

# Vegetation Management Plan Secombe Park



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June 2011



**GREAT LAKE TAUPŌ**  
Taupō District Council



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## PROCESS FOR DEVELOPMENT AND APPROVAL OF PLAN

### PREPARATION AND APPROVAL OF DRAFT

The draft Secombe Park Vegetation Management Plan was prepared in 2010 following a meeting with Pokaka Crescent residents in April 2010. On 6 October 2010, the TK/MP Committee of Council approved the draft and resolved that the final plan be brought back to that Committee for approval following consultation. In November 2010 the new Council was elected and the TK/MP Committee disestablished. The new Council adopted the 6 October recommendations of the TK/MP Committee on 23 November 2010, and approved the formation of a Special Ad-hoc Committee on 29 March 2011 to hear submissions and recommend to Council on the outcome of those submissions.

### CONSULTATION

Consultation on the draft Plan was carried out between early December 2010 and the end of January 2011. This involved letters to local ratepayers, signs on the reserve, communication with those previously involved, and information on Council's website. Thirteen submissions were received, one of whom made a written submission on behalf of eight other property owners.

### HEARINGS

The Special Ad-Hoc Committee met on 2 June 2011 to hear submissions. Seven submitters spoke to the Committee in support of their written submissions. Following submissions the Committee adjourned the hearing to allow Councillors and staff to visit Secombe Park. The hearing was resumed later that day and deliberations commenced. The hearing was then adjourned until 22 June when a further site visit was undertaken. Deliberations were completed and the Committee recommended that the Officer's recommendations, as amended by the Hearings Committee be approved.

### APPROVAL

The Secombe Park Vegetation Management Plan was approved by Council on 28 June 2011.

## 1 BACKGROUND

Management of vegetation on Council reserves has in the past been somewhat ad-hoc and reactive. Lakeside reserves pose a special set of problems, as neighbouring residents value their views of the lake, and resent the interruption of those views by trees and other vegetation. In these areas in particular it is important that vegetation is carefully managed to enhance its benefits to both reserve users and the wider community.

Taupo District Council has undertaken to develop a long term strategy for the management of existing vegetation in the Secombe Park area. The plan includes recommendations for removal, replacement and maintenance of existing vegetation, and identifies the locations and species of new trees and shrubs. This plan is being produced in consultation with the community as provided for by the Tapuaeharuru Bay Lakeshore Reserves Management Plan.

The aim is to achieve a balance between establishing vegetation for the well-being of the environment and future generations of reserve users, and considering the potential impacts of vegetation on surrounding properties.

## 2 PURPOSE

The purpose of this vegetation management plan is to provide ongoing direction for the management of vegetation in the Secombe Park area.

## 3 OBJECTIVES

- To improve the amenity value of the reserve by providing suitable trees and shrubs for shade, shelter, visual appearance, productivity, biodiversity, habitat, erosion control and mitigation, stormwater management, and landscape definition.
- To limit adverse effects by managing existing trees and vegetation, and by careful placement of new plantings to protect viewshafts through the reserve.

## 4 PRINCIPLES

- A view is not an entitlement or a right of properties that overlook reserves
- Plant pests will be removed where this is practicable, or controlled
- Self-sown exotic vegetation (e.g. silver birch, cherry, cotoneaster, poplar, willow etc) will be removed unless it is performing a valuable function
- Vegetation must make a positive contribution to the amenity of the reserve
- A mixture of native species and exotics will be developed
- Trees should be located where they will provide the most benefit for reserve users and where adverse effects can be avoided or reduced
- Trees should be chosen and maintained to produce a shape that will suit their intended purpose and where adverse effects can be avoided or reduced
- Application of CPTED principles
- Compliance with the Tapuaeharuru Bay Lakeshore Reserves Management Plan and the Taupo District Council Tree and Vegetation Policy

## 5 EXPLANATION OF TREE PRUNING TECHNIQUES

**Thinning** removes a branch at its point of origin on the trunk.

**Crown thinning** selectively removes branches to increase light penetration and air movement and reduce the weight of heavy limbs.

**Reduction** shortens a limb to a lateral branch large enough to resume the growth of the pruned limb.

**Crown reduction** reduces the size and spread of crowns using reduction and thinning cuts, resulting in fewer sprouts than heading or stub cuts, and maintaining the structural integrity and natural form of the tree.

Thinning and reduction cuts leave no stubs. They are used to remove damaged, dead, or weak branches, reduce the length and weight of heavy limbs, or reduce the height of a tree. Reduction cuts are placed so as to distribute ensuing growth throughout a tree and retain or enhance a tree's natural shape. Reduction and thinning cuts are the proper type of cut to use in pruning a live tree. Reduction cuts on larger branches can be referred to as **drop crotch pruning**.

**Crown raising** removes lower branches to provide clearance for buildings, vehicles, pedestrians, and signs.

**Crown cleaning** removes dead, dying, diseased, crowded, weakly attached, or low-vigor branches and water shoots.

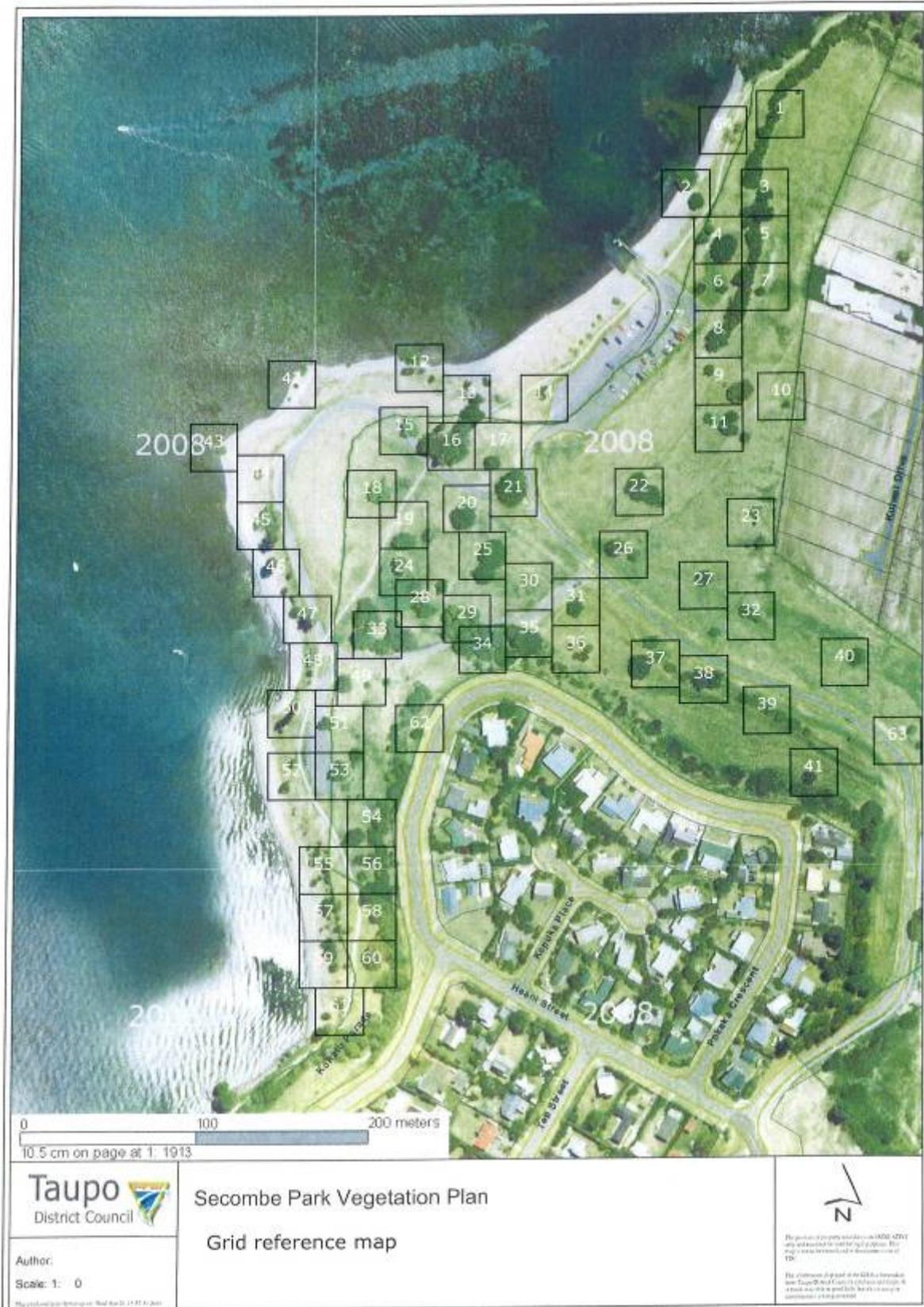
**Crown restoration** improves the structure and appearance of trees that have been storm-damaged or deformed by heading or stub cuts.

**Heading** trims a branch back to a bud, or trims a branch or leader back to a small branch not large enough to assume the growth of the pruned branch. Heading cuts often result in the mass production of weakly attached epicormic or water shoots, and should only be used when pollarding trees or shaping terminal flowering plants such as roses. Heading cuts should not be used for **topping** trees as in almost all cases topping will permanently damage a tree's health, structure, and appearance.

**Stubbing** is like heading, but cuts are made indiscriminately to a point on a branch or leader where no bud or branch exists. A stub cut, like a heading cut, is used when a tree is topped. Topping is only appropriate when sections of limbs are cut off during the removal of a tree.

Where tree pruning is recommended in this management plan, it is intended that this be completed by a qualified arborist using appropriate crown reduction techniques rather than topping. Pruning will be undertaken at appropriate intervals for optimum tree health (around 5 yearly as a general guide but this may vary from tree to tree).

# 6 SECOMBE PARK GRID REFERENCE MAP



## 7 SECOMBE PARK VEGETATION INVENTORY AND ACTIONS

The following table contains an inventory of and proposed actions for all of the trees identified and numbered in the grid reference map in part 5. Vegetation growing on the bank below Pokaka Crescent is separately identified in part 7.

Number	Tree name	Photo	Action
	All juvenile trees i.e. trees that have been planted in the last ten years.		Check all juvenile trees for health. Remove any that have been damaged beyond recovery by poor maintenance practices e.g. lack of support, and bark damage. Ensure remaining trees are well staked. Prune to improve shape where needed. Apply fertiliser and mulch around base of tree.
1	Mixed native shrubs		Annual release to keep clear of weeds. Remove any self sown exotics.
2	Grey willows		Willow furthest from lake was removed in 2011. Leave remaining willow and review in 2015.
3	Quercus robur (Common oak) x2		Retain both oaks and review in 2020. Crown raise where appropriate to retain viewshafts underneath.
4	Common oak, Lawson's Cyprus and pussy willow		Remove pussy willow and Lawson's Cyprus. Retain oak and use crown reduction and thinning techniques to encourage a low spreading crown.
5	Kowhai and other natives		Annual release to keep clear of weeds. Remove any self sown exotics.

6	Common oak, small kowhai and large flax bush in grass.		Remove oak as it is an unhealthy specimen. Check kowhai for health. Remove if bark damaged beyond recovery. Otherwise stake and fertilise. Incorporate flax bush into native plantings through drainage swale.
7	Rum cherry (Prunus serotina) in grass. Silver birches in native plantings		Remove rum cherry. Retain Silver birches short term and remove in 2015 once natives have achieved some height.
8	Black Poplar (Populus nigra) in native shrubs		Prune to reduce number of leaders and remove lower branches up to main fork. Retain in medium term. Review in 2020.
9	Silver birch, small tortured willow and large eucalypt		Remove all trees.
10	Rum Cherry		Remove
11	Prunus plum, rum cherries and rowan		Remove rum cherries. Prune other two trees to improve shape.

12	Grey willows, silver birches and wild cherry ( <i>Prunus serrulata</i> )		Remove wild cherry. Leave other trees until alternative trees are established in this area. Review in 2015.
13	Common oak, rum cherries, golden delicious apple, wild cherry, poplar and Kowhais.	 	Prune oak to reduce and thin upper limbs and encourage a low spreading crown. Ensure kowhais are well protected and mulched. Remove crooked kowhai if it can't be straightened. Remove rum cherries and wild cherry. Retain apple if possible and prune to shape. Remove poplar.
14	Common oak		Prune to reduce and thin upper limbs and encourage a low spreading crown.
15	<i>Salix tortuosa</i> (tortured willow)		Thin upper branches to reduce height and density without encouraging mass epicormic growth. Remove some lower limbs to raise crown slightly for ease of maintenance.
16	Lombardy poplar and group of 8 silver birches		Retain as these trees are a significant landscape feature along the Lions Walk. Review in 2020

17	Silver birch (left of photo)		Retain in short term and remove when alternative trees are established.
18	Tortured willow and silver birch		Improve shape of willow and prune to encourage a low spreading crown for use as a shade tree. Thin out crown as for 15 above. Retain birch and review in 2020.
19	Silver birch		Retain in short term. Remove in 2015 when alternative trees have established.
20	Common oak		Raise and reduce crown to encourage a low spreading shape.
21	Common oak (tree on right)		Raise and reduce crown to encourage a low spreading shape.
22	Arbutus unedo (Irish Strawberry tree), Pittosporum tenuifolium, rum cherries and griselinia		Remove rum cherries. Remove lower branches from Arbutus and re-establish crown off the ground. Tidy Pittosporum and Griselinia.

23	Larches x2 and kowhai		Remove northernmost larch and raise crown on remaining tree. Retain kowhai.
24	Dacrydium dacrycarpus (kahikatea) grove, flax, cabbage tree, cherry and common oak.		Retain all kahikatea. Remove blackberry and other plant pests from the flax. Remove cherry and common oak (see photo at 28 below). <b>Partially completed.</b>
25	Common oak x2		Raise and reduce crown to encourage a low spreading shape.
26	Nothofagus fusca (red beech), Euonymous, golden totara, kahikatea, Taxodium dystichum (Swamp cypress)		Raise canopy of beech. Remove Euonymous. Retain conifers. Tidy around base of totara and taxodium.
27	Red beech		This appears to be two trees grown very closely together as the canopy is subtly different on the two sides. Retain.
28	Rum cherry and silver birch (two trees on left side of photo)		Remove both trees. <b>Completed.</b>

29	Larches x9		Review trees in late summer 2012 and remove 2 trees in 2013 to improve the appearance of the group. Retain the remainder.
30	Larches x2		Remove both trees
31	Common oak		Prune to shape to encourage a low spreading crown. Reduce height.
32	Pittosporums and cherry		Remove cherry. Retain others. Use as the basis for planting of low native shrubs.
33	Silver birches x5 and Rowan		Leave entire group intact. Review in 2020.
34	Nothofagus (Black beech), Photinia and Pittosporum tenuifolium x5		Leave beech tree unpruned. Remove Photinia and large Pittosporum immediately adjacent.

35	Kowhai, Nothofagus (silver beech) and common oak		Remove oak. Crown raise beech if necessary.
36	Kanuka x5 (group to left of photo) and kahikatea		Retain all kanuka and two of the three kahikatea. Remove the kahikatea with a double leader to reduce the visual impact of this grouping.
37	Common oak and Cornus capitata (dogwoods) x4		Prune oak to encourage a low spreading crown. Lower canopy height. Retain dogwoods.
38	Silver birch x2		Prune to remove decay from previous topping, improve shape and reduce spread. These trees may need to be removed on safety grounds if decay compromises tree integrity.
39	Cornus capitata x6		Retain all
40	Quercus palustris (pin oak)		Retain. Raise canopy slightly and thin limbs to create a more open canopy.

41	Silver birch		Remove.
42	Poplar and tortured willow		Remove poplar. Retain tortured willow and prune to shape. Remove grey willows only if this is consistent with erosion management practices i.e. removal will not exacerbate erosion in this area.
43	Grey willow (right)		Remove grey willow only if this is consistent with erosion management practices i.e. removal will not exacerbate erosion in this area.
44	Apple (left)		Retain and keep pruned.
45	Grey willow		Remove dead limbs and raise canopy. Retain until alternatives have grown
46	Poplar (has since fallen in a storm and been removed), kowhai and rum cherry		Remove rum cherry. Retain kowhais.

47	Kowhais and rum cherry		Remove rum cherry. Prune kowhai to remedy shape.
48	Larch, common oak and kowhai		Remove heavy upward growing branches from larch to re-establish leader. Retain oak and begin shaping as a low spreading shade tree. Remove larch once the oak has grown to the point where the canopies touch.
49	Silver birch		Prune to thin canopy. Silver birches are prone to decay if topped. Consider removal in 2015.
50	Lombardy poplar		Retain. Inspect regularly for decay.
51	Silver birch		Prune to thin canopy. Silver birches are prone to decay if topped. Consider removal in 2015.
52	Kowhai and cherry		Remove cherry

53	Silver birch, kowhais and griselinia		Tidy base of griselinia. Retain silver birch in short term and remove in 2015. Remove limbs overhanging carpark.
54	Silver birch, kanuka, totara and assorted native shrubs		Retain all trees. Review silver birch in 2020.
55	Mixture of rum cherries and kowhai		Remove all rum cherries. Mulch and stake kowhai as needed. <b>Partially completed.</b>
56	Purple plum, wild cherries		Remove wild cherries. Retain purple plum. Retain any ornamental cherries i.e. those with double blossoms. <b>Partially completed.</b>
57	Mixture of rum cherries and kowhai		Remove all rum cherries and other self sown vegetation. Mulch and stake kowhai as needed. <b>Partially completed.</b>
58	Common oak x2 and Quercus rubra (red oak)		Remove large lower limbs of two larger oaks to reduce canopy width. Thin to tidy and open canopy. Remove smaller of the two common oaks as it will eventually obscure the remaining viewshaft in this area.

59	Mixture of rum cherries and kowhai		Remove all rum cherries. Mulch and stake kowhai as needed. <b>Partially completed.</b>
60	Eucalypt and common oak		Prune oak to encourage low spreading crown reduce canopy.
61	Kowhai and rum cherries		Remove all rum cherries. Mulch and stake kowhai as needed. <b>Partially completed.</b>
62	Kowhai and assorted native shrubs		Retain. Annual release to keep clear of weeds. Remove any self sown exotics.
63	Eucalypt and rowan		Prune both trees to improve shape.
64	Eucalypt (partly obscured at right end of photo)		Retain.

# 8 POKAKA CRESCENT BANK GRID REFERENCE MAP



## 9 POKAKA CRESCENT BANK VEGETATION INVENTORY AND ACTIONS

The following table contains an inventory of and actions for all of the vegetation identified and numbered in the grid reference map in part 7. In general all weeds and self sown vegetation is to be removed and replaced with appropriate native species.

Number	Description	Photo	Actions
1	Honeysuckle, Muehlenbeckia australis (wire vine), flax, blackberry, lemonwood, Arbutus, griselinia, broom		Clear blackberry, broom, wire vine, honeysuckle and any other weeds from bank and trees. Remove lemonwood and Arbutus but leave other natives and trees.
2	Bamboo, Pittosporum tenuifolium (Kohuhu), bracken, blackberry		Clear blackberry, broom, and any other weeds from bank and trees. Cut bamboo and poison regrowth to prevent spread. Leave trees and any natives.
3	Kohuhu, blackberry, broom, bracken, Asplenium polyodon (sickle spleenwort fern), kowhai		Clear blackberry, broom, bracken and any other weeds from bank and trees. Leave trees, natives and be careful not to damage fern.
4	Kohuhu, rum cherry, cabbage tree, bracken, blackberry, broom, Jerusalem cherry, cabbage tree, flax		Clear blackberry, broom, bracken and any other weeds from bank and trees. Remove rum cherries. Leave trees and natives. Tidy flax bushes on top of bank.
5	Rum cherry, blackberry, kohuhu, wire vine, bracken, broom, wild cherry		Clear blackberry, broom, wire vine, bracken and any other weeds from bank and trees. Remove rum and wild cherries. Leave natives.

6	Kohuhu, totara, wire vine, blackberry, five finger, flax		Clear blackberry, wire vine and any other weeds from bank and trees. Leave natives. Tidy flax bushes. Remove one or two flax bushes from top of bank and split and replant lower on bank.
7	Lupin, smoke bush, kowhai, convolvulus, wire vine, blackberry, pink oxalis, rum cherry, broom, kohuhu		Clear blackberry, broom, wire vine, convolvulus, lupins and any other weeds from bank and trees. Remove rum cherry. Leave natives.
8	Hoheria (Lacebark), flax, cabbage tree, rum cherry suckers, kohuhu, golden totara, blackberry, convolvulus, wire vine		Clear blackberry, wire vine, convolvulus and any other weeds from bank and trees. Poison stumps producing suckers. Leave natives.
9	Kohuhu, rum cherry suckers, kowhai, flax, wire vine		Poison rum cherry stumps and wire vine. Tidy flax
10	Abelia, blackberry, flax, kohuhu, cabbage trees, pseudopanax, korokia, kowhai, convolvulus, flax		Poison convolvulus and blackberry. Leave natives. Remove Abelia. Tidy flax bush in fenceline.
11	Open grass		

12	Cabbage trees, Coprosma robusta		
13	Kahikateas, cabbage trees, flax, blackberry		Poison blackberry. Remove kahikatea with double leader. Retain all other vegetation. Tidy flax.
14	Kowhai, kahikateas, cabbage tree, blackberry, flax, akeake, various suckering stumps		Poison blackberry and suckering stumps. Retain all other vegetation. Tidy flax.
15	Totara, rum cherry, blackberry, cabbage tree, kowhai, kahikatea		Poison blackberry. Remove rum cherry. Retain all other vegetation.
16	Cabbage trees, bottlebrush, kanuka, Olearia paniculata, flax, blackberry, korokia		Poison blackberry. Remove Olearia paniculata. Retain all other vegetation. Tidy flax
17	Kowhai, Nothofagus menziesii (silver beech), Griselinia, cabbage trees, flax, totara		Remove disfigured silver beech and totara. Retain all other vegetation. Tidy flax

18	Kohuhu, cabbage trees, kowhai, ivy, rum cherry, flax, silver beech, Griselinia		Remove rum cherry. Poison ivy. Retain all other vegetation. Tidy flax
19	Kanuka, flax, akeake, cabbage trees, kohuhu, bottlebrush		Retain all vegetation. Tidy flax
20	Smoke bush, kohuhu, coprosma robusta, rum cherry, narrow leaved maire (oro-oro), kanuka, flax		Remove rum cherry. Retain all other vegetation. Tidy flax
21	Pittosporum, Chaenomeles (flowering quince), kowhai, lacebark, cabbage tree, photinia, Kolkwitzia amabilis (Beauty Bush), smoke bush, rum cherry, Astelia nervosa		Remove rum cherry. Retain all other vegetation. Use discretion to thin vegetation and reduce height without creating demand for future maintenance.
22	Five fingers, kowhai, cherry seedlings, cabbage trees, flax, flowering quince, kohuhu, broom		Remove cherry seedlings from amongst kowhai. Remove broom. Remove all deadwood. Retain all other vegetation. Use discretion to thin and reduce height without creating demand for future maintenance. Tidy flax
23	Cabbage trees, five fingers, kowhai, lemonwood, flax, Pomaderris (Tainui), Griselinia, cherry seedlings		Remove cherry seedlings. Thin and improve stand health by removing lemonwood and five fingers. Tidy flax Retain other vegetation. Use discretion to thin and reduce height without creating demand for future maintenance.

24	Cabbage trees, flax, Rowan, Arbutus unedo (Strawberry tree), rhododendron, blackberry, five fingers, Myrsine (red mapou), lemonwood, Kolkwitzia		Remove or poison blackberry. Thin and improve stand health by removing lemonwood and five fingers. Retain all other vegetation. Use discretion to thin and reduce height without creating demand for future maintenance.
25	Broom, blackberry, rum cherry, five finger, flax, kowhai, totara, kanuka, cabbage tree, Rowan, korokia		Remove rum cherry and broom. Remove or poison blackberry. Retain all other vegetation. Tidy flax
26	Totara, flowering quince, apricot, apple, broom, blackberry		Remove broom and blackberry. Retain all other vegetation.
27	Red beech, five finger, Photinia, Cryptomeria, flowering quince, golden cypress, lemonwood, cabbage trees, akeake, kanuka, maple, lacebark, flax, Griselinia, cherry seedlings, bracken, blackberry, broom, honeysuckle, ivy		Remove cherry seedlings, bracken, blackberry, broom, honeysuckle, and ivy. Ivy may need to be cut and poisoned where it is growing up into trees.  Remove all deadwood. Tidy flax  Consider removal of golden cypresses and cryptomeria in consultation with adjoining property owners.

# 10 SECOMBE PARK PROPOSED LOCATIONS FOR NEW PLANTINGS



## 11 RECOMMENDED TREES FOR PLANTING AT SECOMBE PARK

This planting plan for Secombe Park is to be read in conjunction with the proposed plan for maintenance and removal of existing trees. The planting plan takes into account proposed removals, and provides for replacements where appropriate, or new trees in more suitable locations. It also takes into account the impact of vegetation on viewshafts through the reserve.

The following trees are recommended as suitable for this situation. However, this is not intended to be an exhaustive list, and other trees may be selected that have similar growth characteristics. For desirable growth characteristics refer to page 24.

Botanical name	Common name	Description	Estimated Dimensions	Key
<i>Melia azedarach</i>	Indian Bead Tree	Medium sized deciduous tree with spreading crown, scented lilac flowers in summer, autumn foliage, berries in winter. Hardy, tolerates cold, dry and wind.	10-12m high and similar across	
<i>Nyssa sylvatica</i>	Tupelo	Small to medium tree, drooping branches, vivid autumn colour. Tolerates frost and damp conditions. Will tolerate drought but may grow more slowly in these conditions.	10-12m high 6-8m across	
<i>Sophora tetraptera</i>	North Island Kowhai	Small to medium evergreen tree golden flowers in spring. Frost hardy and prefers damp conditions but will tolerate dry soils. Flowers are sought after by nectar feeding birds.	6-10m high 6-8m across	
<i>Diospyros kaki</i>	Persimmon 'Izu' or similar	Small tree with spreading, slightly weeping shape, deciduous foliage and striking autumn colour. Edible fruits persist on the tree into winter. Tolerates cold and some dry.	4-6m high 4m across	
<i>Cornus florida</i>	Flowering Dogwood	Small deciduous tree with persistent white or pink bracts during spring and summer, and intense autumn foliage. Tolerates cold, but does not like drought conditions.	6-8m high Similar across	
<i>Agonis flexuosa</i>	Willow myrtle	Graceful, drooping, evergreen foliage, flowers in late spring, tolerant of dry conditions, good shade.	8-10m high 6-8m across	
<i>Leptospermum 'Copper shine'</i>	Copper Shine	Small to medium tree with glossy bronze evergreen foliage and white flowers in summer. Tolerates wind, and wet or dry soils.	8-10m high 6-8m across	
<i>Pyrus calleryana 'Kea'</i>	Ornamental pear	Small deciduous tree with spring blossom, small inedible fruit and vivid autumn colour. Hardy and wind tolerant	6m high 4m across	
<i>Amelanchier canadensis</i>	Shad Bush	Small tree with bushy spreading crown, intense autumn foliage, dainty spring blossom and edible summer berries. Tolerates cold, wind, wet and dry.	6m high 4-6m across	
<i>Phyllocladus trichomanoides</i>	Tanekaha (for planting in cobble circle at reserve entrance)	Tall, conical, evergreen NZ native conifer. Slow growing.	15 to 20m high and 5-8m across	Not shown on plan
<i>Phormium tenax, Carex sp, Coprosma propinqua, etc</i>	Flax, sedges, mingimingi,	Mostly low growing wetland type plants that will tolerate most conditions, strengthen the stormwater drainage areas and provide food for birds.	1-3m high	

## 11.1 DESIRABLE GROWTH CHARACTERISTICS FOR TREES ON SECOMBE PARK

Symbol	Expected maximum height	Desirable Characteristics
	8-12m high	Deciduous, open crowned, hardy, wind and drought tolerant, good autumn colour, attractive specimen tree
	6-8m high	Hardy, tolerant of wind and variable soil conditions, attractive flowers, bird attracting
	4-8m high	Hardy, tolerates both dry and wet conditions, attractive flowers and/or fruit, attractive small tree
	6-8m high	Hardy, very tolerant of wind, heat, drought and cold conditions. Provides good summer shade, attractive flowers or foliage.

Possible trees for consideration would include:

- infertile varieties of Prunus (flowering cherry) such as Mt Fuji, Shimidsu Sakura etc
- Crabapples (Malus)
- Small growing olives such as Koroneiki
- Liquidambar 'Gumball' standards
- Ginkgo 'Jade Butterflies'
- Smaller growing plum trees
- Albizzia (Silk Tree)
- Magnolia (in more sheltered locations)
- Crepe Myrtle (Lagerstroemia indica)
- Azara microphylla
- Luma apiculata
- Callistemon sp (bottlebrush)
- Morus nigra 'Queenie' (Black mulberry)
- Sorbus aria 'Lutescens' (Silver Whitebeam)

## 12 RECOMMENDED PLANTS FOR BANK AREAS

The main purposes of maintaining vegetation on the banks below Pokaka Crescent are:

- To stabilise the banks and prevent erosion;
- To reduce ongoing maintenance of grass;
- To reduce weed growth; and
- To improve reserve amenity and environmental values.

Previous plantings and unmanaged weed growth in this area have resulted in reduction of views for properties on Pokaka Crescent. A significant amount of vegetation was removed in 2002 at residents' requests. More trees were removed in 2008. This raised concerns of some reserve users who viewed the removal of vegetation as unnecessary and detrimental to the reserve.

It will be necessary to re-establish vegetation in some areas to achieve the purposes listed above. The objective therefore should be to limit the adverse effects of this vegetation on properties overlooking the reserve by careful placement and management of plantings. For this reason, plants must be carefully chosen and located for soil stabilisation, hardiness, ability to compete with grass and weeds, eventual height, appearance, and attractiveness to birds (and humans). Taller plants should be placed near the bottom of the bank where soil is more stable and effects on views will be minimised.

Areas 11-19 are currently dominated by grass which is kept under control either by mowing or an annual trim. Planting of these areas is not a priority as the current maintenance regime is fairly cost-effective and produces an acceptable result. Any new plantings in these areas will be sparse, and consist of discrete groups placed around or between existing plantings to form "islands" of hardy low-maintenance vegetation. In other areas where there is bare soil or an existing canopy, plantings may be more continuous.

The following is a list of plants that are considered to be suitable for various locations along the bank (for locations refer to the grid reference at part 7). This is not intended to be an exhaustive list, and other plants may be used that have similar growth characteristics.

Botanical name	Common name	Description	Estimated height	Location No.
<i>Anemanthele lessoniana</i>	Gossamer grass	Graceful feathery clumping grass	1m	7-10, 12-15
<i>Aristotelia serrata</i>	Makomako, wineberry	Colonising semi-deciduous tree with pink flowers and dark red berries	6m	1-6, 27
<i>Brachyglottis repanda</i>	Rangiora	Common forest margin plant with large felty leaves and tiny fragrant flowers	3m	1-6
<i>Brachyglottis greyii</i>		Low shrub with grayish leaves and bright yellow daisy flowers	1m	12-13,
<i>Callistemon citrinus</i>	Bottlebrush	Large shrub with lanceolate leaves and red bottlebrush like flowers that attract nectar feeding birds	3-4m	16-19

<i>Chionocloa flavicans</i>	Miniature toe toe	Low growing clumps of light green foliage with small creamy plumes of flower	1m	14-15
<i>Coprosma 'Black Cloud'</i>		Low mounding habit with fine dark foliage and blue berries	1m	7-10, 16-19
<i>Coprosma crassifolia</i>		Stiffly interlacing branches and small round leaves	2m	7-10, 16-19
<i>Coprosma propinqua</i>		Divaricating shrub with small leaves and blue berries	2m	7-10, 16-19
<i>Coprosma robusta</i>	Karamu	Common forest margin tree with orange berries	4m	1-6, 27
<i>Coprosma rhamnoides</i>		Divaricating shrub with tiny leaves and red berries	3m	7-10
<i>Corokia cotoneaster</i>	Korokio, Wire-netting bush	Wiry branches and tangled silvery grey new growth, small dark green leaves, berries	2m	1-6, 7-10, 12-13, 16-19, 26
<i>Cortaderia fulvida</i>	Toetoe	Tall grassy plant with golden flower plumes in spring	1.5m	7-10, 16-19
<i>Dianella nigra</i>	Turutu, N.Z. Blueberry	Small flax-like plant with white flowers and blue berries	0.5m	1-6, 12, 20-22, 27
<i>Feijoa</i> varieties	Feijoa	Large shrubs with grey foliage, red flowers and edible autumn fruit	3m	7-10, 16-19
<i>Fuchsia excorticata</i>	Tree fuchsia	Deciduous tree with peeling papery bark, purplish flowers and berries. Needs damp soil and shelter. Frost tender	6m	1-3, 27
<i>Griselinia littoralis</i>	Broadleaf, Kapuka	Dense bushy shrub or small tree with shiny green leaves	6m	1-6, 20-24, 27
<i>Hebe corriganii</i>		Dense branching shrub with long dark green leaves and white or pale mauve flowers	1.5m	7-10, 12-13, 16-19,
<i>Hebe parviflora</i>		Tall branching shrub with light green narrow leaves and white or pale mauve flowers	2m	7-10, 16-19, 26
<i>Hebe stricta</i>	Koromiko	Open branching shrub with long narrow deep green leaves and mauve tinged white flowers	2m	1-6, 7-10, 16-19, 26
<i>Machaerina sinclairii</i>	Pepepe	Clumps of slightly drooping bright green iris like leaves and drooping plumes of rusty red flowers	1m	1-6, 7-10, 12-13,

<i>Melicytus lanceolata</i>	Mahoe wao	Large shrub to slender tree with open spreading branches, long narrow light green leaves, and mauve berries	4m	1-6, 20-24, 27
<i>Olearia furfuracea</i>		Shrubby tree daisy with broad oval leathery leaves and white daisy flowers	3m	7-10
<i>Olearia macrodonta</i>		Shrubby tree daisy with pointed wavy edged leaves and white daisy flowers	2m	7-10, 16-19, 26
<i>Olearia lineata</i>		Twiggy tree daisy with very narrow, long leaves and drooping branches.	4m	7-10
<i>Phormium cookianum</i>	Mountain flax, wharariki	Clumps of long, drooping leaves, and tall flower spikes with yellow tubular flowers	1.5m	1-6, 7-10, 12-13, 26
<i>Pittosporum tenuifolium</i> var. <i>colensoi</i>	Black mapou	Small tree with thick leathery leaves and reddish black flowers	8m	1-6
<i>Pittosporum tenuifolium</i> 'Mountain Green'		Compact shrub with small fresh green leaves	4m	7-10,
<i>Pseudopanax arboreus</i>	Five finger	Large shrub or small tree with large glossy compound leaves and clusters of black berries	8m	1-6, 27
<i>Pseudopanax crassifolius</i>	Lancewood	Slow growing tree with distinctive juvenile form. On maturity forms a round head on a tall single trunk	8m	7-10
<i>Pseudowintera colorata</i>	Pepperwood, horopito	Bushy shrub with oblong, leathery red tinged leaves	3m	1-6, 7-10, 16-19, 20-24
<i>Sophora tetraptera</i>	Kowhai	Variable small tree with light foliage, pinnate leaves and drooping yellow flowers	8m	1-6

## 13 SECOMBE PARK PROGRAMME OF TREE PRUNING, REMOVAL AND REPLACEMENT

### 13.1 WORKS PROGRAMME FOR 2011

#### 13.1.1 TREE PRUNING AND REMOVAL FOR 2011.

The following trees are to be pruned or removed in 2011 as they are considered to have a higher priority than other identified tree work:

LOCATION	TREE/S	ACTION REQUIRED	TIMING
<i>PARK AREA</i>			
Entire park	Any small tree that has been damaged beyond recovery by vandalism or maintenance practices, including all juvenile <i>Cornus capitata</i> along main drive.	Remove	2011
7	Rum cherry	Remove	2011
9	Large eucalypt	Remove	2011
10	Rum cherry	Remove	2011
11	Rum cherries	Remove	2011
12	Wild cherry	Remove	2011
13	Poplar, rum cherries and wild cherry	Remove	2011
13	Kowhai, apple	Ensure these are pruned to an attractive shape and staked where required	2011
22	Rum cherries	Remove	2011
22	Arbutus	Remove lower branches and re-establish crown up off the ground	2011
22	Pittosporum and Griselinia	Prune away untidy growth around base	2011
24	Common oak (in edge of wetland)	Remove	2011
26	Euonymous	Remove	2011
26	Beech, totara, taxodium	Raise canopy of beech. Tidy around base of totara and taxodium.	2011
30	Larches x2	Remove both trees	2011
32	Cherry	Remove	2011
42	Poplar	Remove	2011
46	Rum cherry	Remove	2011
47	Rum cherry	Remove	2011
53	Silver birch	Remove limbs overhanging carpark	2011
53	Griselinia	Tidy around base	2011
55	Rum cherries	Poison stumps	2011
56	Wild cherries	Remove wild cherries. Retain purple plum. Retain any ornamental cherries i.e. those with double blossoms.	2011
57	Rum cherries	Poison stumps	2011
59	Rum cherries	Poison stumps	2011
61	Rum cherries	Poison stumps	2011

<i>BANK AREA</i>			
Bank area in general	Cherries, rum cherries and other remaining weed species. Flax bushes.	Remove weed species. Poison stumps and spray blackberry. Tidy up flax clumps along bank. Remove one or two clumps from top of bank where these would significantly improve view shafts. Split these and replant lower on bank.	2011
1	Lemonwood, Arbutus	Remove	2011
10	Abelia	Remove	2011
16	Olearia paniculata	Remove	2011
22-24	Lemonwood, five-fingers	Remove	2011

### 13.1.2 PLANTING PROGRAMME FOR 2011

TREE/PLANT TYPE	LOCATION	NUMBERS (APPROX)	TIMING
Wetland planting	Wet area in central part of reserve	300	2011

## 13.2 WORKS PROGRAMME FOR 2012

### 13.2.1 TREE PRUNING AND REMOVAL FOR 2012

LOCATION	TREE/S	ACTION REQUIRED	TIMING
<i>PARK AREA</i>			
4	Common oak	Prune to reduce upper limbs and encourage a low spreading crown	2012
8	Black poplar	Prune to reduce leaders and remove lower branches up to main fork	2012
13	Common oak	Prune oak to reduce upper limbs and encourage a low spreading crown.	2012
14	Common oak	Prune to reduce upper limbs and encourage a low spreading crown.	2012
15	Tortured willow	Thin upper branches to reduce height and density without encouraging mass epicormic growth. Remove some lower limbs to raise crown slightly for ease of maintenance.	2012
18	Tortured willow	Improve shape of willow and prune to encourage a low spreading crown for use as a shade tree. Thin out crown as for 15 above.	2012
20	Common oak	Raise and reduce crown to encourage a low spreading shape.	2012
21	Common oak	Raise and reduce crown to encourage a low spreading shape.	2012
25	Common oak x2	Raise and reduce crown to encourage a low spreading shape.	2012

31	Common oak	Raise and reduce crown to encourage a low spreading shape.	2012
37	Common oak	Prune oak to encourage a low spreading crown. Lower canopy height.	2012
48	Common oak	Retain oak and begin training as a low spreading shade tree.	2012
60	Common oak	Prune oak to encourage low spreading crown. Reduce canopy height.	2012
<i>BANK AREA</i>			
22-24	Tainui, Arbutus, Kolkwitzia	Use discretion to thin and reduce height without creating demand for future maintenance.	2012

### 13.2.2 PLANTING PROGRAMME FOR 2012

TREE/PLANT TYPE	LOCATION	NUMBERS (APPROX)	TIMING
Kowhai trees	Avenue planting along road	20	2012
Shrubs	Bank area south of pump station	800	2012
Trees 	Along Lion's walk and lake edge	23	2012
Trees 	Central reserve area	6	2012
Trees 	Adjacent to wetland area	6	2012

## 13.3 WORKS PROGRAMME FOR 2013

### 13.3.1 TREE PRUNING AND REMOVAL FOR 2013

LOCATION	TREE/S	ACTION REQUIRED	TIMING
<i>PARK AREA</i>			
4	Pussy willow, Lawson's cypress	Remove	2013
6	Common oak	Remove	2013
11	Prunus and rowan	Prune to improve shape	2013
29	Larches (group of nine)	Review trees in late summer 2012 and remove 2 trees in 2013 to improve the appearance of the group. Retain the remainder.	2013
38	Silver birches	Prune to remove decay from previous topping, improve shape and reduce spread. These trees may need to be removed on safety grounds if decay compromises tree integrity.	2013
40	Pin oak	Raise canopy slightly and thin limbs to create a more open canopy.	2013
47	Kowhai	Prune to improve shape	2013
48	Larch	Remove heavy upward growing	2013

		branches from larch to re-establish leader.	
49	Silver Birch	Prune to thin canopy. Silver birches are prone to decay if topped.	2013
51	Silver Birch	Prune to thin canopy. Silver birches are prone to decay if topped.	2013
58	Common oak and red oak	Remove large lower limbs of two larger oaks to reduce canopy width. Thin to tidy and open canopy.	2013
<i>BANK AREA</i>			
2	Bamboo	Remove	2013

### 13.3.2 PLANTING PROGRAMME FOR 2013

TREE/PLANT TYPE	LOCATION	NUMBERS (APPROX)	TIMING
Shrubs	Bank area north of pump station	300	2013
Wetland planting	Swale north of carpark	200	2013
Trees	Check and replace failed plantings from previous years	As required	2013

## 13.4 WORKS PROGRAMME FOR 2014

### 13.4.1 TREE PRUNING AND REMOVAL FOR 2014

LOCATION	TREE/S	ACTION REQUIRED	TIMING
<i>PARK AREA</i>			
23	Larch	Remove northernmost larch	2014
24	Larch	Raise crown on remaining tree	2014
3	Two Quercus robur (common oaks)	Raise canopy as required to retain viewshafts underneath.	2014
63	Eucalypt and rowan	Prune both trees to improve shape.	2014

### 13.4.2 PLANTING PROGRAMME FOR 2014

TREE/PLANT TYPE	LOCATION	NUMBERS (APPROX)	TIMING
Trees	Check and replace failed plantings from previous years	As required	2014

## 13.5 WORKS PROGRAMME FOR 2015

### 13.5.1 TREE PRUNING AND REMOVAL FOR 2015

LOCATION	TREE/S	ACTION REQUIRED	TIMING
<i>PARK AREA</i>			
7	Silver birches	Retain Silver birches short term and remove in 2015 once natives have achieved some height	2015
9	Silver birch and small tortured willow	Remove	2015

19	Silver birch	Retain in short term. Remove in 2015 when alternative trees have established.	2015
34	Photinia and Pittosporum (immediately adjacent to Photinia)	Remove	2015
35	Common oak	Remove	2015
35	Silver beech	Crown lift if required	2015
36	Kahikatea	Remove the kahikatea with a double leader to reduce the visual impact of this grouping.	2015
41	Silver birch	Remove	2015
42	Willows	Retain tortured willow and prune to shape. Remove grey willows only if this is consistent with erosion management practices i.e. removal will not exacerbate erosion in this area.	2015
43	Grey willow	Remove grey willow only if this is consistent with erosion management practices i.e. removal will not exacerbate erosion in this area.	2015
52	Cherry	Remove	2015
53	Silver Birch	Remove	2015
58	Common oak	Remove smaller of the two common oaks as it will eventually obscure the remaining viewshaft in this area.	2015
<i>Review all trees identified for review in 2015</i>			<i>2015</i>

## 13.6 WORKS PROGRAMME FOR 2016-2020

### 13.6.1 TREE PRUNING AND REMOVAL FOR 2016-2020

LOCATION	TREE/S	ACTION REQUIRED	TIMING
<i>PARK AREA</i>			
<i>Various</i>	Common oaks, tortured willows	Repeat five-yearly prune of trees	2017
17	Silver birch	Retain in short term and remove when alternative trees are established.	2017
45	Grey willow	Retain until alternatives have grown then remove	2017
48	Larch	Remove larch once the oak has grown to the point where the canopies touch.	2018
<i>BANK AREA</i>			
17	Silver beech and small totara	Remove	2018

## 13.7 REVIEW

Review Vegetation Management Plan in 2020