

Central Otago District Council Tree Policy 2020



1 Dunorling Street
PO Box 122, Alexandra 9340
New Zealand

03 440 0056

Info@codc.govt.nz
www.codc.govt.nz



Department:	Parks and Recreation
Document ID:	500976
Approved by:	Council resolution: 20.7.7
Effective date:	August 2020
Next review:	February 2022



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Purpose:

Central Otago District Council's District Tree Policy 2020 specifies those principles, policies, and objectives regarding Council's ongoing protection and management of Council-owned trees within the District.

The District Tree Policy:

- Outlines the Council's commitment to managing Council trees as a valued asset of the District.
- Outlines Council policy regarding tree requests made to Council.
- Defines the benefits of trees both to the environment and to people.
- Recognises the ecological benefits of regenerating native vegetation on Council-owned lands, as well as exotic plantings, to enhance and showcase the district's biodiversity.
- Makes a commitment to encouraging widespread planting which defines and enhances the District's unique landscape character.
- Ensures trees are a high priority in the new and changing landscapes of urban areas.
- Re-affirms the Council's commitment to the protection and management of trees on public land through tree protection provisions in the District Plan.
- Provides a mandate for the Council's involvement in the management of trees as an integral component of the urban and rural environments which comprise the District.
- Has a key focus on sustainability and self-sufficiency.
- Encourages communication across Council departments to ensure retention of amenity trees, and to maximise planting of trees wherever possible during upgrading of any utility or development projects.
- Recognises the limited life span of many tree species.
- Recognises that trees can pose a potential risk, and that best practice tree assessment programmes are required to identify and mitigate such risks. Some species of trees, such as old Lombardy Poplar trees, are known as high-risk tree species that require regular monitoring and assessment as they age.
- Recognises the use of trees in being an effective way of controlling traffic speed, especially between the rural and urban interface.
- Encourages the planting of fruit and nut trees across the district where practical.

Background:

The Central Otago District Council Tree Policy 2020 addresses issues relating to the recognition, strategic planning, management, and long-term continuity of the tree resource within Central Otago. It has an important role in raising the awareness of the community in relation to the benefits of trees, their multiple functions and the ways in which they contribute to improving the condition of our environment.

The District Tree Policy applies to individual trees, groups of trees and areas of existing and regenerating bush on Council-administered reserves, civic open spaces, and other Council-

owned lands that fall within the jurisdiction of Council's Parks & Recreation or Property Departments.

The District Tree Policy complements Council's Reserve Management Plans.

Definitions:

The following definitions are given for words and terms found within the texts and appendices of the District Tree Policy.

<i>Adventitious (adventive)</i>	Growth that arises from (normally) suppressed buds, or from those plants which invade or inhabit a site first.
<i>Amenity value</i>	Provides positive features and qualities in the landscape.
<i>Approved arborist</i>	A suitably qualified person who can demonstrate proven experience, competency and ability in the field of arboriculture.
<i>Arboriculture</i>	The planting and care of trees.
<i>Arterial route</i>	Route or road of regional or district strategic importance as identified on the District Plan Maps.
<i>Bollard</i>	Post or fixture that serves to protect trees from vehicle and environmental damage.
<i>Branch collar</i>	The raised rim of bark tissue at the connection point between a branch or stem.
<i>Cambium zone</i>	The area of dividing tissue within a tree found between the outer bark and the woody stem.
<i>Canopy</i>	The extent of the foliage cover of any tree or plant.
<i>Carriageway</i>	Area designated for vehicular movement.
<i>Circumferential</i>	The area within a circumference.
<i>Climax vegetation</i>	Vegetation which will ultimately form the canopy of the forest area or final stage of succession.
<i>CODIT</i>	An acronym for the term Compartmentalisation Of Decay In Trees, meaning a two-part descriptive model on the process of decay in trees.
<i>Co-dominant stems</i>	Stems of similar size originating from the same position on the main stem.

<i>Compaction</i>	Ground that has hardened/compressed as a result of constant wear by environmental or mechanical means.
<i>Containerised plants</i>	Plants that have been grown in pots or receptacles in a nursery environment.
<i>Covenant</i>	Legal mechanism that provides agreement to protect a feature.
<i>Crown lifting</i>	Removing the lower branches of a tree to provide clearance for buildings, vehicles, pedestrians, services and vistas. Lifting is carried out to no greater extent than 1/3 the overall height of the tree in proportion to the tree's canopy.
<i>Crown thinning</i>	Removal of dead, declining, and secondary growth to increase air movement and light through the crown. Thinning is carried out to no greater extent than 20% of the canopy in proportion to its size.
<i>Cultivar</i>	Variation of plant species specifically selected and produced by people.
<i>Directional pruning</i>	Removal of branches at the stem to encourage overall growth away from a feature or fixture.
<i>Drip Line</i>	The area directly located under the outer circumference of a tree's branches.
<i>Ecological</i>	Modes of life, habits and relationships of living organisms and their environment.
<i>Eco sourcing</i>	Replanting with only locally occurring natural genetic plants materials.
<i>Encroachment</i>	A situation where the public recreational use or appreciation of the reserve is reduced or obstructed by the private use of the reserve. Alternatively, when roots or branches of a tree grow over or into neighbouring property.
<i>Endemic</i>	Refers to a plant type found only in a particular area.
<i>Environment</i>	The physical and biological factors within a given site.
<i>Exotic</i>	Plant or animal introduced from another country.
<i>Formative pruning</i>	Pruning a tree to enhance the branch structure in relation to a tree's long term shape and structural strength.
<i>Gro-tube</i>	Tree shelter designed to protect plants from stock.
<i>Growth points</i>	The position from which growth occurs.

<i>Guardianship</i>	Providing for the fostering and care of a feature or entity.
<i>Hazardous tree</i>	A tree which has physical, structural and/or biological defects that has been identified or evaluated as representing danger to life or property.
<i>Indigenous</i>	Plant or animal that occurs naturally to an area.
<i>ISA</i>	International Society of Arboriculture. A world-wide organisation representing professional arborists.
<i>ISA Tree Hazard Evaluation Method</i>	Standard evaluation method that identifies the hazard rating of trees.
<i>Landscape values</i>	Those features of the land that make up the wider visual appreciation of an area when viewed as a whole, such as trees, vegetation, water, and/or landform.
<i>Local Character species</i>	Those species that define the local character of the district, through either being a dominant native species or significant cultural/historical species.
<i>Local pioneer species</i>	Plants that establish easily and provide the first tree cover, occurring naturally in the District.
<i>Long term value</i>	Providing positive and useful effects over a long period, usually over 50 years.
<i>Loss of enjoyment</i>	Term of the Property Law Act 2007 that refers to an adverse effect on property and enjoyment of it.
<i>Mitigate</i>	Moderate or neutralise the effects of an activity.
<i>Mulch</i>	The woody debris arising from the chipping of trees and plants that can be used to suppress weed growth and enhance nutrient and microorganism activity around desirable plantings.
<i>Non endemic native plants</i>	Native plants that are not found naturally in the Central Otago Ecological Region.
<i>Notable tree</i>	A tree or group of trees that are considered significant for their historical, botanical, landscape, amenity or cultural values and are identified as such in the Central Otago District Plan and includes a Heritage tree or Protected Tree listed in that Plan.
<i>Arboricultural Operations Manual</i>	The operational instruction manual that sets out the standard method for contractors to follow when commissioned to carry out arboricultural work.

<i>NTP</i>	An abbreviation for the term Natural Target Pruning – a model demonstrating the proper position and sequence of cuts to be made when pruning.
<i>NZAA</i>	New Zealand Arboricultural Association. A national organisation representing professional arborists.
<i>Photosynthate</i>	A substance (usually sugars and other carbohydrates) derived from photosynthesis – the complex process of conversion of light energy to chemical energy.
<i>Pioneer species</i>	One of the first naturally-arising plant species to appear on any landscape.
<i>Pollarding</i>	A pruning method of training branches, used on some large-growing trees, where the tree is pruned to the same growth points (annually or regularly), to maintain the crown to a particular size.
<i>Proactive</i>	Carrying out activity before it becomes a necessity.
<i>Protected trees</i>	A protected tree is a notable tree that is listed in the District Plan schedule.
<i>Reactive</i>	Carrying out activity in direct response to an enquiry or observation.
<i>Reduction pruning</i>	The shortening and/or removal of select branches within a tree to reduce the overall size of the tree canopy.
<i>Regenerative pruning</i>	The removal and/or pruning of branches or stems to encourage a plant's recovery from damage or stress.
<i>Remedial pruning</i>	Pruning to correct imbalances or deformities in tree shape and form, to reduce duplication in branch formations, to remove damaged tissue (includes deadwood).
<i>Remnant</i>	The natural vegetation remaining from an original tree stand or plant colony which has been modified.
<i>RNZIH evaluation method</i>	A national standard (compiled by the Royal New Zealand Institute of Horticulture) used to assess the contribution of a tree(s) within the landscape, using a points system to determine health, condition and monetary value.
<i>Root ball</i>	The mass of roots surrounding and from a tree or plant, usually 10-12x the trunk diameter (measured outwards from the trunk) and to a depth determined by root density.

<i>Root grafting</i>	The inter-connected growth of roots from two or more trees, that allows potential sharing of water and nutrients.
<i>Root zone</i>	The area covered by the full extent to which roots spread from a tree(s).
<i>Rural road</i>	Rural roads consist of local roads whose primary function is to provide access to adjacent properties and arterial routes.
<i>Rural Road Reserve</i>	The entire surveyed legal length and width of a road regardless of where existing fence boundaries are located, including formed carriageway and unformed road verges.
<i>Secondary growth branches</i>	All growth arising within a plant or tree that is secondary to the main branch/stem framework.
<i>Senescence</i>	Biological aging, i.e. the change in the biology of an organism as it ages after its maturity. Such changes range from those affecting its cells and their function to that of the whole organism.
<i>Short-term value</i>	The limited contribution, in terms of lifespan and/or beneficial attributes, of a tree or plant within any landscape. The time scale is usually less than 50 years' duration.
<i>Significant tree</i>	A tree identified as having long-term life expectancy and/or high amenity value.
<i>Soil conditioners</i>	Additives (synthetic or organic) that increase the capacity of soils to function as a healthy medium for plant growth.
<i>Soil pan</i>	A layer(s) within the soil which is impervious, inhibiting the movement of water and air.
<i>Solar access</i>	The availability or penetration of sunlight.
<i>Structural safety</i>	The inherent capacity of a tree or plant, observed by examination of its structure, shape and form, to withstand wind loading and/or other physical force in order to resist failure, breakage or collapse.
<i>Sucker growth</i>	Fleshy shoots and growth arising from below a graft union or from the base of a tree or plant.
<i>Suppressed growth/branches</i>	Branches or stems under severe stress due to competition for light or nutrient. Usually these branches or stems will die in the short term.
<i>Sustainability</i>	The capacity of a tree to survive and thrive within the environment it is planted in without intensive maintenance or management.

<i>Topping</i>	A lay person's term meaning the removal of the head or topmost section of a tree or plant. Topping is not an accepted professional arboriculture practice.
<i>Trade-off</i>	A negotiated outcome that provides benefit to all parties and may mean limited compromise.
<i>Tree</i>	A perennial woody plant at least 6 metres in height at maturity, having an erect stem/s or trunk/s and a well-developed crown or leaf canopy.
<i>Trees isolation systems</i>	Built structures or manufactured products that isolate a tree from potential damage (such as a protective cage or ground-level surround that prevent damage from stock or mechanical damage.
<i>Urban tree collection</i>	A formal planting of specialised botanical or feature interest. Usually designed, recorded and maintained as a long-term permanent asset.
<i>Vista</i>	A view, view shaft, or framed view point.

Trees – A Valuable Asset:

1. Council's Guardianship Role

- 1.1. Central Otago District Council currently manages some 3000 urban street trees and around 3500 specimen trees in parks, reserves and other Council-owned lands.
- 1.2. The Council takes a proactive approach, by regularly planting new trees on public land - primarily to maintain and replenish the numbers of street trees and native or exotic trees in parks and reserves. Council covers the care and maintenance of trees in the public domain, including arboricultural works related to the clearance of trees near power lines and other structural features.
- 1.3. Council has a duty of care to ensure tree assessment programmes are developed and implemented to mitigate risks posed by trees to public safety, including risks to infrastructure. Council acknowledges that certain tree species such as Lombardy Poplar and Eucalyptus species can potentially pose more risk than other trees depending on their age, location and health. Such trees will require more regular assessment and monitoring.
- 1.4. Council also provides for the protection of trees on public and private land through tree protection rules and provisions within its District Plan. A tree(s) can be protected:
 - as a notable tree that is listed in the District Plan schedule
 - as assessed by the Royal New Zealand Institute of Horticulture (RNZIH) Standard Tree Evaluation Method (STEM)
- 1.5. Succession planting needs to be managed in a proactive way when possible. However, there will be times when trees have reached the end of their useful lives and will need to be replaced. All tree planting and removals will be carried out in accordance with this policy.

2. Trees in the Landscape

- 2.1. Trees are an essential and distinctive component within the landscape. The living nature of trees and the need for continuity makes the processes of replacement planting and ongoing planned renewal a critically important aspect of landscape management.
- 2.2. Tree planting and management in urban streets, parks, reserves, and Council-owned land throughout the District is vital to counterbalance the continuous development and growth we are experiencing. Without such a cycle of replacement and renewal the incremental loss of trees will create temporary gaps and/or serious long-term degradation of the landscape.
- 2.3. The District's existing private property tree resource should be seen as a partner to Council-organised tree planting on public lands. Public and private plantings together combine to create tangible and enduring environmental and amenity benefits for the District. This policy specifically encourages appropriate subdivision and greenfield development plantings that consider appropriate views, opens spaces, and shading; along with encouraging and providing advice on appropriate trees to plant in the vicinity of any road.
- 2.4. Council's focus will be on reducing its exposure to potential tree risks and maintenance liabilities within its tree asset.

3. The benefits derived from Trees

- 3.1. Trees provide multiple benefits. These comprise a range of different aspects such as aesthetic, environmental, ecological, economic and social factors. Trees can be used in our urban and rural landscapes to achieve substantial positive outcomes for the community and visitors alike.
- 3.2. The ability of trees to reinforce the local identity and character of a place makes them an important tool in urban design. In addition, the natural and cultural heritage values of significant old trees provide an important depth of meaning and history within the landscape.
- 3.3. Trees also assist in modifying and ameliorating some of the less desirable aspects of urban environments, such as air pollution, noise, degraded water quality, water run-off, convected or reflected heat, wind exposure, and erosion. Trees provide substantial benefits in relation to the ecological health and sustainability of our urban built environments. They provide habitat for our important indigenous flora and fauna. The air, water, and nutrient exchange processes undertaken by trees are fundamental to human existence and the continuity of the food web which supports all life on Earth. Urban trees improve the environment by absorbing, filtering, and purifying the basic elements of air and water.

4. The Difficulties with Trees in the Urban Environment

- 4.1. It is undeniable that trees in urban locations can create problems of a physical nature, most commonly seen in the limitation of development potential, interference with underground and overhead services, disruption to foundations, difficulty of access, leaf fall blocking drains and storm water channels, traffic safety issues related to reduced visibility, interfering with and creating safety and operational risks to powerlines, excessive shading, and obstruction of views. Additionally, problems of a more social nature, such as safety at night and disputes between neighbours, are also issues related to the effects of urban trees. In such circumstances it will be necessary to explore ways in which people and plants can co-exist.
- 4.2. Central Otago District Council's approach to street trees along roadsides has become one of rationalisation. Wherever street trees exist, or are proposed, the potential conflict with utilities and road assets is assessed prior to any decision to retain, maintain, or remove.
- 4.3. Strong community interest in environmental issues, preservation of historic character, and general support for the provision of green residential and urban amenity means that Council must strike the appropriate balance between the management and protection of valuable vegetation and the avoidance of real and perceived detrimental effects associated with trees. This includes a danger to life and property.

5. The Relationship between the District Plan and District Tree Policy

- 5.1. The **DISTRICT PLAN** provides the statutory mechanism for the protection of district trees, as directed by the Resource Management Act 1991. The provisions in the District Plan apply to public and private lands.
- 5.2. The **DISTRICT TREE POLICY** only applies to trees on public lands that are owned and/or administered by the Central Otago District Council. The District Tree Policy provides policies and guidelines for the management of trees on council land, but

these do not carry the weight of law. The policy cannot override the statutory responsibilities in the District Plan. Council has a number of Reserve Management Plans prepared under the Reserves Act 1977. As these plans are a statutory obligation, any specific clauses relating to trees within those plans will take precedence over this policy.

5.3. The **DISTRICT TREE POLICY** advocates for the protection of trees through education, advice, and promotional activities but does not cover trees that are protected under the District Plan.

DISTRICT PLAN	DISTRICT TREE POLICY
<p>PURPOSE</p> <p>Regulatory and non-regulatory provisions for the protection and maintenance of trees on <u>private</u> and <u>public</u> lands, through:</p> <ul style="list-style-type: none"> • Identification of Notable Trees in a schedule in the District Plan. • Applying standards in the District Plan to Notable Trees and Significant Natural Areas. • Placing conditions on resource consents, and • Education and advice to landowners. <p>ADMINISTERED BY:</p> <p>Council Planning Department in conjunction with the Council Parks and Recreation Department.</p>	<p>PURPOSE</p> <p>Recognition, strategic planning, management and long-term continuity of the tree resource on public lands <u>owned</u> and/or administered by the Central Otago District Council.</p> <p>With emphasis on:</p> <ul style="list-style-type: none"> • Trees on council reserves and public open spaces. • Trees on urban and rural road reserves. • Identification of Amenity Trees within the CODC area. • Education and advice to landowners. <p>ADMINISTERED BY:</p> <p>Council Parks and Recreation Department</p>

Figure 1. Relationship between the District Plan and District Tree Policy

Notable Trees are protected under the Resource Management Act 1991 due to their significance for historic, botanical, landscape, amenity, or cultural reasons. Notable trees can be on public or private property. Rules in the District Plan apply to the maintenance or removal of notable trees and activities within the drip line area.

Policies and Procedures for the Management of Trees

1. Tree Planting

This section contains policies relating to tree planting principles and specific policies regarding Council tree planting on urban streets, bush remnants and revegetation plantings. It applies to all trees planted on all reserves held by Council under the Reserves Act 1977, civic open space, and other Council land including urban streets.

Objective: Council tree planting will ensure the existing distinctive landscape characters of the District are reinforced, by primarily using

species considered appropriate for the area. Tree planting within the urban road corridor will only be undertaken by Council.

- Policy: Existing district planting themes established for the various urban areas of the District shall be implemented. The long-term cost impacts associated with ongoing maintenance shall be considered. Trees with invasive roots, prone to branch drop or disease such as Plane trees Platanus species, (Anthracnose) Robinia, Gleditsia, Eucalyptus species will be avoided, as will those with limited life expectancy such as Lombardy Poplar (Populus nigra Italica).
- The planting of Trees with the potential of invasive growth, or any plants designated as “pests” by the Otago Regional Council or with the propensity to become a wilding tree will be avoided.
- Policy: An emphasis shall be placed on ensuring a diversity of species suitable for the particular area, with consideration given to avoiding planting trees that may have a detrimental effect on people’s health.

Explanation: *Within the District there are distinctive landscape character areas that are reflected by the nature of their vegetation. District-wide planting themes have been established for the urban areas of the District. This can be reflected by the native species present in a particular location or by trees planted that reflect the area’s human history. Appropriate plant selection will build on these unique identities by using the most appropriate plant associations for the site.*

Council does not allow private planting within the urban road reserve boundaries unless prior approval is granted.

Objective: The existing botanical diversity resulting from the mix of trees shall be preserved and enhanced for educational, local and visitor interest.

- Policy: Botanical collections shall be continuously developed through planting to form the basis of a district wide arboretum.

Explanation: *Parks and reserves should be seen as an extension to broadening the vegetation gene pool and allowing a wider use of new species.*

Objective: A long term tree framework shall be maintained throughout the District, including local eco-sourced native species where appropriate. There will be a focus on raising community awareness of the long term benefits derived from trees.

- Policy: Council shall plant potentially large trees wherever space permits, except in floodplains and where there is a potential risk to safety including to infrastructure or adverse effects on open space.
- Policy: Council shall plant trees of longevity and heritage value incorporating, where possible, nursery stock material specially propagated from existing notable and/or character trees. For natives, eco-sourced plants will be obtained where practicable.

Explanation: *There is a trend towards smaller residential lots because of infill subdivision and cross leasing which has resulted in a reduction in the number of large trees in urban areas. Therefore, trees which grow to ultimately large proportions will be*

planted on council-owned land wherever space permits, to ensure that the urban areas still contain substantial trees of long term value.

Objective: To provide distinctive landscapes of mature trees throughout urban areas (other than in areas specifically acknowledged as tree-less open space landscapes).

- Policy: Urban tree collections or native re-vegetation shall be established on reserves that are difficult to maintain through traditional grazing or mowing methods.
- Policy: Council shall develop tree collections, with an emphasis on factors such as:
 - Longevity.
 - Heritage value (natural and built).
 - Local character (natural and built).
 - Low maintenance.
 - Fast establishing species.
 - Wildlife habitat to encourage native birdlife.
 - Sustainability.
 - Fruit and nut production.
 - Non-invasive species.

Explanation: *Currently, the Council has some reserve areas that are maintained by grazing or irregular mowing. Many are difficult to manage this way and those suited to planting will be scheduled for conversion to urban tree collections or native habitat creation. Opportunities exist to develop these sites by integrating a high value tree framework with open space to create the potential for passive recreational use in the future. Those open space areas deemed to be characterised as primarily tree-less landscapes will not be considered for tree planting.*

Objective: To reduce the necessity for intensive maintenance of trees.

- Policy: Council shall give preference to planting species that:
 - Are pest- and disease-resistant.
 - Provide maximum environmental/ecological and seasonal benefits.
 - Have a proven track record for establishment and sustainability within the local environment.
 - Require less maintenance.
 - Are not pest plants.
- Policy: The Council shall ensure that:
 - Quality plant stock is used.
 - Standardised specifications and techniques and practises are used to plant and maintain trees covered by this policy.
 - The correct species is chosen in relation to the limitations of the site.

- Eco-sourced plants will be used where practicable.

Explanation: *Choosing the most appropriate species for the conditions and aspects of the site can reduce long-term maintenance problems. By using quality plant stocks appropriate for the site many long-term maintenance liabilities can be avoided.*

Objective: To increase the awareness and use of local native plants and locally-developed plant selections, both native and exotic.

- Policy: Local eco-sourced native species and locally developed plant selections and cultivars shall be featured where there is opportunity to do this well. The preferred approach will be to integrate native and exotic plantings, as seasonal colour form and textures created by this mix is seen as an important feature in amenity plantings in communities across the district.

Explanation: *Opportunities exist to promote the use of local native species and developed plant selections and their cultivars to feature these during promotions and festivals.*

Objective: To ensure that design, planning, safety, and cost impacts are considered prior to planting.

- Policy: The designs for new tree planting shall be based on:
 - The relationship of trees with their surroundings in terms of character, form, amenity, and ecological value.
 - The foreseeable effects of trees in relation to shade, views, services and potential damage to built structures and their effect on the wider landscape.
 - The scale of trees in terms of built structures in relation to potential size and numbers of trees used in the design.
 - The outcome, where applicable, of any service request relating to street tree planting which is accepted by Council.
 - The cost of successfully establishing new planted areas and the ongoing costs associated with sustainable maintenance.
 - Potential impacts on road and pedestrian safety.
 - Potential adverse impacts on the operation and maintenance of infrastructure.

Explanation: *Trees are dynamic - they naturally change and develop over time. The design and planning of plantings create a range of opportunities to address the constantly changing characteristics of plantings and the needs of potential new planting sites.*

2. Street Tree Planting

Objective: Council considers that urban streetscapes throughout the district will be enhanced by appropriate tree planting.

- Policy: Future tree plantings shall be concentrated in urban streets where:

- There is enough space to accommodate root zone development (the minimum requirement is 1.2m wide).
- Street trees are unlikely to cause significant long term management problems (such as potential conflict with overhead wires, underground services, traffic visibility, or alternative road plans).
- All new subdivision works shall submit to Council as part of the consent approval process a street tree planting plan detailing species, size, location, irrigation plans and planned ongoing maintenance regimes.
- Where appropriate, street and park trees planted shall be provided with an appropriate irrigation system approved by Council. Typically, this system must have a design life of at least five years.
- Policy: The actual placement of individual street trees shall be based on the following matters:
 - The overall design of the street planting.
 - The proximity to and likely safety and operational effect on overhead wires.
 - The proximity to and likely effect on underground services.
 - The effect on vehicular and pedestrian access and visibility.
 - The possibility of alternative roading plans such as road widening and intersection improvements.
 - The consideration of enhancing shade opportunities.
 - The likelihood of and need for protection from vandalism.
- Policy: Street trees plantings shall be regularly reviewed, through standard contract management procedures and programmed inspections.
- Policy: Unauthorised planting of trees by residents on urban street or rural road berms is not permitted. Council reserves the right to have such plantings removed.
- Policy: The Planning and Roading teams shall consult with Council's Parks and Recreation Department at the project's scoping phase with regard to creation of tree planting opportunities and retention of existing trees during any subdivision or road project process.

Prior to removal of any existing trees, consideration will include provision for:

- Centre islands or median strips wide enough for tree planting.
- Wider grass berms.
- Variations in road alignment.
- The use of "setbacks", especially in commercial zones.
- Maintaining road safety and activity clearance.
- Consideration of New Zealand Standard SNZHB 44:2001 Subdivision for People and the Environment may also be required in some situations.
- Mitigating the effects of large car parking areas using trees to screen cars and provide shade.

Explanation: *It is essential to only carry out new plantings where there is sufficient local support and then to ensure that trees are chosen and placed where there is a high*

chance of success with limited long-term management problems. The current trend of rationalising low value high maintenance trees and redirecting the funding to developing high value low maintenance plantings will be a priority. Council will also seek to enhance streetscapes through liaising with developers to create improved planting opportunities through alternative street designs.

3. Maintenance of Trees

3.1. Acceptable Pruning and Maintenance Standards

Objective: To promote maintenance of trees in a safe, healthy and natural form.

- Policy: Council intends to actively work with the appropriate lines companies to assess, where practicable, that overhead wires could be placed underground. The highest priority will be given to those areas where significant tree issues arise with the wires.

There are circumstances where it shall be necessary to remove the top growth of trees, for example in the following circumstances:

- Where trees are near power lines in preference to removing the trees altogether. However, if identified as low value and high maintenance, consideration may be given to removal.
 - Where trees are considered a safety hazard and removal of the upper crown is deemed acceptable to alleviate the hazard and retain the tree(s).
 - Where trees interfere with navigation, radio or telecommunications facilities.
 - Where trees are undermining a flood protection or erosion control structure.
 - Where a group of trees constitutes a shelterbelt or hedge.
 - Where undertaken to ensure clearance requirements around power lines/cables in accordance with the Electricity (Hazards from Trees) Regulations 2003, or to ensure the operation and maintenance of infrastructure is not compromised
- Policy: Acceptable pruning methods such as natural target pruning, crown lifting, and crown thinning shall be used to maintain trees in as natural a form as possible and to maintain and enhance their amenity values.
 - Policy: Plant pest and disease control measures shall focus on known aggressive decay organisms which have the capacity to debilitate or kill trees.
 - Policy: Poor tree health shall be minimised by the application of sound arboricultural practices and appropriate care strategies to prevent pest and disease establishment.
 - Policy: Priority for work shall be based on:
 - Health and structural safety of the tree.
 - Essential service clearance.
 - Form pruning for desirable clearance and amenity effects.

- Public safety.
- Statutory requirements.

Explanation: *The Council will maintain trees in accordance with internationally-recognised standards. Appropriate tree care maintenance programmes and strategies will be applied wherever necessary and all pruning operations will be undertaken using principles defined as CODIT (Compartmentalisation of Decay in Trees), Natural Target Pruning and other recognised pruning methods. Council accepts that the topping of trees is internationally recognised as unsound arboricultural practice.*

3.2. Interference of Trees to Property and Services

Objective: **To maintain council trees to avoid potential damage to property or services.**

- Policy: When notified of potential damage caused by a public tree to property or services, practical steps shall be taken to confirm and mitigate those effects.
- Policy: Where council trees are overhanging private property, appropriate pruning shall be carried out by the council to remove the encroachment as far as practicably possible without destroying the form and integrity of the tree.
- Policy: Trees on arterial routes shall be pruned or removed to provide adequate visibility where they impede or obstruct access for pedestrian and vehicular traffic.
- Policy: All reasonable effort shall be taken to clear street lights and reserve lights and minimise any reduction in light penetration resulting from obstruction by trees.
- Policy: A programme shall be initiated to ensure that tree growth is maintained away from electrical wires and electrical assets, in accordance with the requirements of the Approved Code of Practice, Part 2: Maintenance of Trees around Power Lines (MPI).
- Policy: Pruning in the vicinity of overhead wires shall only be carried out by the infrastructure owner or contractors approved by the Council to undertake this work. The contractor shall consult with service line owners prior to undertaking work of this nature.
- Policy: Trees which compromise and/or conflict with navigation aids or radio and telecommunications operations shall be pruned and/or removed as deemed necessary to maintain safety and essential services.

Explanation: *These policies seek to avoid potential damage to property and services. Particularly within street environments there will always be ongoing commitments to ensure that trees do not conflict with services such as wiring, drainage systems, footpaths, kerbing, vehicle and pedestrian movement, and property security.*

4. Tree Removal

4.1. General Tree Removal

Objective: To ensure that consistent criteria are applied when considering the removal or maintenance of Council trees.

- Policy: The initial response by Council to a service request from a property owner concerning tree related problems is to attempt to resolve the problem prior to considering tree removal. Examples could include the careful placement of new trees, the ongoing maintenance/pruning of trees, or the removal of secondary trees.
- Policy: Where a tree or treescape that has been specifically planted by Council for amenity or other value exists prior to the transfer of ownership of an adjoining property, there is no requirement on the Council to either remove or prune the tree(s) for views or shade on request. The tree(s) is defined as a pre-existing condition before the most recent landowner's purchase of the property.
- Policy: In response to a customer's service request the Council shall only consider carrying out tree removal (or pruning work that exceeds regular maintenance requirements) where the applicant can clearly demonstrate that the adverse effects of the tree on the applicant's reasonable enjoyment of their land outweighs the benefits of the tree to other residents and to the wider community. This includes damage to infrastructure.

The following matters will be considered when assessing a request for tree removal (or pruning work that exceeds regular maintenance requirements):

- The desirability of conserving public reserves containing trees.
- The value of the tree as a public amenity or habitat.
- The historical, botanical, cultural, conservation or scientific value or significance (if any) of the tree.
- Whether the tree or treescape contributes to a landscape of regional or national significance and/or landscape designed with public consultation.
- The contribution of the tree(s) to the medium- to long-term vision of a reserve management plan or streetscape, and whether the requested works constitute good arboricultural practice.
- The Council's obligations under any applicable statute or management plan, including The Electricity (Hazards from Trees) Regulations 2003.
- The operation, maintenance and development requirements of the National Grid.
- The health and safety of the tree.
- Damage caused by trees to surrounding infrastructure.
- Whether the tree is a species of known risk to fail under certain circumstances e.g. Lombardy Poplar, Eucalyptus.
- Actual damage to services or infrastructure.

All costs relating to the applications and, if approved, subsequent tree, stump, or tree debris removal will be borne by the applicant. Council will cover the tree removal costs if the tree is confirmed as a health and safety risk. Council may

consider cost sharing options where damage to infrastructure has occurred by a Council tree where insurance cover cannot be claimed.

- Policy: Requests for trees to be significantly altered or removed to accommodate specialist activities such as building removal activities, will be assessed against the tree modification/removal criteria outlined in this policy. In general, tree modification or removal will not be approved where it may compromise the landscape character of the treescape.

Costs for any work carried out beyond normal maintenance to accommodate such activities shall be recovered from the applicant. This will include the cost of tree debris, stump removal, tree replacement and initial maintenance.

- Policy: Requests for tree works will only be considered after consultation, the level of which will be commensurate with the level of significance of the tree and landscape (see Section 5: Consultation). Requested tree removals involving tree plantings of a design previously consulted on will require a full public consultation process involving the wider community.
- Policy: “Trade-offs” that provide for long-term quality replacement trees at the expense of more short-term or lower-value trees are to be encouraged. Trade-offs may include replacement trees elsewhere on the site or on a different site, at the agreement of the authorised council officer.

Explanation: *In managing its tree assets on public lands, the Council takes a “good neighbour” approach. At the same time, Council has the additional responsibility of conducting its affairs to promote the well-being of all people in the district. To this end, the Council seeks a reasonable approach to tree management that effectively balances the interests of individual landowners with those of the wider community.*

In general, if an individual makes a request to prune or remove a healthy tree that has been planted with previous consultation, Council staff will work with the applicant and the community to determine measures, within the provisions of the District Tree Policy, to alleviate the matter. If not satisfied with the decision on a tree matter, the applicant has recourse to pursue the matter through the appropriate Community Board.

Council is not inclined to act upon requests for tree removal to provide views where a treescape is already established at the time the property is purchased. That is because the treescape was a ‘pre-existing condition’ at the time of purchasing the property. In particular, Council will not be required to act upon request for modification to treescapes that have been developed with public consultation.

Council receives requests from time to time to remove trees due to perceived nuisance created by trees. These policies provide a set of criteria that will be applied when requests for tree removal are received or tree removal is considered. Leaf litter will always be a problem, inherent with any trees in the urban landscape, but is not a sufficient reason for the removal of a tree. However, as far as practicably possible, acceptable arboricultural pruning work may be carried out to mitigate the loss of views, shade, and leaf litter experienced by adjoining property owners, provided that the health and value of the tree is not compromised.

The cost of this is to be borne by the applicant. This will include stump and tree debris removal. Such works will only be undertaken under Council supervision using Council-nominated contractors.

The cost to remove trees deemed health and safety risks or proven to cause damage to infrastructure will be the responsibility of the Council.

4.2. Removal of Council trees growing on Council property deemed to be causing substantial shading or loss of views.

Objective: To ensure Council trees which result in shading or loss of views are only removed in circumstances where it is necessary.

- Policy: Where Council trees are planted which, subsequently, unreasonably affect the views of a long-term resident or significantly shade their property the Council shall:
 - Endeavour to manage the planting to reduce its impact on views and solar access but without compromising the value or integrity of the planting.
 - Refer all costs associated with removal applications or subsequent removal to the applicant unless the tree is found to be in an unhealthy state.

The following trees are excluded from this Policy:

- Trees that fall into the category of Notable Trees in the District Plan.
- Habitat creation or conservation plantings.
- Mitigation plantings.
- Plantings undertaken by 3rd parties in agreement with Council.
- Grant-funded plantings.
- Trees identified in a Reserve Management Plan for retention, as they represent an integral part of the reserve.
- Trees with a value equivalent to Category I Notable Tree (public consultation required) but not listed as a notable tree under the District Plan.
- Trees protected by a condition of Resource Consent.
- Trees deemed to be wilding conifers. Dealt with through the Central Otago Wilding Conifer Group work programme which is supported by Council.
- Trees planted for plantation forestry.
- Policy: The Council shall only carry out pruning work beyond the growth that has occurred during the resident's occupation, or remove the tree if deemed appropriate, where the resident can clearly demonstrate "loss of enjoyment". In this circumstance, if the resident accordingly derives some added value to their property, the resident shall contribute to the cost of the agreed pruning or removal work.

Explanation: *As with leaf litter, reductions in views and shading may be outcomes associated with maturing tree plantings. Council's challenge is to manage these issues consistently and fairly, without compromising the District's tree resource, environmental values, or existing agreements. Approaches such as the careful plant placement of new trees, the ongoing maintenance pruning of trees, and the consideration of removal of*

secondary trees may be carried out to attempt to resolve effects of shading and loss of views.

5. Consultation

This section covers the Council's approach to consultation relating to tree management and maintenance. It outlines the mechanisms that Council shall use to address enquiries and the process for resolving appeals.

Trees that are protected through the District Plan are excluded from this section.

Objective: Where practicable, Council shall consult with affected parties regarding proposed tree planting.

- Policy: Where practicable, consultation with residents, affected owners and occupiers, and infrastructure providers will be undertaken before any major street tree or reserve planting is undertaken.

Objective: Where practicable Council shall consult with affected parties regarding proposed tree removal.

- Policy: Where practicable, consultation with residents and affected owners and occupiers will be undertaken before any major tree removal is undertaken.

Objective: Council shall ensure that consultation and observance of cultural protocols is undertaken where directed by tangata whenua on sites that contain wāhi tapu.

- Policy: Wāhi tapu sites include those sites identified in the District Plan. Additional sites on land within the scope of this policy that are identified as wāhi tapu by the appropriate hapu or iwi are included in the policy.

Objective: Enquiries and appeals concerning trees will be dealt with through established processes that are consistently applied. See Appendices 1-5.

- Policy: All external enquiries relating to trees under the Council's jurisdiction shall be directed to the Council's Customer Services Centre.
- Policy: Contractors undertaking works for Council are not authorised to directly represent the Council for public enquiries relating to trees, unless specifically delegated to do so by the Council.
- Policy: The process by which a resident can appeal a decision concerning the maintenance of trees under Council's jurisdiction is:

The resident should raise the matter, in writing, with the Council. Where tree maintenance issues involve significant local or community interest the Council will enter into a consultation process to ensure that the wider community interest is considered.

Explanation: *This policy provides a consistent approach to dealing with issues and allows for the provision of a high value tree resource. Consultation with individuals and/or groups in the community will be undertaken wherever it is required, to provide*

information, advice and an opportunity to comment or participate. Where tree planting or removal will have a major effect on a local area then residents will be contacted. Where the effect is major beyond the immediate surroundings, the appropriate public notices will be undertaken.

The observance of cultural protocols relating to trees on waahi tapu sites enable local tangata whenua to determine appropriate actions and responses by Council officers. Processes for dealing with tree issues are outlined, and in some instances applications for service delivery may be declined where they are inconsistent with approved policy.

6. Reserve Neighbours

Objective: To minimise the adverse effects generated by trees in reserves on the amenity of adjacent properties.

- Policy: Council shall take all reasonable steps to maintain a good relationship with adjacent landowners. However, where appropriate, the demands of neighbours shall not take precedence over the desires of the local community, reserve development, management plans and/or overall community landscape amenity.

Explanation: *Neighbouring property owners often raise issues regarding adverse effects of trees in reserves. Council seeks to maintain good relationships with landowners by minimising adverse effects of trees in reserves on neighbours. However, a wider public consultation process will be undertaken if deemed necessary by Council.*

7. Promotion and Education

Objective: To foster public interest, awareness and guardianship of the value of trees in reserves and on private land.

- Policy: Encourage the community to become involved in tree planting and maintenance of selected reserves, through consultation.
- Policy: Promote the benefits of trees and the added importance of "the right tree planted in the right place".
- Policy: Develop and maintain a tree asset register of Council-owned trees throughout the district.

Explanation: *A healthy and well-maintained treescape reflects a caring community. It is also a natural asset which is easily lost through poor management and lack of appropriate policy. Many of the issues related to people's dissatisfaction with trees are attributable to a lack of awareness regarding the overall value of trees and their benefits. Policies that educate and inform the public about the positive attributes of trees are an important component of Council's policies.*

8. Tree Evaluation and Assessment

Objective: Consistent standards will be used to evaluate the health and condition of trees, or any potential risks or hazards.

- Policy: The Royal New Zealand Institute of Horticulture (RNZIH) Tree Evaluation System (STEM) shall be used as the standard for assessing the health and condition of trees, unless superseded by a more appropriate method.

Explanation: *The RNZIH Tree Evaluation System (STEM) is currently the nationally-recognised assessment system used by Council. Where trees are considered unsafe and represent a potential hazard to people or property, a formal evaluation will be carried out by a suitably-qualified arborist.*

9. Subdivision Development and the District Plan

Objective: Council provides for the management and protection of trees on public and private land through tree protection rules and provisions within its District Plan:

- A tree can be protected:
 - Through the rules in the District Plan.
 - As a notable tree that is listed in the District Plan schedule.
 - As part of a project agreed to by Council.
- Policy: Council will enter into discussions with developers regarding the protection of significant trees on a development site during the resource consent process.
- Policy: Trees on reserves and roadways may be listed as Notable Trees in the Central Otago District Plan where they meet the Notable Tree criteria, and where they:
 - Are considered at risk due to potential threats from developments nearby.
 - Are deemed to be particularly significant.

Explanation: *There are several provisions for the protection of trees within the District Plan. The subdivision and consent process within the District Plan provides opportunity to assess vegetation on development sites and to attempt to retain or work around trees identified to be of significance. In many cases an assessment will identify vegetation of little significance that may be removed in exchange for retention of any significant trees on the site or mitigation by replacement trees.*

Currently Council does not contribute towards work on Notable Trees on private land to promote health and safety of those trees, other than a waiver of resource consent fees to undertake maintenance work.

10. Unauthorised Removal of Trees

Objective: To respond in a consistent manner to the wilful damage of Council trees, to deter future offences of this nature, and to take appropriate action according to New Zealand law.

- Policy: The Council will assess and, where appropriate, replace trees on Council lands that have been wilfully killed, removed or damaged.
- Policy: The Council will refer incidents of wilful tree damage, theft, or death to the police. The Council will request an investigation into the matter, and it will be Council's intention to prosecute if possible.

Explanation: *There have been several instances in recent years of members of the public stealing or wilfully damaging Council trees, including deliberately killing trees. This type of activity is an offence under several New Zealand statutes. It also represents a wasteful squandering of public resources. The Council will respond strongly to any incidence of wilful damage to Council trees.*

11. Commemorative Trees

Commemorative plantings are often undertaken in memory of someone who has recently passed away. Visiting dignitaries may plant a tree to provide a lasting memento of their visit. Trees have also been donated by groups and organisations as a contribution to the district. The Council regularly receives requests for new plantings. Commemorative trees and plantings hold a special significance to people and their management is particularly sensitive. In addition to managing the physical needs of the tree or planting, the history of the tree or planting also needs to be recorded and preserved.

Once planted, commemorative trees or planting areas will become a Council asset and are maintained to Council standards. As with all Council-managed trees, plantings need to be appropriate to the site and area, maintenance must be according to best arboricultural practice, and tree removals may be necessary on occasion.

Objective: To identify, map, and maintain existing donated and commemorative trees or planting, recognising their special significance.

- Policy: An up-to-date record of commemorative trees or planting in the District shall be maintained. The purpose of the planting and sponsoring individuals or groups will be included in the record.
- Policy: Commemorative trees or planting shall be maintained to Council standards.
- Policy: Relocation or removal of a commemorative tree or planting may be undertaken where necessary, based on an assessment of the value of the tree or planting, the ability to relocate or replace to another site, and the costs and benefits to community well-being of various tree management options.
- Policy: Where appropriate and feasible, the sponsors of a commemorative planting will be informed if a tree(s) or plantings needs to be removed or relocated.

Objective: To strategically plan and manage the location and species of future commemorative plantings.

- Policy: Council has a finite land inventory and the planting of trees purely for commemorative purposes on reserves often causes problems, such as overcrowding, inappropriate species, wrong location etc. Council's Plaques and Memorials Policy gives guidance for such applications. Should an application fall outside that policy's brief, the appropriate Community Board in which the tree or planting is sited will assess applications on a case-by-case basis.

Explanation: *Commemorative plantings are a special category in that they have a special meaning for some individuals and their history is important. Where possible, Council will provide suitable locations for future plantings e.g. commemorative tree parks, especially in cemeteries. It should be noted that species to be planted will be approved by Council and that criteria for acceptance of donated/commemorative trees is via Council's Plaques and Memorial Policy or by a Community Board decision.*

12. Succession Planting

Objective: To ensure that as trees age and become a hazard there are replacement trees in place so that where appropriate there is a continuity of urban and rural landscapes.

- Policy: Long-term planting plans shall be part of or appendices to Reserve Management Plans and plans for other open spaces controlled by Council.
- Policy: Where appropriate, street, river, and lakeside trees shall be replaced on a long-term rotation basis so that the iconic landscape features are always present.

Explanation: *Central Otago has many introduced trees which were planted by early settlers and now form an integral part of the landscape. In many cases it has been found that replacing trees with the same species is no longer appropriate due to many factors including increased urbanisation, increased traffic volumes, adjacent utility services, negative landscape and environmental impacts, and safety. Where appropriate, plantings of natives will be actively encouraged particularly for riparian and revegetation plantings.*

Relevant Legislation:

Property Law Act 2007

Reserves Act 1977

Resource Management Act 1991

Related Documents:

Central Otago District Plan

Reserve Management Plans

New Zealand Arboricultural Association (NZAA) and/or International Society of Arboriculture (ISA) guidelines

Infrastructure Code of Practice

Council Plaques and Memorials Policy

Appendices:

Appendix 1: Request for Service: District Tree Policy – Trees other than Protected Trees

Appendix 2: Request for Service: District Plan – Protected Trees – All Enquiries

Appendix 3: Request for Service: District Plan – Protected Trees – New Listing

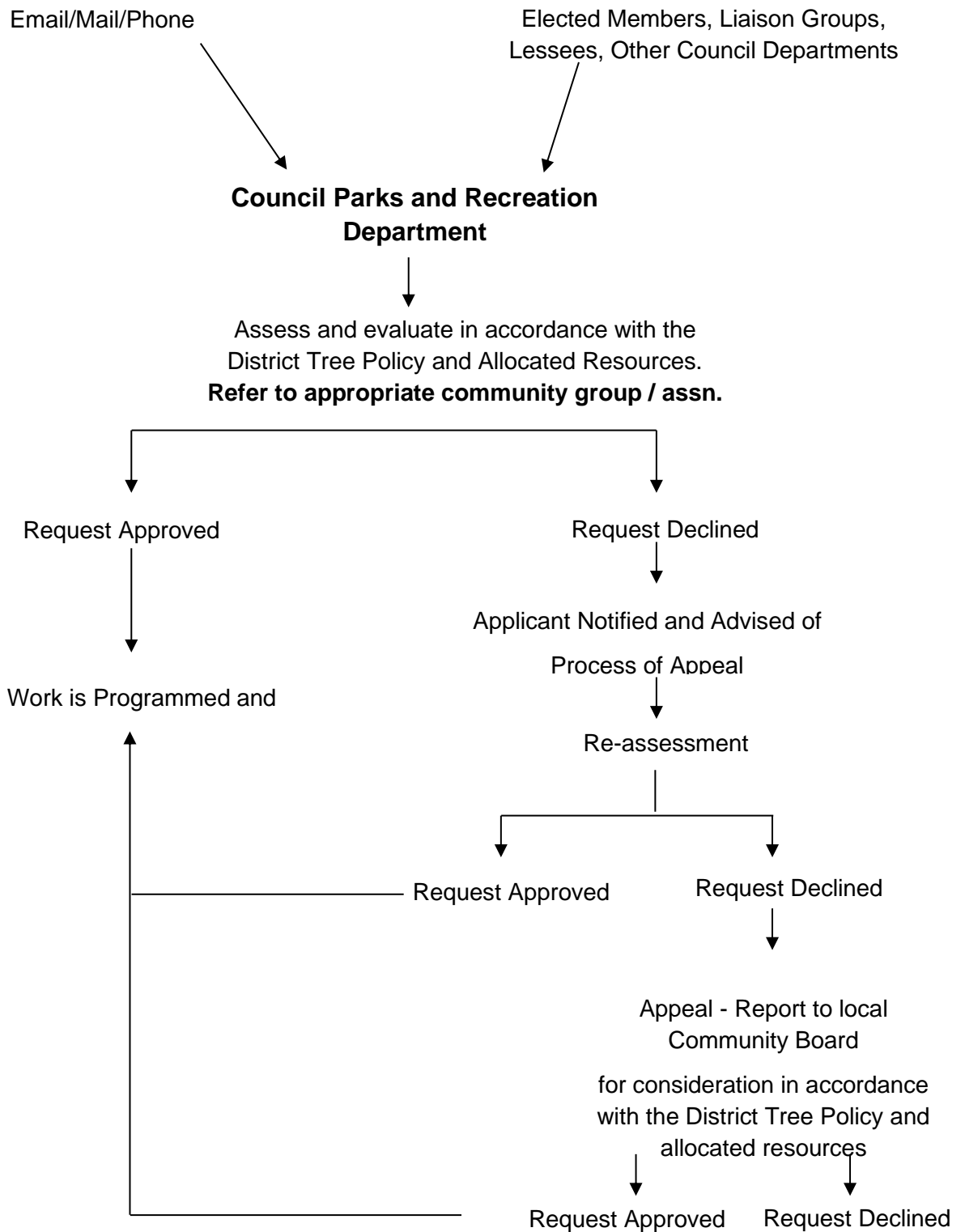
Appendix 4: Request for Service: District Tree Policy – Planting of Street Trees

Appendix 5: Suitable Species for Amenity Planting

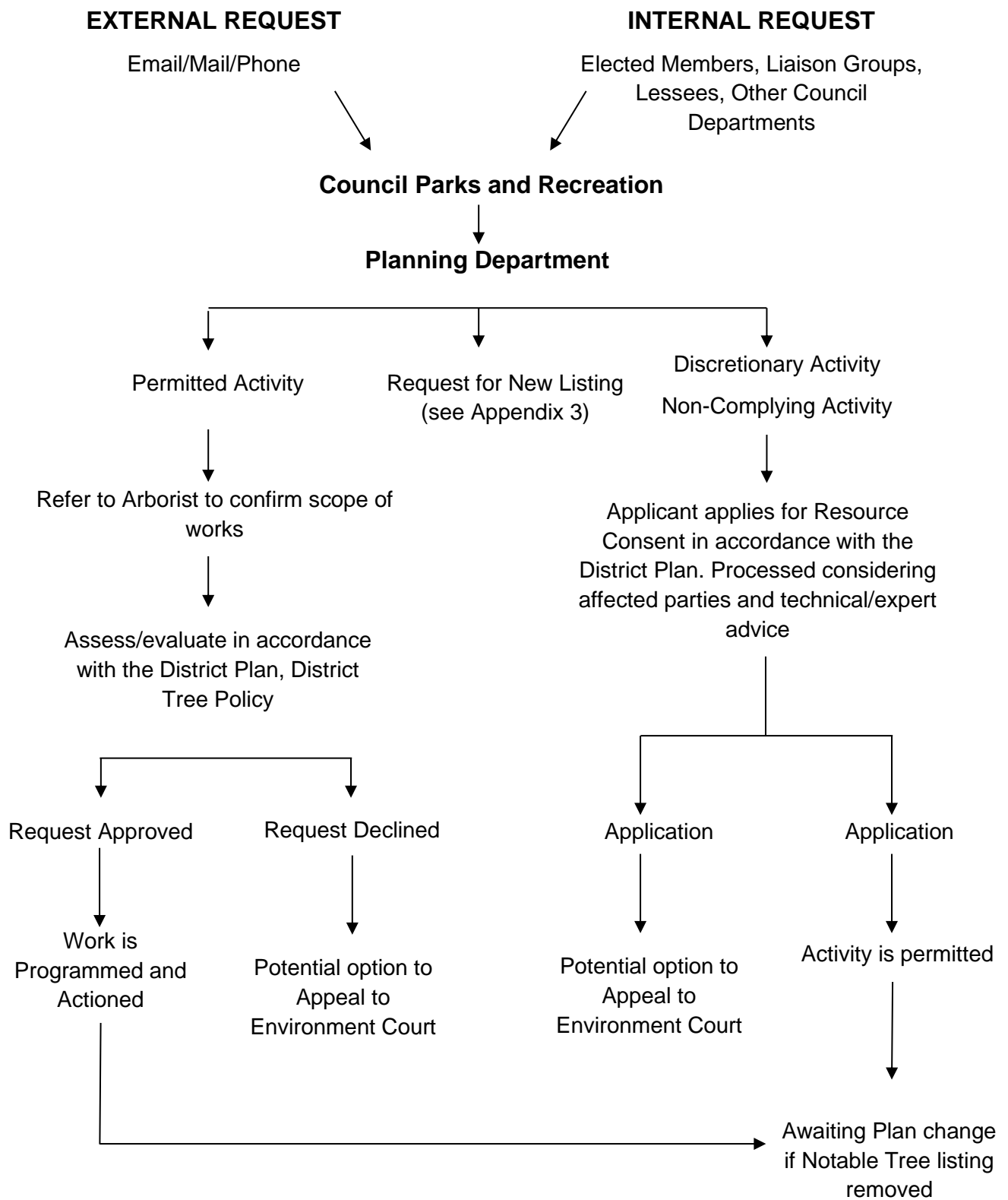
Appendix 1: Request for Service – Trees other than Protected Trees

EXTERNAL REQUEST

INTERNAL REQUEST



Appendix 2: Request for Service – Protected Trees – All Enquiries



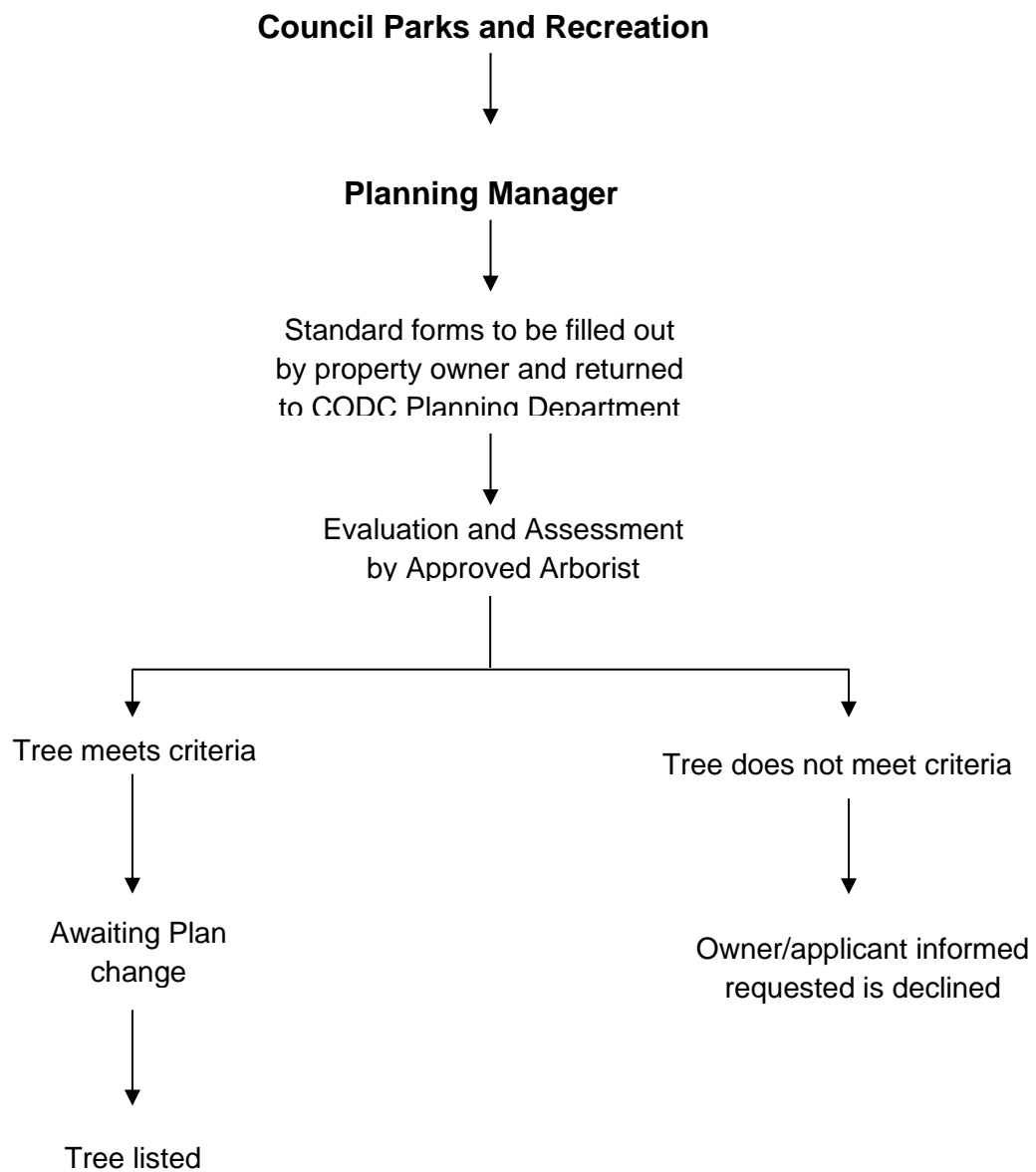
Appendix 3: Request for Service – Protected Trees – New Listing

EXTERNAL REQUEST

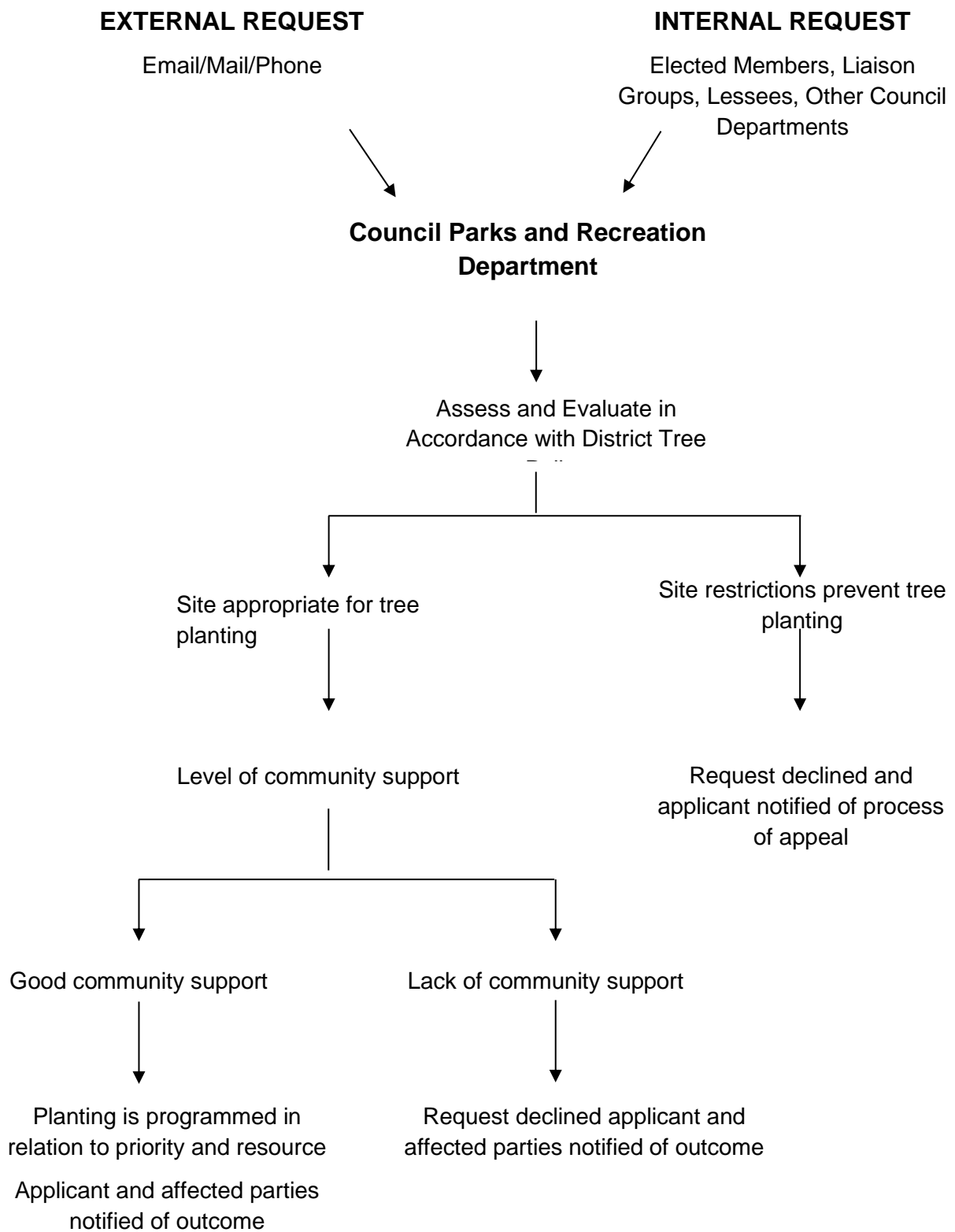
Email/Mail/Phone

INTERNAL REQUEST

Elected Members, Liaison
Groups, Lessees, Other Council
Departments



Appendix 4: Request for Service – Planting of Street Trees



Appendix 5: Suitable Species for Amenity Planting

The following list identifies trees recorded as showing tolerance to drought and frost, able to grow in Central Otago. This is a guide only and not an exhaustive or compulsory list of trees. Tree vigour, size and shape vary, and species will need to be matched to site characteristics.

Key:

+ Moderately drought tolerant species

* Suitable as a street tree in the right location

Species = Native species – Eco sourced where practicable

Small trees/shrubs (7m tall or less)

Acer palmatum, maximowiczii, monspessulanum (Maples) +

Amelanchier spp (Serviceberry)

Arbutus unedo (Irish Strawberry- tree) + *

Azalea spp & hybrids (azalea) –

Camellia japonica, spp & varieties +

***Carmichaelia* spp (NZ Broom)** – eg. *C. Petreii*, *C. Crassicaulis* sun, draught hardy

Ceanothus thyrsiflorus – drought & cold hardy, great for bees

Cercis canadensis (Redbud) + * Judas Tree also, *C. siliquastrum*

Chimonanthus praecox (winter sweet) . v cold hardy

***Coprosma* spp & hybrids (Coprosma)**

Cornus spp (Flowering Dogwoods) + sheltered sites preferred. +

Deutzia spp (Deutzia)

Forsythia hybrids (Forsythia)

Garrya elliptica – (silk tassel) – shade & cold hardy

***Griselinia littoralis* (broadleaf) – sheltered sites only**

Hamamelis japonica (Witch hazel) – v. cold hardy, prefer acid, moist soil +

***Veronica* spp & hybrids (syn Hebe)**

Helichrysum Lanceolatum

***Kunzea Serotina* – (Kanuka) – frost drained sites only**

Leptospermum scoparium (Manuka) sun, drought cold hardy

Magnolia spp (Magnolia) +

Mahonia japonica (Mahonia) – v cold hardy, suckers

Malus spp (Ornamental Crab Apples) +*

***Olearia* spp & hybrids (Olearia)**

Ozothamnus (Cassinia) vauvilliersii (Mountain cottonwood) Sun drought cold hardy

Photinia x frasier (Photinia) +

Photinia glabra (Red Leaf Photinia) - +

Phyllocladus alpinus (Mountain celery)

Pieris japonica & varieties +

Prunus subhirtella, *P. mume*, *P. Yedoensis* (Flowering Cherry) – winter flowering +

Pseudopanax colensoi – sheltered sites

Pseudopanax crassifolius

Pseudopanax ferox (Lancewood)

Rhododendron spp & hybrids (Rhododendron) – need shelter, acid soils +

Syringa vulgaris & spp (Lilac) +

Viburnum spp (Viburnum) +

Medium size trees (8m to 15m tall)

Albizia julibrissin (Silk tree). +

Acer negundo (Box Elder) *

Other maples etc

Arthrotaxis laxifolia (Tasmanian cedar)

Carpinus betulus (Hornbeam) *

Castanea sativa (Sweet chestnut) +

Cordyline australis (Cabbage tree) sun drought cold hardy

Cornus spp (Flowering Dogwoods) *C alternifolia*, *C. controversa* +

Cotinus obovatus (Smoke tree) +

Elaeagnus angustifolia (Russian olive)

Ginkgo biloba (Ginkgo) +

Hoheria angustifolia & H Lyallii

Juniperus spp (juniper)- conifers, note naturally have low skirts so plant away from paths.

Juniperus virginiana (Eastern red cedar),

Malus spp & varieties (crab apple) +

Mespilus germanica (Medlar) +

Morus nigra (Mulberry) +

Pittosporum tenuifolium (Kohuhu) & other spp

Sophora microphylla (South Island Kowhai) . +

Plagianthus regius

Prunus spp (Cherry plum, almond, peach, Japanese hybrids) +

Pyrus calleryana (Ornamental Pear) * +

Zelkovia serrata (Japanese zelkovia) +

Large trees (over 16m tall in the right conditions)

Abies spp (Silver Fir) +

Acer spp (Maples), *A. griseum* – paper bark, *A. rubrum* – scarlet, *A. saccharum* – sugar maple
+

Aesculus spp (Horse chestnut) +

Araucaria araucana (Monkey Puzzle tree)

Cedrus deodara (Deodar Cedar) - evergreen conifer.

Cedrus atlantica (Atlas Cedar) – evergreen conifer.

Chamaecyparis lawsoniana (Lawson cypress)

Cupressocyparis leylandii (Leyland cypress)

Cupressus arizonica (Arizona cypress)

Fagus sylvatica (European beech)

Fraxinus angustifolia ‘Raywood’ (Claret Ash) *

Fraxinus excelsior (Common or European Ash)*, var *pendula* (weeping ash)

Fraxinus ornus (Mana Ash)

Liquidambar styraciflua (Sweet Gum, Red Gum) * +

Liriodendron tulipifera (Tulip tree)

Juglans nigra (Black Walnut) + *J. regia* (English walnut) +

Metasequoia glyptostroboides (Dawn redwood) +

***Lophozonia menziesii* (Silver Beech)**

Picea abies (Spruce) & other spp +

Platanus orientalis (Oriental Plane)

Podocarpus laetus

Quercus cerris (Turkey oak), *Q. coccinea* – scarlet oak, *Q. ilex* – Holm oak, *Q. palustris* – Pin oak, *Q. robur* – English oak, *Q. rubra* – red oak

Quercus coccinea (Scarlet Oak) * +

Quercus canariensis (Algerian Oak)

Quercus cerris (Turkey Oak)

Quercus petraea (Durmast Oak) *

Quercus rubra (Red Oak)

Quercus robur (English Oak)

Salix spp (Willow) – *S. babylonica* – weeping, *S. x chrysocoma* – golden weeping, *S. matsudana x alba* hybrids.

Sequoia sempervirens (Coast redwood) +

Sequoiadendron giganteum (Wellingtonia) +

Thuja plicata (Western red cedar) +

Tilia x europeaea (European lime) +

Tsuga heterophylla (Western hemlock) +

Ulmus spp (Elms) eg. *U. Parvifolia*