Avenue of Honour
Tree Management and Replacement Plan

for

Prepared by

Homewood Consulting Pty Ltd

150 Junction Road
Nunawading VIC 3131

Prepared For

Phil Josipovic

PO Box 93
Queenscliff VIC 3225

Consulting Arborist

Megan Brittingham

Bachelor of Science
Bachelor of Forest Science (Hons)
Diploma Horticulture (Arboriculture)

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1. Introduction

The Queenscliff Avenue of Honour is an avenue of mature Monterey Cypress (*Cupressus macrocarpa* syn. *Hesperocyparis macrocarpa*) planted in recognition of local soldiers who fought in World War I. It is one of a number of historic Monterey Cypress avenues that define Queenscliff's public open spaces (Hansen Partnership 2000), dominating the streetscapes and harnessing the uniformity of the individual trees to create a dramatic visual effect.

Since the initial plantings in 1918, tree removal and selective replacement planting within the Borough's cypress avenues has been undertaken on an ad hoc basis. In its present state the Avenue of Honour is in poor condition, with many of the original trees approaching 100 years old. These trees and many of the other trees assessed have surpassed their peak aesthetic value and are nearing the end of their Useful Life Expectancy.

Homewood Consulting Pty Ltd has been engaged to provide a Tree Management and Replacement Plan for the significant rows and avenues of Monterey Cypress within the Borough of Queenscliffe. These have been separated into discrete management units as follows (Figure 1):

- Flinders Street
- WWI Avenue of Honour
- Marine Discovery Centre
- The Narrows – western extent
- The Springs
- Bellarine Community Centre
- Point Lonsdale foreshore.

Each tree has been assessed to determine current health and condition. Recommendations have been made for the maintenance of individual trees and the avenues as a whole to ensure public safety, and extend the lifespan of trees where possible.

As part of the tree replacement plan, a number of tree species have been considered for replacement of the existing Monterey Cypress. The case for and against the continued use of Monterey Cypress is examined and a shortlist of alternative species is presented for the replacement of trees in Flinders Street, The Avenue of Honour and The Springs.

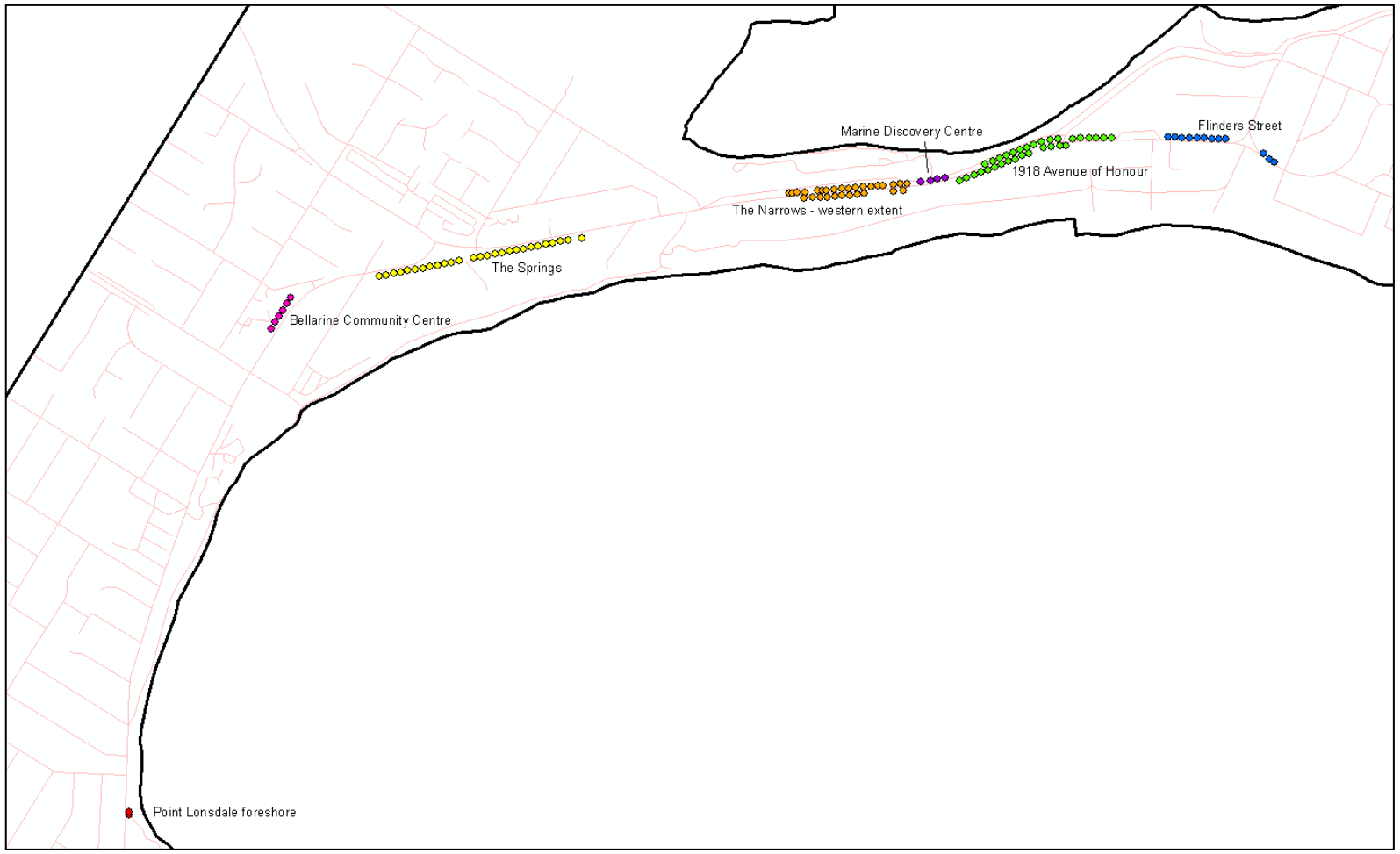


Figure 1: The location of the assessed trees, within the Borough of Queenscliffe boundary.

2. Key Objectives

The Queenscliff Avenue of Honour Tree Management and Replacement Plan has the following key objectives:

A. Determine the extent of the Queenscliff Avenue of Honour with supporting rationale

B. Existing Tree Audit and Maintenance Plan

- Review and outline the health of all existing trees along the Avenue of Honour.
- Provide details as to their expected reasonable lifespan having regard to public safety and the overall health of the broader Avenue.
- Make recommendations about the maintenance and management of existing trees and the Avenue as a whole to ensure public safety, protect the health of the Avenue, and extend the lifespan of specific trees.

C. Determine future tree species

- Examine and provide comment on the suitability of the community's strong preference for Monterey Cypress, having regard to the ongoing overall health and sustainability of the Avenue, and any other relevant considerations.
- Advise whether or not the Monterey Cypress should be used in future, and if not, why not.
- If it is not recommended that the Monterey Cypress be used in future, identify suitable alternate species.
- Make a final recommendation regarding the type of tree, having regard to the community survey results.

D. Tree Replacement Program – Not covered in this report

- *Provide a time-framed, strategic program for the progressive replacement of existing Avenue of Honour Trees.*
- *Provide advice on purchase and size of trees.*

3. Historical Context

3.1 Avenues of Honour in Australia

Commemorative trees have been planted in public spaces since the late nineteenth century. Arbor Days were held regularly in most Victorian State Schools during the late 1800s and early 1900s and numerous trees were planted in parks in Melbourne and throughout Victoria to mark the visits of important and famous people (Haddow 1987). The earliest recorded memorial avenues were planted in remembrance of Australia's participation in the Boer War (Haddow 1987), however it was the Great War of 1914-1918, a war that took nearly 60,000 Australian lives, that drove the desire of many communities to establish lasting memorials to all those who served their countries.

Hundreds of avenues of honour were planted in Australia between 1917 and 1921 to commemorate those who served in the Great War. The planting of these memorial trees was intensely personal and for many towns across Australia, they acted as a focus of remembrance for a grieving community.

There are currently 547 known avenues of honour in Australia, in all states and territories except the Northern Territory (Backhouse, 2013). Avenues of Honour were a more popular form of war memorial in Victoria than in any other state of Australia and over half of the known Avenues are in Victoria (Haddow 1987).

3.2 The Queenscliff Avenue of Honour

The Queenscliff Avenue of Honour (Figure 2) was planted on 24 July, 1918, to commemorate the district soldiers who were killed in World War I (Queenscliff Sentinel, Drysdale, Portarlington and Sorrento Advertiser (The Sentinel), 27 July, 1918) (Figure 3). The Mayor, Cr. W. J. Thwaites, stated in his opening remarks at the planting ceremony that when first proposed to Council, his fellow councillors had at once agreed with the suggestion of the Avenue of Honour. 50 Monterey Cypress trees were planted by relatives of the soldiers and local school boys on that day (The Sentinel, 27 July, 1918). Most of the avenue trees (45 or possibly 46) were dedicated to the memory of an individual fallen district soldier.

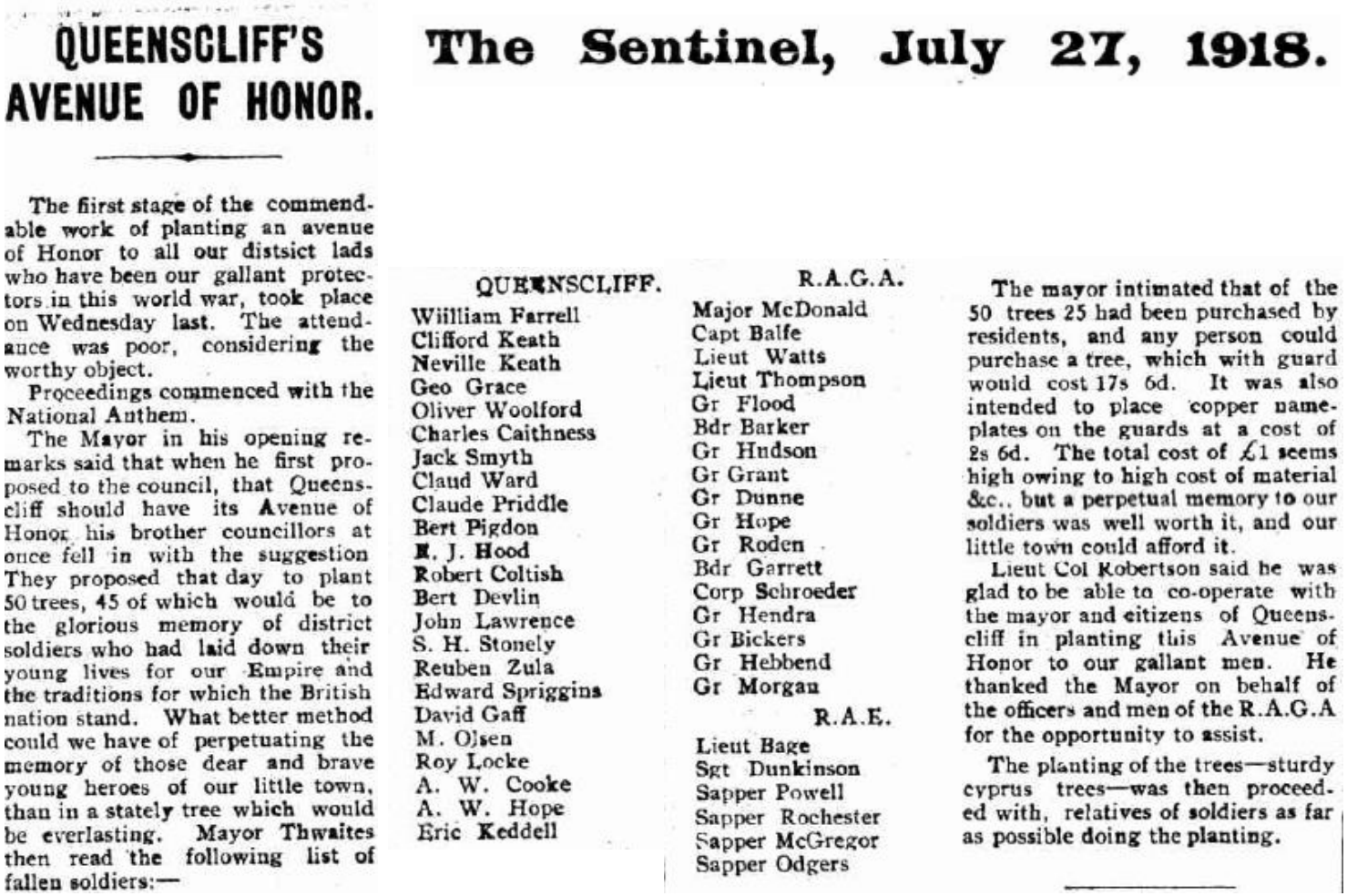
Cr. Thwaites read the list of the fallen soldiers and stated:

> I could conceive of no more important occasion than the commemoration of the death by sacrifice of the best of the manhood of our little town,…and I cannot describe my feelings as tree after tree was planted in the names of dear lads whose faces are so familiar to us and whose voices we fancy we can still hear.
>
> (The Sentinel, 27 July, 1918).

The Avenue of Honour was important to the local community. At the time of planting, half of the trees had been paid for by the local residents. The trees were protected by a wooden guard and a copper nameplate of the fallen soldier was later fixed to the tree guard.

Following the signing of the armistice which marked the end of World War I, an 'In Memoriam' service was held at the Avenue of Honour where school children hung floral wreaths on each tree-guard (The Sentinel, 23 November, 1918).

Figure 2: The Queenscliff Avenue of Honour is a living tribute to the servicemen associated with the Borough of Queenscliffe who sacrificed their lives during World War I.



QUEENSCLIFF'S AVENUE OF HONOR.

The Sentinel, July 27, 1918.

The fiirst stage of the commendable work of planting an avenue of Honor to all our distsict lads who have been our gallant protectors in this world war, took place on Wednesday last. The attendance was poor, considering the worthy object.

Proceedings commenced with the National Anthem.

The Mayor in his opening remarks said that when he first proposed to the council, that Queenscliff should have its Avenue of Honor, his brother councillors at once fell in with the suggestion They proposed that day to plant 50 trees, 45 of which would be to the glorious memory of district soldiers who had laid down their young lives for our Empire and the traditions for which the British nation stand. What better method could we have of perpetuating the memory of those dear and brave young heroes of our little town, than in a stately tree which would be everlasting. Mayor Thwaites then read the following list of fallen soldiers:—

QUEENSCLIFF.

Wiilliam Farrell
Clifford Keath
Neville Keath
Geo Grace
Oliver Woolford
Charles Caithness
Jack Smyth
Claud Ward
Claude Priddle
Bert Pigdon
R. J. Hood
Robert Coltish
Bert Devlin
John Lawrence
S. H. Stonely
Reuben Zula
Edward Spriggins
David Gaff
M. Olsen
Roy Locke
A. W. Cooke
A. W. Hope
Eric Keddell

R.A.G.A.

Major McDonald
Capt Balfe
Lieut Watts
Lieut Thompson
Gr Flood
Bdr Barker
Gr Hudson
Gr Grant
Gr Dunne
Gr Hope
Gr Roden
Bdr Garrett
Corp Schroeder
Gr Hendra
Gr Bickers
Gr Hebbend
Gr Morgan

R.A.E.

Lieut Bage
Sgt Dunkinson
Sapper Powell
Sapper Rochester
Sapper McGregor
Sapper Odgers

The mayor intimated that of the 50 trees 25 had been purchased by residents, and any person could purchase a tree, which with guard would cost 17s 6d. It was also intended to place copper nameplates on the guards at a cost of 2s 6d. The total cost of £1 seems high owing to high cost of material &c., but a perpetual memory to our soldiers was well worth it, and our little town could afford it.

Lieut Col Robertson said he was glad to be able to co-operate with the mayor and citizens of Queenscliff in planting this Avenue of Honor to our gallant men. He thanked the Mayor on behalf of the officers and men of the R.A.G.A for the opportunity to assist.

The planting of the trees—sturdy cyprus trees—was then proceeded with, relatives of soldiers as far as possible doing the planting.

Figure 3: The 1918 article about the planting ceremony for the Avenue of Honour, listing the soldiers that individual trees were dedicated to. From the Queenscliff Sentinel, Drysdale, Portarlington and Sorrento Advertiser. Source: National Library of Australia.

PART A - Determine the extent of the Queenscliff Avenue of Honour with supporting rationale.

4. Location and extent of the Avenue of Honour

Multiple *Cupressus macrocarpa* avenues have been planted in the streetscapes within the Borough of Queenscliffe. Mature trees line the entrance to the town from The Narrows on the Bellarine Highway through to Flinders Street and there is some conjecture over the definitive extent of the Queenscliff Avenue of Honour. The nameplates that were fixed to the individual trees have long been removed and concrete bases, presumably once used to mount the copper name-plates, remain at the foot of only a handful of the trees (Figure 4 - Figure 6).

Historical aerial photography provides some insight into the timing and location of plantings and has been used to hypothesise about the historical significance of the trees. Figure 7 provides an overview of the timing of tree planting for the cypress trees lining The Narrows on the Bellarine Highway through to Flinders Street. It is important to note that all inferences made herein are the author's interpretation based on the information available at the time of writing the report.

Figure 4: The nameplate of Private Charles Percival Yule Caithness of the 46th Australian Infantry Battalion, now on display in the Queenscliffe Historical Museum.

Figure 5: Concrete base at the foot of Tree 25. This tree is one of the 1918 Avenue of Honour trees.

Figure 6: Concrete base at the foot of Tree 12 on Flinders Street suggest that these trees too, were commemorative plantings.

Figure 7: Aerial photograph from 2013 showing Trees 1-77 through The Narrows and Flinders Street. Analysis of historical aerial photographs shows 4 distinct planting periods and allows inferences regarding the historical significance of the trees. Source: Borough of Queenscliffe.

4.1 WWI Avenue of Honour

The original 1918 plantings for the Avenue of Honour were said to run "from the foot of Convent Hill" westward, "towards the Point" (Queenscliff Sentinel, June 15, 1918). It is assumed that the convent mentioned is the Santa Casa Sisters of Mercy located on Henry Street. 50 trees were planted.

An aerial photograph published in the Australasian Newspaper in 1925 (Figure 8) supports this, showing the young cypress avenue starting at what is now the memorial park/bus stop and running westward in two rows towards The Narrows.

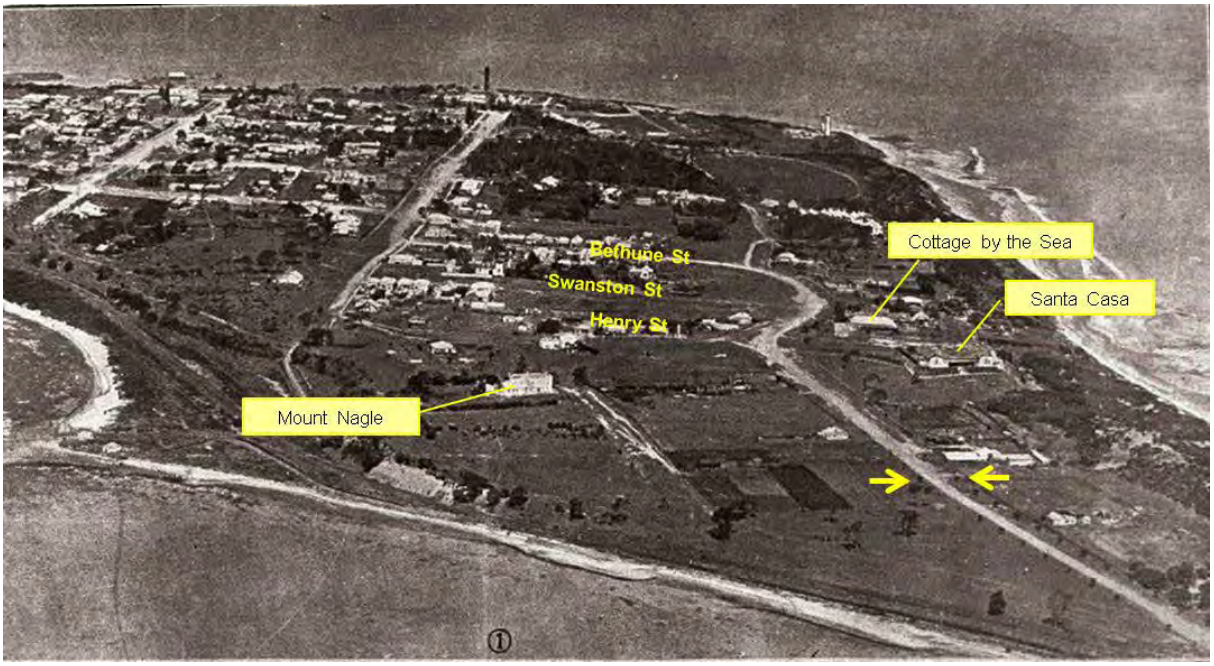


Figure 8: An aerial photograph of Queenscliff taken in 1925 from the Australasian Newspaper. The start of the 1918 Avenue of Honour is highlighted with arrows. Source: Queenscliff Historical Museum.

A later aerial photograph c.1926-1940 (Figure 9) shows the Avenue of Honour trees at a larger size, again starting at the now the memorial park/bus stop and heading westward in two rows towards the Narrows. The size of the trees in the photograph suggests it was taken some time in the 1930s. At this stage, the trees on either side of Flinders Street had not yet been planted.

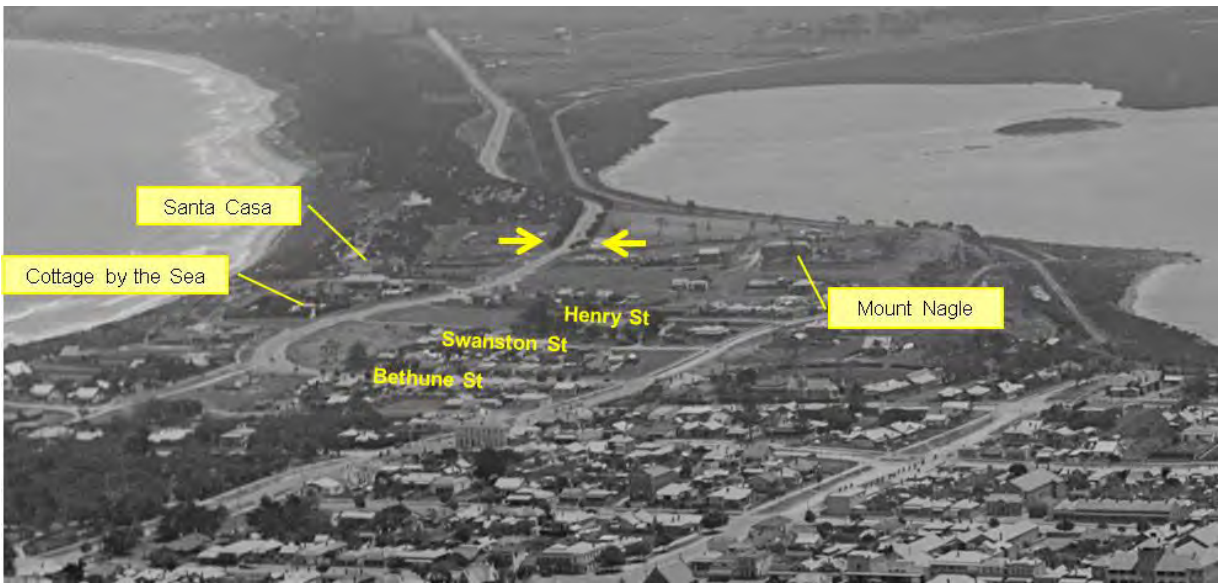


Figure 9: An Aerial photograph of Queenscliff c. 1926 - 1940. The start of the 1918 Avenue of Honour is highlighted with arrows. Source: National Library of Australia.

4.2 Flinders Street Commemorative Plantings

The Flinders Street trees were planted after the 1918 Avenue of Honour and first appear in aerial photographs taken sometime between 1940 and 1950. Figure 10 (c. 1940-50) shows Monterey Cypress plantings along both sides of Flinders Street, between Bethune Street and Smith Street. The original Avenue of Honour (yellow arrows) can be distinguished from these younger trees in the photograph (orange arrows).

While not part of the original WWI Avenue of Honour, the remains of concrete bases at some of the Flinders Street trees provides strong evidence that these trees too were commemorative plantings. Ron Hodgetts, a local resident, recalls planting these trees as a young schoolboy in 1945 as part of a school Arbor Day (pers. comm., 31 March, 2015). The timing of the plantings suggests they may have been related to soldiers who fought in World War II, although this is uncertain.

Figure 10: An aerial photograph of Queenscliff c. 1940 - 1950. The Monterey Cypress plantings along Flinders Street (between Bethune and Smith Street) are evident with the older Avenue of Honour trees adjacent. Source: National Library of Australia.

4.3 Additional Monterey Cypress Avenues

5 Monterey Cypress were planted sometime between 1945 and 1950 either side of where the entrance to the Marine Discovery Centre is now located (Figure 11). There are currently no remains of concrete bases at the foot of these trees and any historical associations are unknown.

Figure 11: An aerial photograph of Queenscliff taken in 1947. The trees around the Marine Discovery Centre entrance are now visible. Source: Borough of Queenscliffe.

There is little evidence to suggest that the western extent of the avenue through The Narrows has a significant historical connection. There is also no evidence to suggest that the rows of Monterey Cypress at The Springs, The Bethune Community Centre and the Point Lonsdale foreshore trees have a historical connection. This is subject to review should additional information be available.

5. Legislative and Planning Framework

Several Avenues of Honour with in Victoria, such as the Bacchus Marsh Avenue of Honour are listed on the Victorian Heritage Register and many others are afforded local levels of heritage protection through Planning Scheme Overlays.

The Queenscliff Avenue of Honour is not recognised through the Victorian Heritage Register and is offered no protection from its listing on the Victorian War Heritage Inventory: a database containing information and images of sites relating to Victoria's war history. There is no Heritage Overlay encompassing the Avenue, however the majority of the remnants of original Avenue of Honour and the western extension of the avenue through The Narrows are afforded some protection through a Significant Landscape Overlay (SLO3).

SLO3 - The Narrows - recognises that the avenue of cypress trees along the Bellarine Highway 'provide a bold entrance to the Borough'. A permit is required to remove the cypress trees in this area. Figure 12 shows the extent of the overlay and the Monterey Cypress street plantings assessed in this report.

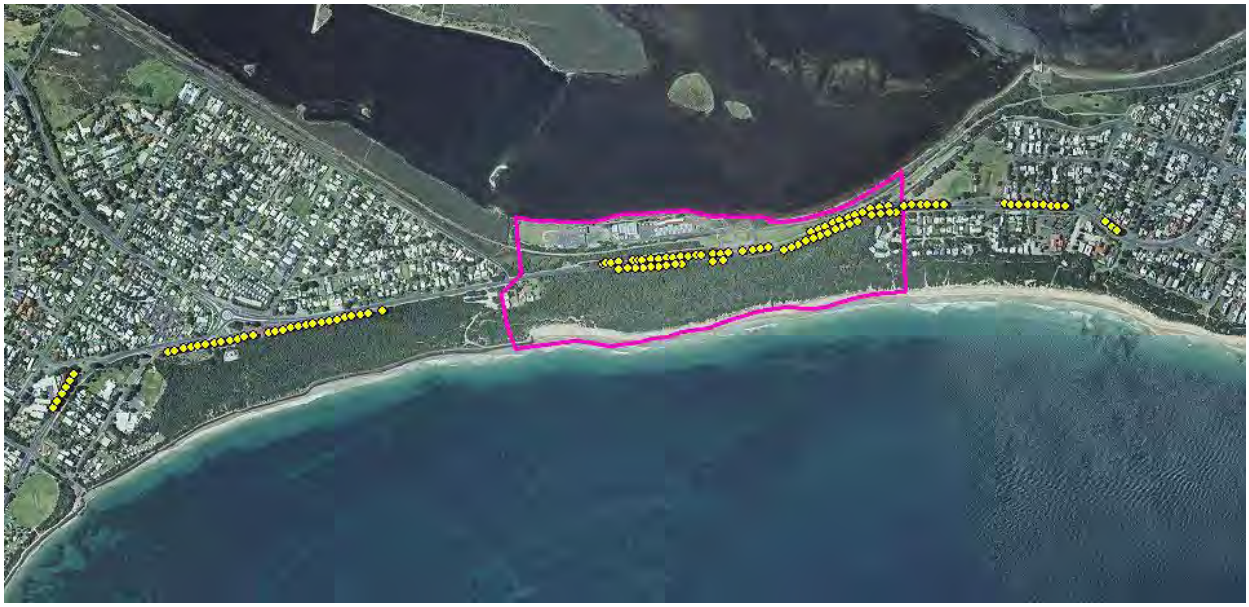


Figure 12: The boundary of the Significant Landscape Overlay and trees assessed. (Point Lonsdale foreshore trees not shown). Source: Borough of Queenscliffe (2013).

6. Species Profile

All of the trees assessed are Monterey Cypress (*Cupressus macrocarpa* syn. *Hesperocyparis macrocarpa*). *C. macrocarpa* is extremely rare in the wild and is known only from two localities along the coastline near Monterey, California, though it is extensively cultivated in public parks, gardens, cemeteries and farms in Australia and New Zealand (Spencer 1995). Monterey Cypress appeared in Victorian nursery catalogues as early as 1857 and was soon widely available (Spencer 1995).

Mature trees can grow up to 35m tall in cultivation and display a great variability in habit, ranging from columnar to widespread and flat-topped with sweeping lateral branches. As the trees age, crown development takes the form of long massive limbs which finally attain the height of the leader and spread out into a wide, umbrella shaped crown. With an incredible ability to withstand exposure to salt-laden winds, this tree is a common site in coastal towns in Victoria including the main avenues through Cowes and Apollo Bay.

6.1 Name Change

A 2006 revision of the genus *Cupressus* concluded that American cypresses are distinctly different from those of the Old World (Asia/Europe) and a 2009 study combining molecular and morphological characters supported this. Consequently, a new genus, *Hesperocyparis* was named and the North American *Cupressus* species were placed into this genus. While the majority of the international botanical community have made the change to *Hesperocyparis*, including the Australian Plant Census, universal agreement regarding the name change has still not been reached (Spencer & Cross, 2012). Throughout this report, the species is referred to as *Cupressus macrocarpa* for the sake of consistency.

6.2 Structural Profile

Older Monterey Cypress have developed a reputation for dropping large branches (Spencer 1995). A structural failure profile based on 463 Monterey Cypress failures showed branch failure as the principal type of failure for the species (Costello and Jones 2014). The majority of failures (69%) occurred along the branch for Monterey Cypress, as opposed to failure at the point of attachment to the trunk. Heavy lateral limbs (end weight), multiple branches/codominant stems, and dense crown were the leading structural defects associated with branch failures.

Pruning of aging trees can be complicated with a potential for decay to be present in trunk or limbs, new exposure of over-extended limbs to wind forces, additional demands for energy in having to produce new growth and responding to large wounds associated with failures or pruning. Monterey Cypress do not re-grow foliage when cut back to bare wood and over time, as hazardous limbs are removed, the canopy decreases. This can have a marked flow-on effect as the tree relies on a network of branches for structural support and removal of lower branches can increase wind exposure in higher branches, increasing the risk of failure.

6.3 Seiridium Canker

Seiridium Canker is the most significant of the pathogens currently affecting exotic conifers in Victoria (DEPI 2014) and attacks at least 25 conifer species of the Cupressaceae family in many parts of the world. Previously this disease was thought to be caused by a single *Seiridium* species, but scientists now believe that three species (*S.cardinale, S.cupressi* and *S.unicorne*) can cause the same symptoms. These fungi have been present in Victoria for more than 50 years (DEPI 2014).

Site conditions play an important role in the spread and development of the disease. It is believed that the disease has proliferated in Victoria in recent years following the 'millennium' drought which weakened the cypresses and left them vulnerable to infection. Disease development has also been favoured over the past few years by waterlogging and/or warm, humid conditions in some areas (DEPI 2014).

Seiridium Canker infects plants through spores which are carried by wind, in water droplets or by insects. Conifers planted in avenues or rows tend to be more affected by the disease due to spread through rain splash. Spores that land on healthy foliage can germinate under warm, moist conditions and infection occurs through natural fissures in the bark or through scars caused by mechanical damage (e.g. pruning, animals or falling branches). The fungus interferes with the sap-conducting system, eventually causing death of the branch or main trunk above the wound. Older trees are usually more susceptible but any tree is susceptible when environmental conditions have placed them under stress.

At present it appears that the disease is progressing slowly through the mature trees throughout the Borough of Queenscliffe with most trees just beginning to 'brown off'. This is due to a combination of factors which are favouring disease resilience including site conditions and the generally mild climate experienced in Queenscliff.

PART B - Existing Tree Audit and Maintenance Plan:

- **Review and outline the health of all existing trees along the Avenue of Honour.**

- **Provide details as to their expected reasonable lifespan having regard to public safety and the overall health of the broader Avenue.**

- **Make recommendations about the maintenance and management of existing trees and the Avenue as a whole to ensure public safety, protect the health of the Avenue, and extend the lifespan of specific trees.**

7. Existing Tree Audit and Maintenance Plan

7.1 Site Inspection

On Wednesday, 21 and Thursday, 22 January 2015 Megan Brittingham conducted a tree inspection of the major Monterey Cypress avenues and rows within the Borough of Queenscliffe. A total of 112 trees were assessed.

Data collected for the trees included:

- Botanical Name
- Tree Height and Canopy Width
- Diameter at Breast Height (DBH)
- Health
- Structure
- Useful Life Expectancy (ULE)
- Recommended Works

A Visual Tree Assessment was undertaken as per Mattheck and Breloer (1994). All assessments were conducted from ground level and assessments of decay are qualitative only.

Tree height and canopy spread were estimated. DBH was measured using a diameter tape. In single trunked trees, DBH was measured at 1.4m above grade. Where the trees branched below 1.4m, the smallest trunk diameter below the lowest branch was measured.

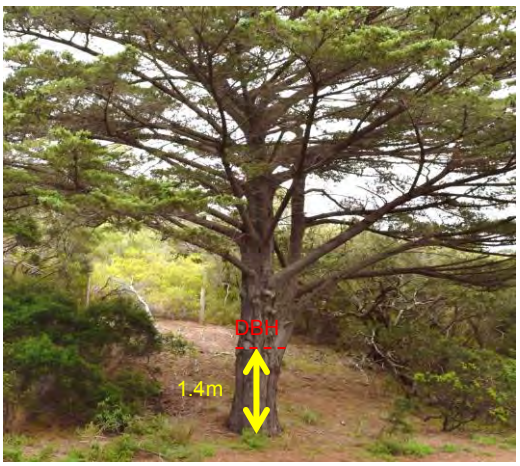


Figure 13: DBH measurement for a single trunked tree.

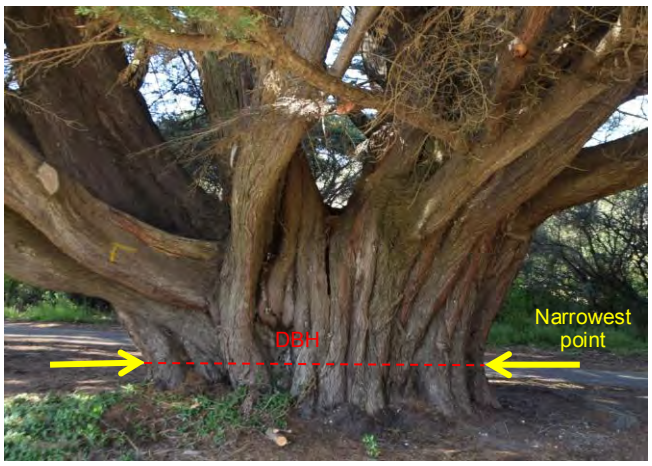


Figure 14: DBH measurement for a multi-stemmed tree, branching below 1.4m.

The trees were suspected to have Seiridium Canker due to visible signs of discoloration throughout the canopy. Foliage samples were collected from 7 of the trees, throughout the assessment area were sent to the Department of Environment and Primary Industry's (DEPI) Crop Health Services laboratory for pathogen testing. The samples were examined as a combined lot using direct microscopic examinations and moist incubations. The fungal pathogen *Seiridium spp*. was isolated from the samples.

For full definitions of all information collected see Appendix 1.

For individual tree assessments see Appendix 2.

7.2 Site Observations

7.2.1 Flinders Street

A row of 12 mature, even aged Monterey Cypress are located on the northern side of Flinders Street, with 3 trees between Swanston Street and Henry Street and 9 trees between Henry Street and Smith Street (Figure 15).

These trees are estimated to be 70 years old, with aerial photos and local testimony suggesting they were planted in 1945. Figure 16 shows that the cypresses in this area were originally planted on both sides of Flinders Street, and were also planted east of Swanston Street.

Figure 15: Aerial photograph showing the location of Trees 1-12. Estimated locations of trees that have been removed is shown (red crosses). Source: Borough of Queenscliffe (2013).

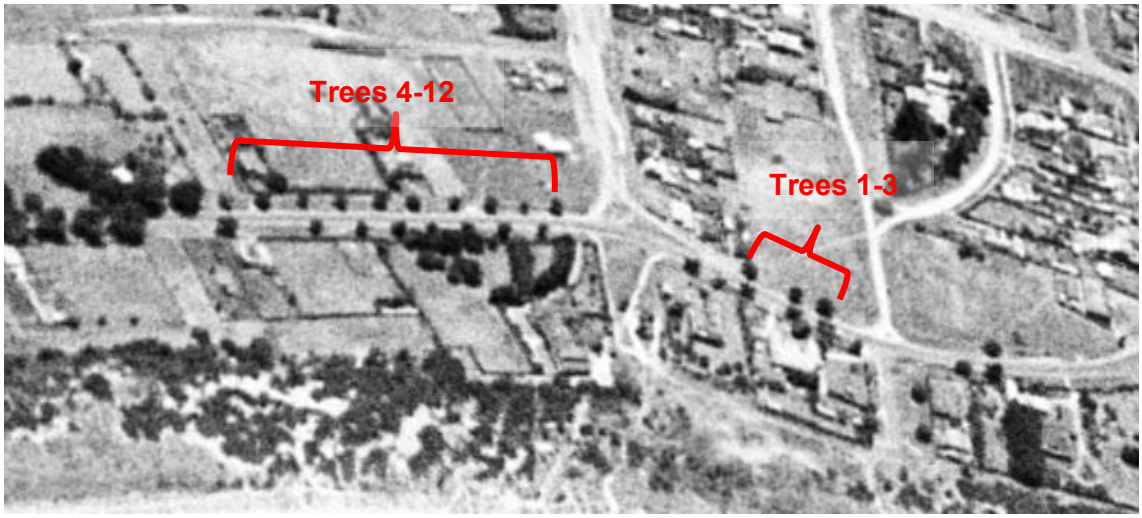


Figure 16: Aerial photograph, c. 1940-1950. Trees 1-12 are highlighted.
Source: National Library of Australia.

Figure 17: Trees 1-3 along Flinders Street, looking south-east towards Swanston Street. Tree 3 is in the foreground.

Figure 18: Trees 4-12 along Flinders Street, looking east towards Henry Street. Tree 12 is in the foreground.

The majority of these trees are currently in fair health for their age and location in the landscape. There is a moderate level of deadwood in the crown which is typical for a tree of this age. The trees are showing signs of *Seiridium* infection (Seiridium Canker), with a thinning canopy and discoloration of foliage.

The majority of these trees are of poor structure due to root damage and soil compaction from the road construction, informal gravel parking areas under the canopy, the footpath and residential driveways (Figure 19). Major roots have been severed for grade changes, presumably in the course of road upgrades along this section of Flinders Street (Figure 20). There is evidence of moderate to large branch failure and the trees have been lopped to achieve property clearance.

Individual branch removal is recommended for 2 trees with damaged limbs. Tree 7 has a ULE of less than 5 years and is recommended for removal within the next 2-4 years. Many large scaffold branches on Tree 7 have been removed or cut back, presumably due to branch failures or structural defects leaving the canopy quite open (Figure 21). There is substantial decay in the trunk.

The majority of the Flinders Street trees have a relatively short ULE of 5-10 years. Due to the age, location, and the presence of *Seiridium* spp. in the trees, there is little opportunity to modify or improve site conditions in order to extend their ULE. The major threat to these trees is soil compaction and *Seiridium* infection and it would be near impossible to remediate this under the present conditions.

These trees are approaching the overmaturity phase and are expected to decline over the next 10 years. During this period, the trees should be inspected annually to assess safety and determine maintenance requirements.

Figure 19: Vehicular and pedestrian traffic has compacted soils around the root zone.

Figure 20: Major roots have been severed in the course of road works on Flinders Street.

Figure 21: Tree 7 has a ULE of 1-5 years and is recommended for a low priority removal.

7.2.2 WWI Avenue of Honour

Trees 13-44 are part of the original commemorative World War I plantings. 32 of the original 50 trees remain (Figure 22) with rows of trees previously removed on both sides of the Bellarine Highway/Flinders Street, directly west of Smith Street due to conflict with existing or proposed infrastructure as well as individual trees removed for safety concerns. Figure 23 shows the location and extent of the original Avenue of Honour. These trees are now approaching 100 years of age.

Figure 22: Aerial photograph showing the remnants of the original Avenue of Honour trees. The estimated location of trees that have been removed from the Avenue is shown (red crosses). Source: Borough of Queenscliffe (2013).

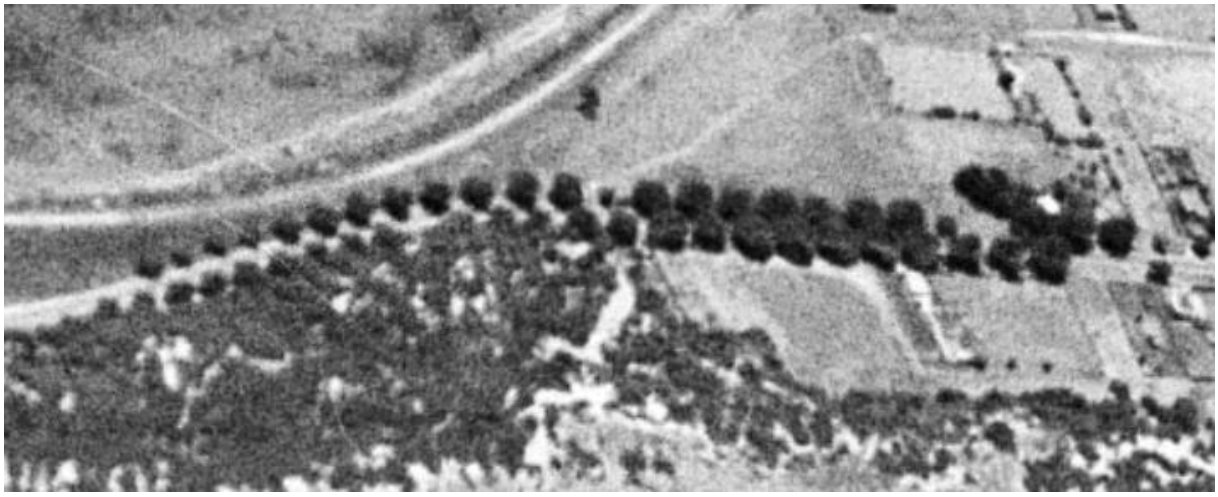


Figure 23: Aerial photograph, c. 1940s showing the location and extent of the original Avenue of Honour. Source: National Library of Australia.

Figure 24: The remaining trees of the 1918 Avenue of Honour – viewed from Swan Bay.

Figure 25: The original Avenue of Honour trees, looking east along the Bellarine Highway. Tree 29 is in the foreground on the LHS of the photo and Tree 34 is in the foreground on the RHS.

The majority of these trees are currently in fair health and of fair structure for their age. The trees are showing signs of *Seiridium* infection, with a thinning canopy and discoloration of foliage. There is moderate to heavy deadwood in the crowns which is typical for the species at this age.

Trees on the northern side of the highway are subject to root zone soil compaction due to cars parking on the road verge. Approximately 40% of the Avenue of Honour trees have poor structure due to extensive pruning. The canopies have been heavily uplifted, resulting in large, extended and end-weighted limbs. Trees 42-44 have been pruned for power line clearance (Figure 26). There is evidence of moderate to large branch failure in many of the trees.

Individual branch removal is recommended for 2 trees with damaged limbs. Tree 19 has a ULE of less than 5 years and is recommended for removal within the next 2 years. Many large scaffold branches have been removed or pruned, presumably due to branch failures or structural defect, leaving the canopy quite open (Figure 27). There is substantial decay in the trunk of Tree 19.

Figure 26: Tree 42 has been pruned for power line clearance.

Figure 27: Tree 19 is recommended for removal within the next 2 years.

With recommended site remediation works, approximately 60% of these trees have a moderate ULE of 10-20 years.

Soil around some of the Avenue of Honour trees has been compacted by vehicular and pedestrian traffic. To reduce the compaction, mulch should be applied under the canopies of the trees. It is envisaged that the mulched areas would act as exclusion zones and reduce the potential for further compaction.

Application of organic mulch helps retain moisture in the soil, moderates soil temperature and is beneficial to maintaining the soil microflora. In time it helps improve soil structure and promote the existence of worms and other soil organisms and promote root growth (Bastian 2009).

Due to their age and position in the landscape, the trees should be inspected annually to assess safety and determine maintenance requirements.

Figure 28: Applying mulch and excluding parking under the canopy of some of these trees will reduce soil compaction and reduce competition from weeds and grass.

7.2.3 Marine Discovery Centre

4 mature, even aged Monterey Cypress are located on the northern side of the Bellarine Highway, either side of the entrance to the Marine Discovery Centre (Figure 29). These trees are estimated to be 65-70 years old, with aerial photos suggesting they were planted between 1945 and 1950.

Figure 29: Aerial photograph showing the location of Trees 45-49. The estimated location of trees that have been removed is shown (red crosses). Source: Borough of Queenscliffe (2013).

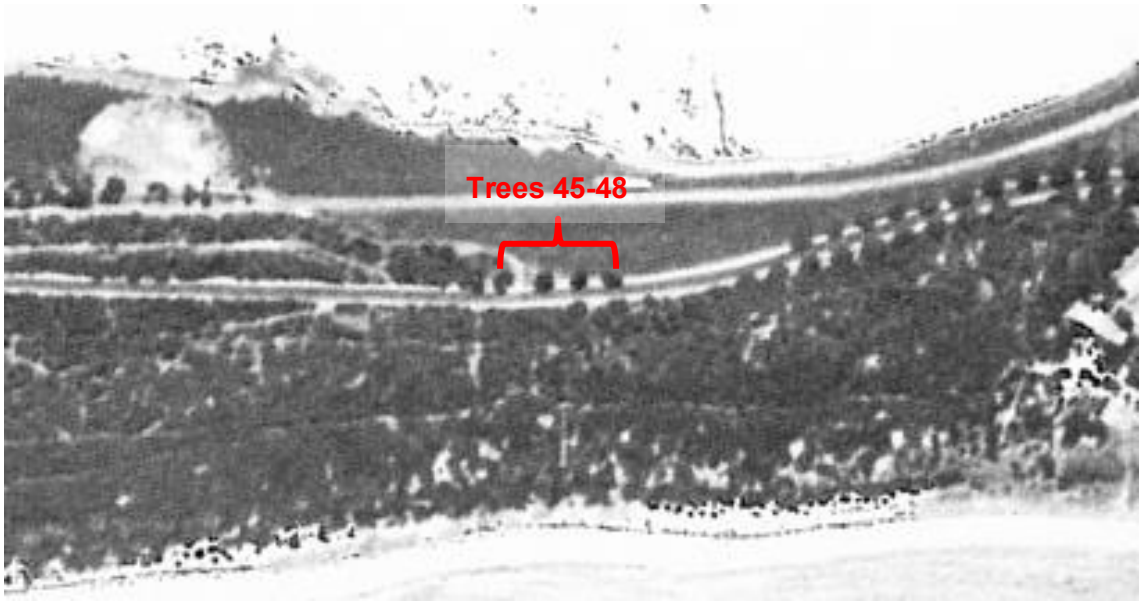


Figure 30: Aerial Photograph taken in 1962. Trees 45-48 are highlighted. Source: DEPI.

Figure 31: Trees 45-48, looking east along the Bellarine Highway. Tree 48 is in the foreground.

Figure 32: Trees 45-48, looking south east along the Bellarine Highway from the Marine Discovery Centre.

These trees are currently in fair health for their age and location in the landscape. The trees are showing signs of *Seiridium* infection, with a thinning canopy and discoloration of foliage. There is moderate deadwood in the crown which is typical for a tree of this age.

Tree health has been impacted by root zone soil compaction, from the Bellarine Highway on one side and the Bellarine rail trail (paved path) on the other. The trees are exposed to coastal winds from Swan Bay. 3 of the 4 trees have poor structure due to heavy canopy uplift pruning, presumably due to past branch failures or structural defects.

Hanging branch removal is recommended for 1 tree. Tree 48 has a ULE of less than 5 years and is recommended for removal within the next 2-4 years. The codominant stems, heavy trunk decay and lack of foliage on lower branches leave this tree more susceptible to failure under adverse weather conditions.

Tree 45 has a ULE of 10-20 years and Trees 46 and 47 have a ULE of 5-10 years. Modifying the site conditions is not expected to markedly increase the ULE for these trees.

The trees should be inspected annually to assess safety and determine maintenance requirements.

Figure 33: The presence of bees in the trunk of Tree 48 is indicative of an internal cavity from decay.

7.2.4 The Narrows – western extent

Trees 49-77 are located south of the Marine Discovery Centre and are the youngest group of plantings through The Narrows (Figure 34). From analysis of aerial photos (not shown), the majority of these trees were planted between 1965 and1975, with the trees now estimated to be 40-50 years old.

Figure 34: Aerial photograph showing the location of Trees 49-77.
Source: Borough of Queenscliffe (2013).

Most of these trees are in fair health, exhibiting an adequate canopy of foliage with minor deadwood present in the crown. Canopy discoloration is indicative of *Seiridium* spp. infection in these trees. The trees all have fair or good structure, generally with a well-balanced crown and branch unions showing only minor structural faults. Individual branch removal is recommended for 1 tree.

The majority of these trees have a ULE of 20-40 years. The trees should be inspected every 3-5 years to assess safety and determine maintenance requirements.

Figure 35: Trees 50-77, looking east along the Bellarine Highway.
Tree 66 is in the foreground on the LHS of the photo and Tree 67 in the RHS.

Figure 36: The canopy of trees on either side of the road touches, forming a tunnel and creating a bold visual statement for road users.

7.2.5 The Springs

A single row of 27 mature, mostly even aged Monterey Cypress are located on the southern side of Point Lonsdale Road and the Bellarine Highway, around the area known as The Springs (Figure 37). These trees are estimated to be 55-65 years old, with aerial photos suggesting they were planted between 1950 and 1960.

Figure 37: Aerial photograph showing the location of Trees 78-104 (Google 2013). The estimated location of trees that have been removed is shown (red crosses).
Source: Borough of Queenscliffe (2013).

Figure 38: Aerial photograph taken in 1962. Tree 104 is highlighted (red arrow). Source: DEPI.

Figure 39: Trees 78-104, looking east along Point Lonsdale Road. Tree 104 is in the foreground.

Figure 40: The Bellarine rail trail runs alongside the row of trees and the extended limbs on this side of the canopy create a pleasing visual aesthetic for trail users.

While not a commemorative planting, these trees are an important feature of the local landscape. The Borough of Queenscliffe Urban Character Study (Hansen Partnership, 2000) notes that "the intersection of the Highway with Point Lonsdale Road and Queenscliff Road marks the turn off towards each of what are two distinctly different and separate towns" with the mature cypress avenue "establishing the character of this area".

The majority of these trees are currently in fair health for their age and location in the landscape. Some trees are of poor health due to canopy lopping for high voltage power line clearance and in particular, Trees 100-104 have been heavily lopped resulting in excessive deadwood through the canopy (Figure 41). Monterey Cypress will not re-grow foliage from bare wood, and this has dramatically altered the aesthetics at the western end of the row.

Approximately 35% of the trees have poor or very poor structure, with soil compaction from contributing to the general state of decline of these trees. Informal parking is permitted under the canopies of trees 94-104. The Bellarine Rail Trail runs along the length of this row of trees and some trees have sustained root damage in the course of path installation or maintenance.

Risk reduction pruning of extended, end weighted limbs over the shared path and removal of broken and hanging branches over the path and parking areas is recommended (Figure 42). Trees 83, 94 and 104 have major structural defects including active trunk splits and/or major canopy splits and these trees are recommended for removal (Figure 43).

The majority of the trees in the row have a ULE of 10-20 years. While there is some opportunity to reduce target occupancy by excluding parking under the canopy, it is not expected to substantially increase the ULE for these trees, with the path on the other side of the trees remaining heavily used. These trees should be inspected annually to assess safety and determine maintenance requirements.

Figure 41: High voltage power line clearance offsets has involved pruning the trees back to bare wood.

Figure 42: Many of the trees in this row have cracked or hanging branches above the shared path.

Figure 43: Tree 83 has an active split of the codominant trunks.
This tree is recommended for removal.

7.2.6 Bellarine Community Centre

A single row of 6 mature, even aged Monterey Cypress is located on the western side of Point Lonsdale Road, Point Lonsdale, outside of the Bellarine Community Centre (Figure 44). These trees are estimated to be 55-65 years old, with aerial photos suggesting they were planted between 1950 and 1960. Historic photographs show that these trees are the remnants of 1 of 2 extensive rows of cypresses in the area (Figure 45).

Figure 44: Aerial photograph showing the location of Trees 105-110. The approximate location of Monterey Cypress rows that have been removed is indicated (red crosses). Source: Borough of Queenscliffe (2013).

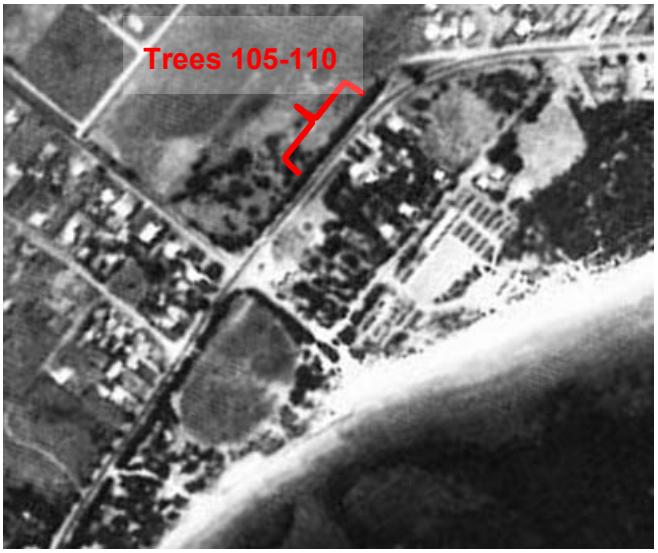


Figure 45: Aerial Photograph taken in 1962. The approximate location of trees 105-100 is highlighted. Source: DEPI.

Figure 46: Trees 105-110, looking north along Point Lonsdale Road. Tree 110 is in the foreground.

In general, these trees are of fair health and structure and appear typical examples of the species at maturity. All of these trees contain a moderate amount of deadwood in the canopy and there is evidence of small and moderate sized branch failures. Broken branch removal and risk reduction is recommended for one tree with defective branches above a park bench and an informal gravel path.

Trees 105-107 have a ULE of 10-20 years. These trees should be inspected every 3 years to assess safety and determine maintenance requirements.

Trees 108-110 around the entrance to the Community Centre have had major limbs removed, most likely following branch failure, and have a ULE of 5-10 years. These trees should be inspected annually to assess safety and determine maintenance requirements.

Figure 47: Tree 107 has broken and extended limbs above a park bench.

7.2.7 Point Lonsdale Foreshore

There are 2 mature trees on the Point Lonsdale foreshore which are estimated to be 60 years old. A mature cypress to the north of these trees was removed in 2013 as part of the foreshore redevelopment project.

Figure 48: Aerial photograph showing the location of Trees 111-112. The estimated location of a mature Monterey Cypress that was removed is shown (red cross). Source: Borough of Queenscliffe (2013).

Figure 49: Aerial Photograph taken in 2002, prior to the foreshore redevelopment. Trees 111 and 112 are highlighted. Source: Borough of Queenscliffe.

Figure 50: Trees 111 and 112 on the Point Lonsdale foreshore.

Figure 51: High pedestrian and vehicle traffic around Trees 111 (shown) and 112 has compacted soils.

These trees are in fair health and have fair structure, both being typical examples of the species at maturity. The canopy of both trees is thinning and this is most likely due to soil compaction in the root zone, with heavy vehicle and pedestrian traffic around both of the trees (Figure 51).

These trees have a ULE of 10-20 years. Due to their location in a high use area, the trees should be inspected annually to assess safety and determine maintenance requirements.

8. Discussion

8.1 Summary of Existing Conditions

8.1.1 Flinders Street

The 12 trees on the northern side of Flinders Street were planted circa 1945 and possibly commemorative plantings for World War II. Historical photographs show that there were previously 29 trees, planted on both sides of the road. The trees are of aesthetic, historic and cultural significance and it is strongly recommended that a tree replacement plan is developed and implemented for these trees.

The majority of these trees are currently in fair health but are of poor structure. Overall, the trees are expected to substantially decline over the next 10 years.

8.1.2 WWI Avenue of Honour

The 32 trees on the Bellarine Highway are part of the original WWI Avenue of Honour trees. Historical records and photographs show that Avenue originally consisted of 50 trees. The trees are of aesthetic, historic and cultural significance and it is strongly recommended that a tree replacement plan is developed and implemented for these trees.

Approximately 60% of the trees are currently in fair health and of fair structure with a ULE of 10-20 years. 40% of the Avenue of Honour trees are of fair health and poor structure and are expected to substantially decline over the next 10 years. It is recommended that parking beneath canopies is excluded wherever possible and mulch is applied.

8.1.3 Marine Discovery Centre

The 4 trees near the Marine Discovery Centre entrance are estimated to have been planted between 1945 and 1950. There were 5 trees in total planted in this located at the time. It is unknown if these trees have historic commemorative planting connections.

These trees are currently in fair health for their age and location; however 3 of the 4 trees are of poor structure. 1 tree is recommended for removal in the next 4 years due to structural defect and the remaining trees are expected to substantially decline over the next 10 years.

8.1.4 The Narrows – western extent

The 29 trees forming an avenue at the western end of The Narrows appear to have been planted sometime between 1965 and1975. It is unknown if these trees have historic commemorative connections, but they are a dominant feature of the local landscape and are of aesthetic significance.

The trees are currently in fair health and of fair or good structure. At present these trees require very little work with regard to public safety. The majority of these trees have a ULE of 20-40 years. These trees can be safely retained in the landscape and in the short to medium term and a tree replacement plan is not required.

8.1.5 The Springs

The 27 trees in a single row on the southern side of Point Lonsdale Road and the Bellarine Highway are estimated to have been planted between 1950 and 1960. It is unknown if these trees have historic commemorative planting connections, but they are a dominant feature of the local landscape and are of aesthetic significance. It is strongly recommended that a tree replacement plan is developed and implemented for these trees.

70% of the trees require moderate or high priority works to reduce the risk to the public. Broken and hanging branches were identified in 11 of the trees and these should be removed within the next 12 months. Risk reduction and deadwood removal is recommended within the next 2 years for a number of the trees.

Approximately 60% of these trees are currently in fair health and of fair structure with a ULE of 10-20 years. 30% of the trees are fair health and poor structure and are expected to substantially decline over the next 10 years. 2 trees are recommended for removal within the next 12 months and 1 tree is recommended for removal within the next 2 years.

8.1.6 Bellarine Community Centre

The 6 trees on the western side of Point Lonsdale Road, Point Lonsdale, outside of the Bellarine Community Centre are estimated to have been planted between 1950 and 1960. It is unknown if these trees have historic commemorative planting connections.

Trees 105-107 have a ULE of 10-20 years and trees 108-110 around the entrance to the Community Centre have a ULE of 5-10 years.

8.1.7 Point Lonsdale Foreshore

The 2 trees on the Point Lonsdale foreshore are of fair health and structure and appear typical examples of the species at maturity. These trees have a ULE of 10-20 years. It is unknown if these trees have historic connections.

The removal and replacement of trees on the Point Lonsdale foreshore is addressed in the Point Lonsdale Foreshore Draft Tree Plan, part of the Master Plan for the foreshore revitalisation.

8.2 Threats to the Cypress Avenues in the Borough

8.2.1 Aging trees and natural senescence

Trees have a finite life span and all trees go through a natural life-cycle of establishment, growth, maturity and decline. Senescence is the process of decline that a tree experiences following maturity. This process often takes a number of years and produces symptoms including:

- the shedding of small and large limbs
- a reduction of foliage density
- an increased volume of deadwood throughout the canopy
- the discolouration of foliage
- a reduced ability to cope with disease and insect infestation
- a reduced ability to cope with decay (Van Gelderen and Hoey Smith 1996).

The maximum age Monterey Cypress can attain in its natural setting is unknown. Naturalists estimated a range between 200 and 300 years with 200 as an average and 300 as an extreme (Peattie 1991). The biological life span of any species invariably far exceeds its Useful Life Expectancy, that is, the period of time over which the species can satisfy the aesthetic or functional roles for which they were originally selected (Hitchmough 1994).

ULE includes considerations of tree health and structure, ongoing maintenance costs and risk to public safety. The benefits derived from vegetation, be they functional or visual, typically decrease during the over maturity/decline phase. This is concurrent with a steep rise in management costs as aging trees tend to require increasing arboricultural inputs to maintain them in a safe, attractive condition. Managing the risk of many large, aging trees close to a busy road is a major and ongoing issue in relation to the Avenue of Honour.

In the case of long lived species such as Monterey Cypress, useful life spans in urbanised areas are not known with any degree of certainty. Trees in urban streets are generally far shorter lived than the same species in urban parklands or in their natural environment, which are exposed to less severe forms of stress (Hitchmough 1994). In south-eastern Australia, useful lifespans of between 50-150 years appears to be typical of commonly planted urban trees (Hitchmough 1994). Anecdotally however, it is generally accepted that the ULE of *Cupressus macrocarpa* in an urban environment rarely exceeds 100 years (University of Melbourne, 2002). The Avenue of Honour trees are nearly this age.

8.2.2 Parking and driveways

Car parking under tree canopies and the construction of driveway crossovers can significantly impact tree condition and the integrity of an avenue or row of trees. Traffic compacts root zone soils and if cars collide into the trunk this can cause physical damage. Car parking and associated root compaction appears to be an issue for a number of the management areas, including the Avenue of Honour.

Driveway crossovers can also significantly impact tree health and structure. Root growth beneath crossovers will be restricted by soil compaction and roots may be cut in the course of installing or upgrading crossovers. Since the initial plantings, residential land adjacent to many trees has been subdivided and crossovers and associated root compaction and damage are a particular problem for the Flinders Street trees. The location of these crossovers will impact the ability to replant in this area and species selection will be important to reduce conflict.

Crossovers also affect sections of the Avenue of Honour, The Marine Discovery Centre and the Bellarine Community Health Centre Trees.

8.2.3 Overhead power lines

Trees within close proximity to a power line have the potential to grow into the clearance zone, presenting an unacceptable risk to power supply and/or electrical safety. Unfortunately, pruning for power line clearance has the potential to substantially alter the form of a tree and can open the tree up to pest and disease complications, particularly if pruning does not conform to AS 4373-2007 *Pruning Amenity Trees*. This in turn can reduce the ULE of a tree in the streetscape and/or create ongoing management requirements.

Evidence of severe tree pruning for power line clearance can be seen at the western end of The Springs, adjacent to the high voltage power lines. High and low voltage power lines are present on the southern side of Flinders Street, and now significantly impact the ability to replant and recreate the avenue effect in this area for both the Flinders Street trees and the Avenue of Honour. The current location of overhead services will have a marked effect on species selection.

To promote the health and longevity of the existing significant trees and their replacements within the Borough of Queenscliffe, it is recommended that alternative engineering solutions are considered, which may include:

- Fit insulating covers on sections of conductor where vegetation is within the clearance space;
- Replace bare high voltage and/or low voltage conductors with high voltage or low voltage Aerial Bundle Cable (ABC);
- Underground installation;
- Relocate poles;
- Install offset cross arms.

While it is beyond the scope of this report to undertake a cost benefit analysis of potential engineering solutions, it is understood that insulating covers present a significant opportunity to reduce clearance distances and limit the extent of pruning required, as well as offering a far more cost-effective and simple engineering solution to install than aerial bundled cabling and undergrounding.

8.2.4 Pests and diseases

While Seiridium Canker is known to be present in the Monterey Cypress avenues assessed within the Borough, the ultimate effect that the disease will have on the trees is unknown. Unfortunately there is no proven cure for this disease and the only real treatment option is to optimise growing conditions. This means making sure the trees are at maximum health, which is not always possible for mature trees that have begun to senesce. Older trees are usually more susceptible but any tree is susceptible when environmental conditions have placed them under stress.

Pruning should preferably be done in winter or following dry weather, when spores are less likely to infect pruning wounds. All pruning tools should be sterilised before and after use with either alcohol or dilute bleach.

In significantly affected trees, replacement with known tolerant cypress species or varieties may be the only long-term option (DEPI 2014). Cypresses can also be replaced with unrelated plant species, such as Australian natives.

9. PART B - Recommendations

1. Develop a Tree Replacement Plan for the aesthetic, historic and culturally significant Monterey Cypress avenues and rows in the Borough of Queenscliffe including:

- Flinders Street
- WWI Avenue of Honour
- The Springs

2. Investigate alternative engineering solutions that will allow for reduced vegetation clearance where there is conflict between culturally significant trees and overhead wires.
3. Undertake prescribed works as per their individual priority. All pruning and removal works must be undertaken by qualified arborists in accordance with the Australian Standard Pruning of Amenity Trees (AS4373-2007).

PART C - Determine Future Tree Species:

- **Examine and provide comment on the suitability of the community's strong preference for Monterey Cypress, having regard to the ongoing overall health and sustainability of the Avenue, and any other relevant considerations.**

- **Advise whether or not the Monterey Cypress should be used in future, and if not, why not.**

- **If it is not recommended that the Monterey Cypress be used in future, identify suitable alternate species.**

- **If applicable, make a final recommendation regarding the type of tree, having regard to the community survey results.**

10. Species selection for the Queenscliff Avenue of Honour

10.1 Historical Use of *Cupressus macrocarpa*

Particular trees and plants have long been associated with qualities such as virtue, longevity and eternal life and in many cemeteries and war memorials, plants have been specifically chosen for their symbolism or association with a person or place (Haddow 1987). It appears however that the decision to use Monterey Cypress for the Queenscliff Avenue of Honour was most likely based on the availability of plants, fashion and practicality rather than any inherent symbolism or association. In a 1914 article on 'Arbor Day', The Sentinel newspaper stated that 'a lot of time had been wasted of late by planting the wrong kind of tree' and cypress trees were now being planted in Queenscliff as 'they were known to suit the climate'. In planning the Avenue of Honour, the council decided to procure '50 suitable trees' (The Sentinel, 15 June, 1918) and soon after, the 'sturdy cypress trees' were planted (The Sentinel, 27 July, 1918). There is no known record of a deliberate choice being made based on plant symbolism or association.

10.2 Continued Use of *Cupressus macrocarpa* – the case for and against

The Avenue of Honour trees are nearing the end of their Useful Life Expectancy and the community has almost unanimously voiced their desire to see the Avenue continued in the future. An integral part of the ultimate success of any replacement planting will be species selection. As the trees will ideally occupy their planting sites for 50-150 years, species selection is an enormously powerful too that can address many tree maintenance and management issues (Hitchmough 1994).

The major advantages in the continued use of *Cupressus macrocarpa* to replace the Avenue of Honour trees are:

- the uniformity of appearance afforded by a monoculture
- the historical accuracy in returning the Avenue as nearly as possible to its earlier state, at least as far as species is concerned, and
- the preference of the majority of the local community to replant with the same species.

Avenue plantings rely on the uniformity of the individual trees to create the desired effect, providing strong and consistent themes (Hitchmough 1994). While it is unavoidable to have some short term level of aesthetic loss in a tree removal and replacement strategy due the disruption of the conformity in age and size, a "like for like" species replacement ensures a level of visual consistency that cannot be achieved with diverse plantings in a linear streetscape (Hitchmough 1994).

Restoration can be defined as returning the existing fabric of a place to a known earlier state by reassembling existing components without the introduction of new material (Hitchmough 1994). This can be achieved by using the original species and, ideally, in order to achieve minimal variation in form, using trees propagated from a clonal selection from existing Avenue trees. Continuing to use the same species as for the initial plantings in 1918 would contribute to and help to retain the cultural significance of the Avenue.

Of the 516 respondents to the community survey undertaken by Council in 2013, almost two-thirds (64%) indicated a preference to continue to use Monterey Cypress to replace the existing trees. Culturally significant trees in public places are managed by councils on behalf of the community (Hitchmough 1994). Ultimately, the community should have ownership of the Avenue of Honour management and replacement plan. Involving the community ensures a greater likelihood of any recommendations being understood and supported.

The single strongest argument against the continued use of Monterey Cypress in the Queenscliff Avenue of Honour, as well as the other significant avenues and rows in the Borough, is the presence of Seiridium Canker in the trees.

At present, there is no proven cure for Seiridium Canker. The only long term management option is to replace affected trees with known tolerant cypress species or unrelated plant species such as Australian natives (DEPI 2014).

Monterey Cypress is the species that sustains the greatest damage to Seiridium Canker (Sinclair & Lyon 2005). At present it appears that the disease is progressing slowly through the mature trees, with most trees just beginning to 'brown off'. This is most likely due to a combination of factors which are favouring disease resilience including the mild weather and sea breezes characteristic of Queenscliff.

In California, the disease has had a devastating impact on Monterey Cypress at sites characterised by a prolonged dry period with high daytime temperatures each summer, while trees in the coastal groves with moderate temperature and frequent fog remained unaffected (Sinclair & Lyon 2005). Climate projections prepared by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in 2007 indicate that the future climate of south-eastern Australia will generally be characterised by:

- Lower average rainfall
- More intense extreme rainfall events
- Higher storm surge events and sea level
- Higher average temperatures
- More frequent occurrence of extreme temperatures (CSIRO, 2007).

As climate change increases the mean temperature and the frequency of climatic extremes, there is a high probability that many trees will be subject to increased frequency and intensity of stress (La Porta et al 2008). Furthermore, the fungi species that cause the disease are known to respond positively to temperature increases, and warmer climate may speed up fungus development and disease progression in the trees (Zocca *et al*. 2008).

If Monterey Cypress is used to replant trees in Avenue of Honour, there is strong evidence to suggest that they will not be ultimately successful. The trees will need to be intensively monitored and managed to ensure that they are healthy and to improve their natural defences against an initial infection. This is likely to include:

- Analysis of soil to determine optimal condition; considering acidity, nutrients and biology
- Ensuring adequate water and adequate drainage
- Ensuring minimal soil compaction
- Reducing the chances of branch or stem wounding e.g. by fencing off trees from any potential impacts
- Undertaking pruning only at times when infection is not favoured, preferably in winter or following dry weather, when spores are less likely to infect pruning wounds
- Removal and destruction of any severely diseased plants nearby by deep burial or burning to help to reduce the risk of new trees becoming infected.

10.3 Site Conditions – General

Ultimately, the capacity of trees to establish and deliver aesthetic benefits depends upon whether the planting site conditions are within the tolerance range of the species (Hitchmough 1994). Little can be done to change either the physical environment (e.g. exposure to salt laden coastal winds) or the characteristic of the tree itself (e.g. susceptibility to Seiridium Canker). Species and cultivars should be selected based on their adaptation to a particular site or growing situation.

In general, The Borough of Queenscliffe enjoys mild weather and sea breezes. In summer the mean maximum temperature is 21.9 °C and the mean minimum is 13.8 °C. The mean maximum temperature in winter is 13.4 °C and the mean minimum temperature is 7.1 °C. Rainfall tends to be highest in August and September with annual rainfall around 600mm (Bureau of Meteorology, 2012).

The majority of trees assessed in both the Avenue of Honour and the other significant avenues and rows of Monterey Cypress in the Borough are located on sandy soils. The trees are subject to high levels of salt spray and onshore winds which will be important criteria for species selection.

10.4 Site Conditions – Specific

10.4.1 Flinders Street

The site conditions at Flinders Street have changed dramatically since the Monterey Cypress plantings c. 1945. The subdivision of land north of Flinders Street, with crossover points providing access to residential properties, and the presence of High Voltage power lines along the southern side of Flinders Street limit the space for new trees (Figure 52). Current site conditions are now restrictive in terms of species selection for replanting.

Figure 52: Aerial photograph showing Trees 1-12 and estimated locations of trees that have been removed (red crosses). Cadastral boundaries (pink) and HV overhead wires (yellow) are also shown. Source: Borough of Queenscliffe (2013).

These site conditions will ultimately dictate the success of replacement species. Monterey Cypress is not recommended for replanting in this area for the following reasons:

- Known presence of Seiridium Canker;
- Severely restricted planting area (root and trunk and canopy development) on the northern side of Flinders Street due to existing crossovers and footpaths;
- Restricted planting area (canopy height and spread) on the southern side of Flinders Street due to High Voltage power lines.

It is recommended that an alternative species is selected to replace the Flinders Street Monterey Cypress. Given the restrictions imposed by existing crossovers, a species that is smaller at maturity will be most appropriate.

The extent of replanting will need to be determined, and it will be important to identify the intent, i.e. is the intent to replace existing trees only? Or, is the intent to replant both sides of Flinders Street in the same/similar location as the original commemorative trees?

10.4.2 WWI Avenue of Honour

The site conditions at the eastern end of The Avenue of Honour have also changed dramatically since the original 50 cypress trees were planted in 1918. As discussed in Section 7.2.2, 32 of the original 50 trees remain, with rows of trees removed on both sides of the Bellarine Highway/Flinders Street due to conflict with infrastructure as well as individual trees removed for safety concerns.

Current site conditions are now restrictive in some areas, particularly at the eastern end of the Avenue with the WWI Memorial Park/ former High School Bus Stop on the northern side of Flinders Street. Land has been subdivided south of Flinders Street and High Voltage power lines and gravel crossovers have been installed (Figure 53).

Figure 53: Aerial photograph showing the Avenue of Honour trees and estimated locations of trees that have been removed (red crosses). Cadastral boundaries (pink) and HV overhead wires (yellow) are also shown. Source: Borough of Queenscliffe (2013).

Monterey Cypress is not recommended for replanting the Avenue of Honour for the following reasons:

- Known presence of Seiridium Canker;
- Severely restricted planting area at the eastern and of the Avenue due to High Voltage power lines, existing crossovers, existing *Agonis* street trees and the WWI memorial park/ bus stop.

It is recommended that an alternative species is selected to replace the Avenue of Honour trees. In order to convey an appropriate sense of significance, the ideal tree will be large at maturity and when planted either side of the entrance to the town, will impose a sense of power and importance, as does the existing Avenue.

The extent of replanting will need to be determined, and it will be important to identify the intent, i.e. is the intent to replace existing trees only (with 'gaps' infilled)? or, is the intent to replant both sides of the Avenue in the same/similar location as the original trees?, or, is the intent to replant 50 trees where space permits (e.g. extend the Avenue to the west)?

These decisions will also influence the species selected as tree sizes will need to be matched to existing street conditions to ensure there is sufficient space for the above and below ground parts of each tree to grow undisturbed.

10.4.3 The Springs

The site conditions at The Springs have not been significantly altered since the row of Monterey Cypress were planted c. 1950-60. High Voltage power lines have been installed to the north of the trees along the entire row, however the Coastal Moonah Woodland south of the trees remains undeveloped and there should be sufficient space to eventually replant the same number of trees as were originally present (Figure 54).

Figure 54: Aerial photograph showing the row of trees at The Springs and estimated locations of trees that have been removed (red crosses). Cadastral boundaries (pink) and HV overhead wires (yellow) are also shown. Source: Borough of Queenscliffe (2013).

Monterey Cypress is not recommended for replanting the row of trees at The Springs for the following reasons:

- Known presence of Seiridium Canker;
- The requirement to maintain vegetation clearances from High Voltage power lines.

It is recommended that an alternative species is selected to replace the row of trees at The Springs. As with the Avenue of Honour, large trees of relatively consistent form will ultimately achieve the most successful aesthetic effect. Unless an alternative engineering solution is employed which permits reduced vegetation clearance requirements, the adaptability of the species to pruning around power lines will also be an important consideration.

10.5 Alternative Species

The list of alternative species listed in Table 1includes a combination of exotic, Australian native and indigenous tree species that have been reviewed for their suitability in Queenscliff. The list includes the existing species (*Cupressus macrocarpa*), some of the trees suggested by the community in the 2013 survey undertaken by Council and additional species that should perform well in Queenscliff. Trees nominated by respondents to the 2013 survey are listed below and those marked with an asterisk have been considered in this report.

27% of respondents indicated a preference to see Australian native trees used to replant the Avenue of Honour. Species nominated included:

- Jacaranda flowering gum (assumed *Jacaranda mimosiflia** – not native to Australia)
- Golden wattle (*Acacia pycnantha*)
- Peppermint gums (*Eucalyptus sp.*)
- Port Jackson fig (*Ficus rubiginosa**)
- Red flowering gum (*Corymbia ficifolia**)
- Weeping myrtle (*Agonis flexulosa**)
- Eucalyptus (*Eucalyptus sp.)*
- Spotted gum (*Corymbia maculata**)
- Banksia (*Banksia sp.)*
- Moonah (*Melaleuca lanceolata**)
- Calistamine majestic (assumed Callistemon, unknown cultivar)

9% of respondents indicated a preference for 'other non-native trees' to be used to replant the Avenue of Honour including

- Oriental plane (*Platanus orientalis (Platanus x acerifolia* has been considered))
- Chinese elm (*Ulmus parvifolia*)
- Oak (*Quercus sp.** (3 species of Oak have been considered))
- Apple (*Malus sp.*)
- Norfolk Island pine (*Araucaria heterophylla**)
- Himalayan Cedar (*Cedrus deodara**)
- Olive. (Olea sp.)

The sense of drama created by a successful avenue of trees is due to a number of factors including the large size and dominant stature of the trees at maturity and often, a dense, solid canopy which casts a near permanent shadow, creating a sense of power and importance (Hitchmough 1994). The uniformity of the individual trees in contrast with the irregularity and informality of the surrounding landscape, as well as the contrast in form and colour compared to surrounding native vegetation is also vital (Haddow 1987). The ideal species will possess some or all of these characteristics.

The species in Table 1 have been reviewed against the following selection criteria:

- Susceptibility to serious pests and diseases, particularly Seiridium Canker
- Tolerance to salt spray
- Tolerance to wind
- Size suitability
- Life span
- Ability to create 'a sense of avenue'

Suitability is based on current site conditions and the expected performance of the species within the Borough of Queenscliffe. Tree sizes have been matched to existing site conditions to ensure there is sufficient space for the above and below ground parts of each tree to grow undisturbed.

Table 1: Tree species, selected characteristics and general suitability for use in replanting, based on current site conditions.

								Consider for Replanting		
Botanical Name	**Common Name**	**Origin#**	**Mature Size (m)#**	**Evergreen**	**Growth Rate#**	**Salt Spray Tolerance#**	**Wind Tolerance#**	**Flinders Street**	**Avenue of Honour**	**The Springs**
Cupressus macrocarpa	Monterey Cypress	Exotic	20 x 25	Y	Med	Very Good	Very Good	x	x	x
*Agonis flexuosa**	West Australian Willow Myrtle	Native	10 x 10	Y	Med	Very good	Average	✓	x	x
Angophora costata	Smooth barked Apple Gum	Native	20 x 15	Y	Med - Fast	Average	Very Good	x	x	✓
*Araucaria heterophylla**	Norfolk Island Pine	Native	30 x 15	Y	Fast	Very Good	Very Good	x	✓	✓
Cedrus atlantica 'Glauca'	Blue Atlas Cedar	Exotic	25 x 15	Y	Med	Average	Average	x	✓	✓
*Cedrus deodara**	Deodar Cedar or Himalayan Cedar	Exotic	25 x 15	Y	Med - Fast	Average	Average	x	✓	✓
Cedrus libani	Cedar of Lebanon	Exotic	25 x 15	Y	Slow - Med	Average	Very Good	x	✓	✓
*Corymbia ficifolia**	Flowering Gum	Native	9 x 9	Y	Slow - Med	Very Good	Very Good	✓	x	x
*Corymbia maculata**	Spotted Gum	Native	30 x 10	Y	Fast	Very Good	Average	x	✓	✓
Ficus macrophylla	Moreton Bay Fig	Native	30 x 30	Y	Med	Very Good	Very Good	x	✓	x
*Ficus rubiginosa**	Port Jackson Fig	Native	20 x 25	Y	Med	Very Good	Very Good	x	✓	x
*Jacaranda mimosifolia**	Jacaranda	Exotic	15 x 10	N	Slow	Low	Average	x	x	x
*Melaleuca lanceolata**	Moonah	Exotic	10 x 7	Y	Slow - Med	Very Good	Very Good	✓	x	x
Phoenix canariensis	Canary Island Date Palm	Indigenous	15 x 8	Y	Med	Very Good	Very Good	✓	✓	✓
Pinus brutia	Turkey Pine (aka 'Lone Pine')	Exotic	25 x 15	Y	Med	Very Good	Very Good	x	✓	✓
Pinus canariensis	Canary Island Pine	Exotic	30 x 15	Y	Med - Fast	Average	Very Good	x	✓	✓
Pinus pinea	Stone Pine	Exotic	20 x 15	Y	Slow -Med	Very Good	Very Good	x	✓	✓
*Platanus x acerifolia**	London Plane	Exotic	25 x 20	N	Fast	Average	Average	x	✓	✓
Quercus castenifolia	Chestnut Leaved Oak	Exotic	25 x 20	N	Med	Average	Average	x	✓	✓
Quercus cerris	Turkey Oak	Exotic	25 x 20	N	Med - Fast	Average	Average	x	✓	✓
Quercus ilex	Holm Oak or Holly Oak	Exotic	20 x 15	Y	Slow - Med	Very Good	Very Good	x	✓	✓

*Species suggested by respondents to the 2013 Avenue of Honour Tree Survey (Borough of Queenscliffe, 2013)

#The University of Melbourne, 2002

10.5.1 *Cupressus macrocarpa* – Monterey Cypress

Origin: Cypress Point and Point Lobos, California, USA

Mature Size (Height x Spread): 20m x 25m

Shape: Ultimately wide-spreading evergreen conifer, low branched with massive ascending branches

Foliage Type/ Density: Small scaly leaves, providing dense shade

Growth Rate: Medium

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures, good drainage essential
- **Salt spray:** Very good
- **Wind:** Very good

Positives	Negatives
• 'Like for Like' replacement • Community support • Large spreading canopy • Relatively fast growing • Tolerant of a wide range of soil types • Tolerant of coastal conditions	• Particularly susceptible to Seiridium Canker

10.5.2 *Agonis flexuosa* - West Australian Willow Myrtle

Origin: South west Western Australia

Mature Size (Height x Spread): 10m x 10m

Shape: Strongly weeping small evergreen tree

Foliage Type/ Density: Long thin shiny leaves, Moderate to dense shade

Growth Rate: Medium

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures, good drainage essential
- **Salt spray:** Very good
- **Wind:** Average

Positives	Negatives
• Tolerant of a wide range of soil types • Tolerant of coastal conditions • Small tree, should be no conflict with overhead wires	• Small tree at maturity; not at scale of existing Avenue

10.5.3 *Angophora costata* - Smooth barked Apple

Origin: NSW and Southern Queensland

Mature Size (Height x Spread): 20m x 15m

Shape: Variable in form but in cultivation normally a densely foliaged, round headed evergreen tree, becoming more open with age. Branches and trunk usually twisted.

Foliage Type/ Density: Fine foliage, dappled shade

Growth Rate: Medium - Fast

Consistency of Growth and Form: Variable

Tolerances:

- **Soil:** All textures, prefers well drained soils
- **Salt spray:** Average
- **Wind:** Very good

Positives	Negatives
• Tolerant of a wide range of soil types • Tolerant of coastal conditions • Attractive bark	• More stunted growth on infertile, sandy soils

10.5.4 *Araucaria heterophylla* - Norfolk Island Pine

Origin: Norfolk Island

Mature Size (Height x Spread): 30m x 15m

Shape: Evergreen conifer, conical, symmetrical. Iconic 'Christmas tree' shape

Foliage Type/ Density: Short, scale like foliage spirally arranged on long branchlets, moderate shade

Growth Rate: Fast

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures, prefers well drained soils
- **Salt spray:** Very good
- **Wind:** Very good

Positives	Negatives
• Tolerant of a wide range of soil types • Tolerant of coastal conditions • Quick growth under ideal conditions • Consistent, symmetrical form	•

10.5.5 *Cedrus atlantica* 'Glauca' – Blue Atlas Cedar

Origin: Atlas and Mountains, Morocco and Algeria

Mature Size (Height x Spread): 25m x 15m

Shape: Evergreen conifer with tabular, spreading branches. Dramatic form at maturity.

Foliage Type/ Density: Blue-grey needles in clusters providing moderate to dense shade.

Growth Rate: Medium

Consistency of Growth and Form: Variable

Tolerances:

- **Soil:** Preference for well drained deep loam, tolerates sand or clay
- **Salt spray:** Average
- **Wind:** Average

Positives	Negatives
• Tolerant of a wide range of conditions and poorer soils than most conifers • Maintains the general coniferous form	• Contrast of foliage colour with existing cypress • Not as widely planted as other Cedars, may affect availability

10.5.6 *Cedrus deodara* – Deodar Cedar

Origin: Western Himalayas to Afghanistan

M**ature Size (Height x Spread):** 25m x 15m

Shape: Evergreen conifer with tabular branches, the tips of the branches are down-turned.

Foliage Type/ Density: Soft green needles in clusters, providing dense shade

Growth Rate: Medium - Fast

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures, tolerates clay
- **Salt spray:** Average
- **Wind:** Average

Positives	Negatives
• Tolerant of a wide range of conditions • Maintains the general coniferous form • Strong colour and similarity to the existing trees • Widely planted, widely available	•

10.5.7 *Cedrus libani* – Cedar of Lebanon

Origin: Lebanon

Mature Size (Height x Spread): 25m x 15m

Shape: Initially very conical, asymmetrical and later flat-crowned and spreading

Foliage Type/ Density: Greyish green needles, moderate to dense shade

Growth Rate: Slow - Medium

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures
- **Salt spray:** Average
- **Wind:** Very good

Positives	Negatives
• Tolerant of a wide range of soil types • Tolerant of coastal conditions • Maintains the general coniferous form • Strong colour and similarity to the existing trees	•

10.5.8 *Corymbia ficifolia* – Flowering Gum

Origin: South-west Western Australia

Mature Size (Height x Spread): 9m x 9m

Shape: Wide-spreading, very dense crowned evergreen tree

Foliage Type/ Density: 'gum' leaves, lanceolate, dark green on top and paler underneath, moderately dense shade

Growth Rates: Slow - Medium

Consistency of Growth and Form: Variable

Tolerances:

- **Soil:** All textures, prefers well drained
- **Salt spray:** Very good
- **Wind:** Very good

Positives	Negatives
• Tolerant of a wide range of soil types • Tolerant of coastal conditions • Stunning floral display, range of new cultivars available with spectacular flowers	• Small tree at maturity; not at scale of existing Avenue

10.5.9 *Corymbia maculata* – Spotted Gum

Origin: Queensland, New South Wales coast, small occurrence in Victoria near Orbost

Mature Size (Height x Spread): 30m x 10m

Shape: Very vigorous, tall evergreen tree

Foliage Type/ Density: 'gum' leaves, lanceolate, dark glossy green, moderate shade

Growth Rates: Fast

Consistency of Growth and Form: Variable

Tolerances:

- **Soil:** All textures
- **Salt spray:** Very good
- **Wind:** Average

Positives	Negatives
• Tolerant of a wide range of soil types • Attractive in closely planted stands	• More diffuse, open canopy than conifers

10.5.10 *Ficus macrophylla* – Moreton Bay Fig

Origin: New South Wales and Queensland coastal forest

Mature Size (Height x Spread): 30m x 30m

Shape: A very large and widespreading evergreen tree, with massive limbs and buttressed trunk

Foliage Type/ Density: Glossy dark green with rusty hairs beneath, thick and leathery, providing dense shade

Growth Rates: Medium

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures
- **Salt spray:** Very good
- **Wind:** Very good

Positives	Negatives
• Tolerant of a wide range of soil types • Tolerant of coastal conditions • Large stature	• High seasonal fruit drop • Invasive root growth – potential for infrastructure damage

10.5.11 *Ficus rubiginosa* – Port Jackson Fig

Origin: New South Wales coast

Mature Size (Height x Spread): 20m x 25m

Shape: Large and spreading to erect evergreen tree, developing a buttressed trunk

Foliage Type/ Density: Glossy dark green with rusty hairs beneath on new growth, thick, leathery broadleaf, providing dense shade

Growth Rates: Medium

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures
- **Salt spray:** Very good
- **Wind:** Very good

Positives	Negatives
• Tolerant of a wide range of soil types • Tolerant of coastal conditions • Large stature	• High seasonal fruit drop • Invasive root growth – potential for infrastructure damage

10.5.12 *Jacaranda mimosifolia* – Jacaranda

Origin: Brazil

Mature Size (Height x Spread): 15m x 10m

Shape: Round crowned tree with arching branches, deciduous for a short time in spring

Foliage Type/ Density: Delicate fern-like foliage. Light to moderately dense shade (seasonal)

Growth Rates: Slow

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** Moist, fertile, well-drained soils
- **Salt spray:** Low
- **Wind:** Average

Positives	Negatives
• Stunning floral display	• Low salt tolerance • Performs best in warmer climates • High seasonal leaf and fruit drop • Medium tree at maturity; not at scale of existing Avenue

10.5.13 *Melaleuca lanceolata* – Moonah

Origin: Coastlines and some inland sites in southern Australia

Mature Size (Height x Spread): 10m x 7m

Shape: Bushy large evergreen shrub to small tree, becoming open, with twisted trunk and picturesque horizontal canopy at maturity

Foliage Type/ Density: Decussate, dull dark green, thick, curved

Growth Rates: Slow -Med

Consistency of Growth and Form: Variable

Tolerances:

- **Soil:** All textures
- **Salt spray:** Very good
- **Wind:** Very good

Positives	Negatives
• Indigenous • Tolerant of coastal conditions • Tolerant of infertile, sandy soil	• Shrub – small tree. Very unlikely to provide a striking avenue • No contrast with surrounding Moonah Coastal Woodland • Slow growing

10.5.14 *Phoenix caneriensis* – Canary Island Date Palm

Origin: Canary Islands

Mature Size (Height x Spread): 15m x 8m

Shape: Palm with massive symmetrical crown of long, arching fronds and a stout trunk

Foliage Type/ Density: Dark green pinnate leaves 4-6 m long

Growth Rates: Medium

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures, requires good drainage
- **Salt spray:** Very good
- **Wind:** Very good

Positives	Negatives
• Consistency of form • Widely planted, widely available • Transplant well, potential to source and plant mature trees	• Trunk development only starts around the fifth year (if young stock planted)

10.5.15 *Pinus brutia* – Turkish Pine (the Lone Pine)

Origin: Eastern Mediterranean region

Mature Size (Height x Spread): 25m x 20m

Shape: Large evergreen conifer usually open crown of irregular branches

Foliage Type/ Density: Bright green to yellow-green needles providing solid shade

Growth Rate: Medium

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures
- **Salt spray:** Very good
- **Wind:** Very good

Positives	Negatives
• Tolerant of coastal conditions • Tolerant of a wide range of soil types • Historic significance	• Some coniferous form, but not as close as Cedrus species

10.5.16 *Pinus canariensis* – Canary Island Pine

Origin: Canary Islands

Mature Size (Height x Spread): 30m x 15m

Shape: Large evergreen conifer with stout trunk and spreading branches. Branchlets are pendulous.

Foliage Type/ Density: Needles forming a dense oval crown and providing solid shade

Growth Rate: Medium - Fast

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures
- **Salt spray:** Average
- **Wind:** Very good

Positives	Negatives
• Tolerant of coastal conditions • Tolerant of a wide range of soil types • Attractive bark	• Some coniferous form, but not as close as Cedrus species

10.5.17 *Pinus pinea* – Stone Pine

Origin: Portugal and Spain

Mature Size (Height x Spread): 20m x 15m

Shape: Slow growing evergreen conifer with very characteristic flattened crown

Evergreen

Foliage Type / Density: Long sparse needles

Growth Rate (10 years): Slow - Medium

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures, prefers well drained soils
- **Salt:** Very good
- **Wind:** Very good

Positives

- Tolerant of coastal conditions
- Tolerant of a wide range of soil types
- Edible seeds (pine nuts).

Negatives

- Some coniferous form, but not as close as Cedrus species
- Not a dense lower canopy, purely an upper spreading canopy once mature
- Trunk can become bare if lower limbs are shed

10.5.18 *Platanus x acerifolia* – London Plane

Origin: Garden origin – reputed to be a hybrid between *Platanus occidentalis* and *Platanus orientalis*

Mature Size (Height x Spread): 25m x 20m

Shape: Deciduous rounded to pyramidal tree

Foliage Type/ Density: Broad, palmately lobed, maple-like, autumn colour yellow-orange. Dense shade (seasonal)

Growth Rate: Fast

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures, prefers well drained soils
- **Salt spray:** Average
- **Wind:** Average

Positives	Negatives
• Tolerant of a wide range of soil types • Adaptable to pruning around overhead wires	• High seasonal leaf and fruit drop • Potential irritant

10.5.19 *Quercus castaneifolia* – Chestnut Leaved Oak

Origin: Caucasus Region and Iran

Mature Size (Height x Spread): 25m x 14m

Shape: A wide-spreading deciduous tree, crown broadly conical

Foliage Type/ Density: Oblong with course forward-pointing teeth, shiny dark green, autumn colour orange--brown. Dense shade (seasonal)

Growth Rate: Medium

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures
- **Salt spray:** Average
- **Wind:** Average

Positives	Negatives
• Tolerant of a wide range of soil types • Tolerant of coastal conditions	• High seasonal leaf and fruit drop (acorns)

10.5.20 *Quercus cerris* – Turkey Oak

Origin: Eastern Europe to Turkey

Mature Size (Height x Spread): 25m x 20m

Shape: A wide-spreading deciduous tree

Foliage Type/ Density: Oblong with even lobing, mid green above, grey beneath, autumn colour yellow-brown. Dense shade (seasonal)

Growth Rate: Medium - Fast

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures
- **Salt spray:** Average
- **Wind:** Average

Positives	Negatives
• Tolerant of a wide range of soil types • Tolerant of coastal conditions	• High seasonal leaf and fruit drop (acorns)

10.5.21 *Quercus ilex* – Holm Oak

Origin: Mediterranean region

Mature Size (Height x Spread): 20m x 15m

Shape: Large, evergreen tree, with dense, broad domed crown

Foliage Type/ Density: Broadleaf with serrated edges on younger leaves end entire older leaves, leathery or glossy leaves

Growth Rate: Slow - Medium

Consistency of Growth and Form: Consistent

Tolerances:

- **Soil:** All textures
- **Salt spray:** Very good
- **Wind:** Very good

Positives

- Tolerant of a wide range of soil types
- Tolerant of coastal conditions
- Adaptable to pruning around overhead wires

Negatives

- High seasonal fruit drop (acorns)

11. Shortlist of recommended species

Monterey Cypress has been a defining landscape feature throughout the Borough of Queenscliffe for the past 100 years. The opportunity now exists for the community to choose a vital component in defining the future landscape and character of the Borough.

While replacement trees planted in the Avenue of Honour will always be symbolic of the sacrifice of the servicemen associated with the Borough during World War I, the use of the trees will have little meaning unless they enrich the character of the site with their aesthetic features (Hitchmough 1994).

Table 2 provides a shortlist of recommended species for replanting at Flinders Street, the Avenue of Honour and The Springs. These species are expected to tolerate the general conditions in Queenscliff and perform well under the respective site conditions.

Table 2: Shortlist of recommended species

	Flinders Street	Avenue of Honour	The Springs
Most resembling Monterey Cypress	NA	*Cedrus libani*	*Cedrus libani*
Australian Native	*Corymbia ficifolia*	*Araucaria heterophylla*	*Araucaria heterophylla*
	Agonis flexulosa	*Ficus macrophylla*	*Corymbia maculata*
Exotic species (evergreen)	NA	*Quercus ilex*	*Quercus ilex*
		Pinus pinea	*Pinus pinea*
		Pinus brutia	
Exotic species (deciduous)	NA	*Quercus cerris*	*Quercus cerris*
		Plantanus x acerifolia	*Plantanus x acerifolia*

12. PART C - Recommendations

1. Due to the presence of Seiridium Canker across the peninsula, it is recommended that *Cupressus macrocarpa* (Monterey Cypress) or any of its cultivars are not used to replant the historical avenues and rows of Cypress at Flinders Street, the Avenue of Honour and The Springs.
2. It is recommended that in consultation with the community, the Borough selects alternative species to replant the historical avenues and rows of Monterey Cypress at Flinders Street, the Avenue of Honour and The Springs.

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Appendix 1. Data Collection Definitions

The information collected on each specimen was based on the assessor's experience and opinion of each of the trees. Included are the descriptions for each of the listed categories. The following information was collected on each tree.

1.1 Botanical name:

The genus, species and common name.

1.2 Canopy dimensions

Height (approximate) and width (measured) of the canopy in metres.

1.3 DBH

Diameter at breast height (measured at 1.3m above ground level).

1.4 Health

Table 3. Health Definition

Term	Definition
Excellent	The tree is demonstrating excellent or exceptional growth. The tree should exhibit a full canopy of foliage and be free of pest and disease problems.
Good	The tree is demonstrating good or exceptional growth. The tree should exhibit a full canopy of foliage, and have only minor pest or diseases problems.
Fair	The tree is in reasonable condition and growing well. The tree should exhibit an adequate canopy of foliage. There may be some deadwood present in the crown. Some grazing by insects or possums may be evident.
Poor	The tree is not growing to its full capacity; extension growth of the laterals is minimal. The canopy may be thinning or sparse. Large amounts of deadwood may be evident throughout the crown. Significant pest and disease problems may be evident or symptoms of stress indicating tree decline.
Very Poor	The tree appears to be in a state of decline. The tree is not growing to its full capacity. The canopy may be very thin and sparse. A significant volume of deadwood may be present in the canopy or pest and disease problems may be causing a severe decline in tree health.
Dead	The tree is dead.

1.5 Structure

Table 4. Structure Definition

Term	Definition
Good	The tree has a well-defined and balanced crown. Branch unions appear to be strong, with no defects evident in the trunk or the branches. Major limbs are well defined. The tree is considered a good example of the species.
Fair	The tree has some minor problems in the structure of the crown. The crown may be slightly out of balance, and some branch unions may be exhibiting minor structural faults. If the tree has a single trunk, it may be on a slight lean or exhibiting minor defects.
Poor	The tree may have a poorly structured crown. The crown may be unbalanced or exhibit large gaps. Major limbs may not be well defined. Branches may be rubbing or crossing over. Branch unions may be poor or faulty at the point of attachment. The tree may have suffered root damage.
Very Poor	The tree has a poorly structured crown. The crown is unbalanced or exhibit large gaps with possibly large sections of deadwood. Major limbs may not be well defined. Branches may be rubbing or crossing over. Branch unions may be poor or faulty at the point of attachment. Branches may exhibit large cracks that are likely to fail in the future. The tree may have suffered major root damage.
Failed	The tree has a very poorly structured crown. A section of the tree has failed or is in imminent danger of failure.

1.6 Useful Life Expectancy (ULE) Rating

Useful Life Expectancy is approximately how long a tree can be retained safely and usefully in the landscape.

Table 5. ULE Definition

Term	Definition
0 years	The tree is no significant amenity value in the landscape and should be replaced.
1 - 5 years	The tree, under normal circumstances and without extra stresses being imposed on it, should be safe and have value for up to five years, but will need to be replaced. During this period, normal inspections and maintenance will be required. If possible, replacement trees should be planted.
5 – 10 years	The tree, under normal circumstances and without extra stresses being imposed on it, should be safe and of value for up to ten years. During this period, normal inspections and maintenance will be required.
11 – 20 years	The tree, under normal circumstances and without extra stresses being imposed on it, should be safe and of value for up to twenty years. During this period, normal inspections and maintenance will be required.
20 – 40 years	The tree, under normal circumstances and without extra stresses being imposed on it, should be safe and of value for up to forty years. During this period, normal inspections and maintenance will be required.
Greater than 40 years	The tree, under normal circumstances and without extra stresses being imposed on it, should be safe and of value for greater than forty years. During this period, normal inspections and maintenance will be required.

Borough of Queenscliffe
Avenue of Honour Tree Management and Replacement Plan

Tree No 1

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	19
DBH (cm):	188
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Flinders St
Easting:	294484.85
Northing:	5761549.45
Estimated year planted:	1945
Estimated Age:	70

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Flinders St, Concrete driveways, Concrete footpath
Comments:	

Borough of Queenscliffe
Avenue of Honour Tree Management and Replacement Plan

Tree No 2

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	18
DBH (cm):	193
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Flinders St
Easting:	294459.67
Northing:	5761568.25
Estimated year planted:	1945
Estimated Age:	70

Recommended Works:	Individual branch removal
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	Flinders St, Concrete driveways, Concrete footpath
Comments:	Remove damaged branch over road

Borough of Queenscliffe
Avenue of Honour Tree Management and Replacement Plan

Tree No 3

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	16
DBH (cm):	179
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Flinders St
Easting:	294459.67
Northing:	5761568.25
Estimated year planted:	1945
Estimated Age:	70

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Flinders St, Concrete driveways, Concrete footpath
Comments:	

Borough of Queenscliffe
Avenue of Honour Tree Management and Replacement Plan

Tree No 4

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	13
Width (m):	19
DBH (cm):	176
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Flinders St
Easting:	294360.48
Northing:	5761620.54
Estimated year planted:	1945
Estimated Age:	70

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Flinders St, Gravel driveway, Gravel path
Comments:	

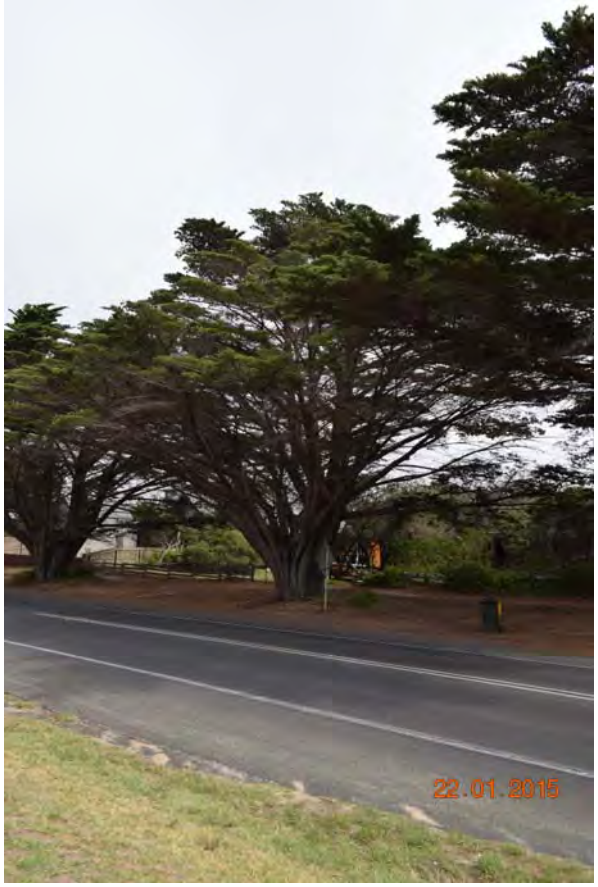
Borough of Queenscliffe
Avenue of Honour Tree Management and Replacement Plan

Tree No 5

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	17
DBH (cm):	174
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Flinders St
Easting:	294338.78
Northing:	5761621.39
Estimated year planted:	1945
Estimated Age:	70

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Flinders St, Gravel driveway, Gravel path
Comments:	



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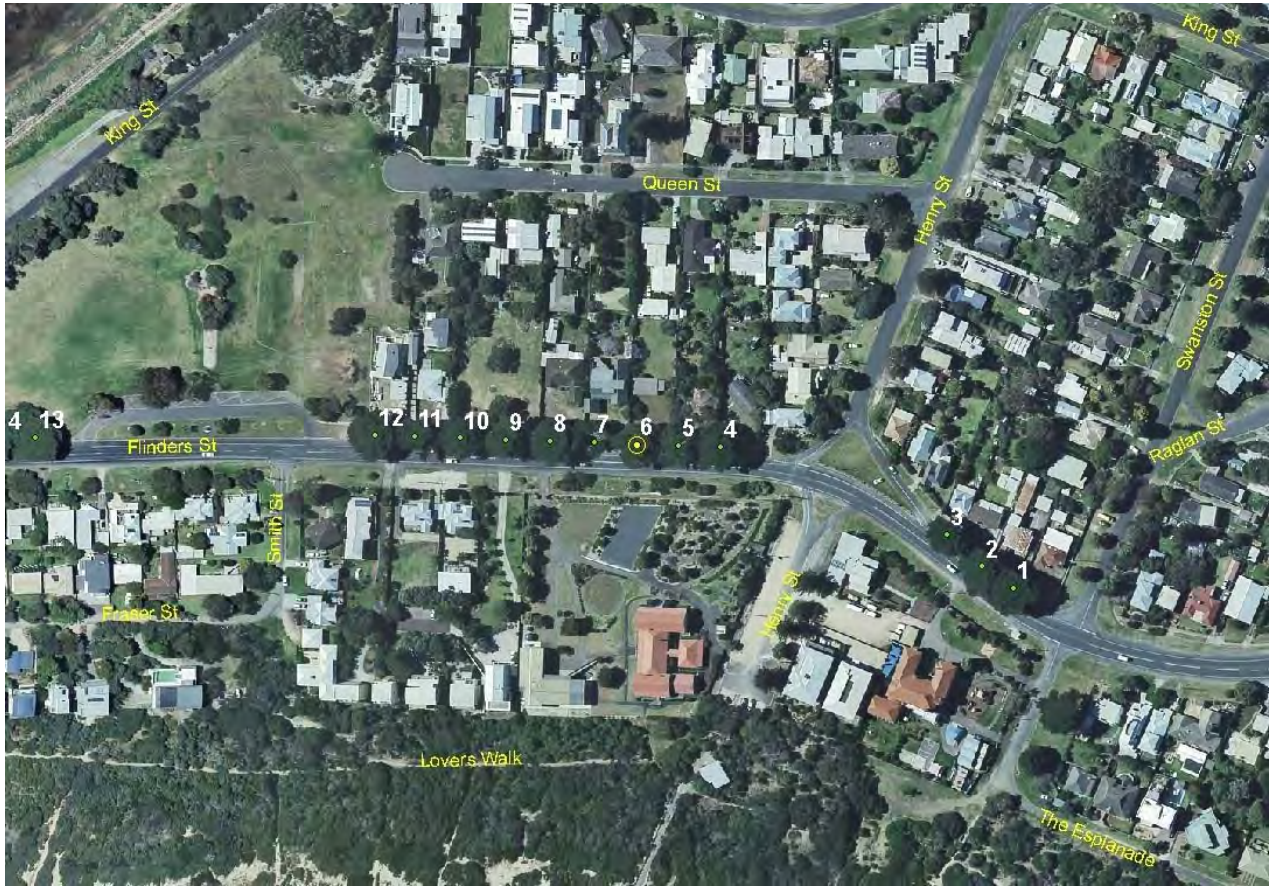
Avenue of Honour Tree Management and Replacement Plan

Tree No 6

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	18
DBH (cm):	174
Health:	Poor
Structure:	Fair
ULE:	5-10 years

Location:	Flinders St
Easting:	294315.82
Northing:	5761621.39
Estimated year planted:	1945
Estimated Age:	70

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Flinders St, Gravel driveway, Gravel path
Comments:	



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Avenue of Honour Tree Management and Replacement Plan

Tree No 7

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	13
Width (m):	18
DBH (cm):	153
Health:	Fair
Structure:	Poor
ULE:	1-5 years

Location:	Flinders St
Easting:	294295.71
Northing:	5761619.07
Estimated year planted:	1945
Estimated Age:	70

Recommended Works:	Removal
Priority:	Low
Inspection Regime:	Annual
Adjacent Infrastructure:	Flinders St, Gravel driveway, Gravel path
Comments:	

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Tree No 8

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	20
DBH (cm):	167
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Flinders St
Easting:	294278.70
Northing:	5761617.80
Estimated year planted:	1945
Estimated Age:	70

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Flinders St, Gravel driveway, Gravel path
Comments:	

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Tree No 9

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	16
DBH (cm):	164
Health:	Fair
Structure:	Poor
ULE:	10-20 years

Location:	Flinders St
Easting:	294259.56
Northing:	5761616.10
Estimated year planted:	1945
Estimated Age:	70

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Flinders St, Gravel driveway, Gravel path
Comments:	

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Tree No 10

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	17
DBH (cm):	150
Health:	Fair
Structure:	Poor
ULE:	10-20 years

Location:	Flinders St
Easting:	294240.42
Northing:	5761616.52
Estimated year planted:	1945
Estimated Age:	70

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Flinders St, Gravel driveway, Gravel path
Comments:	

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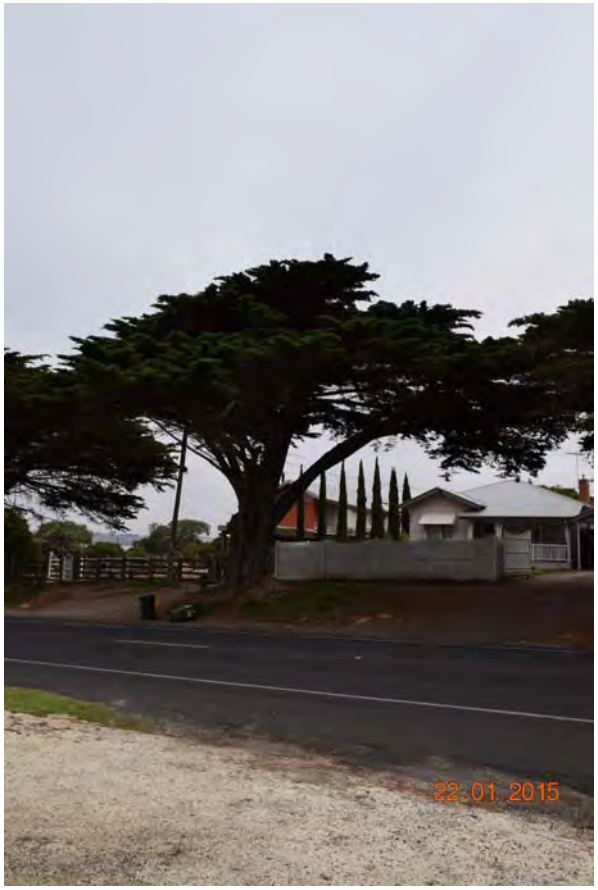
Tree No 11

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	15
DBH (cm):	159
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Flinders St
Easting:	294220.00
Northing:	5761616.10
Estimated year planted:	1945
Estimated Age:	70

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Flinders St, Gravel driveway, Gravel path
Comments:	



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Avenue of Honour Tree Management and Replacement Plan

Tree No 12

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	18
DBH (cm):	185
Health:	Fair
Structure:	Poor
ULE:	10-20 years

Location:	Flinders St
Easting:	294194.59
Northing:	5761614.35
Estimated year planted:	1945
Estimated Age:	70

Recommended Works:	Individual branch removal
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	Flinders St, Gravel driveway, Gravel path
Comments:	Remove damaged branch above driveway

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Tree No 13

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	15
DBH (cm):	273
Health:	Fair
Structure:	Fair
ULE:	5-10 years

Location:	Avenue of Honour
Easting:	294040.72
Northing:	5761610.70
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Informal roadside parking, Lawn
Comments:	

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Tree No 14

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	13
Width (m):	19
DBH (cm):	266
Health:	Poor
Structure:	Fair
ULE:	5-10 years

Location:	Avenue of Honour
Easting:	294014.77
Northing:	5761612.41
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Informal roadside parking, Lawn
Comments:	

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Tree No 15

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	15
DBH (cm):	256
Health:	Fair
Structure:	Fair
ULE:	5-10 years

Location:	Avenue of Honour
Easting:	293997.33
Northing:	5761613.26
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Informal roadside parking, Lawn
Comments:	

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Tree No 16

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	19
DBH (cm):	199
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293973.51
Northing:	5761614.53
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Informal roadside parking, Lawn
Comments:	

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Tree No 17

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	13
Width (m):	19
DBH (cm):	258
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293955.22
Northing:	5761614.53
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Informal roadside parking, Batting cage
Comments:	Small hanging branch, no target

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Tree No 18

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	18
DBH (cm):	166
Health:	Fair
Structure:	Fair
ULE:	5-10 years

Location:	Avenue of Honour
Easting:	293934.44
Northing:	5761612.15
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, King St, Informal roadside parking, Batting cage
Comments:	

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Tree No 19

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	13
Width (m):	20
DBH (cm):	219
Health:	Fair
Structure:	Poor
ULE:	1-5 years

Location:	Avenue of Honour
Easting:	293896.23
Northing:	5761615.75
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	Removal
Priority:	Low
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, King St
Comments:	

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Tree No 20

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	15
DBH (cm):	186
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293871.51
Northing:	5761614.85
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	Exclude target, Mulch
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Bellarine Hwy, Informal roadside parking
Comments:	

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Tree No 21

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	15
DBH (cm):	151
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293849.94
Northing:	5761609.90
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	Exclude target, Mulch
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Bellarine Hwy, Informal roadside parking
Comments:	

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Tree No 22

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	15
DBH (cm):	166
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293828.88
Northing:	5761602.97
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	Exclude target, Mulch
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Bellarine Hwy, Informal roadside parking
Comments:	

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Tree No 23

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	16
DBH (cm):	168
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293809.56
Northing:	5761597.58
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	Exclude target, Mulch
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Bellarine Hwy, Informal roadside parking
Comments:	

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Tree No 24

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	9
Width (m):	18
DBH (cm):	153
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293792.48
Northing:	5761586.79
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	Exclude target, Mulch
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Bellarine Hwy, Informal roadside parking
Comments:	

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Tree No 25

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	9
Width (m):	14
DBH (cm):	136
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293775.85
Northing:	5761574.65
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	Exclude target, Mulch
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Bellarine Hwy, Informal roadside parking
Comments:	

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Tree No 26

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	9
Width (m):	14
DBH (cm):	108
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293761.91
Northing:	5761566.56
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	Exclude target, Mulch
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Bellarine Hwy, Informal roadside parking
Comments:	

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Tree No 27

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	9
Width (m):	15
DBH (cm):	122
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293744.83
Northing:	5761555.33
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	Exclude target, Mulch
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Bellarine Hwy, Informal roadside parking
Comments:	

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Tree No 28

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	9
Width (m):	13
DBH (cm):	133
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293720.56
Northing:	5761552.63
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	Exclude target, Mulch
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Bellarine Hwy, Informal roadside parking
Comments:	

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Tree No 29

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	19
DBH (cm):	197
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293694.94
Northing:	5761550.38
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	Exclude target, Mulch, Individual branch removal
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Bellarine Hwy, Informal roadside parking
Comments:	

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Tree No 30

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	8
Width (m):	14
DBH (cm):	81
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293629.55
Northing:	5761496.89
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 31

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	7
Width (m):	6
DBH (cm):	57
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Avenue of Honour
Easting:	293650.40
Northing:	5761507.10
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	Heavily uplfted

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Tree No 32

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	8
Width (m):	14
DBH (cm):	112
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293669.54
Northing:	5761515.61
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 33

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	9
Width (m):	16
DBH (cm):	134
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293688.25
Northing:	5761521.99
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 34

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	17
DBH (cm):	145
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293706.54
Northing:	5761524.97
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 35

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	17
DBH (cm):	147
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Avenue of Honour
Easting:	293724.45
Northing:	5761530.31
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 36

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	9
Width (m):	17
DBH (cm):	102
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Avenue of Honour
Easting:	293743.59
Northing:	5761542.64
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 37

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	18
DBH (cm):	118
Health:	Fair
Structure:	Fair
ULE:	5-10 years

Location:	Avenue of Honour
Easting:	293761.88
Northing:	5761549.02
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 38

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	17
DBH (cm):	110
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293781.44
Northing:	5761554.13
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 39

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	19
DBH (cm):	135
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293799.73
Northing:	5761563.91
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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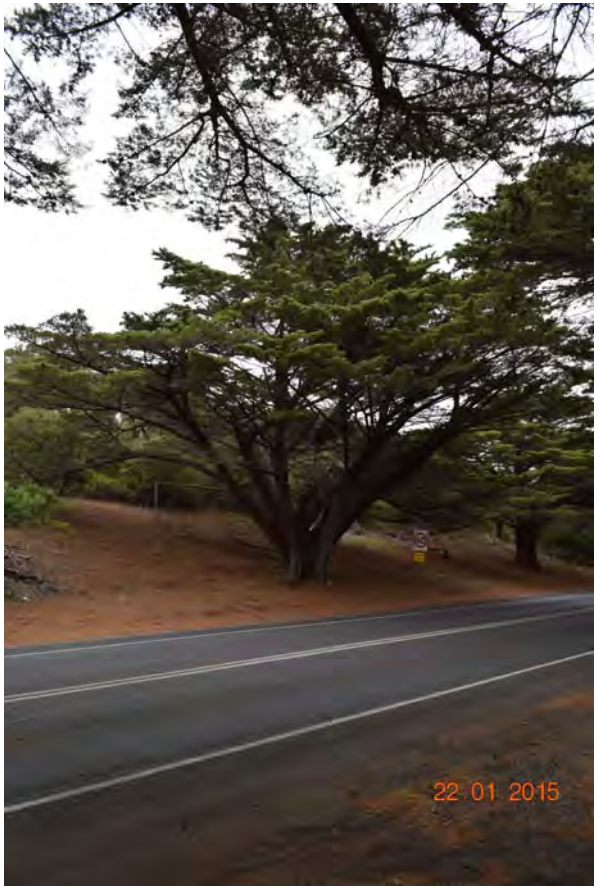
Tree No 40

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	19
DBH (cm):	192
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Avenue of Honour
Easting:	293819.73
Northing:	5761571.14
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	Risk reduction pruning
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	Reduce extented limbs over road



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Tree No 41

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	19
DBH (cm):	142
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293854.42
Northing:	5761586.46
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 42

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	20
DBH (cm):	184
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Avenue of Honour
Easting:	293877.81
Northing:	5761588.59
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	ABC Low Voltage, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 43

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	17
DBH (cm):	219
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Avenue of Honour
Easting:	293893.97
Northing:	5761592.41
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	ABC Low Voltage, Driveways, Bellarine Hwy
Comments:	

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Tree No 44

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	16
DBH (cm):	238
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Avenue of Honour
Easting:	293914.39
Northing:	5761593.69
Estimated year planted:	1918
Estimated Age:	97

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	ABC Low Voltage, Driveways, Bellarine Hwy
Comments:	

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Tree No 45

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	13
Width (m):	18
DBH (cm):	174
Health:	Fair
Structure:	Fair
ULE:	5-10 years

Location:	Marine Discovery Centre
Easting:	293586.50
Northing:	5761504.84
Estimated year planted:	1945-50
Estimated Age:	65-70

Recommended Works:	Broken and hanging branch removal
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Lawn, Bellarine Hwy
Comments:	

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Tree No 46

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	14
Width (m):	15
DBH (cm):	171
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Marine Discovery Centre
Easting:	293568.64
Northing:	5761501.47
Estimated year planted:	1945-50
Estimated Age:	65-70

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Lawn, Bellarine Hwy, Marine Discovery access
Comments:	Heavily uplifted

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Tree No 47

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	13
Width (m):	14
DBH (cm):	185
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	Marine Discovery Centre
Easting:	293546.73
Northing:	5761501.28
Estimated year planted:	1945-50
Estimated Age:	65-70

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Lawn, Bellarine Hwy, Marine Discovery access
Comments:	Heavily uplifted

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Tree No 48

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	13
Width (m):	12
DBH (cm):	169
Health:	Fair
Structure:	Poor
ULE:	1-5 years

Location:	Marine Discovery Centre
Easting:	293518.70
Northing:	5761495.21
Estimated year planted:	1945-50
Estimated Age:	65-70

Recommended Works:	Removal
Priority:	Low
Inspection Regime:	Annual
Adjacent Infrastructure:	Surfaced path, Lawn, Bellarine Hwy
Comments:	Heavily uplifted, Bee hive in trunk

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Tree No 49

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	17
DBH (cm):	143
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293484.97
Northing:	5761489.25
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	Branch above road hit by vehicle

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Tree No 50

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	15
DBH (cm):	92
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293463.13
Northing:	5761488.95
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 51

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	13
DBH (cm):	86
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293443.24
Northing:	5761490.18
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 52

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	7
Width (m):	9
DBH (cm):	61
Health:	Fair
Structure:	Good
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293418.34
Northing:	5761487.74
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 53

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	5
Width (m):	8
DBH (cm):	33
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293405.20
Northing:	5761486.40
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 54

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	18
DBH (cm):	136
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293385.35
Northing:	5761487.42
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 55

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	17
DBH (cm):	123
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293363.55
Northing:	5761487.19
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 56

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	17
DBH (cm):	191
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293339.73
Northing:	5761487.19
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 57

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	16
DBH (cm):	137
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293321.09
Northing:	5761481.21
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	Individual branch removal
Priority:	Moderate
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	Broken branch over road

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Tree No 58

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	15
DBH (cm):	140
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293303.75
Northing:	5761478.04
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 59

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	15
DBH (cm):	154
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293283.86
Northing:	5761474.33
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 60

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	13
DBH (cm):	148
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293265.38
Northing:	5761456.13
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 61

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	5
Width (m):	6
DBH (cm):	14
Health:	Poor
Structure:	Fair
ULE:	5-10 years

Location:	The Narrows - western extent
Easting:	293255.26
Northing:	5761463.88
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 62

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	6
Width (m):	10
DBH (cm):	49
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293240.41
Northing:	5761467.95
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 63

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	8
Width (m):	10
DBH (cm):	112
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Narrows - western extent
Easting:	293183.20
Northing:	5761467.52
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 64

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	15
DBH (cm):	145
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293183.20
Northing:	5761467.52
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 65

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	4
Width (m):	8
DBH (cm):	22
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293173.20
Northing:	5761463.92
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	Remove rope/tie from trunk
Priority:	Moderate
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 66

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	7
Width (m):	9
DBH (cm):	39
Health:	Fair
Structure:	Good
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293158.31
Northing:	5761459.21
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bitumen path, Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 67

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	9
Width (m):	14
DBH (cm):	105
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293208.21
Northing:	5761452.87
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 68

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	13
DBH (cm):	122
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293229.10
Northing:	5761453.26
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 69

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	16
DBH (cm):	127
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293249.78
Northing:	5761450.12
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 70

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	12
DBH (cm):	111
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293269.55
Northing:	5761450.12
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 71

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	16
DBH (cm):	148
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293291.28
Northing:	5761451.87
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 72

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	17
DBH (cm):	141
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293311.51
Northing:	5761455.02
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 73

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	17
DBH (cm):	167
Health:	Fair
Structure:	Fair
ULE:	20-40 years

Location:	The Narrows - western extent
Easting:	293332.18
Northing:	5761459.06
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 74

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	9
Width (m):	13
DBH (cm):	85
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Narrows - western extent
Easting:	293347.01
Northing:	5761461.31
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	DBH estimated

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Tree No 75

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	9
Width (m):	12
DBH (cm):	90
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Narrows - western extent
Easting:	293363.64
Northing:	5761460.41
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	DBH estimated

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Tree No 76

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	8
Width (m):	14
DBH (cm):	109
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Narrows - western extent
Easting:	293448.15
Northing:	5761467.30
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

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Tree No 77

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	8
Width (m):	10
DBH (cm):	70
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Narrows - western extent
Easting:	293475.34
Northing:	5761470.67
Estimated year planted:	1965-75
Estimated Age:	40-50

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Bellarine Hwy, Coastal Moonah Woodland
Comments:	

Borough of Queenscliffe
Avenue of Honour Tree Management and Replacement Plan

Tree No 78

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	18
DBH (cm):	229
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292560.41
Northing:	5761324.11
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	

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Tree No 79

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	17
DBH (cm):	185
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292560.41
Northing:	5761324.11
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Broken and hanging branch removal
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	Broken branch above path

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Tree No 80

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	18
DBH (cm):	167
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292543.98
Northing:	5761321.95
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Broken and hanging branch removal
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	Multiple hanging branches above path

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Tree No 81

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	16
DBH (cm):	154
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292528.25
Northing:	5761323.74
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Broken and hanging branch removal
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	Broken branch above path

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Tree No 82

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	19
DBH (cm):	216
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292508.02
Northing:	5761321.50
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	

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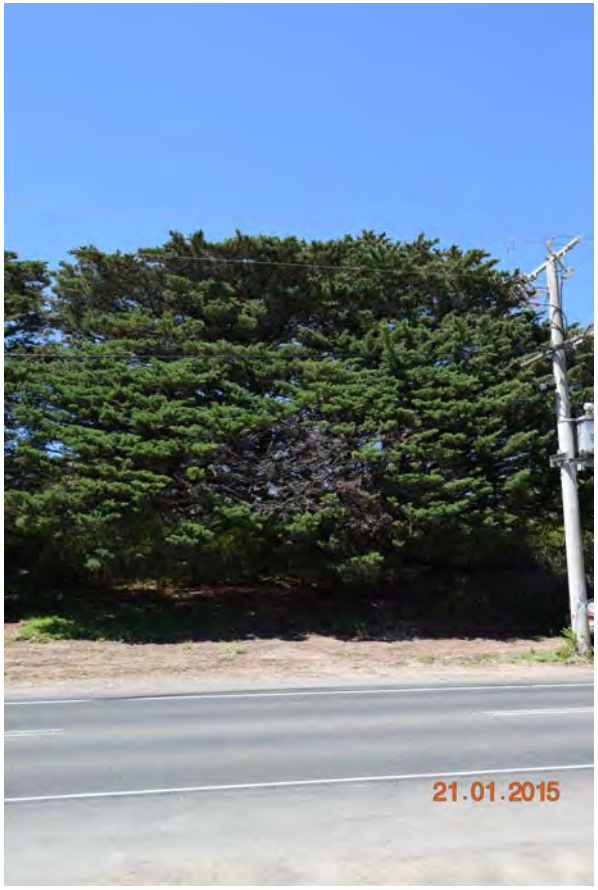
Tree No 83

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	17
DBH (cm):	184
Health:	Fair
Structure:	Very Poor
ULE:	0 years

Location:	The Springs
Easting:	292489.14
Northing:	5761320.15
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Removal
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	Active split between trunks



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Tree No 84

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	14
DBH (cm):	137
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292465.32
Northing:	5761321.05
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Broken and hanging branch removal
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	Hanging branch above path

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Tree No 85

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	18
DBH (cm):	171
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292444.20
Northing:	5761319.25
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Risk reduction pruning
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	Reduce extended limbs over path

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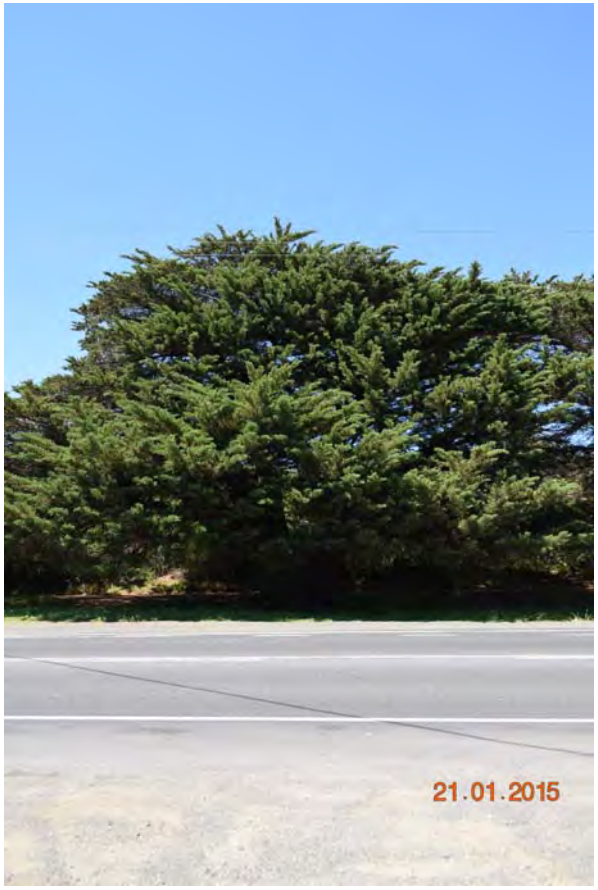
Tree No 86

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	16
DBH (cm):	185
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	The Springs
Easting:	292425.75
Northing:	5761313.66
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Broken and hanging branch removal
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	Hazard beam split in limb above path



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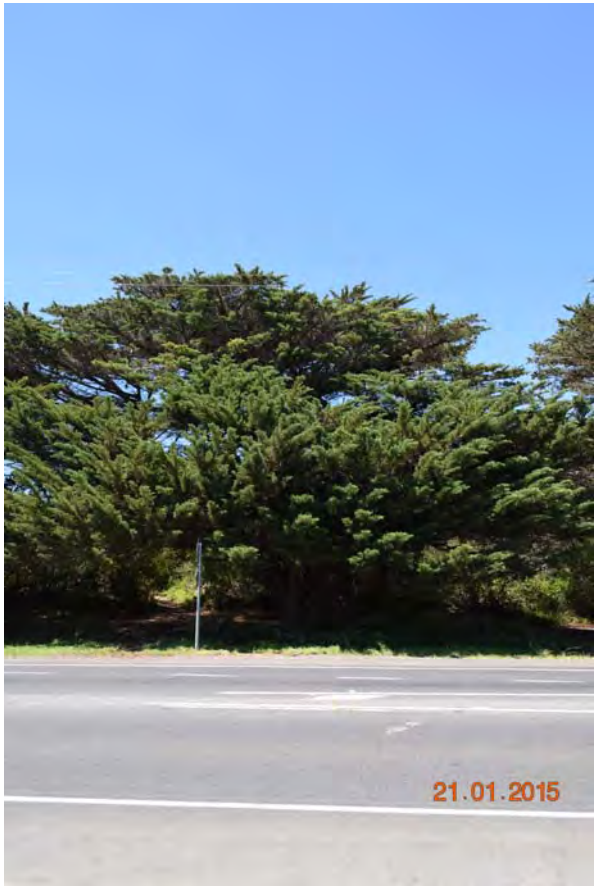
Tree No 87

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	16
DBH (cm):	210
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	The Springs
Easting:	292407.33
Northing:	5761310.97
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Broken and hanging branch removal
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	Cracked and hanging branches above path



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Tree No 88

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	15
DBH (cm):	214
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292392.49
Northing:	5761309.17
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Risk reduction pruning, Broken and hanging branch removal
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	Reduce extended limbs over path, small hanging branch above path

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Tree No 89

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	14
DBH (cm):	187
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292372.72
Northing:	5761302.43
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Risk reduction pruning
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	Reduce extended limbs over path

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Tree No 90

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	14
DBH (cm):	219
Health:	Fair
Structure:	Poor
ULE:	10-20 years

Location:	The Springs
Easting:	292352.04
Northing:	5761297.48
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Risk reduction pruning
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath, Bus stop
Comments:	Reduce extended limbs over path

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Tree No 91

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	8
Width (m):	9
DBH (cm):	39
Health:	Good
Structure:	Good
ULE:	40+ years

Location:	The Springs
Easting:	292331.82
Northing:	5761294.79
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	

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Tree No 92

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	15
DBH (cm):	236
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	The Springs
Easting:	292298.88
Northing:	5761291.71
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Risk reduction pruning
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	Shear crack in trunk leaning towards path

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Tree No 93

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	15
DBH (cm):	268
Health:	Poor
Structure:	Fair
ULE:	5-10 years

Location:	The Springs
Easting:	292262.02
Northing:	5761293.06
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Gravel carpark, Bitumen path
Comments:	Heavily lopped resulting in excessive deadwood

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Tree No 94

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	17
DBH (cm):	261
Health:	Fair
Structure:	Very Poor
ULE:	0 years

Location:	The Springs
Easting:	292247.64
Northing:	5761289.91
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Removal
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Gravel carpark, Bitumen path
Comments:	Active split between trunks

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Tree No 95

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	15
DBH (cm):	237
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292226.96
Northing:	5761286.32
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Deadwood removal, Risk reduction pruning
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Gravel carpark, Bitumen path
Comments:	Reduce extended limbs over path

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Tree No 96

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	16
DBH (cm):	237
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292213.90
Northing:	5761256.02
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Deadwood removal, Broken and hanging branch removal, Risk reduction pruning
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Gravel carpark, Bitumen path
Comments:	Reduce extended limbs over path

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Tree No 97

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	15
DBH (cm):	231
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292190.04
Northing:	5761259.60
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Deadwood removal, Broken and hanging branch removal, Risk reduction pruning
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Gravel carpark, Bitumen path
Comments:	Reduce extended limbs over path, Hanging branch above path

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Tree No 98

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	16
DBH (cm):	215
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292166.82
Northing:	5761260.54
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	

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Tree No 99

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	13
Width (m):	16
DBH (cm):	222
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	The Springs
Easting:	292145.52
Northing:	5761259.57
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Bitumen footpath
Comments:	

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Tree No 100

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	16
DBH (cm):	164
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	The Springs
Easting:	292126.95
Northing:	5761260.67
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Broken and hanging branch removal
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Gravel carpark, Bitumen track (path + CFA access)
Comments:	Hanging branches over path

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Tree No 101

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	13
Width (m):	16
DBH (cm):	192
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	The Springs
Easting:	292084.60
Northing:	5761255.30
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Gravel carpark, Bitumen track (path + CFA access)
Comments:	

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Tree No 102

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	17
DBH (cm):	185
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	The Springs
Easting:	292088.75
Northing:	5761244.65
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Gravel carpark, Bitumen track (path + CFA access)
Comments:	

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Tree No 103

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	17
DBH (cm):	208
Health:	Fair
Structure:	Poor
ULE:	5-10 years

Location:	The Springs
Easting:	292067.22
Northing:	5761248.63
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Broken and hanging branch removal
Priority:	Moderate
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Gravel carpark, Bitumen track (path + CFA access)
Comments:	

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Tree No 104

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	17
DBH (cm):	219
Health:	Poor
Structure:	Poor
ULE:	0 years

Location:	The Springs
Easting:	292041.28
Northing:	5761242.26
Estimated year planted:	1950-60
Estimated Age:	55-65

Recommended Works:	Removal
Priority:	High
Inspection Regime:	Annual
Adjacent Infrastructure:	High Voltage powerlines, Gravel carpark, Bitumen track (path + CFA access)
Comments:	Large active split in canopy above parking area, Heavily lopped resulting in excessive deadwood

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Tree No 105

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	10
Width (m):	12
DBH (cm):	132
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Bellarine Community Health
Easting:	291810.08
Northing:	5761179.77
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Informal Gravel and unsurfaced paths
Comments:	

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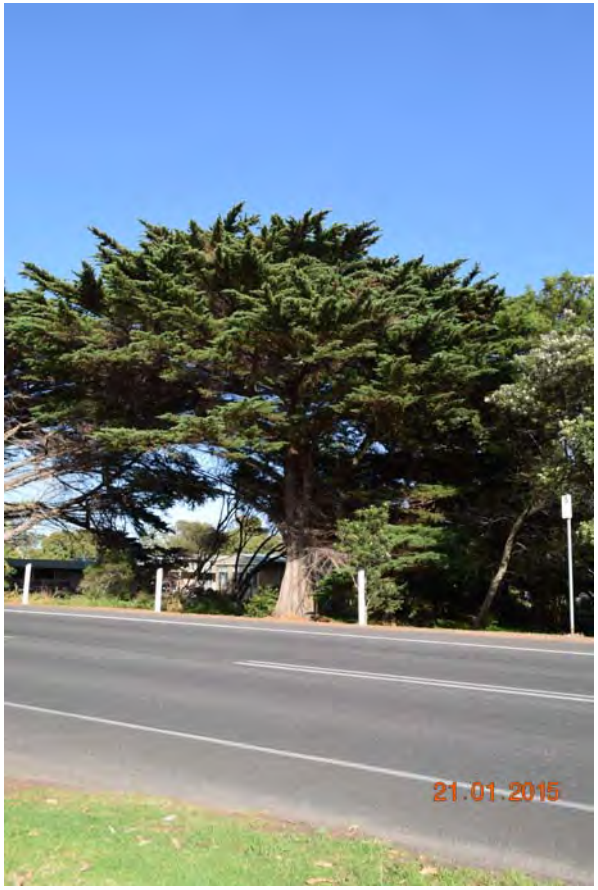
Tree No 106

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	17
DBH (cm):	173
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Bellarine Community Health
Easting:	291804.30
Northing:	5761159.54
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Informal Gravel and unsurfaced paths
Comments:	



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Tree No 107

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	19
DBH (cm):	187
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Bellarine Community Health
Easting:	291789.18
Northing:	5761141.64
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	Risk reduction pruning, Broken and hanging branch removal
Priority:	High
Inspection Regime:	3-5 years
Adjacent Infrastructure:	Informal Gravel paths, Park bench
Comments:	Cracked branch above park bench

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Tree No 108

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	16
DBH (cm):	204
Health:	Fair
Structure:	Fair
ULE:	5-10 years

Location:	Bellarine Community Health
Easting:	291776.86
Northing:	5761127.33
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Informal Gravel paths, Brick building
Comments:	

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Tree No 109

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	16
DBH (cm):	209
Health:	Fair
Structure:	Fair
ULE:	5-10 years

Location:	Bellarine Community Health
Easting:	291766.99
Northing:	5761111.44
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bitumen access driveway, Gravel carpark
Comments:	

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Tree No 110

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	12
Width (m):	18
DBH (cm):	171
Health:	Fair
Structure:	Fair
ULE:	5-10 years

Location:	Bellarine Community Health
Easting:	291755.17
Northing:	5761095.98
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Informal Gravel carpark
Comments:	

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Tree No 111

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	9
Width (m):	12
DBH (cm):	101
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Point Lonsdale Foreshore
Easting:	291370.93
Northing:	5759782.51
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bitumen carpark, Gravel path, Bike racks, Drinking fountain
Comments:	Thinning canopy

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Tree No 112

Botanical Name:	*Cupressus macrocarpa*
Common Name:	Monterey Cypress
Height (m):	11
Width (m):	15
DBH (cm):	87
Health:	Fair
Structure:	Fair
ULE:	10-20 years

Location:	Point Lonsdale Foreshore
Easting:	291372.07
Northing:	5759775.29
Estimated year planted:	Unknown
Estimated Age:	

Recommended Works:	No works
Priority:	None
Inspection Regime:	Annual
Adjacent Infrastructure:	Bitumen carpark, Gravel path, Bike racks, Picnic table
Comments:	Thinning canopy

Appendix 3. Recommended Works

Works have been recommended to reduce hazard and/or promote tree longevity (Table 6). At least one fully qualified arborist must be present on-site at all times during pruning operations for significant trees.

The minimum qualification should be:

- An Advanced Certificate of Arboriculture.
- A National Certificate in Horticulture (Arboriculture) Level 3.

All pruning should conform to the Australian Standard Pruning of Amenity Trees (AS 4373-2007). Pruning should preferably be done in winter or following dry weather, when Seiridium spores are less likely to infect pruning wounds. All pruning tools should be sterilised before and after use with either alcohol or dilute bleach (DEPI 2014).

Major Deadwood Removal

While dead branches in live trees are relatively safe until they become decayed, it is difficult to determine from a ground survey when dead branches become decayed enough to fail. Therefore, in areas with targets, dead branches should be removed soon after discovery (Harris, Clark and Matheny 1999). Trees recommended for deadwood removal should have deadwood greater than 50mm in diameter removed.

Broken/hanging branch removal

A number of trees assessed have hanging branches, that is unattached, cut or broken branches caught in the canopy (Australian Standards, 2007). Hanging branches can pose a substantial hazard and even branches as thin as 50mm in diameter can be considered serious if they have a long, clear route of fall (Lonsdale 1999). If a branch has snapped or cracked across the grain, any hanging or dead attached portion which could place people or property at risk should be removed (Lonsdale 1999).

Risk Reduction Pruning

Canopy, branch or stem reduction pruning of overextended limbs can reduce the possibility of failure. The aim is the selective pruning of long and extended branches starting in the 3rd order branching, back to a shorter, more compact growing point. This reduces the overall weight, length and leverage on the branch union.

Undertaking a risk reduction pruning program of the upper canopy of a tree reduces the risk of branch and stem failure to a manageable level, and extends the tree's Useful Life Expectancy (ULE). It should be noted that risk reduction pruning only reduces the chances of branch and trunk failure. It does not remove the potential for failure entirely.

These works will require qualified and experienced arborists to complete. The works generally involve high climbing and limb reduction.

Target Exclusion

Preventing cars from parking under the canopy is recommended for a number of trees. As the tree population continues to age and then senesce the trees are likely to become more unsafe and difficult to safely manage. Trees with significant structural defects can potentially be retained if access to the 'danger zone' is actively discouraged by removing facilities such as seating, and access to parking and fencing/bollarding the area (Lonsdale 1999). This is also important for trees that are likely to become defective in the future, particularly large old trees, to ensure targets are not brought more into their proximity in the future (Lonsdale 1999).

Mulch Application

Many of trees are located in ground that has been compacted by vehicular and pedestrian traffic. To reduce the compaction, mulch should be applied under the canopies of the trees. Grass can also be a fierce competitor with the tree for water and nutrients. Grass and other vegetation should be removed under the canopy and mulch applied.

Mulch has many benefits to plants including:

- Soil moisture conservation
- Soil compaction reduction
- Grass and weed suppression
- Reduction in soil erosion
- Soil structure improvements
- An increase in soil fertility

Moderation of soil temperature on a diurnal and seasonal basis (Harris, Clark & Matheny 1999).

The application of mulch provides a 'blanket' effect on the soil. It helps retain moisture in the soil, provide organic matter and is beneficial to maintaining the soil microflora. In time it helps improve soil structure and promote the existence of worms and other soil organisms, beneficial for healthy soil. In the long-term it will create a soil environment beneficial for healthy root growth. It is envisaged that the mulched areas would act as exclusion zones and reduce the potential for further compaction. Mulch must be from a disease-free source – i.e. trees or branches removed from trees infected with Seiridium must not be used to generate mulch.

No immediate works required

Trees assessed in this category will need to be re-assessed on a regular basis to ensure that site conditions and individual assessments have not changed.

Trees in high use areas are recommended for annual inspection. Inspections should be undertaken in winter, in order to allow any works identified to be undertaken prior to the peak tourist season in summer.

Table 6. Recommended Works

Tree No.	Canopy Dimensions	DBH (cm)	Health	Structure	ULE	Location	Recommended Works	Works Priority
2	12m x 18m	193	Fair	Poor	5-10 years	Flinders Street	Individual branch removal	Moderate
7	13m x 18m	153	Fair	Poor	1-5 years	Flinders Street	Removal	Low
12	11m x 18m	185	Fair	Poor	10-20 years	Flinders Street	Individual branch removal	Moderate
19	13m x 20m	219	Fair	Poor	1-5 years	Avenue of Honour	Removal	Low
20	11m x 15m	186	Fair	Fair	10-20 years	Avenue of Honour	Exclude target, Mulch required	High
21	10m x 15m	151	Fair	Fair	10-20 years	Avenue of Honour	Exclude target, Mulch required	High
22	11m x 15m	166	Fair	Fair	10-20 years	Avenue of Honour	Exclude target, Mulch required	High
23	10m x 16m	168	Fair	Fair	10-20 years	Avenue of Honour	Exclude target, Mulch required	High
24	9m x 18m	153	Fair	Fair	10-20 years	Avenue of Honour	Exclude target, Mulch required	High
25	9m x 14m	136	Fair	Fair	10-20 years	Avenue of Honour	Exclude target, Mulch required	High
26	9m x 14m	108	Fair	Fair	10-20 years	Avenue of Honour	Exclude target, Mulch required	High
27	9m x 15m	122	Fair	Fair	10-20 years	Avenue of Honour	Exclude target, Mulch required	High
28	9m x 13m	133	Fair	Fair	10-20 years	Avenue of Honour	Exclude target, Mulch required	High
29	11m x 19m	197	Fair	Fair	10-20 years	Avenue of Honour	Exclude target, Mulch required, Individual branch removal	High
40	11m x 19m	192	Fair	Poor	5-10 years	Avenue of Honour	Risk reduction pruning	Moderate
45	13m x 18m	174	Fair	Fair	5-10 years	Marine Discovery Centre	Broken/hanging branch removal	Moderate
48	13m x 12m	169	Fair	Poor	1-5 years	Marine Discovery Centre	Removal	Low
57	11m x 16m	137	Fair	Fair	20-40 years	The Narrows - western extent	Individual branch removal	Moderate

Tree No.	Canopy Dimensions	DBH (cm)	Health	Structure	ULE	Location	Recommended Works	Works Priority
65	4m x 8m	22	Fair	Fair	20-40 years	The Narrows - western extent	Remove rope/tie from trunk	Moderate
79	11m x 17m	185	Fair	Fair	10-20 years	The Springs	Broken/hanging branch removal	High
80	12m x 18m	167	Fair	Fair	10-20 years	The Springs	Broken/hanging branch removal	High
81	10m x 16m	154	Fair	Fair	10-20 years	The Springs	Broken/hanging branch removal	High
83	10m x 17m	184	Fair	Very Poor	0 years	The Springs	Removal	Moderate
84	12m x 14m	137	Fair	Fair	10-20 years	The Springs	Broken/hanging branch removal	High
85	10m x 18m	171	Fair	Fair	10-20 years	The Springs	Risk reduction pruning	Moderate
86	11m x 16m	185	Fair	Poor	5-10 years	The Springs	Broken/hanging branch removal	High
87	11m x 16m	210	Fair	Poor	5-10 years	The Springs	Broken/hanging branch removal	High
88	12m x 15m	214	Fair	Fair	10-20 years	The Springs	Risk reduction pruning, Broken/hanging branch removal	Moderate
89	12m x 14m	187	Fair	Fair	10-20 years	The Springs	Risk reduction pruning	Moderate
90	12m x 14m	219	Fair	Poor	10-20 years	The Springs	Risk reduction pruning	Moderate
92	12m x 15m	236	Fair	Poor	5-10 years	The Springs	Risk reduction pruning	High
94	12m x 17m	261	Fair	Very Poor	0 years	The Springs	Removal	Moderate
95	12m x 15m	237	Fair	Fair	10-20 years	The Springs	Deadwood removal, Risk reduction pruning	Moderate
96	11m x 16m	237	Fair	Fair	10-20 years	The Springs	Risk reduction pruning, Deadwood removal, Broken/hanging branch removal	Moderate
97	12m x 15m	231	Fair	Fair	10-20 years	The Springs	Risk reduction pruning, Deadwood removal, Broken/hanging branch removal	High
100	12m x 16m	164	Fair	Poor	5-10 years	The Springs	Broken/hanging branch removal	Moderate
103	12m x 17m	208	Fair	Poor	5-10 years	The Springs	Broken/hanging branch removal	Moderate

Tree No.	Canopy Dimensions	DBH (cm)	Health	Structure	ULE	Location	Recommended Works	Works Priority
104	11m x 17m	219	Poor	Poor	0 years	The Springs	Removal	High
107	12m x 19m	187	Fair	Fair	10-20 years	Bellarine Community Health	Risk reduction pruning, Broken/hanging branch removal	High

Works Priority

Recommended works for the assessed trees were given a priority based on when the works should be undertaken.

Of the 112 trees assessed, 20 trees were assessed as requiring high priority works, 16 trees were assessed as requiring moderate priority works and 3 trees were assessed as requiring low priority works (Table 7).

73 trees did not require any remedial works at the time of inspection.

Table 7. Works priority definitions and number of trees

Category	Definition	No of trees
High	Recommended works should be carried out within the next 12 months.	20
Moderate	Recommended works should be carried out within the next 2 years.	16
Low	Recommended works should be carried out within 2-4 years.	3