

# TREE SELECTION AND PLANTING GUIDE

## Quick Reference

Within the Operative District Plan (ODP) now sit provisions for tree canopies and subsequent surface treatment rules to support tree growth into maturity. Depending on the zone, all residential sites must provide an area of tree canopy cover that complies with the following rules.

### Tree canopy coverage

Tree canopy cover is calculated on the anticipated canopy size of a tree at maturity, regardless of the surface below the canopy. Tree canopy cover can be provided by either maintaining existing trees or planting new trees as part of a new residential development. Under the ODP, each residential unit shall provide sufficient trees to produce tree canopy:

- **20% of the site area** for General and Medium Density Residential Zones
- **10% of the site area** for High Density Residential Zone

Trees should be planted within the respective land area and follow Deep Soil Area (DSA) requirements to reach mature sizes.

### Landscape area

Landscape area refers to an area intended for plant cover or gardening. Depending on the zone, residential units at ground floor must have the following minimum landscape areas:



#### 20% of the site area

- **General Residential**  
ODP Rule 4.2.5.3 Impermeable surface and Landscaping
- **Medium Density Residential**  
ODP Rule 4.3.4.3 Impermeable surface and Landscaping



#### 10% of the site area

- **High Density Residential**  
ODP Rule 4.4.5.3 Impermeable surface and Landscaping

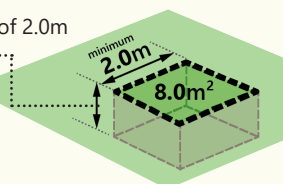
### Deep Soil Areas (DSA)

DSAs refer to an area within a lot that is capable of supporting trees and plants, while providing capacity for stormwater infiltration.

**DSA is at least half (50%) of the Landscape area for all residential zones**

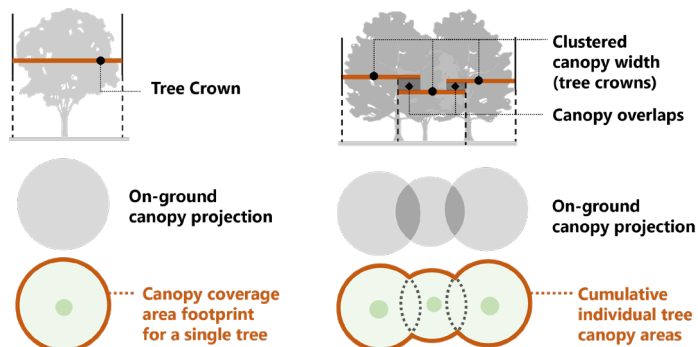
Minimum dimensions of a single DSA (there can be multiple DSAs in one site):

- minimum area of 8m<sup>2</sup>
- minimum dimension of 2.0m
- minimum depths:
  - 1.0m for trees
  - 0.4m for plants and shrubs



### What is a tree canopy or tree crown?

Tree crown is the upper portion of the tree where most of the foliage is concentrated and is considered the widest section of the tree. Collectively, tree crowns form tree canopies.

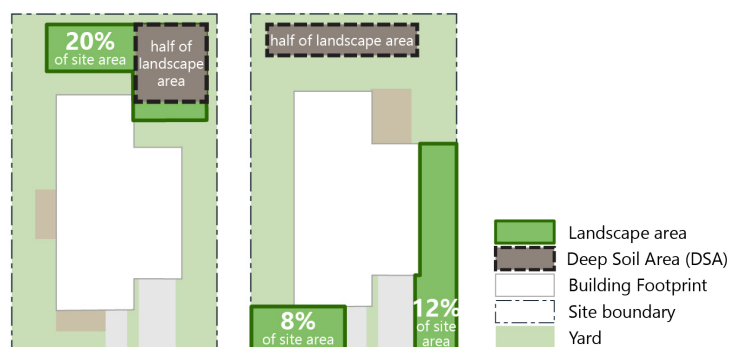


### General tree size categories

Tree Size	Tree height at maturity (metres)	Tree canopy size at maturity (m <sup>2</sup> )	Land area required (m <sup>2</sup> )
Small	0-5	10	3.8
Medium	5-12	67	25.5
Large	12-20	186	70.8
Very large	20+	250	95.4

### Locating landscape areas and DSAs

A single large area is preferred as this provides greater resilience from climate extremes; however, several discrete areas are also acceptable.



\*Indicative concept plan illustrations of continuous (left) and non-contiguous (right) Landscape Areas and DSAs

### Tools and resources










- **Online tool:** A webtool is under development that provides more detailed information on how much tree canopy cover is on your site (including how much more you need) for release in the near future.
- Practical guidance on tree planting and site-to-landscape relationship is available within Council's **Tree Selection and Planting Guide** document.

*Disclaimer: This quick reference document is for informational purposes only and you should independently verify the information as to how it applies to your site with a consent planner. To learn more about landscaped areas and what the ODP requires for your site, visit [hamilton.govt.nz/propertyrates-and-building/district-plan](https://hamilton.govt.nz/propertyrates-and-building/district-plan).*






# Suggested Plant list

While not exhaustive, this plant list includes species that may be suitable for residential sites, depending on the site conditions and overall planting plan. If your selected plant is not on this list, contact a council planner for help and information.

## GROUND COVERS

Botanical Name	Common Name	Special Features
 Acaena purpurea	Purple bidbidi	
 Coprosma acerosa 'Hawera'	Groundcover coprosma	
 Lithodora diffusa 'Grace Ward'	Gromwell graceward	
 Muehlenbeckia axillaris	Creeping wire vine	
 Pimelea prostrata	NZ daphne	
 Pratia angulata	Panakenake	
 Fuchsia procumbens	Creeping fuchsia	
 Coprosma kirkii	Groundcover coprosma	
 Leptinella dioica	Shore leptinella	





## GROUND FERNS

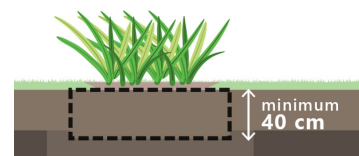
Botanical Name	Common Name	Special Features
 Blechnum discolor		shade
 Asplenium bulbiferum	Hen and chicken fern	shade
 Asplenium oblongifolium	Huruhuruwhenua, Shining spleenwort	
 Doodia australis	Rasp fern	
 Blechnum novae-zealandiae	Koikoi	shade

## GRASS FLAXES



Botanical Name	Common Name	Special Features
 Carex secta	Puurei	damp sites
 Carex virgata	Puurei	damp sites
 Carex testacea	Golden tussock	
 Daniella nigra	Tuurutu	
 Lomandra 'Little Lime'	Dwarf lomandra	
 Festuca glauca	Blue tussock	
 Arthropodium cirratum	Renga renga/Rock lily	
 Phormium cookianum	Wharaiki flax	Nectar for birds
 Phormium green dwarf	Flax	Nectar for birds
 Phormium tenax	Harakeke flax	Nectar for birds
 Poa cita	Silver tussock	
 Libertia grandiflora	Mikoikoi	
 Libertia peregrinans	NZ golden iris	
 Machaerina sinclairii	Pepepe	
 Ophiopogon japonicus	Mondo grass	
 Austroderia fulvida	Toe toe	can grow in dry and wet sites
 Carex dipsacaeae		damp sites, semi-shade
 Libertia ixioides		

## TREE CLASSIFICATION







-  Hamilton native
-  NZ native
-  Cultivar native
-  Exotic













Suggested depth of soil to support plant growth of 400mm

 Astelia fragrans	Kakaha	
 Apodasmia similis	Oioi	












## CLIMBERS

Botanical Name	Common Name	Special Features
 Clematis paniculata	Puawhananga	
 Muehlenbeckia complexa	Small leaved pohuehue	Can be groundcover too
 Trachelospermum jasminoides	Star jasmine	
 Metrosideros perforata	Akatea	Nectar for birds. Can be groundcover too
 Hardenbergia rosea	Coral pea	
 Pandorea jasminoides	Bower vine	

## HEDGES

Botanical Name	Common Name	Special Features
 Buxus 'Green Gem'	Dwarf box hedge	
 Corokia blackberry & lime	Green corokia	
 Griselinia littoralis 'Broadway Mint'	Kapuka	Fruit for birds
 Pittosporum 'Sumo'	Compact pittosporum	
 Photinia 'Super Red'	Photinia	
 Coprosma lucida	Shining karamuu	Fruit for birds
 Coprosma repens	Taupata	Fruit for birds
 Coprosma robusta	Karamuu	Fruit for birds
 Corokia cheesemanii		
 Hebe varieties		

## SHRUBS

Botanical Name	Common Name	Special Features
 Carmichaelia australis	NZ broom, Maakaka	
 Choisya ternata	Mexican orange blossom	
 Coleonema pulchrum	Breath of heaven	
 Coprosma black cloud	Black leaved coprosma	Fruit for birds
 Coprosma propinqua	Mingimingi	Fruit for birds
 Hebe wiri cloud	Hebe	
 Loropetalum plum delight	Loropetalum	
 Nandina domestica	Nandina	
 Pittosporum golfball	Golfball	
 Veronica stricta var. stricta	Koramiko	
 Coprosma rhamnoides	Twiggy coprosma	Fruit for birds

# Suggested Tree list

The table below lists recommended tree species for planting on private property, excluding areas within the public transport corridor, such as berms. If you have a tree species not included in the table, you can submit it to Council for an indication of its canopy size.

## TREE SIZE

**Very Large** - typically reach more than 20m in height at maturity




**Large** - typically reach 13-20m in height at maturity

**Medium** - typically reach 6-12m in height at maturity













**Small** - typically each up to 5m in height at maturity

**Tree Ferns** - height at maturity can vary depending on species and origin, as well as environmental factors as the tree grows




## TREE FERNS

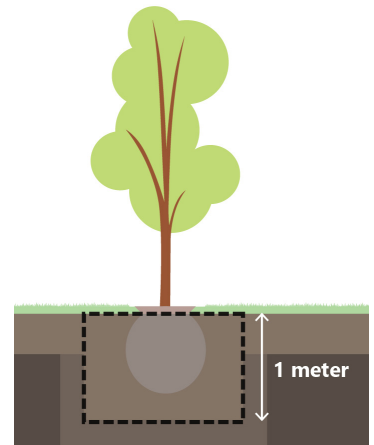
Botanical Name	Form	Evergreen/Deciduous	Common Name	Height (m)	Growth rate
<i>Cyathea dealbata</i>		Evergreen	<i>Ponga, Silver fern</i>	10	
<i>Dicksonia fibrosa</i>		Evergreen	<i>Whēkii ponga</i>	10	Slow growing
<i>Dicksonia squarrosa</i>		Evergreen	<i>Whēkii</i>	8	

## SMALL TREES

Botanical Name	Form	Evergreen/Deciduous	Common Name	Height (m)	Special features
<i>Coprosma lucida</i>		Evergreen	<i>Shining karamuu</i>	6	Fruit for birds
<i>Coprosma tenuicaulis</i>			<i>Hukihuki</i>	5	Fruit for birds. Damp ground
<i>Corokia buddleioides</i>		Evergreen	<i>Korokio</i>	3	Fruit for birds
<i>Corokia cotoneaster</i>		Evergreen	<i>Korokio, Wire-netting bush</i>	3	Fruit for birds
<i>Griselinia lucida</i>		Evergreen	<i>Puka, Akapuka</i>	5	Fruit for birds. Frost sensitive
<i>Olearia furfuracea</i>		Evergreen	<i>Akepiro</i>	5	
<i>Olearia paniculata</i>		Evergreen	<i>Akiraho/ Golden akeake</i>	6	Fruit for birds
<i>Pennantia corymbosa</i>		Evergreen	<i>kaikomako</i>	5	Fruit for birds
<i>Pseudopanax crassifolius</i>		Evergreen	<i>Lancewood (juvenile form)</i>	6	
<i>Pseudopanax ferox</i>		Evergreen	<i>Horoeke, Fierce toothed lancewood</i>	5	
<i>Pseudopanax ferox</i>		Evergreen	<i>Lancewood (juvenile form)</i>	5	
<i>Pseudowintera colorata</i>		Evergreen	<i>Horopito, Pepper tree</i>	4	

## TREE CLASSIFICATION

-  Hamilton native
-  NZ native
-  Cultivar native





















*Suggested depth of soil to support healthy tree growth*






## TREE FORM

-  Conical
-  Pyramidal
-  Columnar
-  Oval
-  Round
-  Vase
-  Fan
-  Fastigate
-  Fountain
-  Irregular








## MEDIUM TREES

Botanical Name	Form	Evergreen/Deciduous	Common Name	Ht. (m)	Special features
<i>Alectryon excelsus</i>		Evergreen	<i>Tiitoki</i>	10	Fruit for birds. Rongoaa
<i>Aristotelia serrata</i>		Deciduous	<i>Wineberry</i>	10	Nectar and Fruit for birds. Kai, Rongoaa
<i>Brachyglottis repanda</i>		Evergreen	<i>Rangiora</i>	7	Frost tender
<i>Carpodetus serratus</i>		Evergreen	<i>Putaputa-weetaa</i>	10	Nectar and fruit for birds.
<i>Coprosma repens</i>		Evergreen	<i>Taupata</i>	8	Fruit for birds
<i>Cordyline australis</i>		Evergreen	<i>Cabbage tree, Tii koouka</i>	20	Fruit for birds. Kai, Rongoaa, weaving
<i>Griselinia littoralis</i>		Evergreen	<i>Kaapuka, Broadleaf</i>	10	Fruit for birds
<i>Hoheria sexstylosa</i>		Evergreen	<i>Houhere, Lacebark</i>	15	
<i>Kunzea ericoides</i>		Evergreen	<i>Kaanuka</i>	12	Nectar for insects
<i>Kunzea robusta</i>		Evergreen	<i>Kaanuka</i>	12	Nectar for insects. Kai, Rongoaa
<i>Leptospermum repo</i>		Evergreen	<i>Swamp maanuka</i>	8	suited to wet areas
<i>Leptospermum scoparium</i>		Evergreen	<i>Maanuka</i>	8	Nectar for insects. Kai, Rongoaa
<i>Libocedrus plumosa</i>		Evergreen	<i>Kawaka</i>	15	
<i>Melicytus ramiflorus</i>		Evergreen	<i>Maahoe</i>	15	Fruit for birds. Rongoaa
<i>Myrsine australis</i>		Evergreen	<i>Red Mapou</i>	7	Fruit for birds
<i>Pittosporum eugenioides</i>		Evergreen	<i>Tarata, Lemonwood</i>	12	Fruit for birds
<i>Pittosporum tenuifolium</i>		Evergreen	<i>Koohuhuu/ Black matipo</i>	10	
<i>Plagianthus regius</i>		Semi Deciduous	<i>Manatu/ Ribbon-wood</i>	12	












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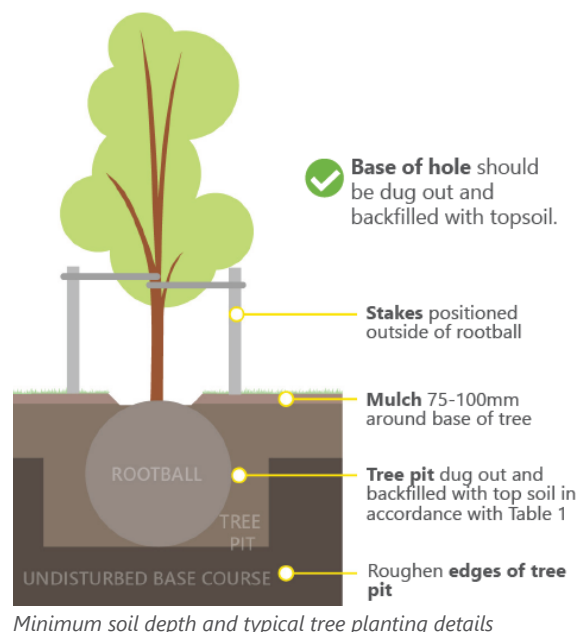
Botanical Name	Form	Evergreen/Deciduous	Common Name	Ht. (m)	Special features
<i>Pseudopanax arboreus</i>		Evergreen	<i>Whauwhaupaku, Five finger</i>	8	Frost tender
<i>Pseudopanax crassifolius</i>		Evergreen	<i>Horoeka, Lancewood</i>	12	
<i>Rhopalostylis sapida</i>		Evergreen	<i>Niikau</i>	6	palm
<i>Sophora microphylla</i>		Semi Deciduous	<i>Kowhai</i>	10	
<i>Sophora tetraptera</i>		Semi Deciduous	<i>Kowhai</i>	12	

## LARGE TREES

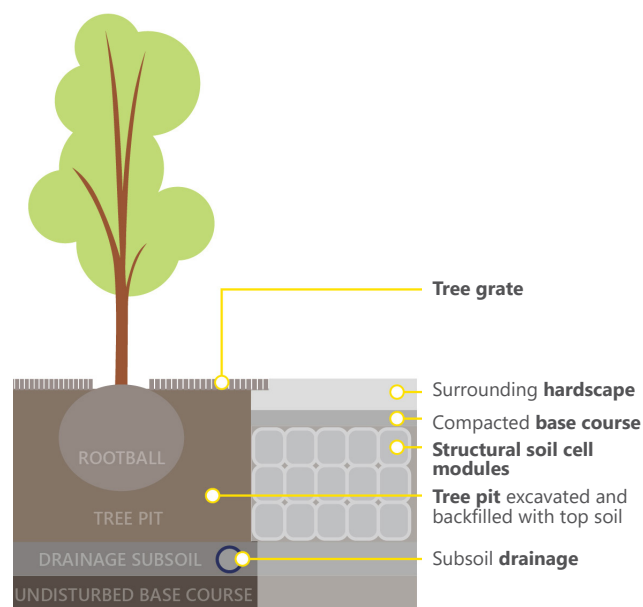
Botanical Name	Form	Evergreen/Deciduous	Common Name	Ht. (m)	Special features
<i>Corynocarpus laevigatus</i>		Evergreen	<i>Karaka</i>	15	Spread by Māori for kai. Poisonous
<i>Dacrydium cupressinum</i>		Evergreen	<i>Rimu</i>	25	Fruit for birds. Rongoa
<i>Nestegis lanceolata</i>		Evergreen	<i>White maire</i>	20	Fruit for birds
<i>Phyllocladus trichomanoides</i>		Evergreen	<i>Taanekeha</i>	25	
<i>Podocarpus laetus</i>		Evergreen	<i>Hall's totara</i>	20	Fruit for birds
<i>Podocarpus totara</i> 'Aurea'		Evergreen	<i>Golden totara</i>	20	
<i>Vitex lucens</i>		Evergreen	<i>Puuriri</i>		Fruit for birds especially kereru. Kai,

## LARGE TREES

Botanical Name	Form	Evergreen/Deciduous	Common Name	Ht. (m)	Special features
<i>Agathis australis</i>		Evergreen	<i>Kauri</i>	30	
<i>Beilschmiedia tarairi</i>		Evergreen	<i>Tarairi</i>	22	Fruit for birds.
<i>Beilschmiedia tawa</i>		Evergreen	<i>Tawa</i>	30	Fruit for birds. Kai
<i>Dacrycarpus dacrydiodes</i>		Evergreen	<i>Kahikatea</i>	30	damp areas, fruit for birds
<i>Knightia excelsa</i>		Evergreen	<i>Rewarewa</i>	30	Nectar for birds
<i>Podocarpus totara</i>		Evergreen	<i>Totara</i>	25	Fruit for birds
<i>Prumnopitys ferruginea</i>		Evergreen	<i>Miro</i>	25	Fruit for birds
<i>Prumnopitys taxifolia</i>		Evergreen	<i>Matai</i>	25	Fruit for birds
<i>Piper excelsus</i>		Evergreen	<i>Kawakawa</i>		Frost tender. Fruit for birds. Kai, Rongoa
<i>Schfflera digitata</i>		Evergreen	<i>Pate</i>		Frost tender
<i>Streblus heterophyllus</i>			<i>Turepo</i>		



Minimum soil depth and typical tree planting details



Indicative cross section of tree pit treatment on a semi-permeable surface adjoining an impermeable surface

## References

Operative District Plan, Hamilton City Council, January 2025

Tree Planting and Selection Guide, Michael Graham Landscape Architecture, April 2022

Tree Planting, A Quick Guide for Homeowners, University of Florida (IFAS Extension), October 2014