Greening Streets

Green Infrastructure Plan

May 2026

CITY OF ADELAIDE

Kaurna Acknowledgement

The City of Adelaide acknowledges the Kaurna People of the Adelaide Plains as the Traditional Custodians of the land on which we live, work and gather.

We acknowledge and honour their spiritual and cultural stewardship of this country and recognise their deep and enduring relationship with its lands, waters, the sky, and all living things.

We pay our respects to Kaurna Elders past and present and recognise the important role of emerging leaders in sustaining and strengthening culture.

City of Adelaide tampinthi, ngadlu Kaurna yartangka panpapanpalyarrinthi (inparrinthi). Kaurna Miyurna yaitya mathanya Wama Tarntanyaku. Parnaku yailtya, parnaku tapa purruna, parnaku yarta, ngadlu tampinthi.

Yalaka Kaurna miyurna ithu yailtya, tapa purruna, yarta, kawi, ngayirda kuma puru martinthi, puru warri-apinthi, puru tangka martulayinthi. Kumartarna yaitya miyurna iyangka yalaka ngadlu tampinthi.

Contents

Executive Summary

In 2024, the City of Adelaide endorsed the Integrated Climate Strategy (ICS) that set a vision for a greener, more resilient city where people can live, work, study and play and adapt to changes in the climate that bring social and economic opportunity and disruption.

The Strategy presents a bold vision in which "our city will be one where our communities are interconnected, prepared and resilient in the face of changing conditions and extreme weather. People will be able to move to, from, and around the city safely, comfortably, and sustainably as the city streets are kept cool with trees and plants and shaded against the summer sun".

The Strategy focuses Council's effort on the priorities and scale of action required by the community and through the City of Adelaide's own operations across five goals. Central to the implementation of the ICS, is greening our city's streets.

The targets for Greening Streets are underpinned by key goals from the ICS. It seeks to create a climate resilient city, by understanding risks and preparing to withstand change and a city where nature thrives, biodiversity is increased and enhanced in a changing climate.

The Green Infrastructure Plan (Plan) outlines how the City of Adelaide will achieve the goals and targets of the Strategy over the next five years and beyond through its implementation. The Green Infrastructure Plan is informed and supported by heat island mapping, detailed street-by-street analysis, the latest scientific research informing species selection and innovative streetscape design to ensure new trees have the best chance of providing meaningful shade to our city and make effective use of stormwater.

As is typical in any city, many of the streets identified for greening in this Plan are constrained and congested by underground services which presents unique challenges in finding space for trees, which requires innovative solutions to achieve overall ICS objectives.

The Plan also presents other unique solutions to achieve ICS objectives which are not just limited to tree planting. It outlines why greening our streets is so important, how it aligns with greening targets and shows where planting will occur over the next five years. It also provides an informed and feasible estimates of the number of trees which can be planted in those locations.

Why Green Streets Matter?

Climate change adaptation

Greening helps cool cities, making them more walkable and resilient to rising temperatures.

Improved liveability & place making

Greening cleans air, enhances community wellbeing, health, and recreation while creating a sense of place.

Economic benefits

A greener city attracts people and businesses and supports local economies.

Biodiversity support

Greening provides habitat for native animals and birds, increasing urban biodiversity.


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Our Greening Drivers

City of Adelaide has four strategic documents that support the following outcomes:

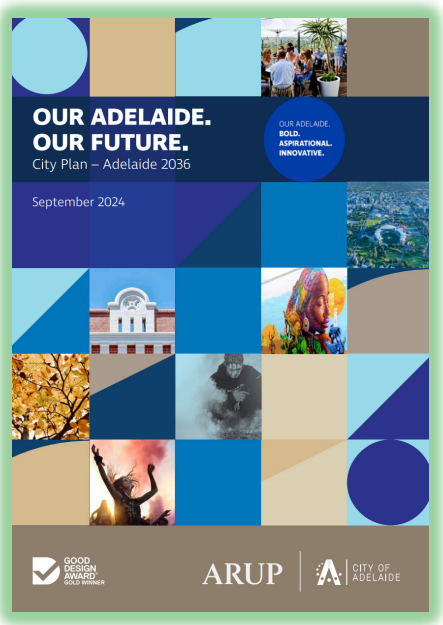
Greener streets

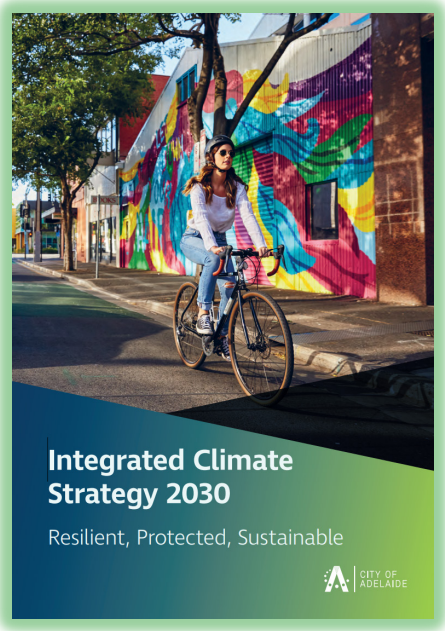
Cooler streets

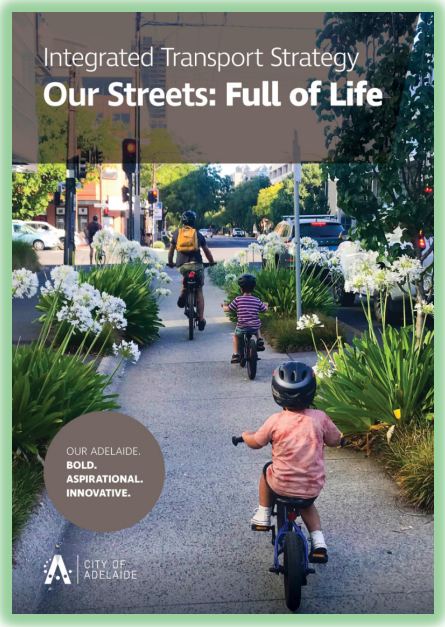
Resilient streets

Active streets

Increased biodiversity







Strategic Greening - Targets

Strategic Documents:

1. Strategic Plan 2024-2028

Our Environment – Lead and advocate for the environmental value, productivity, quality and biodiversity of the Park Lands, squares, open spaces and streetscapes.

2. The City Plan – Adelaide 2036

Strategy 1 – A Green City Grid driving the need for greener, cooler streets.

3. The Integrated Climate Strategy 2030 (endorsed 2024)

Goal 1 – A Climate Resilient City

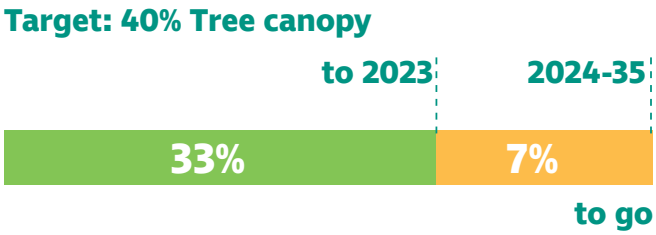
Goal 3 – A City Where Nature Thrives, driving the need to increase urban greening for a cooler more comfortable and resilient city. Refer to Urban Heat Map on page 8.

4. The Integrated Transport Strategy (endorsed 2025)

Goal 3 – Health & Sustainability driving the need for streets to be cool, calm and connected to support cycling and walking.

Key Greening targets include:

Increase tree canopy target from 33% to 40% in streets and parks by 2035.



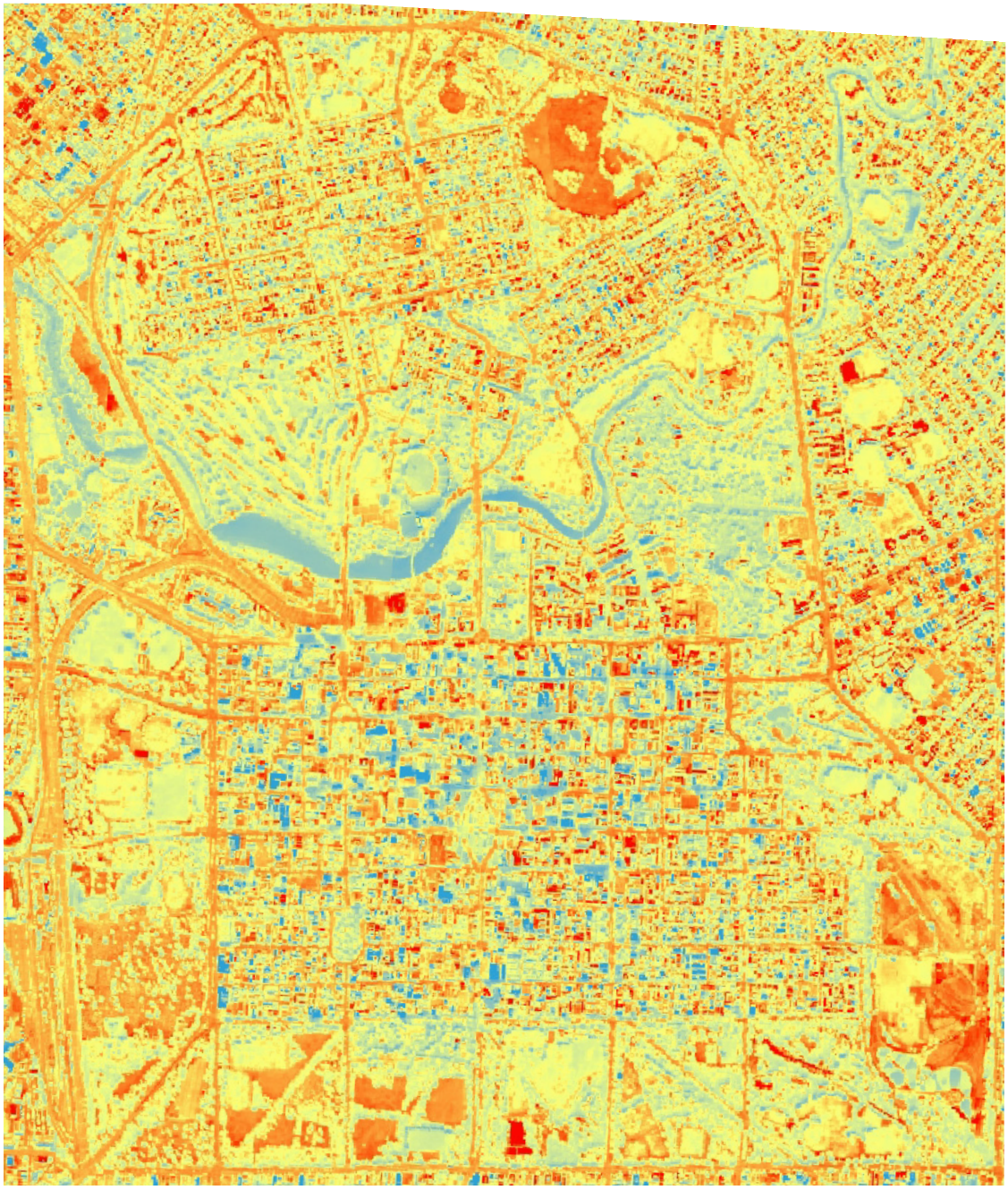
Net average increase of 485 trees every year until 2035.

CoA is targeting 200 trees to be planted in city streets each year.

40% of street trees (5,143) to have Water Sensitive Urban Design passive irrigation by 2030, and 60% by 2035.

Strategic Greening - Urban Heat Map

Research on the Urban Heat Islands in Adelaide by the Government of South Australia (Department for Environment and Water) produced an urban heat map for the City of Adelaide. By aligning greening targets and prioritising the hottest areas, we can achieve a cooler, more resilient city. All streets have been assessed based on the Urban Heat Map and tree canopy data supplied by Green Adelaide in 2022. All the wide boulevard streets are the hottest streets and in particular, the east/west streets where road pavements are subject to direct sunlight all day. These are prioritised for tree planting in addition to streets with less than 5% canopy cover. These two data sets are currently being reviewed and will be updated in 2026/27 by Green Adelaide. Once this data is available the information will be integrated into future street assessments.



Urban Heat Map - Day (Mar 2022 to Jan 2023), Government of South Australia
(Source: <*http://spatialwebapps.environment.sa.gov.au/urbanheat/?viewer=urbanheat*>)

Key Greening Infrastructure Outcomes

The integration of greening initiatives is an important aspect for the program, aiming to deliver on the following key greening infrastructure outcomes:

- Streets with more trees and biodiversity.
- Trees with passive irrigation through Water Sensitive Urban Design (WSUD).
- Creating larger root zones under pavements that support long term tree vitality and canopy, subject to costs and available budget.
- Trees integrated with other street functions.
- Integrate green infrastructure with street assets and buildings.

New tree planting along Market Street with WSUD, increased root zone under pavement and integration with street functions.

Methodology

The approach to City of Adelaide's prioritisation methodology to determine proposed planting locations is carefully considered and aligns with multiple guiding principles from many City of Adelaide strategies.

Following the completion of an initial desktop assessment, which sought to highlight the potential for tree planting in street locations, the following considerations have determined the prioritisation of tree planting to date and future planting over the next five years:

1. City Plan directions
2. Integrated Climate Strategy (ICS) targets
3. Existing street characteristics including street typology, traffic layout, heat map data, exiting services and tree canopy cover
4. Alignment with streetscape works such as renewals and upgrades
5. Overview of the hottest streets
6. Integrated Transport Strategy (ITS)

How these considerations influenced the prioritisation of tree planting is detailed in the following pages.

Page 64 in the City Plan outlines a key direction for tree planting under Strategy 1 - A green City Grid:

Strategy 1 – A Green City Grid
Under this direction the initial focus was on the easy wins and less congested streets. The plan below is an excerpt, from page 64 of The City Plan, highlighting street priorities:

Figure 4.3 Diagram of the Green City Grid

High Priority Greening
Medium Priority Greening
Low Priority Greening

Methodology - Continued

Aligning to the City Plan's direction for a Green City Grid, the following table details the programming of tree planting in High and Medium Priority Greening boulevards as part of the Green Infrastructure Plan. The proposed tree numbers below are a desktop assessment with the final numbers subject to detailed site investigation of existing street geometry, above & below ground services, traffic requirements, community consultation and completion of a final design:

Street	Canopy Cover	Action	Year	Trees Planted To Date	Trees Proposed
Boulevard: West Terrace	6.4%	Plant in central median and in footpath where possible	2025	81	-
Boulevard: Grote Street and Wakefield Street	17% 25%	Grote Street footpath and central median planting. Plant in existing central median in Central Market precinct	2027	-	27
		Existing central median with additional trees possible subject to design (low priority)	2025	47	TBC
Carrington Street	35.8%	Infill trees planting in footpaths	2026	-	23
Anzac Highway	10.8%	Plant trees in existing central median	2026		52
South Terrace		Infill tree planting in footpaths	2026	16	-
Boulevard: Currie Street and Grenfell Street	13.1% 10.5%	Review both streets at same time. This is a complex boulevard and transport corridor. Concept and feasibility analysis required	2029	9	120
Pulteney Street	19.9%	Investigate gaps for infill tree planting in footpaths	2027	-	11
Boulevard: Sturt Street and Halifax Street including planting on edges of Whitmore Square and Hindmarsh Square	27% 28.5%	Create new central median in Sturt Street from King William Street to Whitmore Square	2027	-	55
		Create new central median in Sturt Street from Whitmore Square to West Terrace	2028	-	33
		Central median potential extension from Pulteney Street to Hutt Street	2029	-	15
		Whitmore Square planting along road and path edges	2025	10	-
		Hurtle Square planting along road and path edges	2025	16	-
Morphett Street	17.6%	Infill tree planting in footpath	2025	3	-
		Investigate gaps for infill tree planting in footpath	2028	-	20
King William Street	23%	Investigate gaps for infill tree planting in footpaths	2029	-	TBC
			TOTALS	**182**	**356**

Methodology - Continued

Integrated Climate Strategy 2030

While City Plan sets key directions and a framework for greening, the ICS sets key targets for greening. The overarching driver is for the City of Adelaide to increase tree canopy cover in streets and parks from 33% to 40% by 2035. This aspirational target is discussed in more detailed under the street canopy targets section.

The ICS also seeks to increase the provision of passive irrigation to street trees through Water Sensitive Urban Design (WSUD). This will be delivered through a combination of WSUD kerbs and the provision of underground cells to store water when it rains. The use of underground cells is also beneficial as it provides adequate soil volume for root systems under hard surfaces which supports tree health whilst minimising damage to adjoining assets.

It should be noted that underground cells is an investment now for the provision of street trees but this cost is offset by the maximising benefits in the future as trees will flourish, live longer and be more effective in cooling the city as their canopy will be maximised.

Integrated Transport Strategy 2025

The Integrated Transport Strategy (ITS) will be considered when implementing greening on the following east/west boulevards:

- Currie/Grenfell Streets
- Grote/Wakefield Streets
- Sturt/Halifax Streets

In addition to the above, City Plan figure 4.3 that prioritises the greening of boulevards, it is well understood that east/west streets are the hottest as these receive uninterrupted hours of sunlight and the most intense heating of hard surfaces. As such, these are important in terms of increasing tree canopy cover to mitigate the impacts of heatwaves and to support walking, cycling and driving along these boulevards.

The ITS also has goal that seeks to create calm, green streets for active transport and this is discussed further under Canopy Targets where changing street layouts can support an increase in tree canopy targets.

Existing Canopy Cover

Integrated greening: Planting along Frome Bikeway

Methodology - Continued

All streets have been assessed for their existing canopy cover from data in Council's Geographical Information System. This data was supplied by Green Adelaide who commissioned this data capture in 2022 using LiDAR technology and thermal imagery.

A key focus has been on tree planting in streets with less than 5% canopy cover. Many of the streets that have less than 5% canopy cover are the smaller scale north/south streets. Some of these streets are designated as Medium Priority in Diagram of Green City Grid (figure 4.3) in the City Plan.

To prioritise these streets, the following has been undertaken:

- A focus on streets which are seemingly less complex to plant trees in relation to existing road geometry, as per the City Plan direction (*Page 64 of City Plan*).
- Integration with road and footpath renewals in streets where there are no trees to maximise greening outcomes.

In total there are around 252 streets with less than 5% canopy cover with 43 of these considered 'easy wins' for tree planting streets based on the existing road geometry. In the 2024/2025 planting season, of the 29 streets planted, six with less than 5% canopy cover were planted with trees and a further five streets have been planted to date in 2025/2026.

The focus on these streets will be ongoing and it should be noted that some of these streets have been assessed and not progressed due to lack of space, extent of existing services, and existing traffic conditions making tree planting limited or unlikely. To date, around 32 streets have not progressed due to a range of existing characteristics that limited tree planting opportunities.

To summarise, the prioritised methodology used to determine tree planting locations to date, being 273 in 2024/2025 and the 101 so far for 2025/2026, are strategically aligned to the following strategic criteria:

- City Plan Direction aligned for High & Medium Priority Greening
- Focus on streets with less constraints and less congestion
- Streets with less than 5% canopy cover
- Hottest streets being the east/west
- Alignment with road and footpath renewal works
- Progress north/south calm, green active streets as per the City Plan and ITS.

Existing established trees in Mills Terrace, North Adelaide.

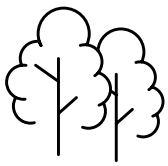
How Tree Species are Selected

Tree species are selected for planting to maximise poptential canopy spread in planting locations.

There are several factors that influence how tree species are chosen for planting in streets including:

1. **Species Selection Considerations**
2. **Habitat and Form**
3. **Maintenance Impacts**
4. **Physical Constraints**
5. **Local Growing Conditions**
6. **Diversity Considerations**
7. **Mandatory Third Party Service Requirements**

Many of the trees that are on the City of Adelaide's Preferred Tree Planting list have been chosen as they have attributes that align with the issues relating to the above factors. The thinking behind the above factors are explained below.



1. Species Selection Considerations

Council's Preferred Tree List has a mix of native and exotic species which are known for their ability to grow and flourish in urban environments.

Traditionally, streets have been planted with single species, and this can still be the preference in some situations. However, to ensure a diverse urban forest, the rationale today is to plant multiple species where possible in streets but in a visually consistent manner. This can be achieved by planting species in blocks along streets or having different species in the centre median to the footpath.

When considering what species to select the following is considered:

Selection of deciduous or evergreen based on street character and solar access in winter

Do the species have the potential to provide meaningful canopy to meet our targets effectively?

Are the species hardy, adaptable and drought tolerant?

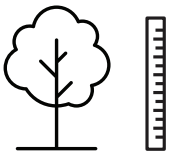
Is the form of the species reliable or highly variable in response to site conditions?

Do the species need a high level of formative pruning when young to ensure an appropriate form in the planting location?

What is the growth rate? Will the trees survive through the maturity if slow growing?

Do the species provide habitat for local fauna?

In general, the diversity of the Preferred Tree Planting List will allow City of Adelaide to comply with the Santamour Diversity Index. There are only two species that do not comply with his index being the London Plane Tree (*Platanus x acerifolia*) and Hackberry (*Celtis australis*), at either species or genus level and only by small percentages. As such, these trees will not be selected as a new tree for future streets and only be chosen as replacements for existing streets.



2. Habitat and Form

The required habit and form of the tree is directly related to the space where trees will be growing. In choosing the form of a tree the following is considered:

- Broad canopy trees are preferred where space

How Tree Species are Selected - Continued

allows to maximise canopy coverage.

- Narrow trees are only used in response to physical constraints e.g. narrow streets or medians or walkways.

The height of a tree is also related to space where the tree will grow with the following considered:

- Tallest trees are only used where they can grow to their potential without impacting on surrounding built form. They are often planted in large footpaths, centre median and parks/ square edges.
- Smaller trees are used in response to constraints such as existing assets and the space available for a tree to grown in to.

In choosing a particular tree for habit, the following is considered:

- Trees with low hanging canopies should be located where sightlines or passing traffic are not an issue.
- How will the trunk habit and form impact on clearances. There are a variety of trunks including twisted, straight, multiple, single dominant and this is considered to minimise any impacts.
- Where sightlines are an issue, ensure the tree be clear at maturity, eg. tall, straight-trunked, vase shaped canopy.
- Preference is for form which does not require frequent pruning to maintain clearances.

3. Maintenance Impacts

The following themes around the impacts to ongoing maintenance are considered:

- Most trees drop nuts, fruit, leaves and bark. In some situations, the amount of tree litter produced is considered from a maintenance and public safety perspective.
- Ideally trees only receive pruning every second year, if required. Most trees on the Preferred Tree Planting List align with this requirement to minimise maintenance.
- Trees that have high water requirements are not preferred and/or are only planted where passive irrigation is available.
- The form and habit of a tree is considered to ensure the tree can be accessed safely to perform required maintenance.

4. Physical Constraints

Trees are chosen based on their height, habit and form to avoid interfering with:

- Buildings (windows, doors, signs etc.)
- Car parking and vehicle overhang areas
- Vehicle lanes and large vehicles e.g. buses, trucks and garbage trucks
- Cycle lanes
- Balconies and building encroachments
- Existing street lighting
- Hydrants and hydrant boosters
- Vehicle and pedestrian access points
- Vehicle and pedestrian sight lines
- Access doors and gates
- Sight distances.

How Tree Species are Selected - Continued

5. Local Growing Conditions

An assessment is conducted to select a species that is suited to growing conditions to ensure it can achieve sufficient canopy cover based on:

- Available (usable) soil volume vs desirable tree size
- Soil type e.g. clay, road base, loam etc.
- Compaction
- Stormwater access
- Nutrients
- Hours of sunlight
- Overshadowing
- Exposure to winds – prevailing and localised wind effects
- Pollution
- Vandalism potential

6. Diversity Considerations

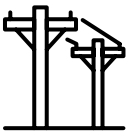
Nominated species should:

- not be over-represented in the surrounding locality
- not be over-represented in the wider urban forest
- contribute to diversification of the urban forest and Santamour 10-20-30 diversity target
- available in commercial nurseries

In some cases a native species may meet requirements and be selected over an exotic species to provide food and habitat for insects and birds and other animals.

More than one species may be selected for streets to ensure a diverse urban forest that is disease resistant and supports urban environmental, ecological and amenity outcomes.

7. Third Party Service Requirements



The following highlights the issues that impact on tree selection. With the aim to increase tree canopy, there are a number of key drivers for tree selection:

- Presence of underground services such as gas, water, sewer, power and telecommunications will impact on species selection. Proximity of a proposed tree to services determines if legislated species lists apply, such as the list as part of the *Water Industry Act*.
- Presence of overhead powerlines and high voltage underground cables present a constraint that needs to be carefully considered. Proximity of proposed tree determines if legislated species lists apply in *Electricity (Principles of Vegetation Clearance) Regulations 2021*. Selection based on consideration of constraints.
- Selections consider the above within the confines of the listed species available. The list is limited in terms of large canopy trees and diversity.
- Consultation with asset-owners to confirm proposed species and any root barrier requirements must be undertaken.

The City of Adelaide Preferred Tree Planting List includes trees that comply with the range of criteria and situations for tree planting in proximity to third-party services and assets.

Strategic Canopy Targets

The proposed street level canopy targets were reviewed in relation to the Council-wide targets and Park Lands targets. An analysis of the street tree numbers in the Adelaide CBD and North Adelaide was undertaken to understand the extent of tree planting in the Adelaide CBD and North Adelaide.

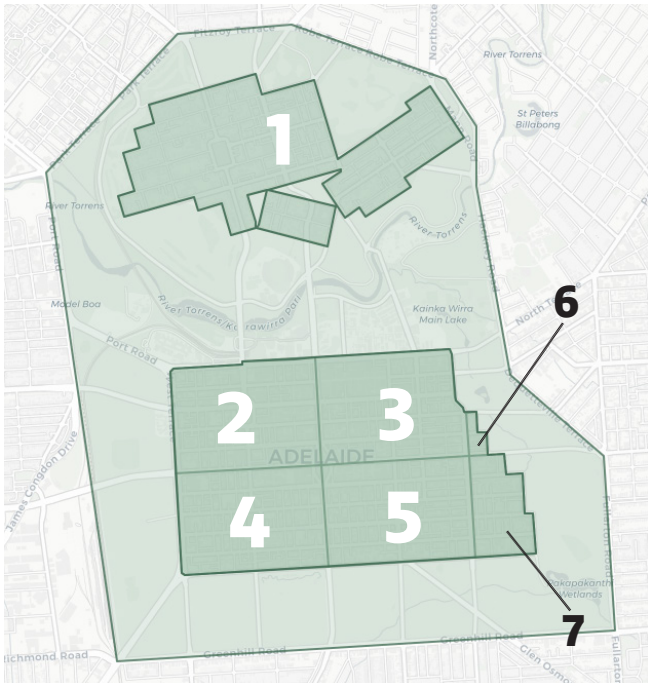
Four quadrants of approximately equal size were created for the CBD, and the trees counted in each quadrant to gain an understanding of the number of existing trees across the CBD. Two extra segments in the southeast were separated out to ensure that the four main quadrants remained equally sized for comparison.

Three segments were grouped together in North Adelaide to understand the extent of existing tree planting. It should be noted that North Adelaide, unlike the CBD, has a well-established and consistent urban forest with trees planted in generous naturestrips or incorporated in road edges.

The Quadrant Map (right) outlines the areas and the numbers of trees in each quadrant is shown in the table below. From this table it can be observed that there are more trees in the more-established residential areas of North Adelaide and the CBD. In the CBD, the South West & South East Quadrants have the most trees with only a small difference between these two quadrants. With the inclusion of the two smaller quadrants to the South East (6 and 7), the total number of trees increases, however, this is over a much bigger area.

Perceptions often point to the South West Quadrant as having *fewer* trees and *less* tree canopy which is the case, but only marginally. Tree planting in the South West is also more recent therefore trees have not reached maximum canopy size. As they continue to grow, so too will tree canopy cover in this quadrant. Identifying more opportunities for planting in the South West to improving the tree canopy cover will continue.

Quadrant Map



Quadrant		Boundary	Total Number of Street Trees
1.	North Adelaide	Three segments combined	2,886
2.	North West	North Terrace/ King William Street/ Grote Street/ West Terrace	1,026
3.	North East	North Terrace/ East Terrace/ Hutt Street/ Wakefield Street	1,007
4.	South West	Grote Street/ King William Street/ South Terrace/ West Terrace	1,333
5.	South East	Wakefield Street/ Hutt Street/ South Terrace/ King William Street	1,442
6.	South East - Edge (North)	Hutt Street/ Bartels Road/ East Terrace/ Wakefield Road	36
7.	South East - Edge (North)	Hutt Street/ Wakefield Road/ East Terrace/ South Terrace	477

Strategic Canopy Targets - Continued

Tree Canopy Targets

Council's Integrated Climate Strategy 2030 (ICS) has set a vision for a resilient, protected and sustainable city where people can live, work, study and play and to adapt to future changes to the climate. There are five goals that set priorities and actions for Council to strive for in the evolution of Adelaide to a cooler, greener, resilient city.

On Page 11 of the ICS Under

Goal 1: A Climate Resilient City there are three priorities as follows:

1. **A cool city with no urban heat island effect**
2. **Greening supported by sustainable water resources**
3. **Home and businesses are protected from climate hazards**

Priority 1 states that Council needs to "reduce the temperature of road, footpath and pavement surfaces by more than 9°C compared to existing bitumen surfaces in full sun." As mentioned under the discussion for prioritised methodology, the streets that are in full sun are, primarily, the east/west boulevard streets and the wider north/south streets, such as West Terrace. Many of the east/west boulevards have trees in footpaths but not in the centre.

By planting more trees in the centre of the east/west streets, temperature reductions will occur making these streets more usable by cyclists, pedestrians and drivers in times of higher temperature. Please refer to the table highlighting tree planting in these boulevards.

Priority 2 sets actions and targets that seek to increase greening, especially tree canopy cover. Currently, Adelaide's tree canopy cover is 33% in parks and streets and the aspiration is to reach 40% by 2035.

Priority 2 also seeks to increase passive watering of trees through Water Sensitive Urban Design (WSUD). Currently, 1.5% of street trees are passively watered by a WSUD system and the aim is increase this significantly to 40% by 2030 and 60% by 2035.

With all new tree planting in roads and footpaths, the aim is to include WSUD outcomes where possible. For example, of the 273 trees planted in 2024/2025, 99 trees in total were planted with WSUD passive irrigation and underground cells.

Canopy increase in streets and Parks

The other greening action under Priority 2 is to double the amount of tree canopy along the Adelaide Park Lands Trail from 52,440m2 to 109,000m2. It is important that increased tree planting occurs in both streets and parks to achieve 40%.

In 2024/2025, 273 trees were planted in streets. It is estimated that this will add around 0.6% canopy cover when these trees are mature. It is clear from this estimate that more trees in streets and parks are required to meet the 40% target.

Trying to hit a certain canopy target in streets is difficult to assess and plan for given the complexity of streets as each street has certain characteristics that determine how many trees can be planted. The City Plan has set the direction to plant in the easy wins and less congested streets, and this can be seen by the outcome in 2024/2025 where significant planting occurred along key boulevards in existing central medians on West Terrace and Wakefield Street.

The aim with planting in boulevards is to have a consistent tree network along footpaths and centre medians, where possible. A consistent tree canopy cover in these streets will support active transport in the future, especially in time of higher temperatures. This approach is highlighted on Page 12 of the ICS with the following suggestions:

- We will create cooler greener streets by establishing a green grid for the city, connected by shaded pedestrian paths and active transport

Strategic Canopy Targets - Continued

- Green corridors will connect the Adelaide Park Lands and Squares creating a continuous tree canopy cover that contributes to cooling, climate resilience, urban biodiversity and conform to the users of the city.

- We will look for opportunities to narrow roads, reduce through traffic, introduce traffic calming measure that contribute to greening and cooling

- We will make more space for more urban trees and understorey planting to increase urban biodiversity and provide more ecological connected urban landscapes.

Both the ICS and the City Plan want a greener grid and the most impactful way to deliver this is to increase greening in the bigger, wider streets. As previously mentioned, this forms a part of the greening strategy within the Green Infrastructure Plan.

As mentioned above, opportunities to plant in smaller streets is also being implemented strategically by focusing on the streets with less than 5% canopy cover and as part of any street renewal project. A key challenge in the smaller streets is to find the space to plant trees. In many streets the existing road geometry, traffic functions and services mean that consistent tree planting is difficult. However, there are examples where more trees can be accommodated in narrow streets which are one way such as:

- Many existing one-way streets that were planted between 2016-2018 under the *Residential Street Tree Planting Program*.
- Compton Street (circa 2005)
- Bentham Street (2023)
- Pitt Street (2025)
- Market Street (2025)
- Vincent Street/ Vincent Place (2025)

More consideration of a one-way street network will lead to an increase in tree canopy that supports active transport, particularly in the north/south street network. A further examination of this is required from an Integrated Transport Strategy 2025 (ITS) perspective to understand traffic flow requirements and what streets could be considered for conversion to a one-way traffic layout.

This approach is consisted with the following goal on of the ITS:

Goal 3.1 under Health & Sustainability - Driving the need for streets to be cool, calm and connected to support cycling and walking

This goal can be seen in the streetscape transformation over several years to create a green, active transport link from the Riverbank to Central Market. This project transformed six streets, Bank/Leigh/Topham Mall/Bentham/Pitt and Field Streets to prioritise active transport and greening, creating a calm network for movement that supports economic activity with cars having access but in a slow environment.

The approach to consider changes to street layout/functions should also be considered in the Park Lands by converting some grassed areas in parks, not associated with organised sport and public events, to mini urban forests with trees and shrubs to increase urban biodiversity and ecology, as per the suggestion in the ICS. This should also include the provision of consistent tree planting along the parkland path network as per the City Plan.

Regarding the five city Squares, tree planting has not been considered as the emphasis is on increasing greening in streets except where there is an opportunity to shade pedestrian paths or the road interface on the edges of Squares. Limited tree planting has occurred in line with this in Hurtle and Whitmore Squares.

However, the five Squares have the potential to provide an urban oasis functionality with more trees and shrubs, that contribute to a cooler city environment for residents and visitors. Given the expected increase in population in the CBD the question should be asked, "Are these 20th century designs meeting the needs of 21st century community and the environmental

Strategic Canopy Targets - Continued

directions and targets contained in the City Plan and ICS?".

In seeking to reach the 40% target, Council needs to also factor the impact that State Government led projects such as LIV Golf, MotoGP, Aquatic Centre and the new Women's & Children's Hospital. All of these projects have impacted on the existing canopy cover in the Park Lands. It is estimated that up to 1,500 trees will be removed because of these projects. This will have significant impact on Council's existing tree canopy cover.

City of Adelaide's aspiration to reach 40% tree canopy cover is significantly compromised by the removal of mature trees to accommodate important major events and facilities. Given the size and canopy spread of these trees and the subsequent impact on tree canopy cover, Council may need to rethink the focus on the 40% target. Council should maintain its commitment to increase trees in streets, squares and parks as a climate change action to reduce the impacts of heatwaves. This is embedded in the actions from the ICS, ITS and the directions in the City Plan and this would see Adelaide continue to evolve as a globally designated National Park City.

By ensuring Adelaide's status as a National Park City is ongoing, the liveability of the city for residents will be sustained, economic activity will be supported across the CBD grid and North Adelaide while visitors will be able to enjoy and navigate a green city to maximise their experience.

To summarise, the targets for canopy targets are driven by the need to:

- Create cooler, calmer streets that support active transport
- Green high priority hotter boulevards
- Create a network of calmer, cooler north/south street
- Consider changing the layout of some streets and parks to increase tree planting to offset tree losses in Park Lands
- Focus less on targets and replace this with a Council commitment and narrative that aligns with the City Plan, ICS and ITS and the evolution of Adelaide as a National Park City.

Adelaide was the second city in the world after London to achieve National Park City status.

2024-2025 Initial Desktop Analysis

In 2024 a desktop assessment was conducted for 357 streets (which equates to 918 GIS locations/ segments of streets) to determine their suitability for tree planting. The table below shows the outcome of that assessment with tree planting across four streams:

Stream 1 – Road & Footpath Renewals

Stream 2 – Streetscape Projects

Stream 3 – Heat Map Greening for small streets & laneways

Stream 4 – Priority Boulevards & Squares

Road Categories		2024 Assessment Phase Breakdown						
		Total GIS* locations	PASSED Stream 1	PASSED Stream 2	PASSED Stream 3	PASSED Stream 4	Retimed [1]	On Hold [2]
Small	**Small Streets & Laneways**	**508**	**38**	**7**	**88**	**4**	**23**	**348**
Medium	**Local Activity Retail Streets**	**14**	**4**	**3**	**1**	**0**	**5**	**1**
	Local Streets	**27**	**1**	**4**	**8**	**0**	**1**	**13**
	Village Streets	**37**	**9**	**1**	**15**	**0**	**1**	**11**
	Village Terraces	**44**	**8**	**1**	**7**	**7**	**5**	**16**
Large	**City Streets**	**50**	**8**	**4**	**9**	**1**	**11**	**17**
	City Terraces	**16**	**0**	**7**	**1**	**1**	**5**	**2**
	Transit Boulevards	**52**	**0**	**0**	**7**	**21**	**5**	**19**
	High Activity Areas	**11**	**1**	**4**	**2**	**0**	**2**	**2**
	Gateway Boulevards	**8**	**0**	**5**	**0**	**0**	**3**	**0**
	City Boulevard & Terraces	**45**	**5**	**1**	**14**	**2**	**6**	**17**
	Ceremonial Boulevards	**18**	**0**	**0**	**0**	**1**	**0**	**17**
Green	**Park Lands Avenues**	**15**	**4**	**0**	**1**	**3**	**5**	**2**
	Park Lands Roads	**18**	**5**	**0**	**0**	**10**	**3**	**0**
	Park Lands Boulevards	**15**	**0**	**0**	**0**	**9**	**6**	**0**
	Squares	**40**	**3**	**0**	**0**	**22**	**11**	**4**
TOTALS		**918**	**86**	**37**	**153**	**81**	**92**	**469**

Notes: [1] 'Retimed' streets that have been assessed and require extra review for delivery in future years if appropriate.

[2] 'On Hold' streets are due to narrow street widths, traffic layout and/or underground services. These streets can be reconsidered in the future if changes are made to the street configuration or other forms of greening such as climbing structures are introduced.

* GIS = Geographical Information System.

Tree Planting Locations 2024-2025

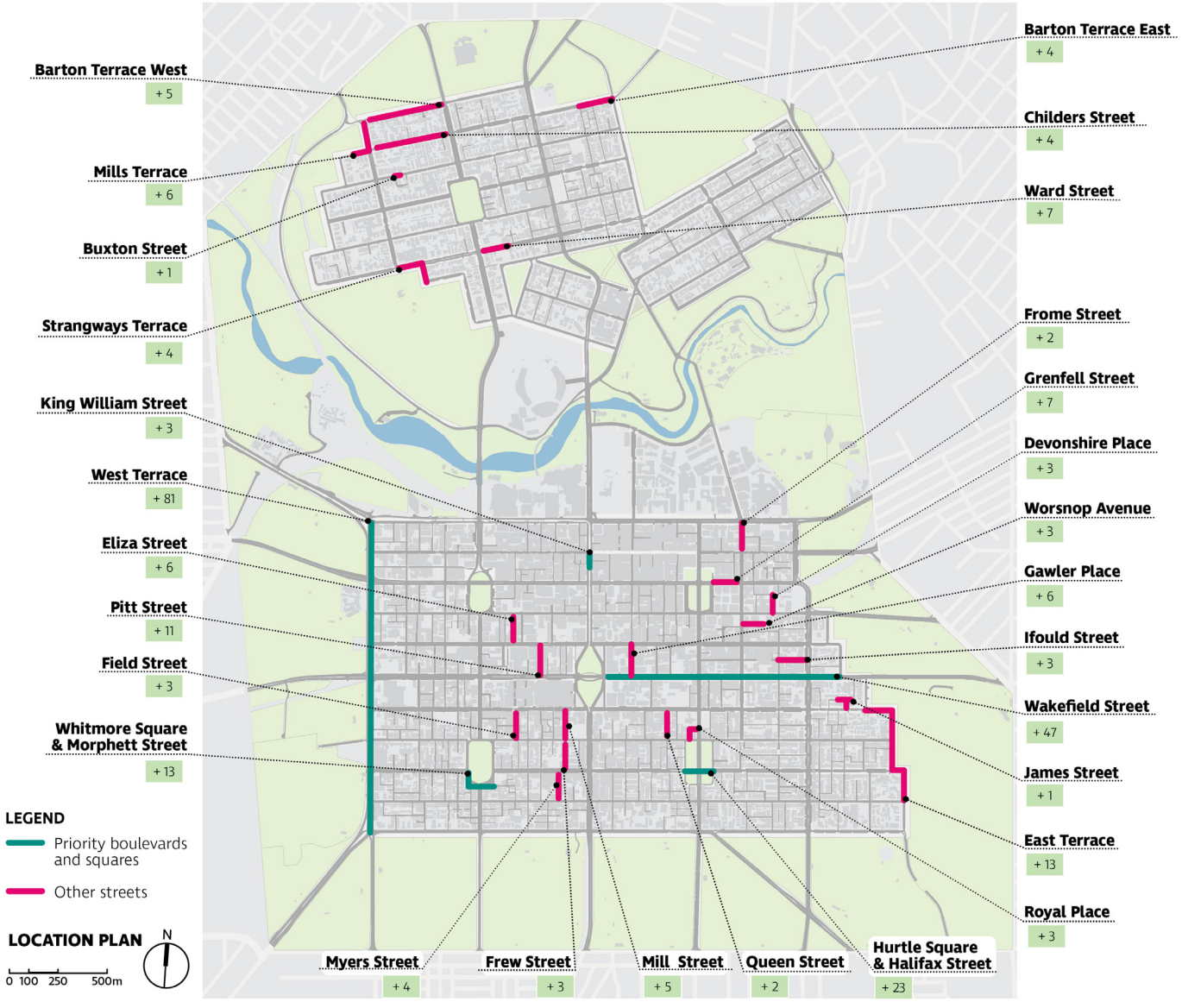
From the initial desktop assessment of 357 streets, in 2024-2025, **273** trees were planted in 29 streets across the Adelaide CBD and North Adelaide.

This map highlights the streets and tree quantities planted. The two colours designate either a boulevard (green) or street (pink).

This has resulted in a future increase in tree canopy cover of around 0.06%.

To consider every street that has progressed from initial desktop assessment, will require long-term commitment.

Total trees planted = 273



Map showing tree planting in streets across the city

2024-2025 Tree Species Data & Maintenance Provisions

There were 35 different tree species planted in 2024-2025.

Trees are chosen from Council's preferred tree planting list of around 80 trees with an even percentage for both native and exotic trees.

All trees are maintained for the first 12 months by the contractor and then handed over to Council to maintain.

Tree maintenance is as follows:
Year 1 – weekly completed by contractor
Year 2 – council water every 14 days (summer months only)
Year 3 – council water every 21 days (summer months only)

Maintenance also includes mulching, fertilising and pruning. After three years, trees are placed on Council's regular maintenance cycle and are inspected every two years.

If Council maintains a tree for the first three years, the cost is around $1,000 per tree. This will increase if a contractor maintains trees for the first year (in lieu of Council, as part of the standard 52 week Defects Liability & Maintenance period). This cost varies due to site conditions and contract details.

Tree species (common name)	Total number of trees planted
Australian Blackwood	3
Australian Teak	23
Bottle Tree	9
Box Elder Maple	1
Bull Bay Magnolia	2
Callery Pear	6
Cape Chestnut	2
Chinese Flame Tree	10
Chinese Pistachio	5
Cimmaron Ash	6
Claret Ash	6
Crepe Myrtle	1
Dwarf Lemon Scented Gum	3
Evergreen Ash	10
Golden Ash	5
Golden Rain Tree	2
Green Ash	2
Honey Locust	5
Jacaranda	3
Japanese Elm	14
Kurrajong	1
Lemon Scented Gum	10
London Plane Tree	4
Maidenhair Tree	2
Montpelier Maple	4
Native Frangipani	1
Norfolk Island Pine	2
Pin Oak	9
Purple Orchid Tree	7
Purple Cherry Plum	1
Smooth Barked Apple Myrtle	1
Spotted Gum	92
Tuckeroo	4
Water Gum	3
White Cedar	18
TOTAL	**273**

Key Considerations for the Plan

The following outlines key considerations for the Green Infrastructure Plan, after lessons learned from the 2024-2025 tree planting program were collected:

- Managing the cost per tree to minimise average costs.
- Focusing on the hotter East/West streets which are mostly boulevards, with existing medians/enough widths for new medians and potentially can accommodate more trees that contribute to cooling.
- Development of a tree dashboard so the community can see where trees have been planted, where consultation is occurring and highlight where trees are not possible due to street circumstances.
- Consideration of a network of one-way streets to accommodate more trees in streets where space is limited.
- Consideration of greening beyond tree planting where plants grow on structures in streets or on buildings (vertical green walls, green roofs, and arbours) positively contributing to city cooling.
- Trial new trees in partnership with TREENET to further diversify tree planting list with climate resilient trees (TREENET is an independent, not-for-profit organisation that shares knowledge and participates in research to assist tree managers in sustaining urban forests).

Eliza Street showing new trees in a one-way street

Year 1: Plan for 2025-2026

This table lists a total number of streets and tree planting opportunities for 2025-2026, subject to final designs and location assessments. There is an opportunity for a total of 241 trees, however, it is anticipated that 200 trees will be planted by June 30, to reach the 2025-2026 target and to fall within allocated budget.

Key highlights includes:

107 trees have already been planted **to date (April 2026) with the remaining trees to be planted by June 30.**

Boulevard planting to occur in existing central median along Anzac Highway.

Carrington Street will see new trees planted in footpaths.

In addition, there are 27 streets being designed to enable tree planting to continue in 2026-2027.

Streets		
Barton Tce East	*Road Renewals*	**8**
Carrington Street	*Road Renewals*	**28**
Churchill Street	*Road Renewals*	**1**
Marlborough Street	*Road Renewals*	**3**
Tatham Street	*Road Renewals*	**4**
Ifould Street	*Road Renewals*	**3**
Bewes Street	*Strategic Greening*	**5**
Cardwell Street (North)	*Strategic Greening*	**5**
Cardwell Street (South)	*Strategic Greening*	**1**
Logan Street	*Strategic Greening*	**6**
Marian Street	*Strategic Greening*	**3**
Vincent Street & Vincent Place	*Strategic Greening*	**14**
Nelson Street	*Strategic Greening*	**5**
Mansfield Street	*Strategic Greening*	**8**
Phillip Street	*Strategic Greening*	**5**
Rose Street	*Strategic Greening*	**5**
Wilson Street	*Strategic Greening*	**3**
Elizabeth Street	*Pedestrian-Cycling Corridors*	**10**
Market Street	*Pedestrian-Cycling Corridors*	**10**
Responses & Requests		
88 OC: O'Connell Street	*Development Reinstatement*	**2**
88 OC: Archer Street	*Development Reinstatement*	**1**
88 OC: Tynte Street	*Development Reinstatement*	**1**
123 Brougham Street	*Development Reinstatement*	**1**
175 Waymouth Street	*Development Reinstatement*	**5**
185 Pirie Street	*Development Reinstatement*	**2**
248 Flinders Street	*Development Reinstatement*	**2**
255-259 Gilbert Street	*Development Reinstatement*	**2**
258 Gouger Stret	*Development Reinstatement*	**2**
266 North Terrace	*Development Reinstatement*	**1**
278 South Terrace	*Development Reinstatement*	**2**
116 North Terrace	*Requested Locations (Intenal)*	**2**
123 Brougham Place	*Requested Locations (External)*	**1**
Priority Boulevards & Squares		
Carrington Street	*Priority Boulevards*	**23**
Whitmore Square	*Roads in Squares*	**16**
Anzac Highway	*Priority Boulevards*	**35**
South Terrace	*Priority Boulevards*	**16**
	TOTAL	**241**

Year 2: Plan for 2026-2027

With an anticipated allocated budget of $2m, this table lists the streets and potential tree planting that could be achieved in 2026-2027, subject to final designs. Key highlights are:

There are numerous Priority Boulevards currently listed, which may change once further investigations are done. Sturt Street (East) is identified as a priority with the introduction of a new central median accommodating tree planting.

Streets		
Ward Street	*Road & Footpath Renewals*	**25**
Cairns Street	*Strategic Greening*	**2**
Gladstone Street	*Strategic Greening*	**3**
Howard Florey Street	*Strategic Greening*	**6**
Hume Street	*Strategic Greening*	**3**
Responses & Requests		
Gunson Street	*Requested Locations (External)*	**10**
Priority Boulevards & Squares		
Pulteney Street	*Priority Boulevards*	**20**
Pirie Street	*Priority Boulevards*	**16**
Sturt Street (East)	*Priority Boulevards*	**20**
	TOTAL	**105**

Note: Trees and locations are assessed on an annual basis and is therefore expected for a change in streets and or tree numbers once designs are completed during 2025-2026.

Vincent Street upgrade with 14 new Chinese Pistachio trees

Year 2: Greening Initiative

- New Boulevard for Sturt Street (East)

An opportunity around the greening initiatives for 2026-2027 would see a continuous boulevard treatment from Halifax Square to Whitmore Square along Halifax and Sturt Streets.

Existing central median in Halifax Street from Hurtle Square to King William Street

Sturt Street showing potential for new central median with trees from King William Street to Whitmore Square

Years 3 to 5: Overview Plan 2027-2030

These tables show the current breakdown for tree planting in Years 3-5.

Currently there are 35 streets (29 in 2027-2028, and six streets in 2028-2029) with design in progress that are not shown in these tables. Some streets are yet to be assessed for initial tree assessment, and as each street reaches a level of design confidence, it will be added to the program.

Streets		
Boulton Street	*Strategic Greening*	**2**
Kent Street	*Strategic Greening*	**1**
Mann Street	*Strategic Greening*	**2**
Old Street & New Street	*Strategic Greening*	**4**
Sussex Street	*Strategic Greening*	**9**
Symonds Place North	*Strategic Greening*	**2**
Tynte Street	*Strategic Greening*	**3**
Walter Street	*Strategic Greening*	**3**
Gray Street (All)	*Pedestrian-Cycling Corridors*	**25**
Responses & Requests		
-		
Priority Boulevards & Squares		
Morphett Street	*Priority Boulevards*	**20**
Montefiore Road (North)	*Priority Boulevards*	**55**
Sturt Street (West)	*Priority Boulevards*	**33**
Brougham Place	*North Adelaide Precinct*	**55**
	TOTAL (2027-2028 PROGRAM)	**214**

Streets		
Norman Street	*Pedestrian-Cycling Corridors*	**4**
Responses & Requests		
-		
Priority Boulevards & Squares		
Grenfell Street	*Priority Boulevards*	**50**
Waymouth Street (West)	*Priority Boulevards*	**10**
Waymouth Street (East)	*Priority Boulevards*	**16**
Franklin Street	*Priority Boulevards*	**25**
Flinders Street	*Priority Boulevards*	**55**
Halifax Street (East)	*Priority Boulevards*	**15**
Gilbert Street	*Priority Boulevards*	**30**
	TOTAL (2028-2029 PROGRAM)	**205**

Streets		
Gawler Place (North)	*Pedestrian-Cycling Corridors*	**5**
Responses & Requests		
-		
Priority Boulevards & Squares		
Currie Street	*Priority Boulevards*	**70**
Gouger Street (West)	*Priority Boulevards*	**25**
Halifax Street (West)	*Priority Boulevards*	**10**
Gilles Street	*Priority Boulevards*	**18**
Frome Road	*North Adelaide Precinct*	**10**
Kermode Street	*North Adelaide Precinct*	**30**
Pennington Terrace (West)	*North Adelaide Precinct*	**40**
	TOTAL (2029-2030 PROGRAM)	**208**

Summary Years 1 to 5: 2025 to 2030

Tree numbers are an estimate and will be finalised once designs are complete and annual budget confirmed.

Currently, for the next five years the planned total is **973** trees, with **713** trees proposed for boulevards and **260** proposed for streets. The potential total of streets/boulevards with greening is 74. These totals do not include 2024-2025.

CATEGORY	2025-2026		2026-2027		2027-2028		2028-2029		2029-2030		
	LOCATION	NUMBER OF TREES	LOCATION	NUMBER OF TREES	LOCATION	NUMBER OF TREES	LOCATION	NUMBER OF TREES	LOCATION	NUMBER OF TREES	
Streets	32	151	6	49	9	51	1	4	1	5	
Priority boulevards	4	90	3	56	4	163	7	201	7	203	
Street Designs in Progress	12	TBC	19	TBC	14	TBC	8	TBC	0	TBC	
TOTAL	**-**	**241**	**-**	**105**	**-**	**214**	**-**	**205**	**-**	**208**	**973 TREES**

2024-2025 Tree Planting Cost Analysis

The overall cost in 2024-2025 was approximately $3.3M with the average cost per tree being $12,189. The following table is a breakdown of the costs associated with different planting types.

Planting Type		Total number of trees planted	Average cost per tree
1.	Tree in road with underground cells	38	$ 40,214
2.	Trees in footpath with underground cells	11	$ 20,000
3.	Trees in footpath with no underground cells and no kerb inlet	45	$ 10,716
4.	Tree in footpath with kerb inlet	0	no data for 2024-25
5.	Tree in existing median	134	$ 6,475
6.	Tree in park edge	45	$ 5,102
	TOTAL	**273**	**$3,327,749**

Trees in existing median along West Terrace

Trees in footpath with underground cells along Pitt Street

Green infrastructure Plan Objectives & Costs

The objective of the Green Infrastruture Plan is to systematically increase the provision of trees and associated WSUD infrastructure in streets by:

- Maximising tree planting in East/West streets to mitigate the impacts of urban heat island effects. East/West streets are hotter as sun heats pavements all day long while North/South streets can benefit from built form shadow. This may require changes to current street layout such as the introduction of a central median for trees.
- Continuing to plant in North/South streets with priority given to streets that have less tree canopy and can easily accommodate new trees.
- Maintain a database of streets that have not been planted due to existing constraints and to reinvestigate these streets in later years. Some of these constraints include existing on-street parking, vehicle movements, underground services, as well as upcoming property developments.
- Retrofitting existing trees where possible with passive irrigation devices such as kerb inlets that direct rainwater to tree root-zones. This can be considered in Years 4 and 5.

BEFORE

Artistic Impression:

Trees to be planted between existing Central Market Flag poles

AFTER

Cost Breakdown

The following outlines the cost estimates up to 2035 including WSUD interventions and operational costs and cost savings associated with ongoing maintenance.

Costs to date 2024-2026

To understand what the future cost could be to increase tree canopy cover until 2035, a table has been prepared that shows the cost to date for trees planted based on five planting typologies.

The table below shows costs for Year 0 (2024/2025) and for Year 1 (2025/2026) to date. The biggest costs are associated with the provision of underground cells which is usually done with WSUD elements providing passive irrigation as per the Integrated Climate Strategy target.

In understanding this cost related to underground cells and WSUD, the following outcomes are achieved:

- A bigger area for roots to grow and develop meaning trees can grow and flourish in an environment that is lacking in suitable soil quality and volume
- Trees will be more resilient and live longer
- Stronger and healthier trees will provide more shade, keep the city cooler, increase liveability and support the health and welling of residents and visitors
- WSUD will maximise the water available to trees while underground cells allows for more space for water storage which will support tree vitality and health
- Trees that have more shade have the potential to protect surrounding road pavements from the impacts of sunlight
- Trees established in underground cells are less likely to impact on the surrounding footpath and road surfaces.

It should be noted that the WSUD elements as mentioned above, do not include bio-filtration beds like the example installed along Waymouth Street. These types of plnating beds cost more to install and require refurbishment around every ten years to remove the accumulation of silt and debris from the road, with a cost of renewal of around $10,000 each.

In the current role-out of street trees, bio-filtration garden beds are not being installed with a preference for underground cells and passive irrigation to support tree vitality. This requires less renewal, if any at all.

	Year 0 - 2024/2025			Year 1 - 2025/2026 (to date)		
Planting Typology	**Tree Number**	**Cost Per Tree**	**Total Cost**	**Tree number**	**Cost Per Tree**	**Total Cost**
Trees in road with soil cells	33	$39,856	$1,315,252	53	$28,784	$1,525,547
Trees in footpath with soil cells	14	$20,000	$280,000	2	$44,614	$89,228
Trees in footpath with no soil cells	47	$7,815	$367,306	4	$0	$0
Trees in footpath with no cells but with kerb inlet	0	$0	$0	29	$4,685	$135,876
Trees in median	134	$7,741	$1,037,322	0	$0	$0
Trees in park edges	45	$3,411	$153,498	16	$1,599	$25,589
TOTALS	**273**		**$3,153,378**	**104**		**$1,776,240**

Cost Breakdown - Continued

Cost estimate for Years 2, 3, 4 and 5

For the remaining years the cost estimate and tree numbers will change once detailed design is completed. The aim will be to maximise tree numbers within the available budget. For this exercise, an annual budget of $4,000,000 has been assumed. All figures are based on the 2025/2026 costs, with one adjustment made for trees planted in footpaths with cells. The cost in 2025/2026 for this typology was not indicative as it was based on only one site with unusually high costs for all aspects due to challenging site conditions. It is anticipated that future rates in this typology will be between $30,000 to $35,000 per tree. Note: Year 4 is over budget, but this will be adjusted once designs are complete, particularly for trees in new central median. Tree numbers may reduce and/or delivery may be spread over multiple financial years.

	Year 2 - 2026/2027		
Planting Typology	**Tree Number**	**Cost Per Tree**	**Total Cost**
Trees in road with soil cells	20	$28,784	$575,678
Trees in footpath with soil cells	16	$35,000	$560,000
Trees in footpath with no soil cells	0	$7,815	$0
Trees in footpath with no cells but with kerb inlet	20	$4,685	$93,708
Trees in existing median	29	$7,741	$224,495
Trees in new median (with irrigation)	20	$27,570	$551,408
Trees in park edges	0	$1,599	$0
TOTALS	**105**		**$2,005,288**

	Year 3 - 2027/2028		
Planting Typology	**Tree Number**	**Cost Per Tree**	**Total Cost**
Trees in road with soil cells	50	$28,784	$1,439,195
Trees in footpath with soil cells	20	$35,000	$700,000
Trees in footpath with no soil cells	30	$7,815	$234,451
Trees in footpath with no cells but with kerb inlet	25	$4,685	$117,135
Trees in existing median	55	$7,741	$425,767
Trees in new median (with irrigation)	33	$27,570	$909,823
Trees in park edges	0	$1,599	$0
TOTALS	**213**		**$3,826,370**

	Year 4 - 2028/2029		
Planting Typology	**Tree Number**	**Cost Per Tree**	**Total Cost**
Trees in road with soil cells	14	$28,784	$402,975
Trees in footpath with soil cells	66	$35,000	$2,310,000
Trees in footpath with no soil cells	45	$7,815	$351,676
Trees in footpath with no cells but with kerb inlet	0	$4,685	$0
Trees in existing median	0	$7,741	$0
Trees in new median (with irrigation)	80	$27,570	$2,205,631
Trees in park edges	0	$1,599	$0
TOTALS	**205**		**$5,270,282**

	Year 5 - 2029/2030		
Planting Typology	**Tree Number**	**Cost Per Tree**	**Total Cost**
Trees in road with soil cells	5	$28,783	$143,920
Trees in footpath with soil cells	5	$35,000	$175,000
Trees in footpath with no soil cells	103	$7,815	$804,947
Trees in footpath with no cells but with kerb inlet	0	$4,685	$0
Trees in existing median	5	$7,741	$38,706
Trees in new median (with irrigation)	70	$27,570	$1,929,927
Trees in park edges	20	$1,599	$31,986
TOTALS	**208**		**$3,124,486**

Looking Forward: 2031 to 2035

Between now and 2030 the approach will be to deliver greening in boulevards and streets where substantial change is not required. The approach beyond 2030 is likely to focus on the delivery of both boulevards and small-scale streets in the CBD that were initially deferred due to their level of complexity.

Significant changes to street functionality to support greening will need to align with the ITS and if there are numerous boulevards and streets where this is required, Council may need to approve a refreshed program. This approach may also need a communication plan to engage with the community.

It is anticipated that in future years that up to 50 trees annually will be planted as part of the ongoing road and footpath renewal program. The renewal program will also be an opportunity to rethink street layouts. A recent example of this is the Vincent Street/Vincent Place project. This type of project is more likely to occur beyond 2030 once the investment in Mainstreets is completed.

The Green Infrastructure Plan highlights alternative forms of greening, and it is envisaged that some of these could be developed, such as green bus shelters and green walls, and could from part of the Sustainability Design Awards.

The following needs to be considered in preparing cost estimates for the tree planting program to 2035:

- Each street has its own challenges, requiring a different design response for each street which cannot be accurately calculated until a design is completed.
- Costs are anticipated to vary over time due to efficiencies identified by educational institutions and industry through their response to the Sustainability Design Prize, as well as local and global geopolitical issues impacting on contractor and material costs.
- Cost will also be affected by the type of planting typology that Council prefers. Inclusion of underground cells and WSUD elements will add costs but ensure tree longevity.
- The annual budget may change subject to other priorities of Council and this will affect the overall delivery and timeframe.

The table below shows the future yearly tree planting forecast for 2030 to 2035:

	Years 6 to 10 Forecast (2030/2031 - 2034/2035)		
Planting projections per year	**Number of Trees**	**Cost Per Tree**	**Total Cost**
Year 6 - 2030/ 2031	~200	$25,000	$5,000,000
Year 7 - 2031/ 2032	~200	$25,000	$5,000,000
Year 8 - 2032/ 2033	~200	$25,000	$5,000,000
Year 9 - 2033/ 2034	~200	$25,000	$5,000,000
Year 10 - 2034/ 2035	~200	$25,000	$5,000,000
TOTALS	**~1000**		**$25,000,000**

Savings

In general, there are no operational savings when planting more trees as they will require close monitoring in the first three years to ensure establishment. Beyond the initial three years, trees are inspected every two years so this cost will marginally increase as more trees are planted.

Once trees are in the regular inspection cycle, cost will be minimal if the right tree is planted in the right place to avoid impacts to surrounding infrastructure. Any increases will also be offset by tree removals so in some ways there will some balancing between new and removed trees.

Another aspect of an increase in tree canopy cover is the cost benefits that they provide from cooling and supporting health & wellbeing while an increase in canopy cover can protect pavement surfaces from ongoing exposure to the sun.

Future Greening Opportunities

Once the first five years of the plan are delivered, with the proposed **1,246** new trees (this includes 2024-2025 trees), tree canopy cover will increase by around 3%.

To achieve an increase in tree canopy cover from 33% to 40% some of the following should be considered:

- Converting key streets to one-way will increase tree numbers
- Rationalise on-street carparking to allow for more trees
- Increase use of green walls and structures that span streets and footpaths
- Increase tree planting in parks by replacing some areas of lawn with mini urban forests
- Collaborate with residents to co-design greener streets
- Partner with utility providers to relocate underground service encumbrances.

Remove irrigated turf and replace with more tree planting, low understorey planting including shrubs and groundcovers to create a mini urban forest to increase habitat, biodiversity and cooling

BEFORE

AFTER

Future Greening Opportunities - Continued

Install arbours/pergolas in streets to grow climbers to create green canopy.

Example of arbour structure in Chesser Street

Example of arbour with vertical greening modules in Gawler Place

Work with stakeholders to create more green walls, green roofs and green roof bus shelters.

Opportunity for alternative greening on bus shelter, Currie Street

Example of green stops in Bialystok, Poland (Source: The Mayor EU, <*https://www.themayor.eu/en/a/view/the-green-stops-in-bialystok-receive-architecture-recognition-5142*>)

Future Greening Opportunities - Continued

Consider promoting green walls at street level through an incentive scheme. Developing incentive schemes for building owners to provide green walls in streets.

The benefits include:

- Cooling of streets.
- Cleaner air in streets.
- Insulate buildings.
- Increased energy efficiency.
- Increase connection to nature.
- Support well-being.
- Potential to capture/trap rainwater to irrigate plants.
- Habitat and food for urban birds and insects.

Green wall on private property, Pirie Street

Future Greening Opportunities - Continued

Explore options for greening Council-owned building façades as exemplars.

BEFORE

AFTER

Artist's impression: Green wall on the Wyatt UPark building

Future Greening Opportunities - Continued

There are opportunities to partner with residents and business owners wanting greener outcomes and conduct a co-design process that explores opportunities for greening that will change the function and urban amenity of a street.

Gunson Street - a street with potential for greener outcomes, noting this may impact the availability of on-street parking

Future Greening Opportunities - Continued

Ellis Park / Tampawardli (Park 24)

Remove irrigated turf and replace with more tree planting, low understorey planting including shrubs and groundcovers to create a mini urban forest to increase habitat, biodiversity and cooling

BEFORE

AFTER

Future Greening Opportunities - Continued

The tree planting program will continue to enhance Adelaide as the first city in Australia and the second in the world after London to be named a National Park City.

Through tree planting, co-design and new planting typologies in streets and parks, a **Bold, Aspirational and Innovative** approach to greening will enhance the liveability of Adelaide into this climate change century.

Established tree-lined street, Buxton Street, North Adelaide

Santamour Diversity Index

In developing a Preferred Species List, Inclusion of a diversity measure aligned to the **Santamour diversity index** to guide tree selection has been assessed.

The Santamour Diversity Index was developed in 1990, by Frank Santamour, as a guide to ensure diversity of tree species mix on urban forests. This index suggests the following breakdown for tree percentages as part of an urban forest:

- **No more than 30% of any single family**
- **No more than 20% of any single genus**
- **No more than 10% of any single species**

This framework seeks to avoid too many of the same tree being planted in urban areas. This has been a common practice in Adelaide and has created monocultures and a less resilient urban forest. With a diverse urban forest, impacts can be reduced from global diseases or pest, such as Polyphagous Shot-Hole Borer, and from extreme weather and heat-waves associated with climate change.

Street Tree Assessment

An assessment has been undertaken for all existing street trees in the CBD and North Adelaide to guide tree species selection from the City of Adelaide's Preferred Tree Planting List. There are three street tree species that do not comply being:

- London Plane Tree (*Platanus x acerifolia*) with a score of 13.54%
- Hackberry (*Celtis occidentalis*) with a score of 12.40%
- Desert Ash (*Fraxinus angustifolia* subspecies *angustifolia*) with a score of 14.95% (only in North Adelaide)

Given the above, both the London Plane and Hackberry will only be planted to maintain existing street tree avenues. No new streets will be planted with these species. Desert Ash is no longer on Council's Preferred Tree Planting List as it is considered unsuitable and will be progressively replaced with other Ash species such as Evergreen, Cimmaron or Claret Ash.

All other trees in the Preferred Tree Planting List do not exceed any of the above percentages.

Park Trees Assessment

An assessment of all trees in parks and streets being 71,615 trees has revealed that the following two tree species are over abundant:

- River Red Gum (*Eucalyptus camaldulensis*) with a score of 17.52%
- South Australian Blue Gum (*Eucalyptus leucoxylon* subspecies *leucoxylon*) with a score of 12.27%

Given the role and extent of Gum Trees in the Australian landscape and ecosystem, both the genus, Eucalyptus, and the family, Myrtaceae, significantly exceed the Santamour percentage framework, which is to be expected. Whilst this means there is a future risk to environmental attacks, they are fundament to birds, mammals and insects for habitat and food and will continue to be maintained in the Park Lands with new species being added, such as the Native Pine (*Calitris gracilis*) and Casuarina species to increase diversity.

Preferred Tree Planting List

The following pages contain Council's Preferred Tree Planting List. This list is dynamic as trees are either included or removed from time to time. Trees that are removed are seen as not suitable from a maintenance and safety perspective, or they will not be resilient to future heatwaves.

New trees will be added that are considered more resilient to future heatwaves and to increase the biodiversity of Council's urban forest.

Common Name	Botanical Name	Foliage	Origin	Size	Height (m)	Spread (m)	Design Canopy Spread (m)	Carbon Index	Shade Index	Biodiversity
-	-	(Evergreen, Deciduous, Semi-deciduous)	(Australian native, Exotic)	Height - (Small [<8m], Medium [8-12m], Large [>12m])	-	-	(Spread average)	(High, Medium, Low)	(High, Medium, Low)	-
Australian Blackwood	*Acacia melanoxylon*	Evergreen	Australian native	Large	10-15	5-8	6.5	high	high	Bird, Insect, Mammal / Lizard, Pollinator
Australian Red Cedar	*Toona ciliata*	Deciduous	Australian native	Large	8-20	6-8	7	high	high	Insect, Pollinator
Australian Teak	*Flindersia australis*	Evergreen	Australian native	Large	10-15	10	10	high	high	Bird, Insect
Birchleaf Pear	*Pyrus betulaefolia 'Southwarth' dancer*	Deciduous	Exotic	Small	7-8	4-5	4.5	no data	medium	no data
Blue Mallet	*Eucalyptus gardneri*	Evergreen	Australian native	Medium	8-12	4-6	5	medium	low	Insect, Pollinator
Blueberry Ash	*Elaeocarpus reticulatus*	Evergreen	Australian native	Medium	5-9	3-4	3.5	no data	medium	Bird, Insect, Pollinator
Bottle Tree	*Brachychiton rupestris*	Semi-deciduous	Australian native	Medium	8-10	6-7	6.5	high	high	Bird, Insect, Pollinator
Box Elder Maple	*Acer negundo* 'Sensation'	Deciduous	Exotic	Medium	8-10	4-6	5	no data	medium	Insect, Pollinator
Brachychiton cultivar	*Brachychiton populneus x acerifolius* 'Bella Donna'	Semi-deciduous	Australian native	Small	5-6	3-4	3.5	no data	high	Bird, Insect, Pollinator
Brachychiton cultivar	*Brachychiton populneus x acerifolius* 'Jerilderie Red'	Semi-deciduous	Australian native	Medium	6-8	5-7	7.5	no data	high	Bird, Pollinator
Brachychiton cultivar	*Brachychiton populneus x discolor 'Griffith Pink'*	Evergreen	Australian native	Small	5-8	2-3	2.5	no data	high	Bird, Pollinator
Brown Pine	*Podocarpus elatus*	Evergreen	Australian native	Large	15	5	5	no data	high	Bird
Brush Box	*Lophostemon confertus*	Evergreen	Australian native	Large	15-20	5-10	7.5	no data	high	Bird, Insect, Pollinator
Bull Bay Magnolia	*Magnolia grandiflora 'Exmouth'*	Evergreen	Exotic	Large	10-15	5-8	6.5	high	high	Bird, Insect, Pollinator
Callery Pear	*Pyrus calleryana 'Bradford'*	Deciduous	Exotic	Large	9-12	4-6	5	high	high	Insect, Pollinator
Callery Pear	*Pyrus calleryana* 'Capital'	Deciduous	Exotic	Small	6-7	2-3	2	high	high	Insect, Pollinator

Common Name	Botanical Name	Foliage	Origin	Size	Height (m)	Spread (m)	Design Canopy Spread (m)	Carbon Index	Shade Index	Biodiversity
-	-	(Evergreen, Deciduous, Semi-deciduous)	(Australian native, Exotic)	Height - (Small [<8m], Medium [8-12m], Large [>12m])	-	-	(Spread average)	(High, Medium, Low)	(High, Medium, Low)	-
Campbell's Magnolia	*Magnolia campbellii*	Deciduous	Exotic	Large	10-15	8-10	9	high	medium	Bird, Insect, Pollinator
Canary Island Pine	*Pinus canariensis*	Evergreen	Exotic	Large	20-40	10-12	11	no data	low	no data
Cape Chestnut	*Calodendrum capense*	Evergreen	Exotic	Small	5-8	5-8	6.5	high	high	Bird, Insect, Pollinator
Cape Lilac	*Virgilia oroboides*	Evergreen	Exotic	Small	5-7	3-5	4	low	low	Bird, Insect, Pollinator
Carob Tree	*Ceratonia siliqua*	Evergreen	Exotic	Medium	8-10	4-5	4.5	high	medium	Insect, Pollinator
Chinese Elm	*Ulmus parvifolia 'Todd'*	Deciduous	Exotic	Medium	8-10	9-11	10	high	high	no data
Chinese Flame Tree	*Koelreuteria bipinnata*	Deciduous	Exotic	Small	5-7	5-6	5.5	high	high	Insect, Pollinator
Chinese Pistachio	*Pistacia chinensis*	Deciduous	Exotic	Medium	5-12	6-8	7	high	medium	Bird
Cimmaron Ash	*Fraxinus pennsylvanica 'Cimmzam'*	Deciduous	Exotic	Large	13-15	6-8	7	no data	high	no data
Claret Ash	*Fraxinus oxycarpa 'Raywoodii'*	Deciduous	Exotic	Large	10-15	6-7	6.5	no data	high	no data
Coral Gum	*Eucalyptus torquata*	Evergreen	Australian native	Medium	6-12	5-10	6.5	medium	medium	Bird, Insect, Pollinator
Coral Tree	*Erythrina variegata*	Deciduous	Australian native	Large	10-15	10-12	11	high	high	Bird
Cork Oak	*Quercus suber*	Deciduous	Exotic	Large	15-20	10-15	12.5	high	high	no data
Corkwood	*Melicope elleryana*	Evergreen	Australian native	Medium	8-12	3-4	3.5	high	low	Bird, Insect, Pollinator
Dogwood	*Cornus controversa*	Deciduous	Exotic	Medium	10-12	10-12	11	medium	high	Bird, Insect, Pollinator
Dogwood	*Cornus florida*	Deciduous	Exotic	Small	5-6	3-6	4.5	medium	medium	Bird, Insect, Pollinator

Common Name	Botanical Name	Foliage	Origin	Size	Height (m)	Spread (m)	Design Canopy Spread (m)	Carbon Index	Shade Index	Biodiversity
-	-	(Evergreen, Deciduous, Semi-deciduous)	(Australian native, Exotic)	Height - (Small [<8m], Medium [8-12m], Large [>12m])	-	-	(Spread average)	(High, Medium, Low)	(High, Medium, Low)	-
Drooping She Oak	*Allocasuarina verticillata*	Evergreen	Australian native	Medium	5-9	4-6	6	medium	medium	Bird
Dwarf Lemon Scented Gum	*Corymbia citriodora* - dwarf cultivar	Evergreen	Australian native	Small	6-8	3-5	4	high	high	Bird, Insect, Mammal / Lizard, Pollinator
Dwarf SA Blue Gum	*Eucalyptus leucoxylon* (small form ssp.)	Evergreen	Australian native	Small	5-7	4-5	5	high	high	Bird, Insect, Pollinator
Dwarf Sugar Gum	*Eucalyptus cladocalyx* 'Nana'	Evergreen	Australian native	Small	6-10	5-7	6	no data	high	Bird, Insect, Pollinator
Eastern Cottonwood	*Populus deltoides*	Deciduous	Exotic	Large	20-25	18-20	19	high	high	no data
Eastern Redbud	*Cercis canadensis* 'Forest Pansy'	Deciduous	Exotic	Small	5-6	4-5	4.5	no data	low	Insect, Pollinator
Evergreen Ash	*Fraxinus griffithii*	Evergreen	Exotic	Medium	6-10	2-3	2.5	no data	high	no data
Evergreen Magnolia	*Magnolia doltsopa*	Evergreen	Exotic	Medium	8-10	3-5	4	medium	low	Bird, Insect, Pollinator
Flame Tree	*Delonix regia*	Semi-deciduous	Exotic	Large	10-15	10-15	12.5	high	high	Bird, Insect, Pollinator
Forest Elder	*Nuxia floribunda*	Evergreen	Exotic	Medium	5-8	2-3	2.5	no data	high	Insect, Pollinator
Ghost Gum	*Eucalyptus laeliae*	Evergreen	Australian native	Large	12-18	4-6	5	high	medium	Bird, Insect, Pollinator
Golden Ash	*Fraxinus excelsior 'Aurea'*	Deciduous	Exotic	Medium	6-10	6-7	6.5	no data	high	no data
Golden Penda	*Xanthostemon chrysanthus*	Evergreen	Australian native	Medium	7-15	5-12	8.5	no data	high	Bird, Insect, Pollinator
Golden Rain Tree	*Koelreuteria paniculata*	Deciduous	Exotic	Small	6-8	5-6	5.5	high	high	Insect, Pollinator
Goldfields Blackbutt	*Eucalyptus lesouefii*	Evergreen	Australian native	Medium	10-12	8-10	9	medium	medium	Bird, Insect, Pollinator

Common Name	Botanical Name	Foliage	Origin	Size	Height (m)	Spread (m)	Design Canopy Spread (m)	Carbon Index	Shade Index	Biodiversity
-	-	(Evergreen, Deciduous, Semi-deciduous)	(Australian native, Exotic)	Height - (Small [<8m], Medium [8-12m], Large [>12m])	-	-	(Spread average)	(High, Medium, Low)	(High, Medium, Low)	-
Green Ash	*Fraxinus pennsylvanica 'Urbdell' - Urbanite*	Deciduous	Exotic	Medium	10-11	6-8	7	no data	high	no data
Grey Corkwood	*Erythrina vespertilio*	Deciduous	Australian native	Small	4-6	3-4	3.5	medium	high	Bird
Hackberry	*Celtis occidentalis*	Deciduous	Exotic	Large	15-20	5-10	7.5	high	high	Bird, Insect, Pollinator
Holm Oak	*Quercus ilex*	Evergreen	Exotic	Large	20-24	8-12	10	high	high	no data
Honey Berry	*Celtis australis*	Deciduous	Exotic	Large	12-15	5-8	6.5	high	medium	Bird, Insect, Pollinator
Honey Locust	*Gleditsia triacanthos var. inermis '* Shademaster' / Sunburst'	Deciduous	Exotic	Medium	9-12	5-6	5.5	no data	medium	no data
Indian Horse Chestnut	*Aesculus indica*	Deciduous	Exotic	Large	15-20	5-12	8.5	high	high	Bird, Pollinator
Irish Strawberry Tree	*Arbutus unedo*	Evergreen	Exotic	Small	5-7	2-5	3.5	low	medium	Bird, Insect, Mammal / Lizard, Pollinator
Jacaranda	*Jacaranda mimosifolia*	Deciduous	Exotic	Medium	8-10	8-10	9	high	high	Insect, Pollinator
Japanese Elm	*Zelkova serrata*	Deciduous	Exotic	Large	12-18	8-12	10	no data	high	Birds, mammals
Japanese Elm Green Vase	*Zelkova serrata 'Green vase'*	Deciduous	Exotic	Medium	10-14	8-10	9	no data	high	Birds, mammals
Lemon Scented Gum	*Corymbia citriodora*	Evergreen	Australian native	Large	20-25	11-13	12	high	high	Bird, Insect, Mammal / Lizard, Pollinator
Liquidambar	*Liquidambar styraciflua*	Deciduous	Exotic	Large	10-15	5-9	7	high	high	no data
London Plane Tree	*Platanus x acerifolia* (Maple leaf form)	Deciduous	Exotic	Large	10-15	10-15	12.5	no data	high	no data
Magnolia	*Magnolia champaca*	Evergreen	Exotic	Medium	8-10	3-5	4	medium	low	Bird, Insect, Pollinator
Maidenhair Tree	*Ginkgo biloba*	Deciduous	Exotic	Large	20-30	20-25	22.5	no data	medium	no data

Common Name	Botanical Name	Foliage	Origin	Size	Height (m)	Spread (m)	Design Canopy Spread (m)	Carbon Index	Shade Index	Biodiversity
-	-	(Evergreen, Deciduous, Semi-deciduous)	(Australian native, Exotic)	Height - (Small [<8m], Medium [8-12m], Large [>12m])	-	-	(Spread average)	(High, Medium, Low)	(High, Medium, Low)	-
Manchurian Pear	*Pyrus ussuriensis*	Deciduous	Exotic	Large	9-12	6-7	6.5	high	high	Insect, Pollinator
Marri	*Corymbia calophylla*	Evergreen	Australian native	Large	15-20	8-13	10.5	high	high	Bird, Insect, Mammal / Lizard, Pollinator
Montpelier Maple	*Acer monspessulanum*	Deciduous	Exotic	Small	6-8	6-8	7	no data	medium	Insect, Pollinator
Moreton Bay Ash	*Corymbia tessellaris*	Evergreen	Australian Native	Large	20-25	10-15	12.5	no data	medium	Bird, Insect, Pollinator
Mushashino	*Zelkova serrata* 'Mushashino'	Deciduous	Exotic	Medium	9-12	4-6	5	no data	high	Birds, mammals
Native Frangipani	*Hymenosporum flavum*	Evergreen	Australian native	Large	6-10	4-6	5	no data	low	Bird, Insect, Pollinator
Norfolk Island Pine	*Araucaria heterophylla*	Evergreen	Australian native	Large	60	15	15	no data	medium	no data
Orchid Tree	*Bauhinia purpurea*	Deciduous	Exotic	Medium	10-12	3-6	4.5	medium	medium	Insect, Pollinator
Orchid Tree	*Bauhinia variegata*	Deciduous	Exotic	Small	5-6	2-3	2.5	medium	medium	Insect, Pollinator
Oriental Plane Tree	*Platanus orientalis*	Deciduous	Exotic	Large	10-15	10-15	12.5	high	high	no data
Pagoda Tree	*Sophora japonica*	Deciduous	Exotic	Small	5-8	4-6	5	high	high	Insect, Pollinator
Pecan Tree	*Carya illinoinensis*	Deciduous	Exotic	Large	20-25	18-22	18.5	high	high	Insect, Pollinator
Persian Silk Tree	*Albizzia julibrissin*	Deciduous	Exotic	Small	4-5	3-4	3.5	medium	medium	Pollinator
Pin Oak	*Quercus palustris*	Deciduous	Exotic	Large	15-20	8-16	12	high	high	no data
Purple Orchid Tree	*Bauhinia x blakeana*	Deciduous	Exotic	Small	8-9	4-5	4.5	medium	low	Insect, Pollinator
Red Alder	*Alnus rubra*	Deciduous	Exotic	Large	12-15	4-8	6	high	medium	no data
Red Capped Gum	*Eucalyptus erythrocorys*	Evergreen	Australian native	Small	6-8	4-5	4.5	medium	medium	Bird, Insect, Pollinator

Common Name	Botanical Name	Foliage	Origin	Size	Height (m)	Spread (m)	Design Canopy Spread (m)	Carbon Index	Shade Index	Biodiversity
-	-	(Evergreen, Deciduous, Semi-deciduous)	(Australian native, Exotic)	Height - (Small [<8m], Medium [8-12m], Large [>12m])	-	-	(Spread average)	(High, Medium, Low)	(High, Medium, Low)	-
Red Flowering Gum	*Corymbia ficifolia*	Evergreen	Australian native	Medium	8-11	5-10	7.5	high	medium	Bird, Insect, Mammal / Lizard, Pollinator
Redbud	*Cercis siliquastrum*	Deciduous	Exotic	Small	6-8	3-4	3.5	high	low	Insect, Pollinator
SA Blue Gum	*Eucalyptus leucoxylon*	Evergreen	Australian native	Large	15-20	7-15	11	high	high	Bird, Insect, Pollinator
Silky Oak	*Grevillea robusta*	Evergreen	Australian native	Large	10-15	5-10	7.5	high	high	Bird, Insect, Pollinator
Southern Blue Gum	*Eucalyptus globulus*	Evergreen	Australian native	Large	15-20	15-20	17.5	high	high	Bird, Insect, Mammal / Lizard, Pollinator
Spotted Gum	*Corymbia maculata*	Evergreen	Australian native	Large	15-20	8-10	9	high	high	Bird, Insect, Mammal / Lizard, Pollinator
Torwood Coral Gum	*Eucalyptus 'Torwood'*	Evergreen	Australian native	Small	5-8	3-6	4.5	no data	low	Bird, Insect, Pollinator
Trident Maple	*Acer buergerianum*	Deciduous	Exotic	Medium	6-10	3-8	5.5	medium	medium	Insect, Pollinator
Tuart	*Eucalyptus gomphocephala*	Evergreen	Australian native	Large	12-18	10-15	12.5	high	high	Bird, Insect, Pollinator
Tuckeroo	*Cupaniopsis anacardioides*	Evergreen	Australian native	Small	7-8	4-5	4.5	no data	medium	Bird, Insect, Pollinator
Tulipwood	*Harpullia pendula*	Evergreen	Australian native	Large	8-15	2-3	2.5	no data	high	Bird, Insect, Pollinator
Water Gum	*Tristaniopsis laurina*	Evergreen	Australian native	Medium	5-10	4-8	6	no data	medium	Bird, Insect, Pollinator
Water Gum	*Tristaniopsis laurina 'Luscious'*	Evergreen	Australian native	Medium	5-10	4-8	6	no data	medium	Bird, Insect, Pollinator
White Cedar	*Melia azedarach*	Deciduous	Australian native	Medium	10-12	5-7	6	high	high	Bird, Pollinator
White Orchid Tree	*Bauhinia aculeata*	Deciduous	Exotic	Small	3.5-6	4-5	4.5	medium	low	Insect, Pollinator
Willow Myrtle	*Agonis flexuosa*	Evergreen	Australian native	Medium	8-12	8-10	9	high	high	Bird, Insect, Mammal / Lizard, Pollinator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