3. Existing landscape character

3.1 Attributes of the landscape character

3.1.1 Overview

The landscape character of Monash is the interplay of the inherent natural physical characteristics and human influences.

The inherent natural physical characteristics include:

- Topography
- Geology and soils
- Vegetation
- Biodiversity
- Waterway corridors

The human influences include:

- Land use
- The era of urban development including built form and settlement pattern
- Cultural heritage
- Land ownership and management (public and private land)

The following features influence the sense of greenness and character including:

- Street layout including the nature strip width and street tree planting.
- Front setbacks and the proportion of the setback which is planted with grass or garden bed and trees.
- Side and rear setbacks.
- Front fences including their height, material and style.
- Garden design trends.
- The distribution, design and quality of reserves and parklands (public open space).

- The presence of distinctive natural features within the urban setting including waterways, remnant bushland areas, historical features such as large exotic trees and garden areas.
- Open space associated with other private and public land uses including:
  - golf courses
  - school grounds
  - university and TAFE college grounds
  - large front setbacks for industrial and business uses
  - the land associated with major roads and freeways.

3.1.2 Natural physical characteristics

3.1.2a Topography

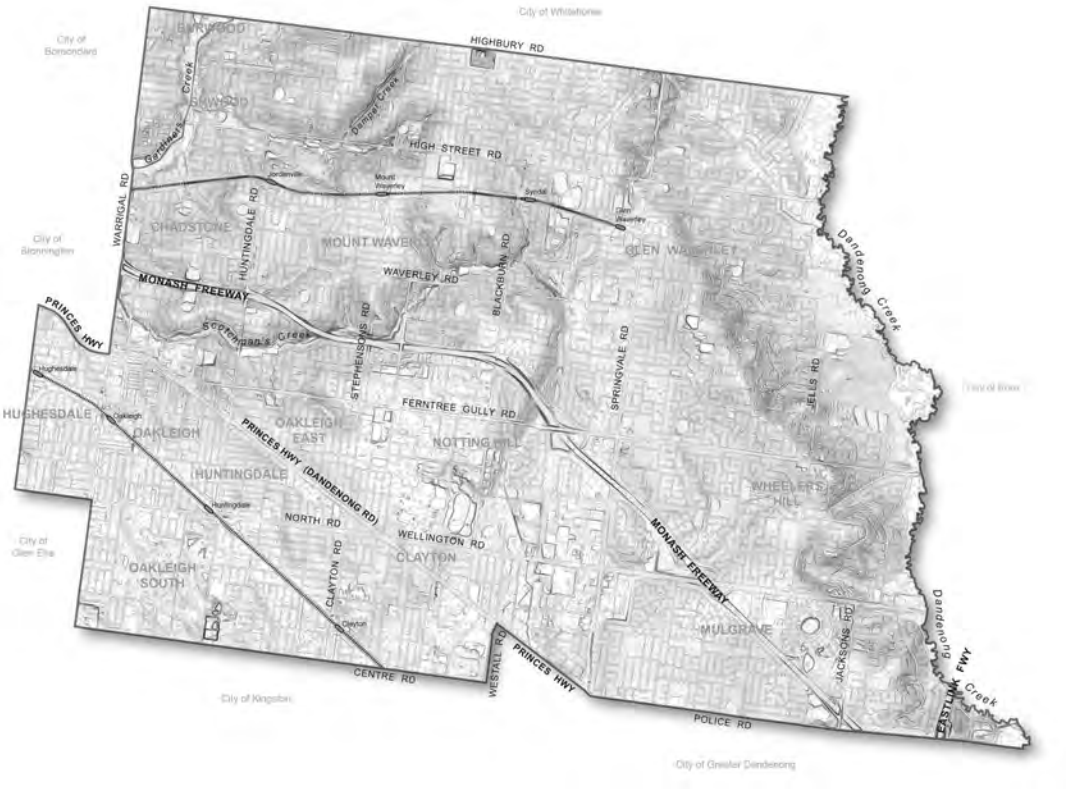


Figure 3A Topography – Extract from Drawing MLAVS-01

The topographic map in Figure 3A shows the distinctly undulating topography in the north changes to the gently undulating topography in the south through Hughesdale, Oakleigh, Huntingdale, Clayton and Mulgrave. In the gently undulating topography, the landscape character is focussed on the built form, planted and streetscape character nearby, in contrast to the longer vistas and views in the north and east in the undulating and steeply undulating topography. There are a variety of views from the steeply undulating topography including towards the CBD to the east, the Great Dividing Range to the north, the Dandenong Ranges to the east and towards the Police Academy to the south.

The waterway catchments are defined on the topographic map with the distinct ridgeline running north--south in the eastern part of the municipality offering extensive views over the Dandenong Creek valley and floodplain and further east to the Dandenong Ranges.

3.1.2b Geology and soils

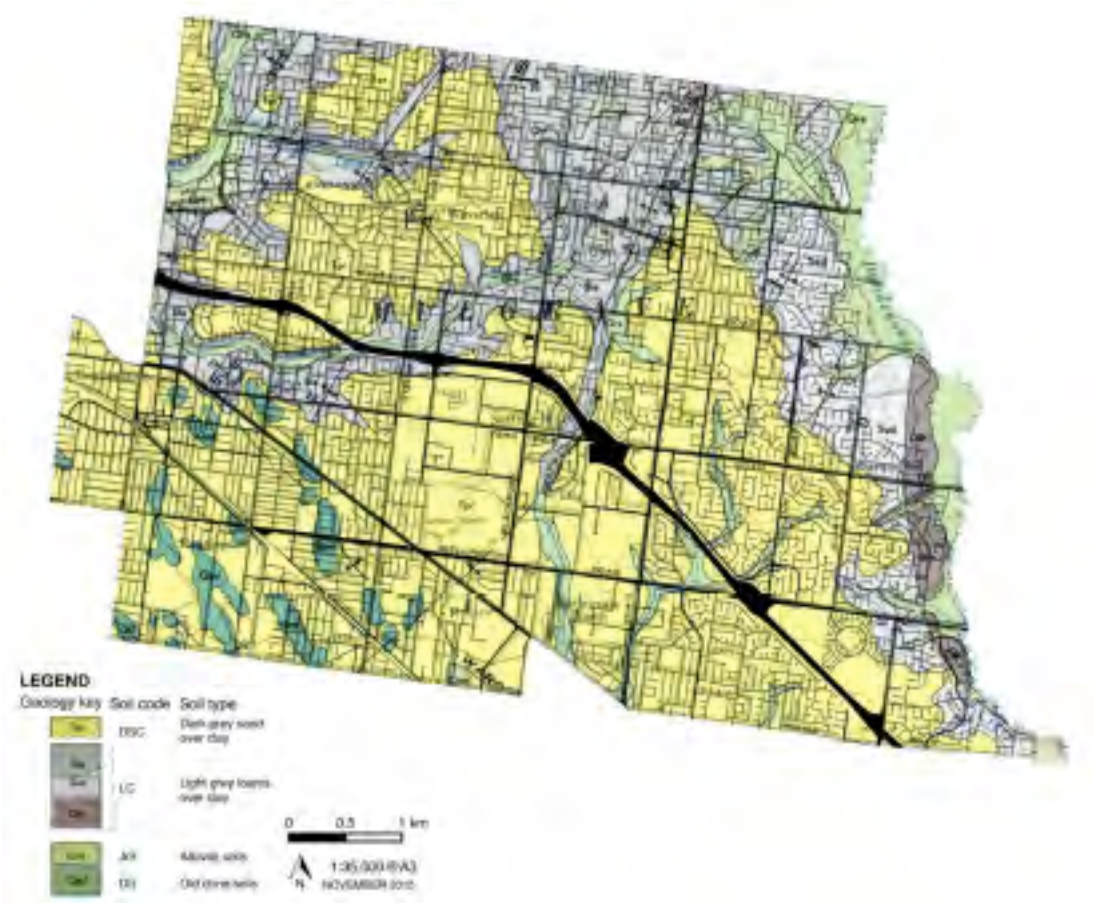


Figure 3B Geology and Soils (Source: City of Monash Street Tree Strategy)

On the northern and eastern slopes of the City of Monash the surface geology is Silurian Derived Sedimentary Hills (shown in grey in Figure 3B), while the majority of the municipality is Tertiary Sands (shown in yellow in Figure 3B). Over the Silurian Derived Sedimentary Hills the soils are described as Light grey loams over clay, while the remainder of the city has predominantly Dark grey sand over clay. Along the waterway corridors, Alluvial soils are present, while in the south west, Old dune soils are present, as shown in the darker green on Figure 3B.

The changes in geology is linked to the topography and the soils. This informs the inherent vegetation characteristics of the municipality, which influences land use and the landscape character. For example, the old dune sands and sand soils in the south west parts of the municipality have influenced the establishment and Huntingdale and Metropolitan Golf Courses. The changes in geology and soils also influences the growth characteristics and type of trees and vegetation across the municipality.

Combined with the changes in soil type, the more undulating parts of the municipality in the north have remnant indigenous vegetation including Grassy Woodland and Valley

Heathy Forest. The sandy soils to the south supported the Grassy Woodland and Heathy Woodland forests, and change the range of tree species and characteristics.

3.1.2c Biodiversity values

The City of Monash Environmental Sustainability Strategy 2016–2026 identifies the following as Monash's most significant natural environmental areas:

- Valley Reserve
- Dandenong Creek Riparian Corridor
- Gardiners Creek
- Scotchmans Creek
- Damper Creek.

Additional to those identified above, there are a number of reserves with remnant or mature planted indigenous vegetation that provides a framework to strengthen the biodiversity values. These include:

- Bogong Reserve
- Brickmakers Park
- Electra Reserve
- Essex Heights Reserve
- Hinkler Reserve
- Federal Reserve
- Reg Harris Reserve
- Whalley Drive Reserve

151 species of flora and fauna of national, state and regional significance have been recorded in the Municipality including Dwarf Galaxias, Australasian Bittern, Southern Bell Frog, Grey-headed Flying-fox, Powerful Owl, Peregrine Falcon, Pointed Flat-sedge, Yarra Gum, Muttonwood and Manna Gum. The Monash ESS is proactively working with other land and waterway management authorities and community groups to improve environmental outcomes.

The strengthening of canopy vegetation in the City of Monash has the potential to improve the habitat and biodiversity values, particularly along the waterway corridors. This includes consideration of tree species on both private and public land along with shrubs and ground layer species. This has been reinforced in the *Urban Biodiversity Strategy 2018,* which was prepared after the main body of research was undertaken for this Strategy. In addition to the biodiversity values along the waterways and the bushland reserves, the *Urban Biodiversity Strategy 2018* notes the importance of the cultivated gardens and street trees in providing supporting foraging resources for indigenous fauna, particularly where they adjoin Council managed reserves.

3.1.2d Pre 1750 Vegetation types

The soils and topography inform the original (Pre 1750) vegetation types in the City of Monash. To the north and east Grassy Woodland (shown as brown colour on Figure 3C) was present on the higher areas with Valley Heathy Forest (shown as bright green on Figure 3C). The Floodplain Riparian Woodland the Swampy Riparian complex occupied the lower elevations towards and along the waterways.

In the central and southern areas of the municipality (shown as brown colour on Figure 3C), the vegetation was predominantly Grassy Woodland. On the old dune soils in the south western areas of the municipality (shown as light brown on Figure 3C) Heathy

Woodland is noted as being the original Ecological Vegetation Class (EVC), with a diverse range of species.

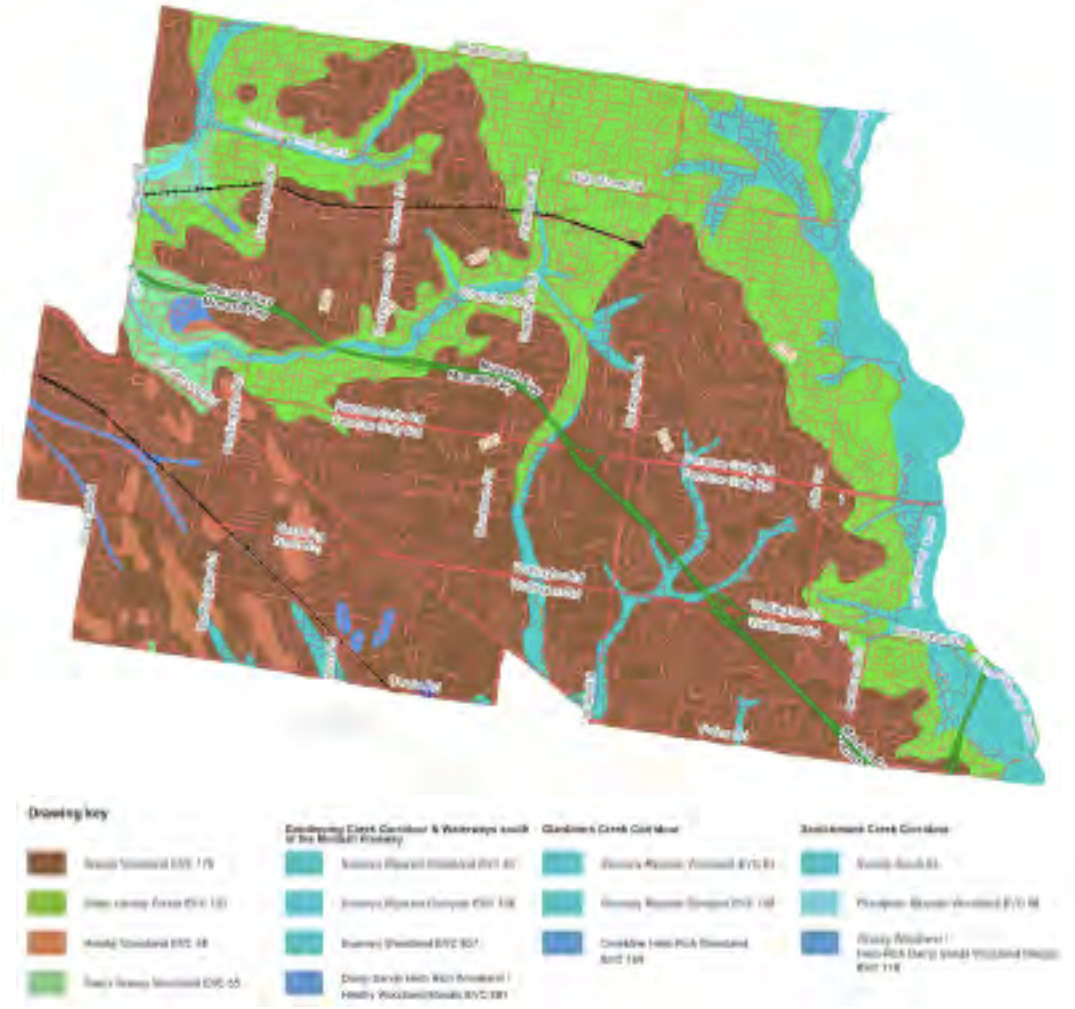


Figure 3C City of Monash Pre 1750 EVC (Source: https://nvim.delwp.vic.gov.au/Map#/)

Overall, the dominant canopy trees in the original vegetation types include:

- **Grassy Woodland** EVC 175 – Narrow-leaf Peppermint *Eucalyptus radiata* and Drooping Sheoak *Allocasuarina verticillata*. Smaller trees include Black Wattle *Acacia mearnsii*, Black Sheoak *Allocasuarina* littoralis and Cherry Ballart *Exocarpus cupressiformis.*
- **Valley Heathy Forest** EVC 127 – Yellow Box *E. melliodora*, Bundy *E. goniocalyx,* Silverleaf Stringybark *E. cephalocarpa* and Messmate Stringybark *E. obliqua.* Smaller trees include Cherry Ballart *Exocarpus cupressiformis*.
- **Swampy Riparian Woodland** EVC 83 – Swamp Gum *E. ovata* and Narrow-leaf Peppermint *E. radiata*. Smaller trees include Blackwood *Acacia melanxoylon* and Swamp Paperbark *Melaleuca ericifolia*.
- **Heathy Woodland** EVC 48 – Jimmy's Shining Peppermint *E. willsii*, Messmate Stringybark *E. obliqua*, Narrow-leaf Peppermint *E. radiata*, Rough-barked Messmate *E.viminalis* ssp. *pryoriana* and Saw Banksia *Banksia serrata*.

Remnant vegetation in the City of Monash is primarily located along the waterway corridors with some individual remnant trees on other areas of public land away from the waterway corridors. Today, the original vegetation communities form a component of the landscape character mainly in precincts adjacent to the waterways. Away from these

precincts, the vegetation has been substantially removed with exotic gardens and a mix of native and exotic street trees. The planted vegetation is described below.

The remnant indigenous vegetation, particularly the dominant tree species informs the existing and preferred landscape character types. Some of the international research, into determining target percentage canopy tree cover for areas links this to the original vegetation types. For example, naturally forested areas are typically able to support a higher percentage of tree canopy cover than an area that was formerly an open grassland. A range of different woodland and forest types were present across the whole municipality, all of which would have originally supported varying types of tree canopy cover prior to European settlement, and this influences the percentage canopy cover target in this Strategy of 30 per cent.

3.1.2e Planted canopy vegetation (outside of bushland areas)

Due to urban development, outside of the waterway corridors and remnant bushland, the majority of canopy vegetation is planted. The planted character is largely influenced by changing trends in urban development. During the interwar period the planted canopy vegetation is a mixture of exotic and native species, but with a dominance of exotic, particularly in relation to residential gardens including the ornamental shrubs and small trees.

From the 1960s through to 2000 there is a combination of the tall Eucalypt style character along with the manicured exotic evergreen gardens with conifers, cypress and fruit trees. Post 2000 there is a noticeable decrease in canopy vegetation cover on private land and an increase in focus on the canopy vegetation on public land.

There are some very large signature stands of canopy trees in the city in addition to the bushland. This includes rows of Cypress trees and other trees that formed windrows to rural properties, along with large scattered trees including Oak Trees contained in open space reserves and on private land. Many of the large canopy trees are from earlier times prior to urban development, when agriculture was the dominant land use. The large canopy trees are located on a combination of public and private land, some of which are protected via Heritage Overlays.

Significant trees

Monash City Council does not have a Significant Tree Study, however a number of trees or groups of trees are listed in Schedule 1 to the Heritage Overlay in the Monash Planning Scheme.

The criteria for determining significant trees is more extensive than just size or maturity, and can include more recently planted trees where they have an association with an important event or are of scientific interest. The criteria for significant trees includes:

- Aesthetic, being notable for the visual quality and contribution to the landscape setting. This may include a tree that is outstanding for its size and canopy spread.
- Historic, including a tree that is particularly old, and associated with a memorial or historical event.
- Scientific, of horticultural or genetic value, including being rare, outstanding features, unusual features, of limited distribution, exotic, indigenous or being important for propagation purposes.
- Social/spiritual, including being associated with a notable historical figure or cultural group or identity.

A search of the Victorian Heritage Register and the National Trust Significant Tree Register has found only two individual trees and one other group of trees listed as being of State significance, including:

- Flowering Gum *Corymbia ficifolia* in the Metropolitan Golf Course, approximately 150 years old, 12m tall.
- Bats Wing Coral Tree *Erythrina vespertilio* located at Monash University listed as the best specimen of its kind in Melbourne.
- VHR H1667 Clayton Station, the Statement of Significance notes there are some mature plantings of Oak and Peppercorn trees on the site.

The canopy vegetation including the large mature trees and bushland areas are an important influence on the landscape character of Monash.

3.1.2f Waterways and wetlands

Damper Creek forms the strongest influence in terms of natural bushland character due to the close proximity of the properties and intimacy and steepness of the creek valley relative to surrounding streets and properties. Similarly, the upper reaches of Scotchmans Creek also have this intimacy, which informs the landscape character of the adjoining areas.

Gardiners Creek corridor has a strong influence on the landscape character, however the more gently undulating topography and established exotic gardens in the valley means that its influence is not as pronounced Damper Creek.

By comparison, the Dandenong Creek corridor has a wide expansive floodplain with the streets and urban development set back from the waterway corridor. In some reaches there are large mown fire breaks and grassed ovals and open space between the urban area and Dandenong Creek. Other reaches around Jells Park includes large areas of extensive remnant woodland that influences the adjoining urban character. The creek valley rises steeply to the west of the creek meaning there are expansive views over the creek valley and beyond to the Dandenong Ranges.

The Dandenong Ranges are a key natural feature that influences the landscape character of the municipality. Many streets and neighbourhoods directly overlook the Dandong Creek valley with the Dandenong Ranges in the background. This generally means there are small and trimmed canopy trees and shrubs on private land so that people can retain their expansive views without tree canopies interrupting them.

A key influence on the changes in landscape character through the municipality is the presence of waterways. This includes the presence of biodiversity values associated with the waterway corridors along with the potential to strengthen these values in the future. One of the key challenges will be planting new large canopy trees in streetscapes and encouraging this on private land in the context of people retaining views of the Dandenong Ranges.

Gardiners Creek corridor, Ashwood

3.1.2g Public open space

Figure 3D *Open space and waterway corridors in the City of Monash*

Existing areas of open space also contribute to the landscape character at both the neighbourhood and local level. This is typically where the urban layout of streets and properties are oriented to overlook an open space and includes Bogong Reserve in Glen Waverley, Glen Waverley North Reserve and Sherwood Road Reserve in Mount Waverley. A large number of open space reserves in the municipality are not highly visible from the streets as they are enclosed by residential properties or other land use with small frontages directly adjoining the street. While the open space may not be visible, the canopy trees in the public open space provide a framework of canopy trees that contributes the landscape character of the adjoining urban areas. The presence of public open space influences the landscape character and presence of canopy trees.

3.1.3 Human influences

3.1.3a Land use

Residential

This is the dominant land use in Monash with detached single and double storey dwellings in residential lots of varying sizes. In more recent times, the urban character of residential land use is changing and built form has a greater influence on the character. This includes the trend towards larger dwellings on single lots that replace the modest detached dwellings, combined with increased intensity of use on existing properties with 2 lot and greater subdivisions of the residential use.

There is an increasing presence of two storey dwellings in what were standard single storey dwelling areas, which increases the visual prominence of built form and roofs. This is often coupled with increased built form footprint with no or minimal side boundary setbacks. Front setbacks have been retained in the majority of areas, however there is an increased paved surface to these front setbacks due mainly to changes in space allocated for car access and parking. Older style dwellings typically had 3 metre wide driveways for a single vehicle to a car park or garage. Increasingly new dwellings have 6 metre wide driveways, with larger garages for two or more vehicles, and vehicle drop off at the front of the dwelling. This increased hard surfaces to the front of the dwellings reduces the overall sense of green and garden character in the streetscape. The visual impact of the increased hard surfaces impacts on the landscape character where they occur more than occasionally in the streetscape (i.e., several rather than one or two).

Typical residential land use in the City of Monash

Typical increase to site coverage in residential land use in the City of Monash

Medium density residential

This land use type includes townhouses and other developments including semi-detached and attached dwellings. It is still a small component of the overall residential character and make-up of the City of Monash. It primarily occurs in discrete areas that are either located near activity centres or strategic sites converting former land use such as industrial and mixed use to residential use. In many of these sites, underground power means that large canopy street trees have been planted in consistent avenue style plantings that will ensure in the longer term there is a reasonable canopy cover, despite reduced building setbacks and the lack of canopy trees on private land. Examples include the Sienna development in Mount Waverley, and the Scenic Drive Development in Ashwood.

Typical medium density residential in the City of Monash

High density precincts

This land use type includes apartment buildings and mixed use developments. There are some areas of this land use type in the municipality, including adjacent to Monash University and in Burwood. As with medium density residential, the underground power has enabled large canopy street trees to be planted in consistent avenue style plantings

and close to buildings to achieve a reasonable canopy cover, despite reduced building setbacks and a lack of canopy trees on private land.

Example of high density residential, Notting Hill

Retirement living

As with the medium density land use, retirement villages are discrete land uses located throughout the residential neighbourhoods. The older style villages contain single storey semi--detached dwellings set within landscaped surrounds, some with reasonable canopy tree cover, as per the photograph below. More recent examples include medium to high density living without established tree canopy cover. There are implications for community health and wellbeing, particularly through lack of shade in these areas, given there are higher concentrations of the frail and elderly who are more vulnerable to urban heat island effect.

Cumberland View Retirement Village, Wheelers Hill

The landscape character associated with this land use type varies from a highly urban landscape without trees or any green space to the streets with large 20 metre plus landscape setbacks with large well established Eucalypts providing a native landscape character. Compared with the residential land use, the commercial/industrial areas contain large roof and hard stand areas meaning they have less green space and trees,

however where the large landscaped setbacks exist the overall effect from the public streetscape is shaded and green character.

Typical urban commercial/industrial precinct, Oakleigh

Typical garden commercial/industrial precinct, Mulgrave

Public open space

Sporting fields and large native overstorey trees characterise many of the large open space reserves in Monash. Additionally, there are some key reserves with remnant indigenous vegetation including Valley Reserve, Larpent Reserve and the open spaces along Damper Creek, Scotchmans Creek, Gardiners Creek and Dandong Creek. From the site assessment work it appears there are opportunities to increase the presence of canopy trees in public open space, particularly to the perimeter of sports fields and through unstructured recreational facilities, for example around picnic areas and playgrounds.

The character of the public open spaces influences the overall landscape character of the precincts particularly where the urban layout faces the open space. The presence of canopy trees in the public open space provides a framework and setting for the built form in many neighbourhoods. Refer to Figure 4D.

Indigenous landscape character of Federal Reserve, Mount Waverley

Exotic and native landscape character of Colombia Park Drive Reserve, Wheelers Hill

Education

This includes public primary and secondary schools, Holmesglen Institute of TAFE and Monash University. Generally, the school grounds contribute to the canopy tree cover and the overall landscape character of the neighbourhood. Particularly notable are the large Eucalypt species providing an overstorey canopy framework and context to residential dwellings. Combined with public open space some school grounds have remnant indigenous overstorey trees. The Victorian Department of Education and Early Childhood Development (DEECD) is responsible for all Victorian public schools and while the trees on this public land contribute to the landscape character and canopy cover, Council is not directly responsible for their ongoing protection in the future.

Monash University campus in Clayton is recognised for the Australian landscape character and has ten gardens within the grounds. The campus was established in the 1960s on predominantly open grazed paddocks and now has well established gardens with mainly planted Eucalypts, and also one significant remnant Red Gum.

Other educational institutions include private schools including Wesley College Waverley Campus, Caulfield Grammar Wheelers Hill Campus, adjoining the Dandenong Creek corridor and Salesian College, Chadstone. These sites have open sports fields (both natural and synthetic) and canopy trees mainly to the perimeter of the sites.

Local retail centres

The small local retail centres located throughout the residential neighbourhoods in the commonly have a consistent style street tree plantings that signify these retail precincts in the residential streets. The topiary style of street tree is commonly referred to as 'Mop Top' which is a grafted variety of tree with dense branching and foliage on a vigorous main stem which have a topiary appearance without a normal vase shaped branching habit. Increasing shade in these local retail centres, many of which have small local open spaces will be a priority into the future.

Typical local and retail centre with small trees that provide minimal shade and greening

Activity centres

The large commercial centres that form part of the activity centres have not been individually assessed as part of this work as these typically have Structure Plans to guide their future change. Given the activity centres will increasingly include high density housing, the provision of adequate urban greening will be a key outcome from this Strategy to inform the urban design and structure planning for these centres in the future.

Golf courses

The four privately owned golf courses in Monash contain mature overstorey trees that define the greens and fairways, with an unbuilt and manicured landscape character. Fencing to the perimeter of the golf courses does impact on their contribution to the landscape character as the fence forms a visual barrier to the green and open space character and partially obscures the canopy trees.

Major roads and freeways

With VicRoads as the responsible agency for the major arterial roads, Council has limited influence over the selection and canopy trees along the major arterials including Princes Highway, the South East Arterial and Springvale Road. The large Eucalypt style plantings through Clayton contribute to the landscape character and setback for the large scale commercial/industrial, education and business land uses. Canopy vegetation along the South East Arterial easement partially screens the freeway sound walls and softens the adjoining residential use in some locations.

Railway land

The railway easements vary in width, and in some precincts there is a significant presence of canopy vegetation that contributes to the landscape character. As with roads, education land and service easements, the canopy trees can be removed to provide space for transport or service provision and risk, and therefore there is no certainty of their retention.

Service easements

Easements for the transmission lines and water supply traverse through the municipality, however due to their service provision they do not have any substantial canopy vegetation present in them.

Victorian Government owned land

The Police Academy site and the Melbourne Water Reservoirs are located on high points in the Glen Waverly area they contain mature canopy trees which are highly visible and contribute to the canopy tree cover.

Long views towards the Police Academy site in undulating topography

3.1.3b Built form and settlement pattern

The extent of built form and development relative to the landscape, or unbuilt areas has a key influence on the urban landscape character of precincts. This includes the building height, density, form, setback from front and side boundaries, fence styles and materials. The settlement pattern includes: the overall subdivision pattern and its responsiveness to the underlying topography;; road pavement widths relative to the overall street width;; nature strip widths that influence the type and size of street trees;; the presence and location of overhead powerlines;; and the location and accessibility of public open space.

The MULCVS relies on the built form character described in the Monash Neighbourhood Character Study 1997 along with the updates in the Draft Neighbourhood Character Review in 2014. The MULCVS refers to the built form and settlement pattern where it forms a key component of or has a major influence over the landscape character.

3.1.3c Cultural landscape heritage

The following description has been taken from the Council's website:

Pre-European settlement

Prior to the arrival of Europeans, the ***Woi wurrung*** occupied an area which extended from inland of the Werribee River in the south west, Mount Macedon in the north west, Mount William in the Great Divide to the north and across to Mount Baw Baw in the east (Clark 1990). Their southern boundary was the watershed of the Great Divide and Bunurong clans. This group of people had common language and social practices, and at the time of contact, was thought to have comprised seven clans, each with their own clan estate. At the time of European settlement, Dandenong Creek north of Dandenong appears to have been the approximate boundary between ***Woi wurrung*** and ***Boon wurrung.***

The specific clans likely to have traditional rights and obligations in the City of Monash area are the Ngaruk willam of the ***Boon wurrung*** and the ***Bulug willam*** patriline of the ***Wurundjeri-Balluk*** clan (***Woi wurrung***).

The ***Bulug willam*** clan belonged to the Waa (or crow) moiety and the moiety of the ***Ngaruk willam*** was ***Bunjil*** (or eaglehawk). The meaning of ***Bulug willam*** is given as "Swamp dwellers" and ***Ngaruk*** meant stones or rocky. The ***Bulug willam*** clan head at the time of European contact was Mooney Mooney/Old Murray who is claimed to have guided Batman's June 1835 party to a winter camp where the "Treaty" was negotiated. Mooney's son, Bolete who was a member of the Native Police Corps. Tukulneen or Old George the King, was retired due to old age as head of the ***Ngaruk willam*** when Europeans arrived in this area, but was recognised as second in command to Billibellary (Jika Jika).

De Villiers identified the Native Police Reserve at Narre Narre Warren as being within the territory of the Bulug willam clan. Members of ***Woi wurrung*** who first chose the site for the Aboriginal Protectorate Station, described the area as 'Nerre Nerre Warren where all black fellows sit down'. Thomas stated that 'the Western Port tribe's (Boon wurrung) visits to Narre Narre Warren are but transient ... they feel no way satisfied with the location' which was within ***Woi wurrungland***.

One of the first Europeans to investigate Dandenong Creek and the Dandenong Ranges during the initial period of contact was Botanist Daniel Bunce (1859). In approximately 1840 when the first squatting runs such as James Clows' were already established, Bunce made a journey to Mount Dandenong. Accompanying Bunce on this short journey was Derrimut (from Werribee District), Yammabook and Benbow. These Aboriginals were from different clans than those who traditionally occupied the Dandenongs, however they still had strong cultural links to the area. During this journey, [the principal aim of which was to collect botanical specimens], a number of local Aboriginals were encountered. In a detailed account of the journey Bunce described the construction of camps, hunting and gathering methods, game preparation and consumption, social practices, including the differing roles of men and women and various types of bark removal. Bunce's short journey serves to highlight the wealth of resources available to Aboriginal people in the Dandenong Ranges, and the exceptional knowledge they had of the landform and its resources.

European Settlement

The Contact period in the Melbourne region was one of upheaval. The Kulin tribes, particularly the Woi wurrung and the Boon wurrung that occupied the Melbourne area, and the European squatters and settlers had relationships that were filled with violent conflict, cross cultural misunderstanding and on occasion a mutual respect. The implementation of Aboriginal missions, the Native Police Corps, the Aboriginal Protectorate and the later Aboriginal Reserves, all shaped the fate of the Woi wurrung and Boon wurrung during the contact period.

The landscape was extensively modified since the early 1800s, firstly being largely cleared for grazing, market gardens and in some locations for quarrying activities including for brick making and sand. The area around Hughesdale and Oakleigh was settled first with dairy farms, orchards and market gardens being the dominant land use in around the turn of the century. Market gardens were particularly important around Clayton. The electrification of the Oakleigh line in 1922 and the opening of the Darling to Glen Waverley line in 1930 further opened up housing developments and caused the gradual retreat of the market gardens. Residential and commercial/industrial development boomed after WWII in Clayton, Mulgrave and Mount Waverley. In 1949, the Housing Commission became a major contributor to housing construction in the Jordanvile area. Monash University was established in Clayton in 1961 and Waverley Park premier football ground was established in 1968.

3.1.3d Cultural landscape character

Today, the original natural landscape character of the city is evident along the key waterway corridors. Evidence of the agricultural is present in the municipality, mainly through surviving large exotic trees that remain in open space reserves and on private land. The landscape character is influenced by a combination of the street trees, open space character, subdivision layout, built form and private gardens. Across the different precincts, original private gardens that represent the late 1940s and 1950s subdivision are notable, however many of these are changing as the buildings are replaced or renovated to contemporary dwellings.

Established remnant Oak Tree from the former rural land use in the area

3.1.3e Street trees

The dominant street tree planting style in the City of Monash is scattered mixed species evergreen trees with a combination of large and small trees. In many streetscapes, the scattered planting arrangement and small size of street trees means that the residential gardens are more prominent and visible in the streetscape than the street trees. Where consistent avenue style street tree plantings exist, these significantly contribute to the overall landscape character of the precincts. Without a strong framework of street trees, changes to the private landscapes and built form, particularly the visual prominence of 2+ storey dwellings have a greater impact on the precinct landscape character.

In Hughesdale and the Oakleigh area the older avenue style street tree plantings make a significant contribution to the landscape character including the distinctive alternating evergreen and deciduous avenues.

The *Monash Street Tree Strategy* identifies opportunities to increase the canopy tree cover in the streetscapes, and the MULCVS can strengthen the need for this to occur, particularly given the loss of canopy trees on private land. The MULCVS also provides an opportunity to consider updating the criteria used to determine priorities for street tree removals and street tree planting, particularly in the context of mitigating urban heat island effect.

3.2 Overall landscape character

The *Garden City Character* varies across the City of Monash and is influenced by the factors listed in 3.2.1. In summary, the greatest influences on the existing landscape character in Monash include the presence of canopy vegetation, particularly large canopy trees; the waterway corridors; the era of development; land use; and changes in the topography.

Hughesdale and Oakleigh contain the earliest subdivisions, generally with wider naturestrips and a greater number of large mature avenues of deciduous and evergreen trees, complemented by exotic gardens and early 1900s architecture. The topography is relatively flat and gently undulating.

Ashwood, Burwood, Chadstone and Mount Waverley are characterised by steeply undulating topography with the presence of the waterway corridors including Gardiners and Scotchmans Creek, contrasting with well-established suburban gardens that are predominantly pre-1965.

Glen Waverley and Wheelers Hill are elevated and steeply undulating topography that affords views over the Dandenong Creek valley to the east, and to the Dandenong Ranges beyond. The long vistas and views contribute to the sense of scale and context of the urban settlement in a natural treed and bushland setting. These precincts also have the upper catchments of Scotchmans and Damper Creeks with these waterway corridors influencing the natural and native character of the areas adjoining them. The eastern extents of Glen Waverley and Wheelers Hill are characterised by post 1965 development patterns with curvilinear streets, detached one and two storey dwellings on quarter acre lots and underground power. This includes a dominance of manicured garden style with trimmed conifers and occasional emergent tall canopy trees.

Oakleigh South is characterised by the presence of the large private golf courses with the established native tall Eucalypt style canopy framework influencing the residential precincts. Clayton, Mulgrave and Notting Hill are characterised by the relatively flat topography and established exotic suburban neighbourhoods. These contrast with the predominantly native landscape character and style associated with Monash University campus and the large scale commercial, business and industrial land use types in this precinct. Cultural influences are evident in the garden styles and character of these precincts with compact productive gardens distributed through Oakleigh, Oakleigh South, Oakleigh East and Clayton.

The following two tables describe the existing landscape character types, with Table 3-1 describing the residential landscape character types and Table 3-2 describing the commercial/industrial landscape character types. Opportunities to change these character types are included in the right hand column, and this has informed the preferred landscape character types which are included in Section 5.5.

Table 3-1 Residential landscape character types

Distinctive features	Opportunities for future change
Native tall Eucalypt landscape character type	
• Strong presence of native tall Eucalypt style trees that influence the overall character. • Are generally a combination of scattered emergent trees through residential gardens, reinforced by more substantial stands of tall Eucalypts in the public open space and in many locations as street trees as well. • Street trees can vary with both tall Eucalypt style and others. • Typically the tall Eucalypts are planted in public open space, on school grounds and in private land. • Diversity of architectural styles. • Variety of fencing styles. • Diversity of topography, with a higher proportion in the creek valley and creek corridor types.	• Retain and encourage additional planting of tall Eucalypt style trees on private land when sites redevelop. • Encourage adequate space and footing designs in proposed built form to maximise the use of new tall Eucalypt style trees in development sites. • Improve tree canopy cover through careful review and establishing additional avenues of Eucalypt style species in streets that are in proximity to remnant bushland and waterway corridors. This may include options to review the planting location outside the overhead powerlines in order to achieve good form and structural integrity to the street trees. • Promote planting of additional tall Eucalypts on public land including streetscapes, public open space, educational facilities and other land including service easements where adequate space is available to minimise long term impacts on footpath and road pavements surfaces. • Promote planting of additional tall Eucalypts on existing private land through community education and initiatives. • Encourage low or no front fencing to minimise built elements and maximise integration between the private and public realm.

Table 3-1 Residential landscape character types *continued...*

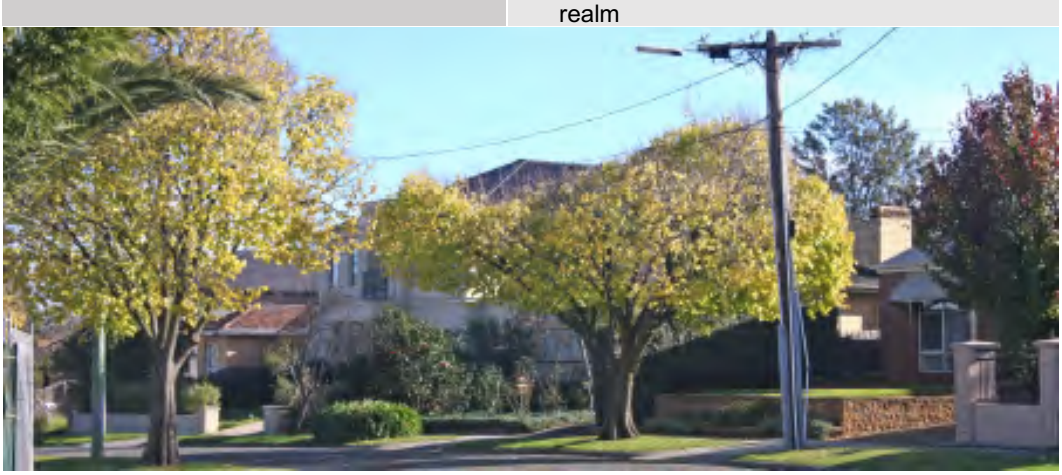
Distinctive features	Opportunities for future change
Exotic suburban landscape character	
• Predominantly non-native canopy trees and vegetation, with a combination of deciduous and non-native evergreen trees. • Predominantly detached single and double storey dwellings with a diversity of architectural styles. • •Exotic street tree species, typically mixed evergreen and deciduous exotic species. • Variety of fencing styles. • Diversity of topography including steeply and gently undulating. • Mainly located in the central and southern parts of the Municipality.	• Retain exotic canopy trees on private land when sites redevelop. • Prioritise retention of long-lived large canopy trees in future redevelopment sites where a requirement to retain all existing trees would potentially prevent the reasonable development and use of the site. • Promote the use of large canopy deciduous and non-native evergreen trees on both the public and private land where adequate space is available. • •Exotic street tree species to be selected for future replacement and infill street tree planting. • Encourage low or no front fencing to minimise built elements and maximise integration between the private and public realm
	
Exotic suburban 'garden' landscape character type	
• Strong presence of exotic canopy trees and vegetation in residential gardens. • Street trees are scattered and have a minimal contribution to the character. • Gardens are the dominant feature. • Mainly detached dwellings with varied front and side setbacks. • Diversity of architectural styles. • Predominantly low or no front fencing making front gardens visible in the streetscape.	• Retain exotic canopy trees on private land when sites redevelop. • Strengthen the street tree planting to complement the exotic garden character, particularly with large deciduous trees where appropriate and adequate space is available. • Retain the predominance of low or no fencing. • Allow space for new large canopy trees in development sites. • Fencing as per previous.
	

Table 3-1 Residential landscape character types *continued....*

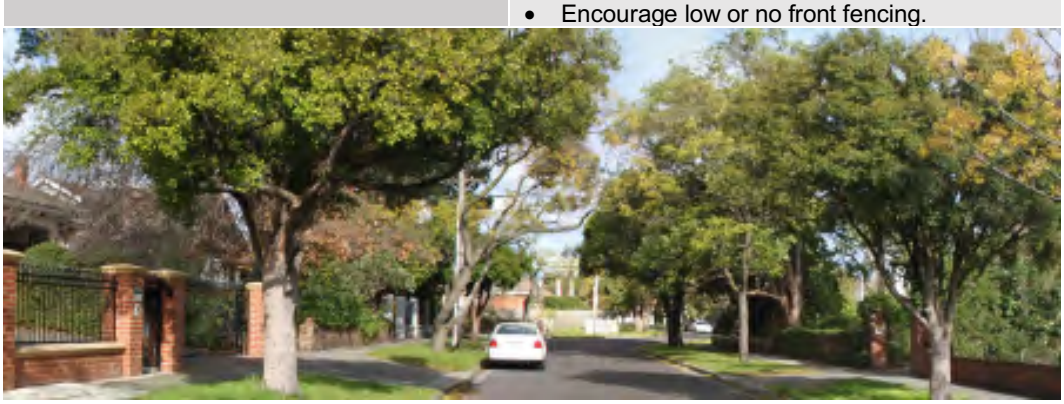
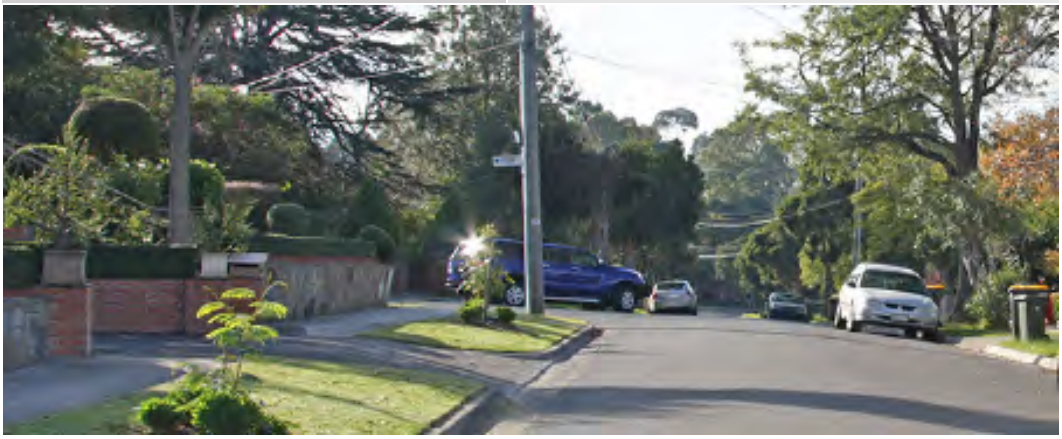
Distinctive features	Opportunities for future change
Evergreen landscape character type	
• Dominance of evergreen canopy trees and vegetation. This includes native and exotic evergreen species, without a dominance of tall Eucalypt style trees. • Variety of architectural styles. • Varied urban densities and building setbacks. • Variety of fencing styles and heights. • Varied topography • Streetscapes typically include a mix of evergreen species in each street, rather than single species avenue style planting.	• Continue to strengthen this character type, particularly where there is no conflict with overshadowing and sunlight access. • Retain and plant new large canopy trees on both the public and private land where adequate space is available. • Prioritise to retain large canopy trees on private land when sites redevelop. • Allow space for new large canopy trees in future redevelopment sites. • Strengthen avenue style street tree planting through progressive infill with evergreen trees. • Encourage low or no front fencing.
	
Evergreen suburban garden landscape character type	
• Predominantly residential land use. • Varied urban densities and building setbacks. • Variety of fencing styles, predominantly low height or no fencing. • The landscape character is mainly influenced by the dominance of evergreen native trees and vegetation on private land. • The street trees are either absent, scattered or recently planted and make a minimal contribution.	• Retain large canopy trees on private land when sites redevelop. • Prioritise street tree planting so that it complements the evergreen garden character and canopy vegetation on public land. • Retain the predominance of low or no fencing. • Consider addition of deciduous trees where sunlight access is required.
	

Table 3-1 Residential landscape character types *continued....*

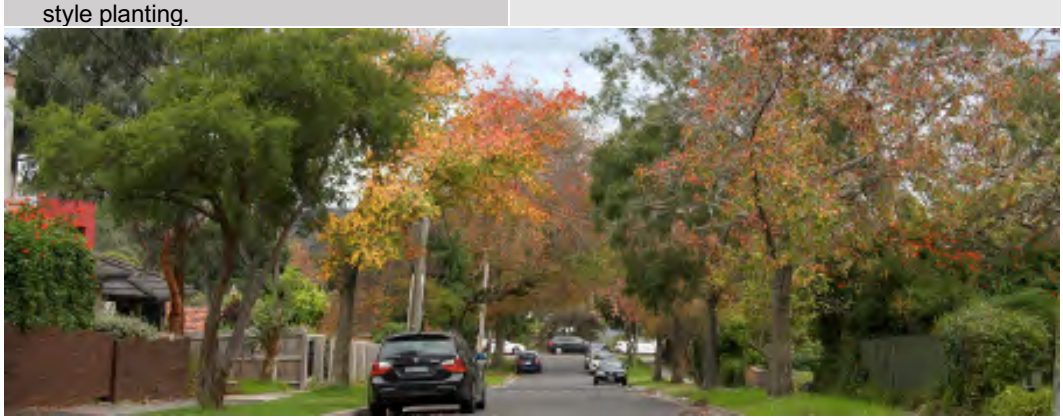
Distinctive features	Opportunities for future change
Deciduous and evergreen suburban landscape character type	
• Where the landscape character is influenced by the combination of both deciduous and evergreen trees in private and public land, and can include both native and exotic species. • Variety of architectural styles. • Varied urban densities and building setbacks. • Variety of fencing styles and heights. • Varied topography. • Streetscapes typically include a mix of evergreen and deciduous species in each street, rather than single species avenue style planting.	• Retain large canopy trees on private land when sites redevelop. • Strengthen the mix of deciduous and evergreen vegetation, particularly with consideration of sunlight access. • Increase the presence of alternating avenues of street trees to achieve sunlight access and shading, particularly in east--west oriented streets. • Encourage low or no front fencing.
	

Table 3-2 Variable elements to add to the existing residential landscape character types

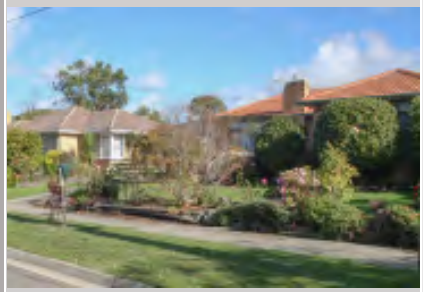
Variable element	Distinctive features	Opportunities for future change
Compact	Canopy trees are predominantly less than 6 metres high, providing a sense of greening for single storey built form, however too low to effectively provide greening to 2-storey and higher built form. 	• Plant taller canopy trees to provide more effective greening and shading to precincts in which 2-storey and higher dwellings are likely to increase in the future • This character type will not be included in the preferred future Landscape Character types to support the overall objectives of planting canopy trees that emerge above the roofline.

Table 3-2 Variable elements to add to the existing residential landscape character types *continued.....*

Variable element	Distinctive features	Opportunities for future change
Creek valley	Elevated areas that overlook waterway corridors 	• Strengthen the biodiversity values of waterway corridors by increasing the presence of large canopy trees, including native and indigenous species on both private and public land. • Investigate suitable guidelines to introduce canopy trees into these areas, while retaining some selected views. • Emphasise the importance of side setbacks to retain views between buildings, along with planting of shrubs in the side setbacks to promote greenness, without impacting on views.
Creek corridor	Areas directly adjoining the waterway within the creek valley form 	• Strengthen the biodiversity values of waterway corridors by increasing the presence of large canopy trees, particularly native and indigenous species on private land through appropriate planning control. • Strengthen biodiversity values by increasing the presence of native and indigenous large canopy trees in public open space and streetscapes. • Determine suitable planning controls to protect existing canopy trees on private and public land during redevelopment along the waterways. • Promote the use of native and indigenous plants in private landscaping where properties directly adjoin the waterway.
Early 1900s	• Where the period heritage style architecture, gardens, street trees and open space styles influence the landscape character. • Building setbacks vary. • Residential garden styles typically match the building form and character. • Mainly low fencing styles complement the architectural character. 	• Review the controls in the Heritage overlay areas to confirm whether any additional controls are required for fencing styles or garden character and street trees. • Protect and enhance the alternating street tree planting style as the species senesce and require replacement. Reinstate the alternating planting style where it has been modified. • Protect the exotic garden character that is consistent with period architectural style.

Table 3-2 Variable elements to add to the existing residential landscape character types *continued.....*

Variable element	Distinctive features	Opportunities for future change
Suburban	• Typically detached single and 2 storey dwellings with space around the building to establish a garden setting that clearly separates it from the next building. • Space between built form allows room for canopy trees, shrubs, climbers and garden beds. In the undulating and valley precincts, this allows for vistas between the buildings. • Typically canopy trees are visible in the rear gardens. • Typically built form is viewed through vegetation. 	• Identify best examples of the suburban detached dwelling style landscape character as part of this Strategy to protect them with appropriate planning controls to prevent them from being changed by incremental redevelopment of single lots. For example, recognise and define new heritage precincts to protect this style. • Emphasise the importance of greenness surrounding the building so it is within a landscaped setting.
Modified suburban	• A combination of the post WWII suburban character noted above with contemporary dwellings interspersed through precinct. • Typically, the contemporary dwellings have a larger built form footprint than the traditional suburban house, and occupy a larger proportion of the block. This means there is less garden area around the built form. 	• Prepare and introduce soft landscape guidelines into the development process where increased site coverage with built form is proposed. • Improve the guidelines for retention of existing canopy trees on site as part of the development process. • Improve guidelines for the protection of existing trees on adjoining properties and in the streetscape during the construction process. This would be applied to all preferred character types.

Table 3-2 Variable elements to add to the existing residential landscape character types *continued.....*

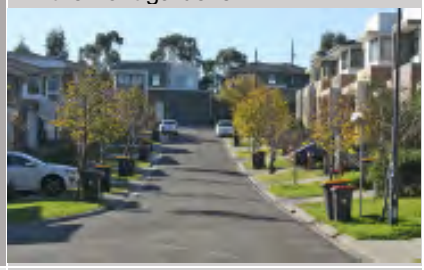
Variable element	Distinctive features	Opportunities for future change
Post 2000 Redevelop-ment area	• Refers to infill development, generally post 2000. • Underground power. • Footpaths to one side only, or no footpaths. • Road pavement widths and kerb treatments vary. • Avenue style planting generally with single species. • Reduced building setbacks and many without any canopy trees in the front gardens. 	• Develop clear guidelines for footpath/pedestrian access to both sides of the street for future infill development sites. • Review the minimum building set back in relation to provision of large canopy trees across the sites to achieve adequate shade and greening in the longer term. • Review the presence of canopy trees in the back gardens of this style of development to achieve improved canopy cover across the precinct.
Urban	Medium to high-density urban development that is located primarily in activity and neighbourhood centres and in other location such as the Monash Employment Precinct 	• Ensure that future design applications for these areas provide space to plant large canopy trees. • Include consideration of both tall Eucalypt style and broad spreading deciduous and evergreen trees, subject to aspect and adequate space. • Review minimum building set backs in order to provide adequate space to accommodate large canopy trees.

Table 3-3 Commercial/industrial landscape character types

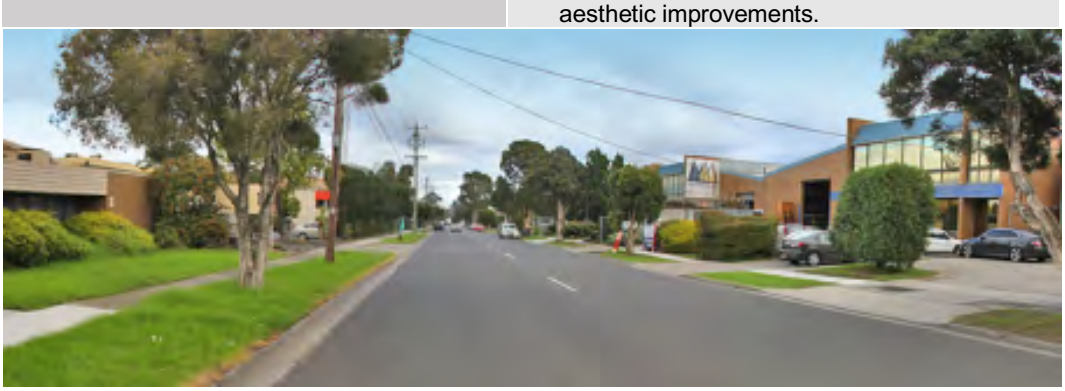
Distinctive features	Opportunities for future change
Urban industrial landscape character	
• Small scale industrial use, predominantly single storey. • No building setback. • Minimal or no nature strip present. • Minimal or no street trees.	• Potential to greatly improve the landscape character and environmental sustainability through planting street trees in the road pavement cut-outs with WSUD.
	
Suburban commercial/industrial landscape character	
• Medium scale industrial use, predominantly single and 2--storey. • Varied building setbacks between 0 and 20m. • Hardscape treatments to the property frontage including car parking and driveways. • Some fenced interface treatments. • Nature strip present with street trees.	• Potential to improve the landscape character and environmental sustainability through increased density of street tree planting, either in existing nature strips or in the road pavement cut-outs with WSUD. Road pavement cut-outs will allow for tree canopies to form where they are not directly under the powerlines. • Encouraged increased building setbacks when the sites redevelop. • Additional trees for shade to be planted in the landscape setback and through the car parking areas. This includes car parking to the rear of the building to provide better distribution of shade across the site and provide a tree canopy framework/setting for the built form. This will achieve improved health and wellbeing outcomes as well as aesthetic improvements.
	

Table 3-3 Commercial/industrial landscape character types *continued....*

Distinctive features	Opportunities for future change
Garden commercial/industrial landscape character	
• Large scale commercial/industrial use, predominantly 2 to 3 storey buildings. • Up to 20 metre building setback. • Landscaped settings with established overstorey trees, well maintained garden beds and grassed areas. • Some scattered mixed species and some avenue plantings. • Predominantly native landscape character with large Eucalypts.	• Potential to improve the landscape character and environmental sustainability through planting additional large canopy trees in the streets and private land. • Potential to introduce additional canopy shade trees to shade internal and external car parks to assist mitigate urban heat build up and improve the amenity values for workers and people living nearby. • Consider inclusion of deciduous trees where they will provide winter sunlight access and summer shade to outdoor spaces that are used by workers.

3.3 Landscape character precincts

A detailed site assessment has been undertaken to document the existing landscape character in the City of Monash. The assessment has been undertaken consistent the urban character sub-precincts from the Monash Urban Character Study 1997. The precincts in the urban character study varied in size and were not related to the suburb/place names. For ease of reference, this Strategy describes the landscape character types by aggregated precincts that are defined either by major roads or major changes in landscape and urban character. The precincts adopt the dominant suburb name for individual precincts names as shown in Figure 3E.

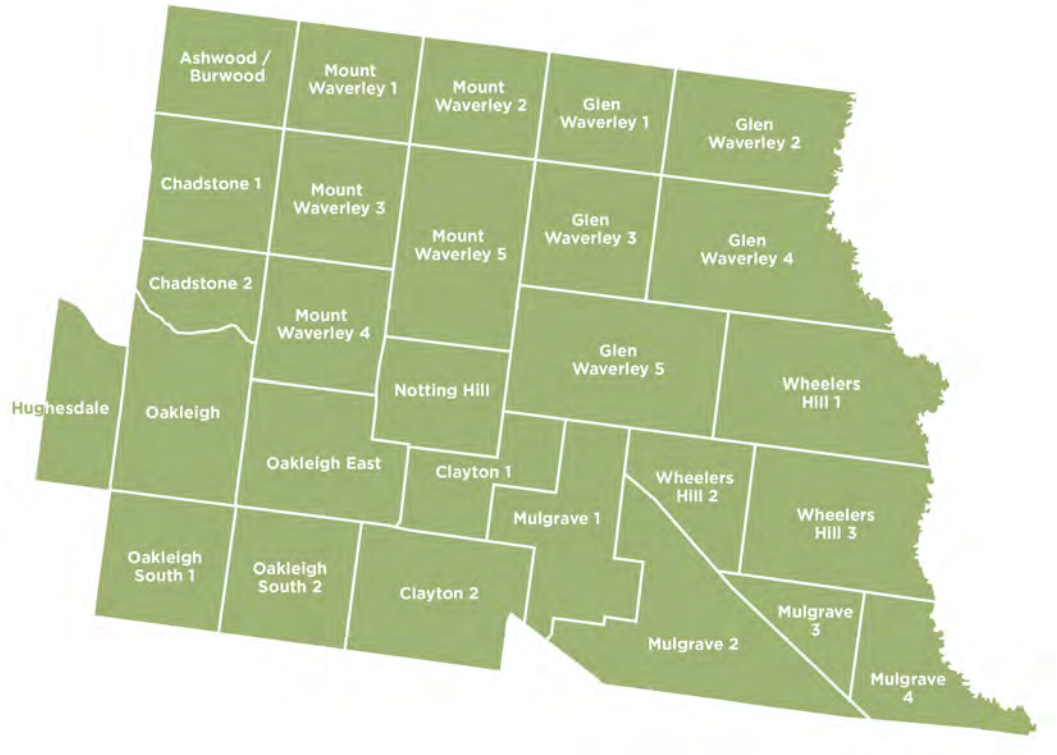


Figure 3E *Landscape Character Precincts*

The site assessment work has considered all the elements of the landscape character as described in Tables 3-1, 3-2 and 3-3, and applied these to develop landscape character types across the municipality. They are divided into two main land use types, being residential and the commercial/industrial land use.

The landscape character type descriptions draw first from the topography, followed by the natural features, built character and vegetation.

The spatial distribution of the existing landscape character areas are shown on Figure 3F on the following page, and the detailed character descriptions which are on A3 sheets from Appendix A to this Strategy.

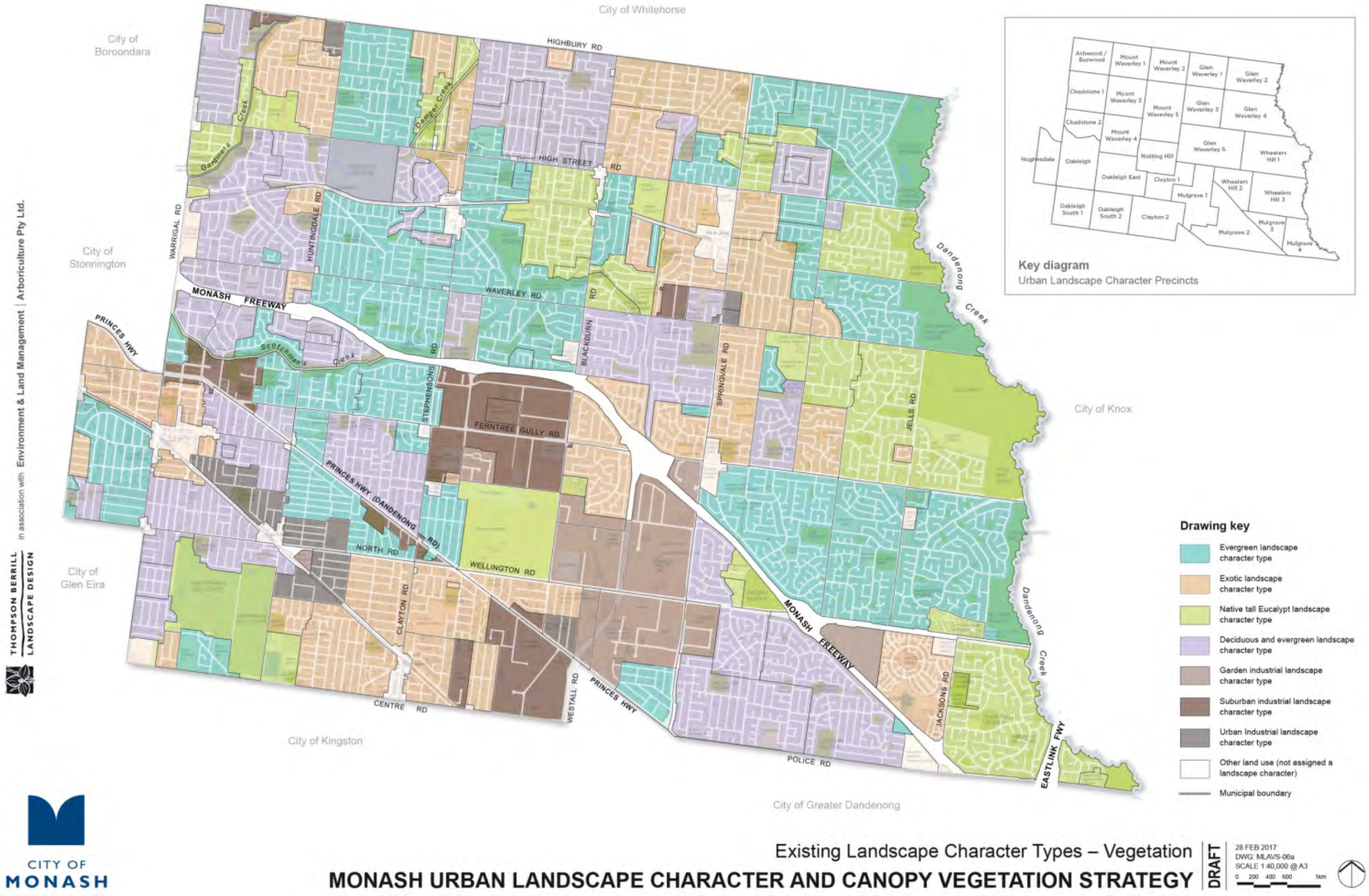


Figure 3F *Existing landscape character types - vegetation*