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ARBORICULTURAL DEVELOPMENT IMPACT ASSESSMENT REPORT

Dee Why RSL Car Wash NSW

11th of June 2020

Prepared for
Dee Why RSL

Prepared by

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Executive Summary

This Arboricultural Development Impact Assessment Report has been commissioned by Dee Why RSL to report on trees within the site of Dee Why RSL Car Wash, corner of South Creek Road and Pittwater Road, Dee Why NSW. It has been commissioned to outline the health, condition and stability of these trees as well as their viability for retention within the context of the proposed works. The scope of this report includes all trees within areas that may be impacted by the proposed development.

The subject site is Dee Why RSL Car Wash corner of South Creek Road and Pittwater Road, Dee Why NSW. The subject trees are located within the boundaries of this site. The site is an existing car wash facility. The site is proposed for development involving the widening of the existing entry driveway and internal paved roadway.

The subject trees are in good health and condition with the exception of Tree 5 and are preserved by Section E1 of Warringah Development Control Plan 2011.

Trees 7, 8, 9, 10, 11, 12, 13 and 14 are encroached by the proposed construction and required earthworks by a major encroachment as defined by *AS4970-2009 Protection of Trees on Development Sites.* These trees will not be viable to be retained and are recommended for removal.

All other trees are viable to be retained and are to be protected as defined below.

Recommendations for tree retention or removal are summarised as follows:

Tree no.	Species	Recommendations	Comments
1.	*Banksia integrifolia*	Retain	Viable to be retained and protected.
2.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
3.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
4.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
5.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
6.	*Glochidion ferdinadii*	Retain	Viable to be retained and protected.
7.	*Angophora costata*	Remove	Not viable to be retained due to encroachment by the proposed development.
8.	*Callistemon viminalis*	Remove	Not viable to be retained due to encroachment by the proposed development.
9.	*Angophora costata*	Remove	Not viable to be retained due to encroachment by the proposed development.
10.	*Angophora costata*	Remove	Not viable to be retained due to encroachment by the proposed development.
11.	*Eucalyptus tereticornis*	Remove	Not viable to be retained due to encroachment by the proposed development.

12.	*Callistemon viminalis*	Remove	Not viable to be retained due to encroachment by the proposed development.
13.	*Callistemon viminalis*	Remove	Not viable to be retained due to encroachment by the proposed development.
14.	*Callistemon viminalis*	Remove	Not viable to be retained due to encroachment by the proposed development.
15.	*Eucalyptus robusta*	Retain	Viable to be retained and protected.
16.	*Olea europaea*	Retain	Viable to be retained and protected.
17.	*Eucalyptus robusta*	Retain	Viable to be retained and protected.
18.	*Banksia integrifolia*	Retain	Viable to be retained and protected.
19.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
20.	*Banksia integrifolia*	Retain	Viable to be retained and protected.
21.	*Syzygium paniculatum*	Retain	Viable to be retained and protected.
22.	*Olea europaea*	Retain	Viable to be retained and protected.
23.	*Citharexylum spinosum*	Retain	Viable to be retained and protected.
24.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
25.	*Syzygium paniculatum*	Retain	Viable to be retained and protected.
26.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
27.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
28.	*Banksia integrifolia*	Retain	Viable to be retained and protected.
29.	*Banksia integrifolia*	Retain	Viable to be retained and protected.
30.	*Angophora costata*	Retain	Viable to be retained and protected.
31.	*Olea europaea*	Retain	Viable to be retained and protected.
32.	*Casuarina spp*	Retain	Viable to be retained and protected.

Contents

1.0 Scope of Works

This Arboricultural Development Impact Assessment Report has been commissioned by Dee Why RSL to report on trees within the site of Dee Why RSL Car Wash, corner of South Creek Road and Pittwater Road, Dee Why NSW. It has been commissioned to outline the health, condition and stability of these trees as well as their viability for retention within the context of the proposed works. The scope of this report includes all trees within areas that may be impacted by the proposed development.

On the 11th of June 2020, Glenn Bird of Birds Tree Consultancy attended site and inspected the subject trees from the ground. There was no aerial inspection carried out. A Visual Tree Assessment was undertaken in accordance with Visual Tree Assessment (VTA) guidelines (Mattheck and Breloer, 1994). Tree heights were measured using a Nikon Forestry 550 Heightmeter.

2.0 Site Analysis

2.1 Site

The subject site is Dee Why RSL Car Wash corner of South Creek Road and Pittwater Road, Dee Why NSW. The subject trees are located within the boundaries of this site. The site is an existing car wash facility. The site is proposed for development involving the widening of the existing entry driveway and internal paved roadway.

2.2 Topography

The site is flat. The area in the vicinity of all trees is flat. Refer to the detailed survey for greater detail of levels.

2.3 Identification

Trees are as identified in the attached inspection forms in Appendix C and shown in Tree location Plan A01 in Appendix D.

2.4 Soils

Soil material and horizons were not tested for this report.

3.0 Existing Trees

The following trees were inspected from the ground and the following items identified. Please refer also to the attached inspection data in Appendix C.

3.1. Tree 1. *Banksia integrifolia*

This semi-mature tree is approximately 5m tall with a canopy spread of 2m. It has a single trunk with a diameter at breast height (DBH) of 100mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.2. Tree 2. *Eucalyptus saligna*

This semi-mature tree is approximately 11m tall with a canopy spread of 4m. It has a single trunk with a DBH of 160mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.3. Tree 3. *Eucalyptus saligna*

This semi-mature tree is approximately 11m tall with a canopy spread of 8m. It has a single trunk with a DBH of 230mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.4. Tree 4. *Eucalyptus saligna*

This semi-mature tree is approximately 11m tall with a canopy spread of 8m. It has a single trunk with a DBH of 230mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.5. Tree 5. *Eucalyptus saligna*

This semi-mature tree is approximately 7m tall with a canopy spread of 4m. It has a single trunk with a DBH of 100mm. This tree is in poor health and condition with a sparse canopy, significant deadwood, minimal epicormic growth and significant apical dieback.

3.6. Tree 6. *Glochidion ferdinadii*

This mature tree is approximately 8m tall with a canopy spread of 4m. It has twin co-dominant trunks from 1m above the base with an aggregate DBH of 220mm. This tree is in fair health and condition with a thinning canopy, minimal deadwood and epicormic growth.

3.7. Tree 7. *Angophora costata*

This semi-mature tree is approximately 7m tall with a canopy spread of 4m. It has a single trunk with a DBH of 140mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.8. Tree 8. *Callistemon viminalis*

This semi-mature tree is approximately 6m tall with a canopy spread of 3m. It has a single trunk with a DBH of 80mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.9. Tree 9. *Angophora costata*

This semi-mature tree is approximately 4m tall with a canopy spread of 2m. It has a single trunk with a DBH of 110mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.10. Tree 10. *Angophora costata*

This semi-mature tree is approximately 7m tall with a canopy spread of 4m. It has a single trunk with a DBH of 120mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.11. Tree 11. *Eucalyptus tereticornis*

This semi-mature tree is approximately 10m tall with a canopy spread of 6m. It has a single trunk with a DBH of 260mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.12. Tree 12. *Callistemon viminalis*

This semi-mature tree is approximately 3m tall with a canopy spread of 3m. It has multiple co-dominant trunks from the base with an aggregate DBH of 200mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.13. Tree 13. *Callistemon viminalis*

This semi-mature tree is approximately 3m tall with a canopy spread of 3m. It has multiple co-dominant trunks from the base with an aggregate DBH of 200mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.14. Tree 14. *Callistemon viminalis*

This semi-mature tree is approximately 3m tall with a canopy spread of 3m. It has multiple co-dominant trunks from the base with an aggregate DBH of 200mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.15. Tree 15. *Eucalyptus robusta*

This mature tree is approximately 14m tall with a canopy spread of 6m. It has a single trunk with a DBH of 270mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.16. Tree 16. *Olea europaea*

This semi-mature tree is approximately 7m tall with a canopy spread of 4m. It has twin co-dominant trunks from the base with an aggregate DBH of 200mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.17. Tree 17. *Eucalyptus robusta*

This mature tree is approximately 17m tall with a canopy spread of 9m. It has a single trunk with a DBH of 330mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.18. Tree 18. *Banksia integrifolia*

This semi-mature tree is approximately 5m tall with a canopy spread of 3m. It has a single trunk with a DBH of 120mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.19. Tree 19. *Eucalyptus saligna*

This semi-mature tree is approximately 19m tall with a canopy spread of 9m. It has a single trunk with a DBH of 480mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.20. Tree 20. *Banksia integrifolia*

This semi-mature tree is approximately 8m tall with a canopy spread of 4m. It has a single trunk with a DBH of 110mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.21. Tree 21. *Syzygium paniculatum*

This semi-mature tree is approximately 7m tall with a canopy spread of 4m. It has a single trunk with a DBH of 130mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.22. Tree 22. *Olea europaea*

This semi-mature tree is approximately 6m tall with a canopy spread of 3m. It has twin co-dominant trunks from the base with an aggregate DBH of4
100mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.23. Tree 23. *Citharexylum spinosum*

This semi-mature tree is approximately 5m tall with a canopy spread of 2m. It has a single trunk with a DBH of 100mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.24. Tree 24. *Eucalyptus saligna*

This semi-mature tree is approximately 16m tall with a canopy spread of 9m. It has a single trunk with a DBH of 300mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.25. Tree 25. *Syzygium paniculatum*

This semi-mature tree is approximately 5.5m tall with a canopy spread of 3m. It has a single trunk with a DBH of 100mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.26. Tree 26. *Eucalyptus saligna*

This semi-mature tree is approximately 17m tall with a canopy spread of 8m. It has a single trunk with a DBH of 380mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.27. Tree 27. *Eucalyptus saligna*

This semi-mature tree is approximately 6m tall with a canopy spread of 3m. It has a single trunk with a DBH of 100mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.28. Tree 28. *Banksia integrifolia*

This semi-mature tree is approximately 9m tall with a canopy spread of 3m. It has a single trunk with a DBH of 140mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.29. Tree 29. *Banksia integrifolia*

This semi-mature tree is approximately 11m tall with a canopy spread of 3m. It has a single trunk with a DBH of 150mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.30. Tree 30. *Angophora costata*

This semi-mature tree is approximately 13m tall with a canopy spread of 6m. It has a single trunk with a DBH of 220mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.31. Tree 31. *Olea europaea*

This semi-mature tree is approximately 4m tall with a canopy spread of 3m. It has a single trunk with a DBH of 100mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

3.32. Tree 32. *Casuarina spp*

This semi-mature tree is approximately 13m tall with a canopy spread of 6m. It has a single trunk with a DBH of 180mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

4.0 Landscape Significance of Trees

4.1 Landscape Significance

The significance of a tree within the landscape is a factor of the health and condition of the tree, vitality, the form of the tree, environmental, cultural, amenity and heritage value.

4.2 Methodology of Determining Landscape Significance

For the purpose of this report, the Significance of a Tree, Assessment Rating System (STARS) as developed by the Institute of Australian Consulting Arborists (IACA) has been implemented. Please refer to Appendix A for greater detail of this assessment system. This system defines Landscape Significance for individual trees as High, Medium or Low Significance.

4.3 Landscape Significance of Subject Trees

Based on our assessment of the subject trees and implementation of the IACA Significance of a Tree, Assessment Rating System, the Landscape Significance of the Subject Trees was determined as shown in Table 1.

Tree no.	Species	Landscape Significance
1.	*Banksia integrifolia*	High
2.	*Eucalyptus saligna*	High
3.	*Eucalyptus saligna*	High
4.	*Eucalyptus saligna*	High
5.	*Eucalyptus saligna*	Medium
6.	*Glochidion ferdinadii*	Medium
7.	*Angophora costata*	High
8.	*Callistemon viminalis*	Medium
9.	*Angophora costata*	High
10.	*Angophora costata*	High
11.	*Eucalyptus tereticornis*	High

12.	*Callistemon viminalis*	High
13.	*Callistemon viminalis*	Medium
14.	*Callistemon viminalis*	Medium
15.	*Eucalyptus robusta*	High
16.	*Olea europaea*	Low
17.	*Eucalyptus robusta*	High
18.	*Banksia integrifolia*	High
19.	*Eucalyptus saligna*	High
20.	*Banksia integrifolia*	High
21.	*Syzygium paniculatum*	Medium
22.	*Olea europaea*	Low
23.	*Citharexylum spinosum*	Medium
24.	*Eucalyptus saligna*	High
25.	*Syzygium paniculatum*	Medium
26.	*Eucalyptus saligna*	High
27.	*Eucalyptus saligna*	High
28.	*Banksia integrifolia*	High
29.	*Banksia integrifolia*	High
30.	*Angophora costata*	High
31.	*Olea europaea*	Low
32.	*Casuarina spp*	Medium

Table 1 - Landscape Significance

5.0 Subject Tree Retention Value

5.1 Tree Retention Value Methodology

For the purpose of this report, the Tree Retention Values have been assessed by incorporating Landscape Significance Values as determined in 4.0 with the Useful Life Expectancy of the subject trees and assessing the retention values based on the Tree Retention Value Priority Matrix as developed by the Institute of Australian Consulting Arborists (IACA). Please refer to Appendix B for greater detail of this Tree Retention Value Priority Matrix. This matrix defines Landscape Significance for individual trees as High, Medium or Low Retention Value as well as Priority for Removal.

5.2 Retention Value of Subject Trees

Based on our assessment of the subject trees and implementation of the IACA Tree Retention Value Priority Matrix, the Retention Values of the Subject Trees were determined as shown in Table 2.

Tree no.	Species	Retention Value
1.	*Banksia integrifolia*	High
2.	*Eucalyptus saligna*	High

3.	*Eucalyptus saligna*	High
4.	*Eucalyptus saligna*	High
5.	*Eucalyptus saligna*	High
6.	*Glochidion ferdinadii*	Medium
7.	*Angophora costata*	High
8.	*Callistemon viminalis*	Medium
9.	*Angophora costata*	High
10.	*Angophora costata*	High
11.	*Eucalyptus tereticornis*	High
12.	*Callistemon viminalis*	High
13.	*Callistemon viminalis*	Medium
14.	*Callistemon viminalis*	Medium
15.	*Eucalyptus robusta*	High
16.	*Olea europaea*	Low
17.	*Eucalyptus robusta*	High
18.	*Banksia integrifolia*	High
19.	*Eucalyptus saligna*	High
20.	*Banksia integrifolia*	High
21.	*Syzygium paniculatum*	Medium
22.	*Olea europaea*	Low
23.	*Citharexylum spinosum*	Medium
24.	*Eucalyptus saligna*	High
25.	*Syzygium paniculatum*	Medium
26.	*Eucalyptus saligna*	High
27.	*Eucalyptus saligna*	High
28.	*Banksia integrifolia*	High
29.	*Banksia integrifolia*	High
30.	*Angophora costata*	High
31.	*Olea europaea*	Low
32.	*Casuarina spp*	Medium

Table 2 – Tree Retention Value

6.0 Impact of Development

6.1 Tree Protection Zone

Tree Protection Zones (TPZs) have been defined for the subject trees in order to define the encroachment of the proposed development in accordance with *AS4970-2009*. The TPZs required have been taken as a circular area with a radius 12 x the diameter at breast height of the tree. This requirement is in line with Australian Standard AS 4970-2009 Protection of Trees on Development Sites. This standard defines a maximum of 10% encroachment to be minimal encroachment. Any encroachment over 10% requires the site arborist to give consideration as to the viability of the tree due to the proposed development.

Tree no.	Species	TPZ Radius (m)	Encroachment (%)
1.	*Banksia integrifolia*	2	0
2.	*Eucalyptus saligna*	2	0
3.	*Eucalyptus saligna*	3	0
4.	*Eucalyptus saligna*	2.76	0
5.	*Eucalyptus saligna*	2	0
6.	*Glochidion ferdinadii*	2.64	0
7.	*Angophora costata*	2	100
8.	*Callistemon viminalis*	2	100
9.	*Angophora costata*	2	100
10.	*Angophora costata*	2	25
11.	*Eucalyptus tereticornis*	3.12	100
12.	*Callistemon viminalis*	2.4	100
13.	*Callistemon viminalis*	2.4	30
14.	*Callistemon viminalis*	2.4	100
15.	*Eucalyptus robusta*	3.24	0
16.	*Olea europaea*	2.4	0
17.	*Eucalyptus robusta*	3.96	0
18.	*Banksia integrifolia*	2	0
19.	*Eucalyptus saligna*	5.76	0
20.	*Banksia integrifolia*	2	0
21.	*Syzygium paniculatum*	2	0
22.	*Olea europaea*	2	0
23.	*Citharexylum spinosum*	2	0
24.	*Eucalyptus saligna*	3.6	0
25.	*Syzygium paniculatum*	2	0
26.	*Eucalyptus saligna*	4.56	0
27.	*Eucalyptus saligna*	2	0
28.	*Banksia integrifolia*	2	0
29.	*Banksia integrifolia*	2	0
30.	*Angophora costata*	2.64	0
31.	*Olea europaea*	2	0
32.	*Casuarina spp*	2.16	0

6.3 Development Impact

6.3.1. Tree 1. *Banksia integrifolia*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.2. Tree 2. *Eucalyptus saligna*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.3. Tree 3. *Eucalyptus saligna*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.4. Tree 4. *Eucalyptus saligna*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.5. Tree 5. *Eucalyptus saligna*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.6. Tree 6. *Glochidion ferdinadii*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.7. Tree 7. *Angophora costata*

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

6.3.8. Tree 8. *Callistemon viminalis*

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

6.3.9. Tree 9. *Angophora costata*

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

6.3.10. Tree 10. *Angophora costata*

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be encroached by the proposed development by 25% which is significantly greater than the minor encroachment as defined by AS 4970-2009. This tree will not be viable to be retained under the proposed development.

6.3.11. Tree 11. *Eucalyptus tereticornis*

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

6.3.12. Tree 12. *Callistemon viminalis*

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

6.3.13. Tree 13. *Callistemon viminalis*

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be encroached by the proposed development by 30% which is significantly greater than the minor encroachment as defined by AS 4970-2009. This tree will not be viable to be retained under the proposed development.

6.3.14. Tree 14. *Callistemon viminalis*

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

6.3.15. Tree 15. *Eucalyptus robusta*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.16. Tree 16. *Olea europaea*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be

further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.17. Tree 17. *Eucalyptus robusta*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.18. Tree 18. *Banksia integrifolia*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.19. Tree 19. *Eucalyptus saligna*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.20. Tree 20. *Banksia integrifolia*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.21. Tree 21. *Syzygium paniculatum*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.22. Tree 22. *Olea europaea*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.23. Tree 23. *Citharexylum spinosum*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.24. Tree 24. *Eucalyptus saligna*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.25. Tree 25. *Syzygium paniculatum*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.26. Tree 26. *Eucalyptus saligna*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.27. Tree 27. *Eucalyptus saligna*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.28. Tree 28. *Banksia integrifolia*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.29. Tree 29. *Banksia integrifolia*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.30. Tree 30. *Angophora costata*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.31. Tree 31. *Olea europaea*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

6.3.32. Tree 32. *Casuarina spp*

The Tree Protection Zone (TPZ) of this tree in accordance with *AS 4970-2009 Protection of Trees on Development Sites* will not be further encroached by the proposed development. This tree will be viable to be retained under the proposed development.

7.0 Recommendations

The subject trees are in good health and condition with the exception of Tree 5 and are preserved by Section E1 of Warringah Development Control Plan 2011.

Trees 7, 8, 9, 10, 11, 12, 13 and 14 are encroached by the proposed construction and required earthworks by a major encroachment as defined by *AS4970-2009 Protection of Trees on Development Sites.* These trees will not be viable to be retained and are recommended for removal.

All other trees are viable to be retained and are to be protected as defined below.

Recommendations for tree retention or removal are summarised as follows:

Tree no.	Species	Recommendations	Comments
1.	*Banksia integrifolia*	Retain	Viable to be retained and protected.
2.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
3.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
4.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
5.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
6.	*Glochidion ferdinadii*	Retain	Viable to be retained and protected.
7.	*Angophora costata*	Remove	Not viable to be retained due to encroachment by the proposed development.
8.	*Callistemon viminalis*	Remove	Not viable to be retained due to encroachment by the proposed development.
9.	*Angophora costata*	Remove	Not viable to be retained due to encroachment by the proposed development.
10.	*Angophora costata*	Remove	Not viable to be retained due to encroachment by the proposed development.
11.	*Eucalyptus tereticornis*	Remove	Not viable to be retained due to encroachment by the proposed development.
12.	*Callistemon viminalis*	Remove	Not viable to be retained due to encroachment by the proposed development.
13.	*Callistemon viminalis*	Remove	Not viable to be retained due to encroachment by the proposed development.
14.	*Callistemon viminalis*	Remove	Not viable to be retained due to encroachment by the proposed development.
15.	*Eucalyptus robusta*	Retain	Viable to be retained and protected.
16.	*Olea europaea*	Retain	Viable to be retained and protected.
17.	*Eucalyptus robusta*	Retain	Viable to be retained and protected.
18.	*Banksia integrifolia*	Retain	Viable to be retained and protected.

19.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
20.	*Banksia integrifolia*	Retain	Viable to be retained and protected.
21.	*Syzygium paniculatum*	Retain	Viable to be retained and protected.
22.	*Olea europaea*	Retain	Viable to be retained and protected.
23.	*Citharexylum spinosum*	Retain	Viable to be retained and protected.
24.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
25.	*Syzygium paniculatum*	Retain	Viable to be retained and protected.
26.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
27.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.
28.	*Banksia integrifolia*	Retain	Viable to be retained and protected.
29.	*Banksia integrifolia*	Retain	Viable to be retained and protected.
30.	*Angophora costata*	Retain	Viable to be retained and protected.
31.	*Olea europaea*	Retain	Viable to be retained and protected.
32.	*Casuarina spp*	Retain	Viable to be retained and protected.

8.0 Pre-Construction Tree Protection Measures

8.1 General

All tree protection works shall be carried out before excavation, grading and site works commence. Tree protection works shall be inspected and approved by a Consulting Arborist meeting AQF Level 5 prior to construction works commencing.

Storage of materials, mixing of materials, vehicle parking, disposal of liquids, machinery repairs and refueling, site office and sheds, and the lighting of fires, stockpiling of soil, rubble or any debris shall not be carried out within the TPZ of existing trees. No backfilling shall occur within the TPZ of existing trees. Trees shall not be removed or lopped unless specific instruction is given in writing by the Superintendent.

8.2 Identification

All trees to be protected shall be clearly identified and all TPZs surveyed.

8.3 Protective Fence

Fencing is to be erected around existing trees to be retained. In addition to this protective fencing within the site, Protective Fencing is to be installed to the full extent of the TPZs within the site. This fencing is to be erected prior to any materials being brought on site or before any site, civil works or construction works commence. The fence shall enclose a sufficient area so as to prevent damage to the TPZ as defined on Appendix D Tree Protection Plan and as defined in 5.1 above. Fence to comprise 1800mm high chain wire mesh fixed to 50mm diameter Galvanised steel posts. Panels should be securely fixed top and bottom to avoid separation. No storage of building materials, tools, paint, fuel or contaminants and the like shall occur within the fenced area.

8.4 Mulching

Install mulch to the extent of all tree protection fencing. Use a leaf mulch conforming to AS 4454 which is free of deleterious and extraneous matter such as soil, weeds, sticks and stones and consisting of a minimum of 90% recycled content compliant with

AS 4454 (1999) and AS 4419 (1998). All trees marked as to be removed on the proposed development are to be chipped and reused for this purpose. Place mulch evenly and to a depth of 100mm.

8.5 Signage

Prior to works commencing, tree protection signage is to be attached to each tree protection zone, displayed in a prominent position and the sign repeated at 10 metres intervals or closer where the fence changes direction. Each sign shall contain in a clearly legible form, the following information:
Tree protection zone.

- This fence has been installed to prevent damage to the trees and their growing environment both above and below ground and access is restricted.
- No Access within Tree Protection Zone
- The name, address, and telephone number of the developer.

The name and telephone number of the Site Arborist.

9.0 Site Management Issues

9.1 Soil Compaction

Plant and pedestrian traffic during the construction period will cause significant soil compaction. This will be exacerbated by increased water expected on these soils as result of adjacent construction and weather. Compaction of the soil within the TPZ will reduce the voids between soil peds or particles therefore will reduce the gaseous exchange capacity of the root system which will slow critical metabolic processes such as respiration which produces Adenosine Triphosphate (ATP) which provides energy for the photosynthesis, which in turn provides photosynthates such as glucose. These photosynthates provide the carbohydrates required for tree extension growth, girth expansion, reproduction and pest and disease resistance. No pedestrian or plant access is permissible to the TPZ.

9.2 Site Access

Sufficient access is required to enable efficient construction. It is essential to delineate access zones or corridors which will provide suitable access without damaging the existing trees to be retained or causing compaction to the root zone.

9.3 Excavation within Tree Protection Area

No excavation is to be carried out within the TPZs of retained trees without the permission and supervision of the site arborist (AQF5)

9.4 Possible Contamination / Storage of Materials

The construction site will require the use of many chemicals and materials that are possible contaminants which if not managed will pose a risk to the existing trees. These possible contaminants include fuels, herbicides, solvents and the like. A site specific Environmental Management Plan shall be provided and this specific risk identified and addressed.

10.0 Tree Protection Measures During Construction

10.1 Maintenance of Pre-Construction Tree Protection Measures

The Pre-Construction Tree Protection Measures identified in 5.0 above are to be maintained in good and serviceable condition throughout the construction period.

10.2 Possible Contaminants

Do not store or otherwise place bulk materials and harmful materials under or near trees. Do not place spoil from excavations within the TPZs. Prevent wind-blown materials such as cement from harming trees. All possible contaminants are to be stored in a designated and appropriate area with secure chemical spill measures such as a bund in place.

10.3 Physical Damage

Prevent damage to tree. Do not attach stays, guys and the like to trees. No personnel, plant, machinery or materials are to be allowed within the tree protection fencing.

10.4 Compaction

No filling or compaction shall occur over tree roots zones within tree protection fenced areas. Where construction occurs close to or the TPZ of trees to be retained it shall be necessary to install protection to avoid compaction of the ground surface. This protection is to be planks supported clear of the ground fixed to scaffolding.

10.5 Trenching

No Trenching should be necessary within the TPZs or within tree protection fencing. No further trenching is to be carried out without the approval of the Superintendent. Should any further trenching be required within the TPZs identified, this work is to be carried out by hand and under the supervision of a qualified Arborist.

10.6 Irrigation/Watering

Contractor is to ensure that soil moisture levels are adequately maintained. Apply water at an appropriate rate suitable for the species during periods of little or no rainfall.

10.7 Site Sheds / Amenities/ Storage

Site sheds, site amenities, ablutions and site storage shall be in the area clear of all TPZ. Chemicals and potential contaminants are to be stored appropriately and this storage area is to be enclosed by a chemical spill bund to prevent the potential run off of contaminants in the event of a spillage or accident.

11.0 Environmental / Heritage/ Legislative Considerations

None of the subject trees are identified as threatened species or elements of endangered ecological communities within the Threatened Species Conservation Act 1995.

12.0 References

Mattheck, C. Breloer, K. 1993, The Body Language of Trees: A Handbook for Failure Analysis, 12th Impression 2010 The Stationery Office.
AS4970-2009 Protection of Trees on Development Sites: Standards Australia

13.0 Disclaimer

This Appraisal has been prepared for the exclusive use of the Client and Birds Tree Consultancy.
Birds Tree Consultancy accepts no responsibility for its use by other persons. The Client acknowledges that this Appraisal, and any opinions, advice or recommendations expressed or given in it, are based on the information supplied by the Client and on the data inspections, measurements and analysis carried out or obtained Birds Tree Consultancy and referred to in the Appraisal. The Client should rely on the Appraisal, and on its contents, only to that extent.

Every effort has been made in this report to include, assess and address all defects, structural weaknesses, instabilities and the like of the subject trees. All inspections were made from ground level using only visual means and no intrusive or destructive means of inspection were used. For many structural defects such as decay and inclusions, internal inspection is required by means of resistograph or similar. No such investigation has been made in this case. Trees are living organisms and are subject to failure through a variety of causes not able to be identified by means of this inspection and report.

Appendix A Landscape Significance

IACA Significance of a Tree, Assessment Rating System (STARS) ©
(IACA 2010) ©

In the development of this document IACA acknowledges the contribution and original concept of the Footprint Green Tree Significance & Retention Value Matrix, developed by Footprint Green Pty Ltd in June 2001.

The landscape significance of a tree is an essential criterion to establish the importance that a particular tree may have on a site. However, rating the significance of a tree becomes subjective and difficult to ascertain in a consistent and repetitive fashion due to assessor bias. It is therefore necessary to have a rating system utilising structured qualitative criteria to assist in determining the retention value for a tree. To assist this process all definitions for terms used in the *Tree Significance - Assessment Criteria* and *Tree Retention Value - Priority Matrix*, are taken from the IACA Dictionary for Managing Trees in Urban Environments 2009.

This rating system will assist in the planning processes for proposed works, above and below ground where trees are to be retained on or adjacent a development site. The system uses a scale of *High*, *Medium* and *Low* significance in the landscape. Once the landscape significance of an individual tree has been defined, the retention value can be determined.

Tree Significance - Assessment Criteria

1. High Significance in landscape

- The tree is in good condition and good vigour;
- The tree has a form typical for the species;
- The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age;
- The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register;
- The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity;
- The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values;
- The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa *in situ* - tree is appropriate to the site conditions.

2. Medium Significance in landscape

- The tree is in fair-good condition and good or low vigour;
- The tree has form typical or atypical of the species;
- The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area
- The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street,
- The tree provides a fair contribution to the visual character and amenity of the local area,
- The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa *in situ*.

3. Low Significance in landscape

- The tree is in fair-poor condition and good or low vigour;
- The tree has form atypical of the species;
- The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings,
- The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area,
- The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen,
- The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa *in situ* - tree is inappropriate to the site conditions,
- The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms,
- The tree has a wound or defect that has potential to become structurally unsound.

Environmental Pest / Noxious Weed Species

- The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties,
- The tree is a declared noxious weed by legislation.

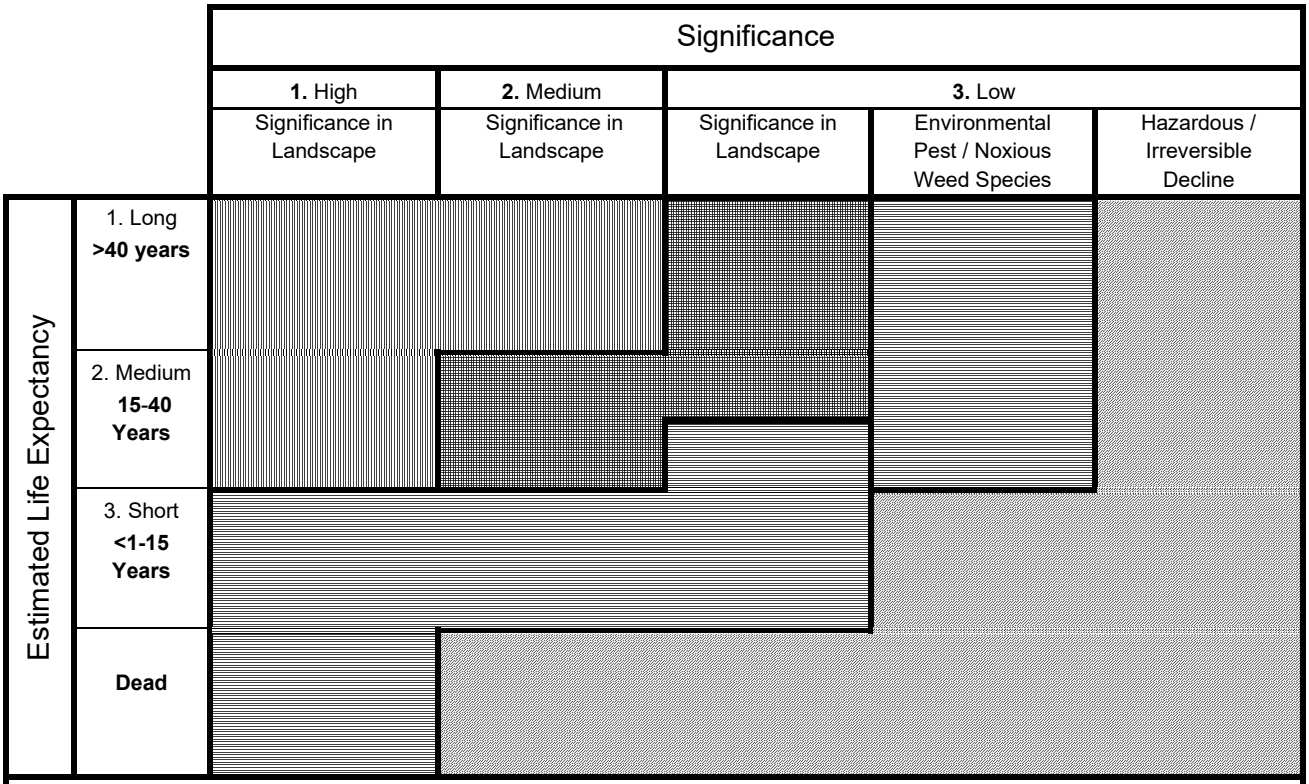
Hazardous/Irreversible Decline

- The tree is structurally unsound and/or unstable and is considered potentially dangerous,
- The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.

The tree is to have a minimum of three (3) criteria in a category to be classified in that group.

Note: The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety e.g. hedge.

Appendix B Tree Retention Values



Legend for Matrix Assessment

INSTITUTE OF AUSTRALIAN CONSULTING ARBORICULTURISTS
IACA
MANAGING URBAN TREES ®

	Priority for Retention (High) - These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by the Australian Standard AS4970 *Protection of trees on development sites*. Tree sensitive construction measures must be implemented e.g. pier and beam etc if works are to proceed within the Tree Protection Zone.
	Consider for Retention (Medium) - These trees may be retained and protected. These are considered less critical; however their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.
	Consider for Removal (Low) - These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.
	Priority for Removal - These trees are considered hazardous, or in irreversible decline, or weeds and should be removed irrespective of development.

REFERENCES

Australia ICOMOS Inc. 1999, *The Burra Charter – The Australian ICOMOS Charter for Places of Cultural Significance*, International Council of Monuments and Sites, www.icomos.org/australia

Draper BD and Richards PA 2009, *Dictionary for Managing Trees in Urban Environments*, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia.

Footprint Green Pty Ltd 2001, *Footprint Green Tree Significance & Retention Value Matrix*, Avalon, NSW Australia, www.footprintgreen.com.au

Appendix C - Tree Inspection Data

Birds Tree Consultancy

Consulting Arborist• Project Management • Horticultural Consultancy • Landscape Management

Inspection Data 11-Jun-20

Dee Why RSL Car Wash

Tree no.	Species	Height (m)	Spread(m)	DBH (mm)	TPZ Radius (m)	Maturity	Trunk (single, twin, multiple @)	Trunk lean	Form/Crown shape	Branching Habit	Crown Distribution	Stability	Branching Structure	Pruning History	Defects	Damage	Overall Health & Vigour	Canopy Density	Foliage	Deadwood	Epicormic Growth	Pest Infestation	Disease	Life expectancy	Env. & Landcape significance	Retention Value	Notes/Comments
1	Banksia integrifolia	5	2	100	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	15-40y	High	High	
2	Eucalyptus saligna	11	4	160	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
3	Eucalyptus saligna	14	9	250	3	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
4	Eucalyptus saligna	11	8	230	2.76	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
5	Eucalyptus saligna	7	4	100	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Damage to cambium	Poor	Sparse	Normal	40%	<5%	No evidence	No evidence	5-15y	Medium	Medium	Significant apical dieback
6	Glochidion ferdinadii	8	4	220	2.64	Mature	Twin @ 1m	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Fair	Thinning	Normal	<5%	<5%	Foliar insect	No evidence	15-40y	Medium	Medium	
7	Angophora costata	7	4	140	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
8	Callistemon viminalis	6	3	80	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	Medium	Medium	
9	Angophora costata	4	2	110	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
10	Angophora costata	7	4	120	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
11	Eucalyptus tereticornis	10	6	260	3.12	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
12	Callistemon viminalis	3	3	200	2.4	Semi-mature	Multiple @ base	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
13	Callistemon viminalis	3	3	200	2.4	Semi-mature	Multiple @ base	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	Medium	Medium	
14	Callistemon viminalis	3	3	200	2.4	Semi-mature	Multiple @ base	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	Medium	Medium	
15	Eucalyptus robusta	14	6	270	3.24	Mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
16	Olea europaea	7	4	200	2.4	Semi-mature	Twin @ base	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
17	Eucalyptus robusta	17	9	330	3.96	Mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
18	Banksia integrifolia	5	3	120	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
19	Eucalyptus saligna	19	9	480	5.76	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
20	Banksia integrifolia	8	4	110	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
21	Syzygium paniculatum	7	4	130	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
22	Olea europaea	6	3	100	2	Semi-mature	Twin @ base	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
23	Fiddlewood	5	2	100	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
24	Eucalyptus saligna	16	9	300	3.6	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
25	Syzygium paniculatum	5.5	3	100	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
26	Eucalyptus saligna	17	8	380	4.56	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
27	Eucalyptus saligna	6	3	100	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
28	Banksia integrifolia	9	3	140	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	15-40y	High	High	
29	Banksia integrifolia	11	3	150	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
30	Angophora costata	13	6	220	2.64	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
31	Olea europaea	4	3	100	2	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	
32	Casuarina spp	13	6	180	2.16	Semi-mature	Single	NIL	Normal	Normal	Balanced	Stable	Stable	No evidence	Nil	Nil	Good	Normal	Normal	<5%	<5%	No evidence	No evidence	40y+	High	High	

Appendix D Tree Location Plans

Legend

- Tree to be Retained and Protected
- Tree to be Removed
- Tree Not Viable to be Retained due to Proposed Development
- Tree Protection Zone (TPZ) in accordance with AS4970-2009

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Project: Dee Why RSL Car Wash
Client: Dee Why RSL
DWG: A01
Plan: Tree Location Plan
Date: 19 Jun 2020 Scale : 1:200 @ A3