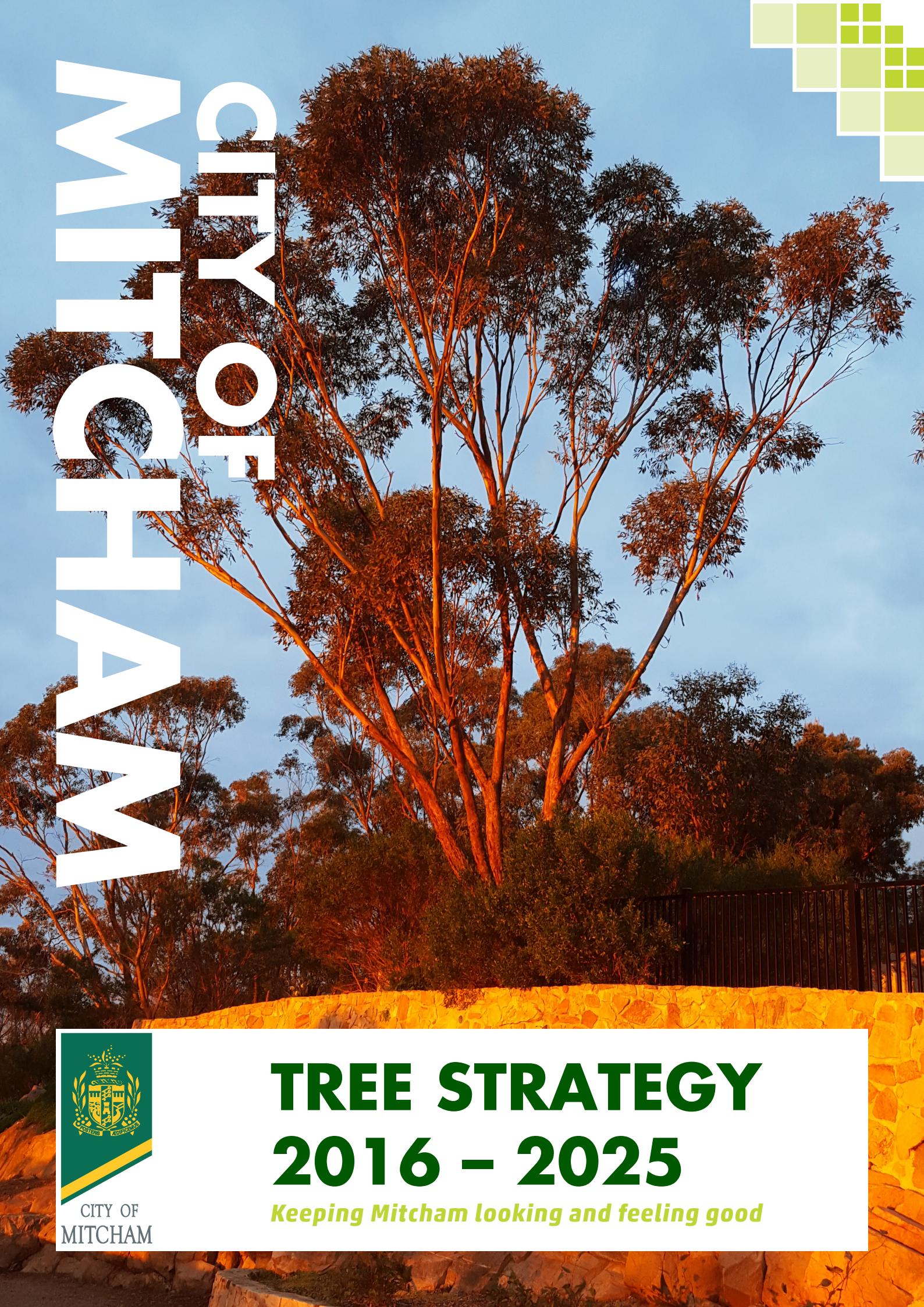

CITY OF MITCHAM

TREE STRATEGY 2016 – 2025

Keeping Mitcham looking and feeling good

CITY OF MITCHAM

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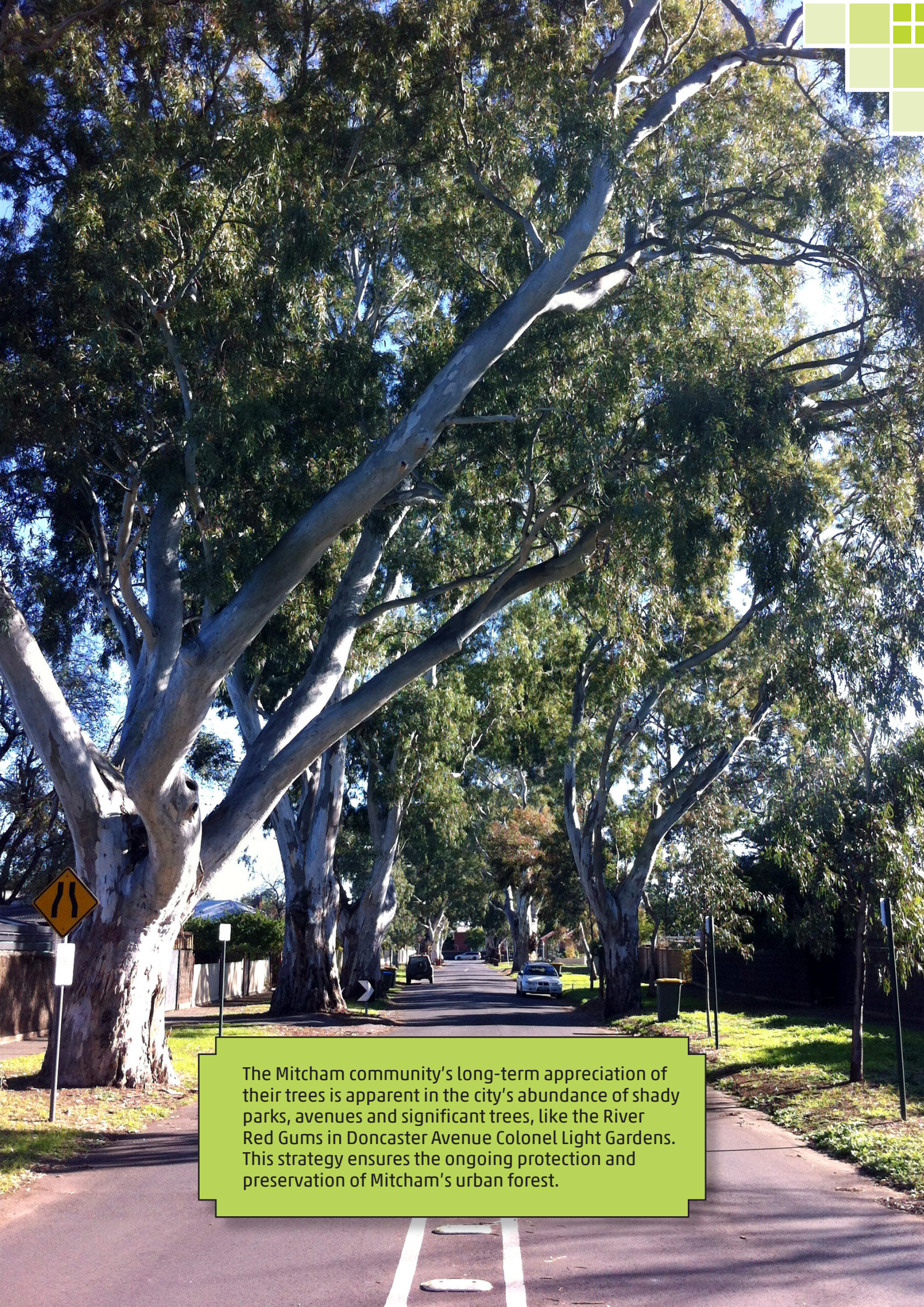


The Mitcham community's long-term appreciation of their trees is apparent in the city's abundance of shady parks, avenues and significant trees, like the River Red Gums in Doncaster Avenue Colonel Light Gardens. This strategy ensures the ongoing protection and preservation of Mitcham's urban forest.

1. OUTCOME

This strategy aims to provide the urban forest that Mitcham's community wants.

Trees dominate our urban parks and streetscapes; they make our city the attractive, healthy and desirable place it is. Mitcham's community appreciates that quality tree cover makes our streets and suburbs more liveable with cooler summer temperatures, cleaner air and calmer traffic. By acknowledging and documenting the importance of trees and by applying community asset management principles to them for the first time, this strategy ensures that the urban forest and the benefits it provides will be sustained and well managed into the future.

2. KEY ACTIONS

Tree cover in towns and cities across Australia is reducing due to development, soil degradation, climate change and other factors. These issues and our ageing tree population mean that Mitcham will continue to lose trees and at an increasing rate into the future. Losing tree canopy cover will impact massively on the benefits the urban forest delivers to our community. Tree decline must be stopped. Increasing tree establishment to 1800 trees per year will stop this decline (Figure 1).

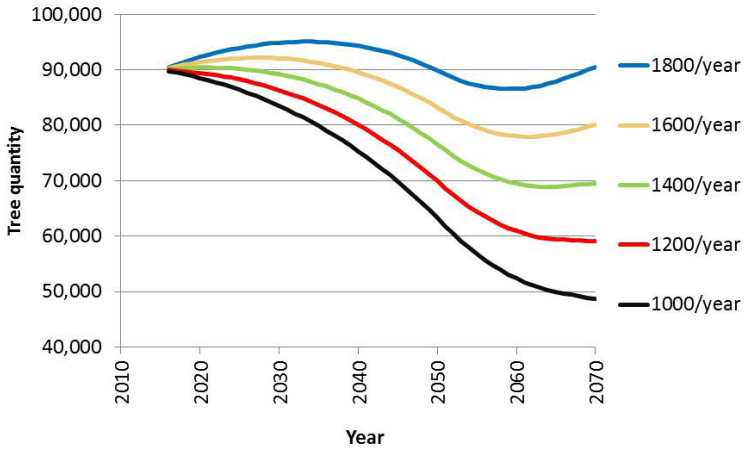


Figure 1: *Tree numbers will decrease if fewer than 1800 new trees are established each year.*

The rate of tree death and loss is increasing in Mitcham's plains suburbs and in the hills. Avenues of trees with life expectancies of 80 – 100 years, like the Jacarandas and White Cedars, were planted between the two world wars and they are now reaching the ends of their lives. Trees planted in the 1960s and 70s, like many of the smaller eucalypts and exotics like the Golden Rain and Southern Hackberry, have a life expectancy of 50 – 70 years and they too area ageing.

Large numbers of Grey Box which blanket our hills areas grew from cut stumps when grazing ceased. Increasing numbers are now beginning to fail due to root and stump decay. Weed growth and altered drainage patterns caused by development and road construction have prevented natural regeneration in areas where indigenous trees died during the Millennium Drought. Our ageing tree population and other factors including development and climate change could nearly double the current rate of tree loss (estimated at 1200 trees per year) by 2050 (Figure 2).

Figure 2. *Tree loss is expected to peak at approximately 2400 trees per year (12,000 trees per 5 year planning period) near 2050*

Implementing this strategy will stop the slow loss of tree canopy cover and ensure that our urban parks and streetscapes remain the attractive, healthy and desirable places they are. Immediate actions will offset tree loss in the short term and obtain the information needed to ensure the long term success of the strategy.

Between 2016 and 2025 Council will aim to deliver the following actions (subject to annual budget provision):

1. Council will establish an annual 'Urban Forest Planting Program

Resourcing this new initiative will increase tree planting and help to sustain tree numbers at the current level. This program will plant up to 400 trees to improve aesthetics, habitat, biodiversity conservation and other environmental values in appropriate locations on parks, streets and other properties across Mitcham each year.

2. Expanded annual tree replacement planting projects

Council has historically planted about 500 trees each year to replace individual specimens lost from our streetscapes. Expanding this program up to 1000 trees per year will replace the number of trees that are currently being lost.

3. Expanded annual avenue renewal projects

Increased resources will expand planting to up to 400 trees per year to sustain existing high-value avenues. Restoring established, shady avenues that are greatly loved by local residents maintains the health, amenity and heritage values of streets and suburbs. Increasing the scale of this annual project will allow risk to be managed and will address the increasing rate of tree loss.

4. Streetscape amenity will be upgraded

Streetscape plans will be developed to improve amenity, shade and habitat values. These streetscape plans will form part of broader tree asset management plans to achieve the vision local residents have for their neighbourhoods and suburbs. The new Urban Forest Program will deliver additional trees into these streetscapes where necessary.

5. Tree asset management plans will be developed

Tree asset management plans will be developed in consultation with the community. These plans will detail the condition of the urban forest, the community's views on how it should be presented and options on how it may be managed to achieve the community's desired goals. These plans will include detailed objectives, determined in consultation with the community, to protect existing assets such as heritage items and to create desired features like habitat and fauna corridors. Annual works projects based on these plans will be considered by Council for resourcing and implementation, just the same as for works projects for roads, drains and footpaths.

6. Tree management and maintenance procedures and guidelines will be documented

Procedures and guidelines will be documented to inform residents about tree planting standards, consultation processes and tree maintenance regimes. These documents will inform the community about how projects are planned and implemented, including the standard of works and quality of finish that can be expected.

7. Reserve tree audits will be continued

Trees in urban parks and reserves are audited for risk at intervals of five years and issues identified are routinely managed. This process ensures Council keeps parks and reserves safe and meets its duty of care to the public.

8. Street tree audits will be expanded

Street trees require audits at intervals of five years to effectively manage risk. Capacity will therefore increase to audit 18,000 street trees per year to establish a five year audit cycle to maintain public safety and fulfil Council's duty of care.

9. Tree asset management plans will be revised

The expanded tree audit program will identify failing and deteriorating trees across the city. This information will be used to update tree asset management plans to ensure timely planting projects that will minimise tree loss and ensure canopy cover is sustained in streets and across the suburbs.

10. The scale of tree planting projects will be reviewed

The second routine tree audit will reveal any changes in the tree population and species composition over the five year period. This will inform a review of the scale of planting projects to ensure that tree replacement keeps pace with tree loss.

11. The Tree Strategy 2016 - 2025 will be reviewed

At the end of the strategy's nine year lifespan its strengths, weaknesses, successes and failings will be apparent. With the advantages of recent experience and hindsight the timely review of this strategy in 2025 will help to formalise the most appropriate way to proceed.

3. BACKGROUND

Trees are the dominant visual features in our city's streets and urban parks. They provide far-reaching benefit and service to the community. They purify air, intercept and clean stormwater, moderate the climate and sustain community health. They reduce crime and anxiety, provide fauna habitat, conserve biodiversity and heritage and they bring a wealth of other value to our city. These enormous social, environmental and economic benefits underpin the health of our community and the sustainability of our city.

3.1 Mitcham's Urban Forest

Mitcham's trees are part of South Australia's most diverse forest: the urban forest of greater Adelaide. Mitcham's urban forest exists because of our region's natural capital and the vision of residents. Trees growing to the north-west of the hills face (the 'Black Forest') cover what is called '*Kertaweeta*' by the original owners. Grey Box (*Eucalyptus microcarpa*) originally dominated the skyline, along with South Australian Blue Gum (*Eucalyptus leucoxylon*) and River Red Gum (*Eucalyptus camaldulensis*). Drooping Sheoak (*Allocasuarina verticillata*) and Slender Cypress Pine (*Callitris gracilis*) grew in the shallower soils along the hills face, giving way to South Australian Blue Gum and Manna Gum (*Eucalyptus viminalis*) in the wetter, higher areas. These species are still common locally.

Development has changed the landscape. The forest was cleared for pasture and cropping, housing and roads then replaced farmland. Drainage and bores altered hydrology. These processes continue. Indigenous species still dominate hills areas but exotic trees also contribute to amenity and biodiversity. Mitcham's plains areas still support a dense canopy but now it is mainly avenues of exotic and non-local native species.

Mitcham's plains suburbs are famous for their leafy avenues. Mature Jacaranda (*Jacaranda mimosifolia*), White Cedar (*Melia azedarach*), Southern Nettle (*Celtis australis*), English Elm (*Ulmus procera*) and Desert Ash (*Fraxinus angustifolia*) provide shade and habitat across older suburbs. Golden Rain (*Koelreuteria paniculata*), Queensland Box (*Lophostemon confertus*) and South Australian Blue Gum add to the diversity of plantings. The wisdom of these early species selections has been proved by their survival through the Millennium Drought, through ongoing urban impacts, by their current vigour and by their continuing appreciation by the community.

Much of Mitcham's hills landscape is still dominated by Grey Box woodland with South Australian Blue Gum also being abundant. In some areas exotic and non-local native species, such as Desert Ash (*Fraxinus angustifolia*) and Gawler Hybrid Bottlebrush (*Callistemon* Harkness) are common.

Native woodland canopy dominates Mitcham's hills areas (above) in contrast with the exotic avenues of the plains with species like Jacaranda (below). Preserving these different facets will sustain the urban forest's character and give it resilience.

Mitcham's suburban streets are famous for their leafy avenues. This strategy will preserve existing avenues of Southern Hackberry (above), White Cedar (below) and other species by ensuring their timely maintenance and eventual replacement when required.

3.2 Mitcham's Urban Forest – Benefits

Trees have been considered important community assets for millennia. Many remnant indigenous trees of great cultural heritage and significance remain in Mitcham's landscape today. The area's more recent heritage is also visible in plantings like the Moreton Bay Figs (*Ficus macrocarpa*) in the Mitcham Village, the Kauri Pines (*Agathis robusta*) of the former Torrens Park Estate, and the formal plantings in the parks and streets of the garden suburb of Colonel Light Gardens. The National Trust of South Australia's Register of Significant Trees lists the Stone Pines (*Pinus pinea*) of Brownhill Creek and many trees in Belair National Park which have been and are still enjoyed by generations of Mitcham's residents. Whether in urban parks, streets or woodland areas, Mitcham's trees continue to benefit the community.

Environmental benefits

Trees directly improve the health of the environment. Trees reduce the amount of energy used for heating and cooling, which lowers costs to residents and decreases the amount of greenhouse gas produced.

Development has increased stormwater runoff, leading to sea grass decline and habitat loss in Gulf St Vincent. Trees intercept rainfall and increase infiltration into the soil; this reduces runoff, downstream pollution and flooding. By shading the streets and keeping water in the environment trees also reduce the urban heat island effect.

Aesthetic benefits

Trees are highly visual assets – their appeal is mainly through our sense of sight. Mature, healthy trees can give a street, park, precinct or region great character – a sense of place. This is heightened in heritage areas like Colonel Light Gardens, the Mitcham Village and Belair where trees that were alive in the early days of European settlement still grace our suburbs.

A spreading tree in a park draws people to its shade. Screening vegetation increases privacy, allowing residents to better enjoy their land. Shady car parks on hot summer days are highly sought after. The amenity and environmental values of trees are well known but trees also contribute positively in ways that are not always recognised, such as benefits to human health.

Human health benefits

Council's *Living Well Plan* notes the health benefits of tree lined streets and parks. Trees have a restorative effect on mental and physical health. Walking amongst trees in parks and gardens reduces anxiety and depression. Driver fatigue and aggression is reduced on roads with high levels of tree cover; traffic speed is also reduced. Shady parks and community areas provide opportunities for people to meet and socialise. Increased exercise and social interaction in well-treed streets and reserves foster a greater sense of community and wellbeing. Increased contact with nature stimulates and improves children's mental, physical and social development.

The financial value of these benefits can be enormous. Reducing anxiety and depression can greatly increase productivity. Reducing traffic speed and driver aggression can avoid mortality, injury and property damage thereby reducing investigations, insurance claims and demands on healthcare.

Economic benefits

Real estate values are known to reflect the quality of the streetscape, with higher prices achieved for homes in tree-lined streets. Commercial precincts with shady trees have higher occupancy rates and attract customers from further afield, with patrons typically staying longer and spending more.

Many of the benefits provided by trees do not generate income but they offset expenses that would otherwise have to be paid. Through their summer cooling and winter windbreak effects trees save residents money on heating and cooling, with savings of up to 30% possible.

3.3 Mitcham's Urban Forest – Costs

As with any other asset trees incur costs at the time of purchase and through their life cycle. Trees also incur expenses due to their placement in the landscape, particularly if planted close to other infrastructure such as pavements or buildings. Council must operate with financial prudence so managing urban forest expenses and efficiencies are high priorities.

Life cycle costs vary between tree species because of their differing characteristics and maintenance requirements. It is estimated that a Jacaranda costs about $3,650 over its ninety year lifespan, or about $40.50 per year, to plant the tree, maintain it, sweep up litter beneath it, repair the footpath

and kerb, and remove it at the end of its life. A South Australian Blue Gum (*Eucalyptus leucoxylon* ssp. *megalocarpa*) costs about $2,877 through its sixty year life, or about $47.95 per year.

Council is working to minimise tree related costs. Seedless forms of some trees are now used to reduce the need for road sweeping and weeding. New technologies and improved planning might in future eliminate damage to assets like footpaths and kerbs, reducing the cost of Jacaranda and Blue Gum to approximately $30 per year each.

3.4 Tree Asset Management Plans

Resident's priorities, site conditions, opportunities and constraints vary across local areas within Mitcham, so tree planting will need to vary to reflect these differences. Plans that guide tree planting in places like historic Colonel Light Gardens, Mitcham and Belair exist to meet conservation objectives; they will continue to apply to support Council's commitment to heritage conservation. Asset management planning processes will allow residents and interest groups to contribute to the detailed planning needed to ensure the community's aesthetic, heritage and habitat protection goals are met. Means to protect Mitcham's historic stands of River red gums and other significant trees will be detailed in these plans. With resident support, habitat preservation and creation may also be achieved on reserves and in streetscapes. Cherished shady avenues of species like Jacaranda and White Cedar will also be preserved, but some streets may need a change of species to upgrade amenity or make them sustainable.

Bushfire protection will need to be considered in hills and hills face areas, along with maintaining habitat, biodiversity and the ambience of the natural woodland. Several tree asset management plans will therefore be needed, based on precincts with similar goals, opportunities and constraints (Figure 3).

Tree replacement – asset renewal

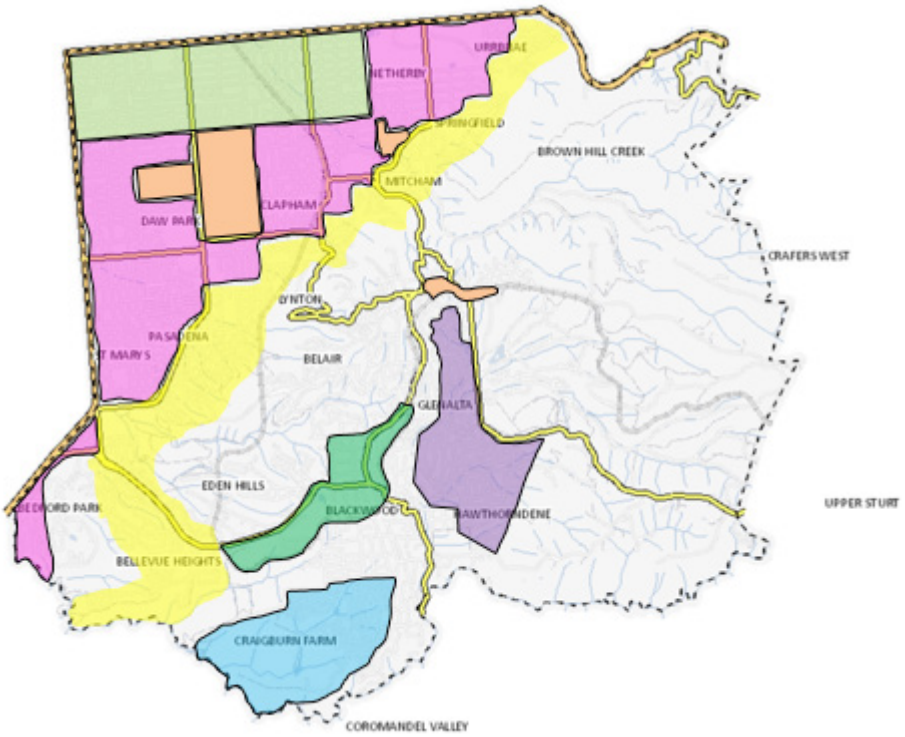
Trees don't behave in the same way as typical assets like roads and footpaths. A new road functions and looks at its best when it is newly built, then its condition deteriorates as it ages. Replacing old roads achieves immediate success as they look great and work well right from the start. This isn't the case with trees and avenues, as new trees can take decades to mature and restore a streetscape.

As trees age they can develop hollows and improve their wildlife habitat value, so their value to the community can increase. During this stage the risk of branch or tree failure can also increase, so inspection and maintenance costs can rise. It is inevitable that all trees will die eventually. The only way Council can preserve the urban forest is to continue to establish new trees to replace those that are ageing and dying. By staging tree replacement over time Council is able to minimise the impacts of tree removal on our parks and streetscapes, but they cannot be avoided.

Tree asset management planning

Council must ensure that asset renewal is consistent with community expectations, accepted standards and budgets. This applies equally with trees as with any built or purchased asset. Managing a living asset the scale of Mitcham's urban forest requires a proven, proactive and adaptive methodology. Asset management plans are one way to inform the community of the options and costs of maintaining trees in parks and streetscapes to their desired standard. Plans will inform regarding the species of trees allocated for each street, how closely they will be planted, how long they are likely to live and how their replacement will be arranged when necessary. They will also allow accurate project construction, maintenance and renewal costing, so that Council can include the budgets needed in long term financial plans.

In streets where residents appreciate the shady avenues of trees like Jacarandas and White Cedars, tree asset management plans will ensure these are preserved. In some parks and streets however, amenity may be poor due to sparse planting, aged trees or recent redevelopment. These streetscapes and parks may need upgrading and possibly a change of tree species. The need to upgrade parks and streetscapes will be best identified and resolved in consultation with the community while developing tree asset management plans. Tree asset management plans will allow project planning up to five years or more into the future. This will support coordination with civil engineering works, such as road and footpath replacement and construction of water sensitive urban design features like TREENET Inlets and permeable paving to improve growth rates and sustain tree health.



- *Preserve established avenues (primarily Jacaranda and White Cedar)*
- *Heritage themes: Colonel Light Gardens, Mitcham and Belair Villages*
- *Improve aesthetics in residential plains undergoing urban consolidation*
- *Enhance planting in Blackwood central zone consistent with current themes*
- *Consolidate reserve planting, enhance streetscape planting*
- *Woodland (native and exotic mix) in valley areas*
- *Enhance amenity and manage bushfire risk in lower foothills*
- *Enhance amenity and manage bushfire risk in hills woodland areas*

Figure 3: Management plans will be developed for precincts defined by their similar conditions and concerns, to achieve their local community's goals.

Council has seized opportunities to plant trees on the linear parks that make their way through recently developed areas of Craigburn Farm but in some streets the urban form may not support formal street tree planting (below). Consultation during tree asset management planning may identify opportunities for a more flexible approach to tree planting in areas where establishing avenues may not be possible.

Street tree species selection

To preserve the shade, aesthetics, habitat and heightened property values of Mitcham's attractive streetscapes, planting plans will retain existing species as long as they remain sustainable. If a species becomes unsustainable however, alternatives with desirable attributes will be selected in consultation with the community.

Planting new avenues when roads and footpaths are renewed (below left) could greatly improve how some streets look and feel (below right).

The current appearance of some streetscapes (above) might be improved by planting low-level vegetation in devices like rain gardens (below). Rain gardens harvest stormwater to increase growth rates and then keep mature trees lush and shady. Additional benefits are also achieved, like reductions in downstream flooding and pollution.

3.5 Tree Audits

Tree audits have been conducted at various times since 2004, adding over 56,000 entries to Council's tree register. To better inform tree management decisions a more rigorous approach to auditing is needed; audits of tree health, structural condition and risk are needed at intervals of five years. An expanded tree audit program is fundamental to setting the scale of tree planting projects and to targeting them where they are most needed.

3.6 A Precautionary Approach

By anticipating change, monitoring tree condition and implementing preventive measures Council will minimise impacts on the urban forest from threats like land division and climate change. A range of measures are required to manage these threats, including increasing the scale of tree planting, reviewing species selection and harvesting stormwater to improve tree growth and health.

Increased tree planting & establishment

Council has conducted two separate tree planting programs during the winter months each year over the last decade. One program replaces trees where they have been recently lost while the other sustains avenues where individual trees are deteriorating or presenting unacceptable risk. On average approximately 1000 trees have been planted each year over the last decade, the number diminishing in recent years. To sustain the current number of trees in Mitcham's urban forest the scale of planting must increase to establish a total of 1800 new trees each year.

The proposed Urban Forest Program will help to achieve the planting goal of 1800 trees per year. The Urban Forest Program will plant up to 400 trees in appropriate locations in parks and streets to ensure that more trees are planted than are being removed.

Tree planting standards

Establishing large numbers of trees in public areas needs a range of planting strategies and standards. Small trees are cheap and hundreds can be planted in a day but forestry tube stock is too small to be used in many parks and streets. Advanced trees can be expensive to buy and plant, with larger trees typically growing more slowly and needing more care until they are established. A balance is needed between achieving the immediate impact of planting larger trees with the capacity to plant more smaller saplings and to establish them more quickly. Council will therefore document standards to ensure that tree stocks, planting methods and aftercare are appropriate for each location.

3.7 Research, Development, Partnerships and Related Opportunities

Council has established research partnerships with the Adelaide and Mount Lofty Ranges Natural Resources Management Board, the University of South Australia, TREENET Inc. and other agencies involved with trees and civil engineering. This co-operative research promises to continue to deliver benefits to Council and the wider community.

Ongoing collaboration has the potential to develop Mitcham as a centre of excellence in environmental engineering and urban forest research, particularly regarding managing stormwater and irrigating trees through water sensitive urban design. To build on these results Council will continue to identify opportunities for collaboration and will actively seek grant funding for joint research projects in related fields, particularly with regard to tree species trials, environmental engineering and water sensitive urban design.

Tree species trials

Mitcham is well placed to conduct park and avenue trials of tree species which have proved themselves over the long term at the Waite Arboretum. With assistance of staff of the Waite Arboretum and TREENET Inc. a number of species have been added to Council's streets in the last decade to test their suitability for more widespread planting. Further species trials will be established as tree stocks and planting opportunities become available, with the view to sustaining the urban forest under predicted conditions of more extreme temperatures and altered rainfall patterns. Mitcham will continue to collaborate with TREENET Inc., other councils and agencies regarding testing of appropriate species.

Trees and civil works: water sensitive urban design

Planning for trees in the design of civil works projects will minimise problems and deliver greater streetscape amenity, cost effectiveness and asset life. Water sensitive urban design devices that harvest stormwater for trees are also delivered more cost effectively as part of major capital works projects. Council will therefore continue to consider tree planting and water sensitive urban design initiatives in civil engineering projects.

Council's research into permeable paving (above) and the Treenet Inlet stormwater infiltration device (below) has demonstrated how trees and stormwater management both benefit by soaking rainfall and storm runoff into soil beneath road verges.

3.8 Legislative Controls and Policy Directions

3.8.1 Council Directions

The benefits trees deliver support various Council roles and responsibilities. Council has adopted a number of plans which mandate tree planting, maintenance and renewal including the '*Strategic Plan 2012 – 2022*', the '*Living Well Plan*' and the '*Resilient South Plan*'.

Strategic Plan 2012 – 2022: Planning for Tomorrow's Community Today

This plan presents a vision of a healthy, inclusive and prosperous community living in harmony with the environment. Of the six goals underpinning this vision three are directly linked to Mitcham's trees:

- *Liveable City: Mitcham's highly valued heritage, character and street appeal are largely due to the trees which grace our streets and parks*
- *Healthy Environment: trees in our natural reserve areas and integrated into our built infrastructure help to sustain our community and our environment*
- *Excellence in Government: in partnership with other agencies we are developing progressive, forward thinking approaches to sustain trees in urban areas to better serve the community, protect the environment and to save money.*

Living Well Regional Plan for Health and Wellbeing for the Cities of Unley and Mitcham (2014)

- *This plan supports increased tree planting and greening of public areas to improve the community's health and wellbeing.*

Resilient South Regional Climate Change Adaptation Plan (2014)

- *By increasing shading and cooling through tree planting and the use of 'green infrastructure' to reduce urban heat island effects this plan aims to mitigate impacts on vulnerable members of our community*
- *By linking water sensitive urban design with green infrastructure the climate change adaptation benefits of urban trees and other vegetation will be increased*

Council has developed other plans and reports that guide tree planting and species selection in some areas. These plans, which will be incorporated into tree asset management plans to continue to guide planting in their respective areas, include the:

- *Colonel Light Gardens Conservation Management Plan (2005)*
- *Springfield Estate Management Plan (2005)*
- *Blackwood Central Area Report (2006)*
- *Mitcham Village Heritage Implementation Plan (2009)*

3.8.2 Legislative Environment

No federal or state legislation mandates or promotes urban tree planting. Legislation does impact on Council's arboricultural works however, with several Acts and Regulations restricting or limiting Council's discretion regarding tree planting and streetscaping.

Local Government Act 1999

- *Council must consider potential impacts on the environment, aesthetics, public safety and nearby infrastructure prior to tree planting (Section 232 (a)). The Act is silent on the potential impacts of tree removal on the environment, aesthetics, public safety and nearby infrastructure.*
- *Council must consult the public in cases where tree planting may significantly impact nearby land owners, business operators or advertisers (Section 232 (b)). The Act is silent regarding tree removal which might significantly impact on residents, business operators or advertisers.*

Electricity Act 1996 and Electricity (Principles of Vegetation Clearance) Regulations 2010
This legislation restricts the species which Council can plant near powerlines. In the Mitcham hills, without prior approval:

- *no vegetation with a mature height more than three metres can be planted within six metres of any uninsulated overhead powerline*
- *no tree with a mature height more than six metres can be planted within twelve metres of any uninsulated overhead powerline, and*
- *no tree with a mature height more than six metres can be planted within six metres of insulated overhead powerlines*

Water Industry Act 2012 and Water Industry Regulations 2012

This legislation restricts the species which Council can plant near sewers.

- *92 species of shrubs and trees are listed which must not be planted within 2 metres of a sewerage pipe*
- *104 species are listed which must not be planted within 3.5 metres*
- *Planting of any species other than the 196 listed in the Regulations is prohibited on public land without prior approval of any water industry entity that owns or operates sewerage infrastructure that may be affected*
- *Planting of any tree on any road is prohibited within 1 metre of water supply infrastructure*

Native Vegetation Act 1991 and Native Vegetation Regulations 2003

Native vegetation including trees is protected in some areas and situations in Mitcham. In bushfire risk areas vegetation within 20 metres of dwellings is exempt from protection; effectively removing all tree protection from much of Mitcham's hills residential areas. Many trees have been removed from private properties in recent years under the 20 metre bushfire risk clearance exemption.

Development Act 1993

Protection is given to some existing 'regulated' trees but, due to exemptions listed in the legislation, many of the trees on most of the private properties in Mitcham are not protected. The Act requires planting of replacement trees or payment into a fund following the removal of regulated trees. Protecting existing trees, though important, can at best only delay their loss as all trees must die and, as dead trees are exempt from protection by definition, planting of replacements is then no longer required.

4. PRINCIPLES

Smaller building blocks and larger homes mean less space for trees on private property, so the importance of Council's trees will continue to increase. This strategy formalises Council's tree asset management approach so that the urban forest will thrive through climate change and other challenges.

Principle 1: Trees are living assets

- *Trees take time to grow and they provide their greatest benefit as they age*
- *Trees need adequate water, quality soil and timely maintenance so they can grow to provide their benefits*
- *Maintenance like pruning and mulching are essential to tree health and safety*
- *When replacement becomes necessary, tree removal can seriously impact amenity and other values*
- *Programed replacement of selected trees can preserve amenity and the environment indefinitely with minimal impact on parks and streetscapes*

Applying asset management practices to trees will ensure:

- *they are effectively maintained and, when eventually necessary, that they are replaced with minimal impact on streetscapes*
- *planning and project decisions are based on reliable information including tree health and condition*
- *the community's views regarding their parks and streetscapes will be matched with the resources needed to achieve their goals and desired service levels*

Tree management practices will be coordinated with other Council works like road construction and water sensitive urban design projects to ensure the urban forest remains sustainable in the changing environment. New initiatives won't replace time proven measures however, and practices like formative pruning, weeding and mulching will be increased to maintain tree health and streetscape amenity.

Principle 2: The community's vision

Mitcham's community is passionate about trees, so genuine consultation is a must to make sure that streetscaping plans and actions meet people's wishes. Community input will ensure that detailed tree asset management plans are appropriate and timely. Keeping the community informed and updated about budgetary processes and resulting implementation projects is also essential, as is keeping impacts to a minimum when trees need to be replaced.

- *With community involvement, plans will be developed which set relevant goals for the city's streetscapes*
- *Tree asset management plans will give residents confidence that Council's direction meets their needs and certainty that Mitcham's urban forest is here to stay*

Principle 3: A precautionary approach

- *Increased tree planting rates will reduce and eventually eliminate tree loss to sustain the current population*
- *Tree audits will provide the information needed to match planting rates with tree losses and so ensure there is no loss of canopy across Mitcham*
- *Effective urban design (including harvesting stormwater runoff) is needed to provide adequate space and other resources to allow trees to grow and to live safely to old age*
- *Council will commit resources into the long term to ensure planned works are delivered*

5. CURRENT ACTIVITY

Tree planting

Over the last decade Council has planted an average of 1000 new trees per year, with the planting rate diminishing in recent years.

- *500 trees are planted each year to replace specimens that had to be removed for reasons like their poor health or death, structural failure, or site development*
- *Up to 500 trees are planted each year to sustain avenues that are deteriorating; 70 trees were planted in 2015. By targeting tree replacement in avenues in a timely manner the impact of tree removal can be minimised, risk can be managed and the aesthetics of the avenue can be sustained indefinitely.*

Tree maintenance

- *Approximately 80 % of the total resources allocated to trees are deployed to manage high risk issues through pruning or removal; 20 % of resources are used to plant and maintain young trees*
- *Current maintenance of young trees is limited to providing minimal supplementary watering during spring and summer. Additional resources are required to maintain adequate watering, formative pruning, adjustment of tree stakes, weed and pest control*

Tree audits

- *Reserve trees are routinely audited every five years to assess risk*
- *Street trees are not routinely audited, but small numbers of individual trees are audited when resources are available*
- *The current level of knowledge regarding street trees is insufficient to reasonably meet Council's duty of care to the public regarding tree risk; increased resources are needed to address this inadequacy.*

Tree management – planning for tree renewal

- *Planting programs are largely reactive; they are responsive to requests from the community and result in replacement trees being planted where others have been removed*
- *Mature avenues are targeted for maintenance and renewal based on tree condition and resource limits; in 2015 a total of 63 White Cedar trees were removed and 70 replacements were planted to restore five avenues*
- *Increased street tree audit capacity will support improved targeting of works in areas of greatest risk and greatest aesthetic need*

6. PLAN DELIVERY

Tree planting

Expanding tree planting to 1800 trees per year in a staged and progressive way is recommended to minimise issues relating to resourcing and project implementation. Annual increases to tree planting are proposed as follows, with the aim of planting 1800 trees during the winter of 2024 and 2025 prior to the Strategy's review:

year	planting quantity			total trees to be planted
	individual tree replacement	avenue restoration	urban forest planting	
2016/2017	1000	100	0	1100
2017/2018	1000	150	50	1200
2018/2019	1000	150	100	1250
2019/2020	1000	175	125	1300
2020/2021	1000	200	200	1400
2021/2022	1000	250	250	1500
2022/2023	1000	300	300	1600
2023/2024	1000	350	350	1700
2024/2025	1000	400	400	1800

Tree audits

- *Urban park tree audits will continue on a 5 yearly cycle*
- *Auditing of Council's street tree population is fundamental to this strategy; regular street tree audits will begin in 2016/17*

Tree asset management plans

- *Tree asset management plan precincts will be reviewed and formalised following consultation on the Draft Tree Strategy during April-May 2016*
- *Tree asset management plans will be drafted between July 2016 and December 2018, including streetscape plans and options (with costings)*
- *Tree asset management plan drafts will be presented to Council for consideration*
- *Tree asset management plans will be revised following the second 5 yearly tree audit of their precinct, taking into account the status of the precinct's urban forest as determined by comparing data from the two audits*

Tree policy review

- *To support implementation of tree asset management plans, Council's Tree Policy will be reviewed during 2016/17*

Formalise internal procedures and standards

Council's tree management and maintenance procedures and standards have developed progressively over time but many have not been adequately documented. Documenting and making procedures and standards publicly available will inform the community and support consistency of service. Procedures and standards will be drafted regarding:

- *customer service requests for tree work*
- *public consultation regarding tree work*
- *planning and implementation of tree asset renewal projects*
- *tree stock selection, planting & establishment*
- *tree removal and replacement*
- *maintenance pruning*
- *fauna management during works*

Tree strategy

- *This tree strategy will be reviewed in 2025*

7. ACTIONS (Subject to annual budget provisions)

Key Activity	When	What	Resources	Where
Plant 1100 trees	Winter 2017	individual tree replacement (1000) avenue restoration (100)	Within adopted budget 2016/17	street verges - various
Plant 1200 trees	Winter 2018	individual tree replacement (1000) avenue restoration (150) urban forest planting (50)	Additional resources required	street verges – various reserves TBA
Plant 1250 trees	Winter 2019	individual tree replacement (1000) avenue restoration (150) urban forest planting (100)	Additional resources required	street verges – various reserves TBA
Plant 1300 trees	Winter 2020	individual tree replacement (1000) avenue restoration (175) urban forest planting (125)	Additional resources required	street verges – various reserves TBA
Plant 1400 trees	Winter 2021	individual tree replacement (1000) avenue restoration (200) urban forest planting (200)	Additional resources required	street verges – various reserves TBA
Plant 1500 trees	Winter 2022	Individual tree replacement (1000) avenue restoration (250) urban forest (250)	Additional resources required	street verges – various reserves TBA

Key Activity	When	What	Resources	Where
Plant 1600 trees	Winter 2023	Individual tree replacement (1000) avenue restoration (300) urban forest (300)	Additional resources required	street verges – various reserves TBA
Plant 1700 trees	Winter 2024	Individual tree replacement (1000) avenue restoration (350) urban forest (350)	Additional resources required	street verges – various reserves TBA
Plant 1800 trees	Winter 2025	Individual tree replacement (1000) avenue restoration (400) urban forest (400)	Additional resources required	street verges – various reserves TBA
Increase street tree audit to 18,000 per annum	Annually, beginning in 2016/17	5 yearly street tree audit	Within adopted budget 2016/17	Streets and suburbs to be advised
Reserve tree audit	Annually	5 yearly reserve tree audit	Within existing resources	All parks and reserves
Tree asset mgt.	July 2016 to Dec 2018	Draft street tree asset management plans for precincts	Within existing resources	Council - wide
Tree asset mgt.	July 2016 to December 2017	Draft tree management and maintenance standards and guidelines	Within existing resources	
Tree asset mgt.	July 2022 to June 2025	Revise tree asset management plans following completion of second 5 yearly tree audit	Within existing resources	
Tree asset mgt.	April - June 2025	Revise Tree Strategy 2016-2025	Within existing resources	

DOCUMENT CONTROL

VERSION	AUTHOR(S) POSITION	CHANGES	DATE
1	*Tim Johnson – Arborist*		*28 April 2015*
2	*Tim Johnson – Arborist*	*Condensed first draft, revised format, reduced period to 10 years.*	*23 October 2015*
3	*Tim Johnson – Arborist*	*Simplified language, introduced graphics*	*15 January 2016*
4	*Tim Johnson – Arborist*	*Clarified focus to trees on streets and urban parks, extended time period over which planting is to increase*	*10 March 2016*
5	*Tim Johnson – Arborist*	*Increased emphasis on habitat, biodiversity and heritage conservation following public consultation.*	*3 June 2016*

Responsible Department	Engineering and Horticulture		
Delegations Apply	YES / NO		
Classification	[insert function]		
Applicable legislation			
Related Policies & Corporate Documents	Infrastructure Policy 14:30 - Tree Policy (Currently under internal review/updating		
Additional references			
Endorsed by Council:	[Insert Meeting Date]	**Item No:**	[Insert item number]
Effective Date:	[insert operational date]	**Next Review Date:**	[Insert month/year]
TRIM Record Number:	15.71250	**TRIM Folder No:**	FF/2015/1267
Template Folder No:	FF/2012/245	**Template Record No:**	12.60143[v4]

CITY OF MITCHAM

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Additional photos provided by David Radzikiewicz/A7Designs