	Flora and Fauna analysis Citizen science	5 years Annual	State of the Environment
	Equitable distribution	Canopy Analysis Prioritisation method	5 years	UFS Update
	Contributions from all land uses	Canopy Data	Annual	State of the Environment
	Access to water and deep healthy soils	# capital works integrating WSUD and UF	Annual	Annual Report
Supported by engaged and empowered citizens	Citizens who share the motivation to care for the urban forest	# participants in urban forest programs	Annual	State of the Environment
	Collaboration across sectors to plan, manage grow and monitor the urban forest	# partners or projects initiated for urban forest development not delivered by Council	Annual	State of the Environment
	A knowledgeable community	Community satisfaction (attitudes, values) survey	2 years	Annual Report
	Species that are loved and create neighbourhood character	Community satisfaction (attitudes, values) survey Change in attitude to trees and species selection – sentiment tracking	2 years Continuous	Annual Report
Managed as an essential asset	A clear management plan	Asset management plan for the urban forest is in place A renewal plan is in place for increasing the urban forest in the most vulnerable areas	Annual Annual	Annual Report
	Good data and information	Systems to prioritise, measure, monitor, resource and report for assets are in place	Annual	Annual Report
	Real ecosystem services and natural capital – dappled shade, native fauna, stormwater uptake, carbon sequestration	A valuation method is adopted and used to measure / estimate the benefits from urban forest assets	5 years	UFS Update
Fit for purpose and space is provided	Council lives by the urban forest principles	Internal L+D program results - attendance at training Areas in Council that include UF action in plans and programs % spent on UF actions	Annual	Annual Report
	All its projects and activities make a net positive contribution to the urban forest	# of projects including UF outcomes	Annual	Annual report
	Skilled staff in urban forestry, design, engagement, codesign and communications	Internal L+D program results - attendance at training Areas in Council that include UF action in plans and programs % spent on UF actions	Annual	State of the Environment
	Robust policies with controls and process for protection	Regular policy review Thorough policy review (evidence, review, update, communicate, train/inform, monitor)	5 years	UFS Update

Measures from the 2015 Urban Forest Strategic Plan

The 2015 Urban Forest Strategic Plan had 40 measures for reporting on progress towards the goals. 26 of the measures are carried over (Table 2) and 7 have been replaced with an alternative (Table 4). 7 of the measures have been discarded as no longer relevant to the UFS (Table 5).

Table 2: Summary of Urban Forest Strategic Plan Measures in the Urban Forest Strategy

2015 UFSP Measures	Retained/Enhanced in 2022 UFS	Discarded for 2022 UFS	Replaced/Improved in 2022 UFS
40	26	7	7

Example of replaced/improved measure: 2015 UFSP sought 50% canopy cover in all open space. 2022 UFS sets a targeted canopy over open space paths and play spaces of 50%.

Example of discarded measure - iTree Eco score for eco-system services mature trees. 2022 UFS sets goals for a diverse and healthy forest and has measures to report on those elements, making specific iTreeEco software scoring redundant.

Table 3: Urban Forest Strategic Plan Measures Retained in the Urban Forest Strategy

2015 UFSP Goal	2015 UFSP Measure
Increase environmental benefits of urban forest	Reduce urban heat island in industrial and low tree density areas
Improve biodiversity and increase habitat	Greater native tree species diversity in bushland reserves
	Greater native tree species diversity in streets around bushland
	Reduction in significant weed species in bushland reserves
	Increased creation and retention of habitat trees and logs
Increase canopy cover in available open space	Improved tree planting mortality to less than 5% after 24 months for all public planting projects
	Reduce vacancy rates in streets to less than 1 vacancy per 100 trees within 15 years
	Increased canopy cover on non-council managed land by 20% within 15 years
	Reduce tree removal on non-council land by 20% within 10 years
Improve health of urban forest	Improve canopy vigour across entire tree population
	Increase average estimated life expectancy of street tree to greater than 30 years
	Reduce tree planting mortality to less than 5% after 24 months
Maintain and improve urban character	Maintained and improved Heritage overlay conformance
	Neighbourhood Character strategy is maintained
Raise the profile of the urban forest within Council	Greater consideration for trees within Council developments
Improve community engagement with the urban forest	Greater community connection with urban forest management
Improve establishment rate of new tree plantings	Reduce new tree planting mortality to less than 5% after 24 months
	Reduce vandalism and criminal damage
Improve species diversity	Greater species diversity in streets and parks

Apply Best Practice	Improved species diversity across entire municipality
	Improved species diversity in suburbs identified with low diversity
	All Council work conducted in accordance with Australian Standards and Best Management Practices
	Development of Water Sensitive Urban Design Guidelines
	Improved education of all Council arboriculture staff
	Manage the urban forest in accordance with best international arboriculture practices with annual budgets that reflect its true value as a living asset
	Reduced tree loss from conflicts with infrastructure

Table 4: Urban Forest Strategic Plan Measures Replaced in the Urban Forest Strategy

2015 UFSP Goal	2015 UFSP Measure	UFS Action
Increase canopy cover in available open space	Tree planting increased in parks to achieve 50% canopy cover at maturity (an increase of 15%)	Not being pursued, leave to Open Space Plan to ensure best mix of park space. Target 50% canopy over walking/bike paths and play spaces.
	Tree planting increased in streets to achieve 75% canopy cover at maturity	To be replaced by canopy target over footpath network, 40% cover by 2040. Some suburbs will reach 50-60% as they are already at 40%, other suburbs will be lifted from 20% to 40%.
Raise the profile of the urban forest within Council	Annual tree planting budget is increased to accommodate the planting of 4000 trees per annum for the next 15 years	Action S1.6 seeks funding for increasing to 5,000 p.a. until vacancies fulfilled and then returning to 2,000 p.a. replacements.
	Develop and implement Street Tree Master Plan	This outcome is being achieved in different ways, through a series of components. Action S2.6 is developing the list of species, S3.5 is maintaining that list with incoming data on climate suitability. Action S4.1 will include a decision-making flow-chart on species selection including if there's a neighbourhood character tree that is location and climate suitable then continue to use it, else use the identified species that is the suitable renewal replacement that is more climate suitable. Action S4.5.4 - a public facing app that shares the tree data, showing the community what trees are in their space and what the future species will be.
	Development of Urban Forest Management Plan	Met through action S4.8
	Annual tree maintenance budget is increased over the next 15 years to allow sufficient funds to proactively manage 280,000 trees annually in streets, parks and bushland reserves	

Table 5: Urban Forest Strategic Plan Measures Discarded in Urban Forest Strategy

2015 UFSP Goal	2015 UFSP Measure
Increase environmental benefits of urban forest	Average street tree annual iTree Eco benefit increased by 20% at maturity
	Average park tree annual iTree Eco benefit increased by 15% at maturity
	Average park tree annual iTree Eco benefit increased by 15% at maturity
	Annual carbon sequestration increased by 20% across municipality within 15 years
	Reduce Annual pollution removal increased by 25% within 15 years
Maintain and improve urban character	Average street tree annual iTree Eco benefit increased by 20% at maturity
	Average street tree amenity value increased by 20% at maturity
Improve species diversity	Average street tree annual iTree Eco benefit increased by 20% at maturity