

Appendix N

Preliminary Tree Assessment prepared by Eco Logical Australia

Dunmore Street, Pendle Hill – Preliminary Tree Assessment

Fresh Hope Care





DOCUMENT TRACKING

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Template 2.8.1

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Abbreviations

| Abbreviation | Description |
|--------------|-------------------------------------|
| AQF | Australian Qualifications Framework |
| AS | Australian Standards |
| DBH | Diameter at Breast Height |
| ELA | Eco Logical Australia |
| m | Metre |
| mm | Millimetre |
| NDE | Non-Destructive Excavation |
| NO | Number |
| NSW | New South Wales |
| SP | Species |
| SRZ | Structural Root Zone |
| TPZ | Tree Protection Zone |
| VTA | Visual Tree Assessment |

1. Background

1.1 Introduction

Fresh Hope Care are proposing to lodge a planning proposal for a study area at Dunmore Street, Pendle Hill within Cumberland City Council LGA. The study area is approximately 7.3 ha and is currently used as a seniors living facility including Pendle Hill Retirement Village and Ashwood Residential Care Service and contains the historic Dunmore House (built 1936). An ecological constraints assessment prepared by Ecological Australia Ltd Pty (ELA) accompanies this report which assessed the broader ecological values on site (Ecological Constraints Assessment February 2020).

The purpose of this report is to:

- identify the trees within the study area
- assess the current overall health and condition of the subject trees
- evaluate the significance of the subject trees.

1.2 The study area

The site is located at Dunmore Street, Pendle Hill within the Local Government Area of Cumberland Council. The site covers the following lots:

- Lot 1 DP 24728
- Lot 2 DP 24728
- Lot 8 DP 24728
- Lot 9 DP 24728
- Lot 10 DP 24728
- Lot 11 DP 24728
- Lot 12 DP 24728
- Lot 472 DP 1204429
- Lot A DP 33578
- Lot 2 DP 554208
- Lot 3 DP 554208

2. Method

2.1 Definition of a tree

Cumberland Council defines a tree as being:

'Any woody and soft wooded perennial plant' over 3.6 metres in height (12 feet)' (Cumberland Council 2013)

2.2 Visual tree assessment

The subject trees were assessed in accordance with a stage one visual tree assessment (VTA) as formulated by Mattheck and Breloer (1994), and practices consistent with modern arboriculture.

A total of **149** subject trees were inspected on 10 December 2018 and 8 May 2019 by AQF Level 5 Consulting Arborist, Elizabeth Hannon.

The following limitations apply to this methodology:

- Trees were inspected from ground level, without the use of any invasive or diagnostic tools and testing.
- Trees within restricted areas were not subject to a complete visual inspection (i.e. defects and abnormalities may be present but not recorded).
- Trees with adjacent properties were not subject to a visual inspection.
- No aerial inspections or root mapping was undertaken.
- Tree heights, canopy spread and diameter at breast height (DBH) was estimated, unless otherwise stated.
- Tree identification was based on broad taxonomical features present and visible from ground level at the time of inspection.
- Trees of the same species, with similar dimensions growing near each other, have been documented as a group and presented under a single way point.

2.3 Tree retention assessment

This tree retention assessment has been undertaken in accordance with the IACA Significance of a Tree, Assessment Rating System (STARS). This method produces a tree retention rating of high, medium or low based on two factors:

- the significance of the tree
- the life expectancy of the tree.

Further details and assessment criteria are in Appendix B.

2.4 Recording data

Data and information was gathered and recorded using digital data capture. Maps, diagrams and site plans are not to scale (unless otherwise stated) and are to be used as a guide only.

3. Results

Table 1 and Figure 1 show the results of the arboricultural assessment. The key points are:

- **33** trees with a high retention value
- **79** trees with a medium retention value (tree no. 27 is a group of 4)
- **37** trees with a low retention value (tree no. 51 is a group of 7)

Table 1: Results of the arboricultural assessment

| Tree | Botantical Name | Trees in Group | Height (m) | Spread (m) | Health | Structure | Retention Value | DBH (mm) | TPZ (mm) | SRZ (mm) | Notes |
|------|-------------------------|----------------|---------------|---------------|--------|-----------|-----------------|-------------|-------------|-------------|--------|
| 1 | Fraxinus oxycarpa | 1 | 4 | 3 | Fair | Poor | Low | 250 | 3000 | 1800 | Lopped |
| 2 | Fraxinus oxycarpa | 1 | 4 | 3 | Poor | Poor | Low | 300 | 3600 | 2000 | |
| 3 | Callistemon viminalis | 1 | 5 | 7 | Fair | Poor | Low | 400 | 4800 | 2300 | |
| 4 | Callistemon viminalis | 1 | 8 | 7 | Fair | Fair | Medium | 600 | 7200 | 2700 | |
| 5 | Callistemon viminalis | 1 | 3 | 2 | Poor | Poor | Low | 300 | 3600 | 2000 | |
| 6 | Callistemon viminalis | 1 | 4 | 3 | Poor | Poor | Low | 400 | 4800 | 2300 | |
| 7 | Callistemon viminalis | 1 | 7 | 7 | Good | Poor | Medium | 700 | 8400 | 2800 | |
| 8 | Macadamia sp | 1 | 5 | 5 | Good | Poor | Medium | 250 | 3000 | 1800 | |
| 9 | Pinus radiata | 1 | 10 | 12 | Fair | Fair | Medium | 700 | 8400 | 2800 | |
| 10 | Pinus sp. | 1 | 12 | 11 | Good | Fair | Medium | 750 | 9000 | 2900 | |
| 11 | Cinnamomum camphora | 1 | 10 | 9 | Good | Poor | Low | 800 | 9600 | 3000 | |
| 12 | Eucalyptus tereticornis | 1 | 15 | 10 | Good | Good | High | 900 | 11000 | 3200 | Wound |
| 13 | Ficus macrophylla | 1 | 12 | 13 | Good | Good | High | 1500 | 18000 | 3900 | |
| 14 | Eucalyptus microcorys | 1 | 13 | 10 | Good | Fair | Medium | 470 | 5600 | 2400 | |
| 15 | Eucalyptus microcorys | 1 | 12 | 9 | Good | Fair | High | 500 | 6000 | 2500 | |
| 16 | Ficus macrophylla | 1 | 13 | 12 | Fair | Fair | Medium | 1500 | 18000 | 3900 | |
| 17 | Ficus macrophylla | 1 | 12 | 12 | Good | Good | High | 1600 | 19000 | 4000 | |
| 18 | Ficus macrophylla | 1 | 10 | 10 | Good | Good | High | 1400 | 17000 | 3800 | |
| 19 | Triadica sebifera | 1 | 5 | 3 | Good | Fair | Medium | 300 | 3600 | 2000 | |
| 20 | Triadica sebifera | 1 | 4 | 2 | Poor | Poor | Low | 200 | 2400 | 1700 | |
| 21 | Triadica sebifera | 1 | 5 | 4 | Good | Fair | Medium | 300 | 3600 | 2000 | |

| Tree | Botantical Name | Trees in Group | Height (m) | Spread (m) | Health | Structure | Retention Value | DBH (mm) | TPZ (mm) | SRZ (mm) | Notes |
|------|-------------------------|----------------|---------------|---------------|--------|-----------|-----------------|-------------|-------------|-------------|------------|
| 22 | Ficus macrophylla | 1 | 16 | 17 | Good | Good | High | 2500 | 30000 | 4900 | |
| 23 | Ficus sp. | 1 | 7 | 7 | Good | Fair | Medium | 1500 | 18000 | 3900 | |
| 24 | Eucalyptus saligna | 1 | 20 | 15 | Good | Good | High | 1103 | 13000 | 3400 | |
| 25 | Ficus microcarpa | 1 | 12 | 13 | Good | Good | High | 1500 | 18000 | 3900 | |
| 26 | Leptospermum petersonii | 1 | 5 | 4 | Good | Fair | Medium | 300 | 3600 | 2000 | |
| 27 | Callistemon viminalis | 4 | 4 | 3 | Fair | Fair | Medium | 200 | 2400 | 1700 | Group of 4 |
| 28 | Pinus radiata | 1 | 9 | 6 | Good | Fair | Medium | 400 | 4800 | 2300 | |
| 29 | Syncarpia glomulifera | 1 | 8 | 8 | Good | Fair | Medium | 600 | 7200 | 2700 | |
| 30 | Ficus microcarpa | 1 | 9 | 8 | Good | Fair | Medium | 1020 | 12000 | 3300 | |
| 31 | Photinia robusta | 1 | 3 | 3 | Good | Poor | Low | 300 | 3600 | 2000 | |
| 32 | Callistemon viminalis | 1 | 3 | 3 | Good | Fair | Medium | 250 | 3000 | 1800 | |
| 33 | Jacaranda mimosifolia | 1 | 3 | 2 | Poor | Poor | Low | 150 | 2000 | 1500 | |
| 34 | Calodendron capense | 1 | 3 | 2 | Poor | Poor | Low | 100 | 2000 | 1500 | |
| 35 | Corymbia citriodora | 1 | 16 | 17 | Good | Good | High | 830 | 10000 | 3100 | |
| 36 | Ficus microcarpa | 1 | 7 | 6 | Fair | Good | Medium | 500 | 6000 | 2500 | |
| 37 | Podocarpus elatus | 1 | 7 | 5 | Fair | Fair | Medium | 400 | 4800 | 2300 | |
| 38 | Cinnamomum camphora | 1 | 13 | 11 | Poor | Fair | Medium | 800 | 9600 | 3000 | |
| 39 | Lophostemon confertus | 1 | 9 | 8 | Good | Good | High | 600 | 7200 | 2700 | |
| 40 | Ficus microcarpa | 1 | 7 | 7 | Good | Good | High | 720 | 8600 | 2900 | |
| 41 | Fraxinus griffithii | 1 | 5 | 5 | Good | Fair | Medium | 350 | 4200 | 2100 | |
| 42 | Angophora floribunda | 1 | 8 | 2 | Good | Poor | Low | 200 | 2400 | 1700 | |
| 43 | Angophora floribunda | 1 | 10 | 4 | Good | Fair | Medium | 300 | 3600 | 2000 | |

| Tree | Botantical Name | Trees in Group | Height (m) | Spread (m) | Health | Structure | Retention Value | DBH (mm) | TPZ (mm) | SRZ (mm) | Notes |
|------|-------------------------|----------------|---------------|---------------|--------|-----------|-----------------|-------------|-------------|-------------|------------|
| 44 | Fraxinus griffithii | 1 | 6 | 5 | Good | Fair | Medium | 300 | 3600 | 2000 | |
| 45 | Angophora floribunda | 1 | 11 | 6 | Good | Fair | Medium | 600 | 7200 | 2700 | |
| 46 | Angophora floribunda | 1 | 6 | 4 | Fair | Fair | Medium | 500 | 6000 | 2500 | |
| 47 | Angophora floribunda | 1 | 11 | 12 | Good | Fair | Medium | 500 | 6000 | 2500 | |
| 48 | Angophora floribunda | 1 | 10 | 6 | Good | Fair | Medium | 450 | 5400 | 2400 | |
| 49 | Angophora floribunda | 1 | 12 | 6 | Fair | Fair | Medium | 550 | 6600 | 2600 | |
| 50 | Angophora floribunda | 1 | 11 | 7 | Good | Fair | Medium | 650 | 7800 | 2800 | |
| 51 | Cinnamomum camphora | 7 | 7 | 4 | Poor | Poor | Low | 200 | 2400 | 1700 | Group of 7 |
| 52 | Corymbia maculata | 1 | 8 | 4 | Good | Fair | Medium | 350 | 4200 | 2100 | |
| 53 | Eucalyptus punctata | 1 | 17 | 12 | Good | Good | High | 820 | 9800 | 3000 | |
| 54 | Eucalyptus punctata | 1 | 12 | 7 | Poor | Poor | Low | 600 | 7200 | 2700 | |
| 55 | Eucalyptus punctata | 1 | 18 | 15 | Good | Good | High | 900 | 11000 | 3200 | |
| 56 | Corymbia maculata | 1 | 10 | 5 | Good | Fair | Medium | 400 | 4800 | 2300 | |
| 57 | Melaleuca quinquenervia | 1 | 6 | 3 | Poor | Fair | Low | 300 | 3600 | 2000 | |
| 58 | Ficus superba | 1 | 8 | 11 | Good | Good | High | 2010 | 24000 | 4400 | |
| 59 | Melaleuca armillaris | 1 | 6 | 5 | Poor | Fair | Low | 350 | 4200 | 2100 | |
| 60 | Corymbia citriodora | 1 | 12 | 10 | Fair | Good | Medium | 450 | 5400 | 2400 | |
| 61 | Ficus macrophylla | 1 | 5 | 4 | Fair | Fair | Medium | 500 | 6000 | 2500 | |
| 62 | Araucaria bidwillii | 1 | 16 | 7 | Good | Good | High | 900 | 11000 | 3200 | |
| 63 | Ficus macrophylla | 1 | 6 | 6 | Poor | Poor | Low | 500 | 6000 | 2500 | |
| 64 | Araucaria heterophylla | 1 | 16 | 7 | Good | Fair | Medium | 600 | 7200 | 2700 | |
| 65 | Chamaecyparis sp. | 1 | 8 | 6 | Fair | Fair | Medium | 400 | 4800 | 2300 | |

| Tree | Botantical Name | Trees in Group | Height (m) | Spread (m) | Health | Structure | Retention Value | DBH (mm) | TPZ (mm) | SRZ (mm) | Notes |
|------|------------------------|----------------|---------------|---------------|--------|-----------|-----------------|-------------|-------------|-------------|----------|
| 66 | Ficus microcarpa | 1 | 10 | 11 | Fair | Fair | Medium | 1000 | 12000 | 3300 | |
| 67 | Araucaria heterophylla | 1 | 16 | 11 | Poor | Fair | Medium | 920 | 11000 | 3200 | |
| 68 | Grevillea robusta | 1 | 10 | 6 | Poor | Poor | Low | 470 | 5600 | 2400 | |
| 69 | Ficus macrophylla | 1 | 7 | 5 | Fair | Poor | Low | 400 | 4800 | 2300 | |
| 70 | Cupressus sp. | 1 | 11 | 5 | Good | Fair | Medium | 600 | 7200 | 2700 | |
| 71 | Angophora floribunda | 1 | 9 | 4 | Fair | Fair | Medium | 300 | 3600 | 2000 | |
| 72 | Eucalyptus punctata | 1 | 15 | 10 | Fair | Fair | Medium | 850 | 10000 | 3100 | |
| 73 | Corymbia maculata | 1 | 15 | 7 | Good | Fair | Medium | 400 | 4800 | 2300 | |
| 74 | Eucalyptus punctata | 1 | 15 | 11 | Poor | Fair | Low | 750 | 9000 | 2900 | |
| 75 | Corymbia maculata | 1 | 8 | 5 | Poor | Poor | Low | 300 | 3600 | 2000 | |
| 76 | Corymbia maculata | 1 | 16 | 7 | Good | Good | High | 400 | 4800 | 2300 | |
| 77 | Eucalyptus punctata | 1 | 18 | 11 | Good | Fair | Medium | 950 | 11000 | 3200 | |
| 78 | Eucalyptus punctata | 1 | 16 | 14 | Good | Good | High | 840 | 10000 | 3100 | |
| 79 | Eucalyptus punctata | 1 | 18 | 11 | Good | Good | High | 840 | 10000 | 3100 | |
| 80 | Eucalyptus punctata | 1 | 12 | 8 | Good | Good | High | 600 | 7200 | 2700 | |
| 81 | Eucalyptus punctata | 1 | 15 | 11 | Fair | Good | Medium | 800 | 9600 | 3000 | |
| 82 | Eucalyptus punctata | 1 | 9 | 4 | Poor | Poor | Low | 200 | 2400 | 1700 | |
| 83 | Corymbia maculata | 1 | 11 | 6 | Good | Good | High | 450 | 5400 | 2400 | |
| 84 | Eucalyptus punctata | 1 | 12 | 7 | Fair | Fair | Medium | 900 | 11000 | 3200 | Snap out |
| 85 | Lophostemon confertus | 1 | 8 | 5 | Fair | Poor | Low | 500 | 6000 | 2500 | |
| 86 | Eucalyptus punctata | 1 | 18 | 12 | Good | Good | High | 650 | 7800 | 2800 | |
| 87 | Lophostemon confertus | 1 | 7 | 5 | Good | Fair | Medium | 450 | 5400 | 2400 | |

| Tree | Botantical Name | Trees in Group | Height (m) | Spread (m) | Health | Structure | Retention Value | DBH (mm) | TPZ (mm) | SRZ (mm) | Notes |
|------|-------------------------|----------------|---------------|---------------|--------|-----------|-----------------|-------------|-------------|-------------|-------|
| 88 | Eucalyptus sideroxylon | 1 | 11 | 5 | Poor | Poor | Low | 400 | 4800 | 2300 | |
| 89 | Lophostemon confertus | 1 | 6 | 5 | Fair | Fair | Medium | 450 | 5400 | 2400 | |
| 90 | Eucalyptus nicholii | 1 | 7 | 5 | Poor | Poor | Low | 400 | 4800 | 2300 | |
| 91 | Eucalyptus sideroxylon | 1 | 8 | 7 | Good | Fair | Medium | 500 | 6000 | 2500 | |
| 92 | Eucalyptus sideroxylon | 1 | 8 | 5 | Good | Fair | Medium | 600 | 7200 | 2700 | |
| 93 | Syncarpia glomulifera | 1 | 7 | 5 | Good | Good | High | 650 | 7800 | 2800 | |
| 94 | Eucalyptus moluccana | 1 | 11 | 6 | Good | Fair | Medium | 500 | 6000 | 2500 | |
| 95 | Eucalyptus tereticornis | 1 | 17 | 9 | Good | Fair | Medium | 800 | 9600 | 3000 | |
| 96 | Eucalyptus moluccana | 1 | 18 | 9 | Good | Good | High | 700 | 8400 | 2800 | |
| 97 | Eucalyptus moluccana | 1 | 9 | 7 | Fair | Fair | Medium | 560 | 6700 | 2600 | |
| 98 | Eucalyptus moluccana | 1 | 18 | 12 | Good | Good | High | 850 | 10000 | 3100 | |
| 99 | Eucalyptus moluccana | 1 | 12 | 6 | Good | Fair | Medium | 500 | 6000 | 2500 | |
| 100 | Eucalyptus moluccana | 1 | 18 | 7 | Good | Good | High | 709 | 8500 | 2900 | |
| 101 | Eucalyptus moluccana | 1 | 18 | 11 | Good | Good | High | 700 | 8400 | 2800 | |
| 102 | Ficus macrophylla | 1 | 9 | 10 | Good | Good | High | 800 | 9600 | 3000 | |
| 103 | Eucalyptus nicholii | 1 | 11 | 9 | Poor | Poor | Low | 850 | 10000 | 3100 | |
| 104 | Quercus robur | 1 | 4 | 6 | Poor | Poor | Low | 600 | 7200 | 2700 | |
| 105 | Triadica sebifera | 1 | 7 | 7 | Good | Good | Medium | 800 | 9600 | 3000 | |
| 106 | Liquidambar styraciflua | 1 | 5 | 5 | Good | Fair | Medium | 400 | 4800 | 2300 | |
| 107 | Lophostemon confertus | 1 | 11 | 7 | Good | Good | High | 650 | 7800 | 2800 | |
| 108 | Eucalyptus moluccana | 1 | 16 | 11 | Good | Good | High | 900 | 11000 | 3200 | |
| 109 | Eucalyptus moluccana | 1 | 18 | 12 | Good | Good | High | 900 | 11000 | 3200 | |

| Tree | Botantical Name | Trees in Group | Height (m) | Spread (m) | Health | Structure | Retention Value | DBH (mm) | TPZ (mm) | SRZ (mm) | Notes |
|------|--------------------------|----------------|---------------|---------------|--------|-----------|-----------------|-------------|-------------|-------------|-------|
| 110 | Melaleuca quinquenervia | 1 | 6 | 6 | Good | Good | High | 400 | 4800 | 2300 | |
| 111 | Schinus areira | 1 | 7 | 7 | Good | Fair | Medium | 1000 | 12000 | 3300 | |
| 112 | Jacaranda mimosifolia | 1 | 7 | 4 | Good | Fair | Medium | 350 | 4200 | 2100 | |
| 113 | Jacaranda mimosifolia | 1 | 7 | 7 | Fair | Fair | Medium | 500 | 6000 | 2500 | |
| 114 | Eucalyptus robusta | 1 | 6 | 5 | Good | Fair | Medium | 350 | 4200 | 2100 | |
| 115 | Jacaranda mimosifolia | 1 | 9 | 9 | Good | Fair | Medium | 600 | 7200 | 2700 | |
| 116 | Jacaranda mimosifolia | 1 | 9 | 9 | Poor | Poor | Low | 600 | 7200 | 2700 | |
| 117 | Brachychiton acerifolius | 1 | 12 | 6 | Good | Good | High | 600 | 7200 | 2700 | |
| 118 | Jacaranda mimosifolia | 1 | 12 | 9 | Fair | Fair | Medium | 500 | 6000 | 2500 | |
| 119 | Jacaranda mimosifolia | 1 | 10 | 10 | Good | Good | High | 550 | 6600 | 2600 | |
| 120 | Jacaranda mimosifolia | 1 | 7 | 6 | Poor | Fair | Low | 400 | 4800 | 2300 | |
| 121 | Callistemon viminalis | 1 | 6 | 5 | Good | Fair | Medium | 400 | 4800 | 2300 | |
| 122 | Leptospermum petersonii | 1 | 5 | 5 | Good | Good | Medium | 400 | 4800 | 2300 | |
| 123 | Brachychiton acerifolius | 1 | 9 | 6 | Good | Fair | Medium | 400 | 4800 | 2300 | |
| 124 | Lophostemon confertus | 1 | 6 | 5 | Good | Fair | Medium | 450 | 5400 | 2400 | |
| 125 | Eucalyptus punctata | 1 | 11 | 5 | Good | Fair | Medium | 550 | 6600 | 2600 | |
| 126 | Eucalyptus punctata | 1 | 12 | 5 | Good | Fair | Medium | 450 | 5400 | 2400 | |
| 127 | Elaeocarpus reticulatus | 1 | 4 | 3 | Good | Fair | Medium | 100 | 2000 | 1500 | |
| 128 | Elaeocarpus reticulatus | 1 | 4 | 2 | Good | Fair | Medium | 100 | 2000 | 1500 | |
| 129 | Elaeocarpus reticulatus | 1 | 4 | 2 | Good | Fair | Medium | 100 | 2000 | 1500 | |
| 130 | Melaleuca linariifolia | 1 | 6 | 5 | Good | Fair | Medium | 340 | 4100 | 2100 | |
| 131 | Melaleuca linariifolia | 1 | 4 | 3 | Fair | Fair | Medium | 300 | 3600 | 2000 | |

| Tree | Botantical Name | Trees in Group | Height (m) | Spread (m) | Health | Structure | Retention Value | DBH (mm) | TPZ (mm) | SRZ (mm) | Notes |
|------|-------------------------|----------------|---------------|---------------|--------|-----------|-----------------|-------------|-------------|-------------|-------------------|
| 132 | Melaleuca linariifolia | 1 | 5 | 3 | Good | Fair | Medium | 300 | 3600 | 2000 | |
| 133 | Melaleuca quinquenervia | 1 | 5 | 3 | Fair | Fair | Medium | 340 | 4100 | 2100 | |
| 134 | Angophora costata | 1 | 6 | 5 | Good | Fair | Medium | 400 | 4800 | 2300 | |
| 135 | Liquidambar styraciflua | 1 | 5 | 4 | Good | Fair | Medium | 300 | 3600 | 2000 | |
| 136 | Angophora costata | 1 | 8 | 5 | Good | Poor | Low | 350 | 4200 | 2100 | Co dominant |
| 137 | Fraxinus griffithii | 1 | 4 | 4 | Good | Fair | Medium | 300 | 3600 | 2000 | |
| 138 | Fraxinus griffithii | 1 | 4 | 4 | Good | Fair | Medium | 200 | 2400 | 1700 | |
| 139 | Prunus spp | 1 | 3 | 2 | Poor | Poor | Low | 250 | 3000 | 1800 | Previously lopped |
| 140 | Prunus spp | 1 | 4 | 2 | Poor | Poor | Low | 300 | 3600 | 2000 | Previously lopped |



Figure 1: Tree retention values (entire assessment area)

4. Conclusion and recommendations

4.1 The subject trees

A total of **33** trees with a high retention value were identified within the study area. Trees with high retention value should be retained and protected wherever possible.

A total of **79** trees with a medium retention value were identified within the study area. Trees that have a medium retention value are considered less critical and should be retained wherever possible, but not seen as a constraint to development.

A total of **37** trees with a low retention value were identified within the study area. Trees of low retention value are of low significance and their removal should not be a constraint to development.

4.2 Further assessment

An arboricultural impact assessment must be prepared if construction works are to be undertaken within the study area where trees are likely to be impacted, including trees on adjoining properties. The construction method and design footprint should protect high and medium retention value trees where possible.

4.3 Tree work

Any pruning to trees is to be carried out by an arborist with a minimum AQF Level 3 qualification in Arboriculture.

All tree work must be in accordance with Australian Standard AS 4373-2007, Pruning of Amenity Trees and the NSW WorkCover Code of Practice for the Amenity Tree Industry (1998).

Permission must be granted from the relevant consent authority, prior to removing or pruning any of the trees.

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6. Project specific references

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Holroyd City Council Local Environmental Plan (LEP) 2013 (Clause 5.9) and Development Control Plan (DCP) 2013 (Part A – Section 4)

Ecological Australia Pty Ltd, 2020. Ecological Constraints Assessment Dunmore Street, Pendle Hill.

Appendix A Tree protection zones

Tree protection zone (TPZ): The TPZ is the optimal combination of crown and root area (as defined by AS 4970-2009) that requires protection during the construction process so that the tree can remain viable. The TPZ is an area that is isolated from the work zone to insure no disturbance or encroachment occurs into this zone. Tree sensitive construction measures must be implemented if works are to proceed within the Tree Protection Zone.

Structural root zone (SRZ): The SRZ is the area of the root system (as defined by AS 4970-2009) used for stability, mechanical support and anchorage of the tree. The SRZ only considers a tree's structural stability, not the area of root zone required for long term viability. Severance of structural roots (>50 mmØ) within the SRZ is generally not recommended as it may lead to the destabilisation and/or decline of the tree.



Appendix B Tree retention assessment method

B1 Tree Significance Assessment Criteria - STARS[©]

| Low | Medium | High |
|--|--|--|
| The tree is in fair-poor condition and/or low vigour. | The tree is in fair to good condition | The tree is in good condition and good vigour |
| The tree has form atypical of the species | The tree has form typical or atypical of the species | The tree has a form typical for the species |
| The tree is not visible or is partly visible from the surrounding properties or obstructed by other vegetation or buildings | 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 | 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 provides a minor contribution or has a negative impact on the visual character and amenity of the local area | prominent as partially obstructed by other vegetation or buildings when viewed from the street | The tree is listed as a heritage item, threatened species or part of an endangered ecological community or |
| The tree is a young specimen which may or may not have reached dimensions to be protected by local | The tree provides a fair contribution to the visual character and amenity of the local area | listed on Council's significant tree register |
| Tree Preservation Orders or similar protection mechanisms and can easily be replaced with a suitable specimen | The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach | The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and |
| The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for | dimensions typical for the taxa in situ | scale and makes a positive contribution to the local amenity. |
| the taxa in situ – tree is inappropriate to the site conditions | | The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or |
| The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar | | community group or has commemorative values. |
| protection mechanisms | | The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach |
| The tree has a wound or defect that has the potential to become structurally unsound. | | dimensions typical for the taxa in situ – tree is appropriate to the site conditions. |
| The tree is an environmental pest species due to its invasiveness or poisonous/allergenic properties. | | |
| The tree is a declared noxious weed by | | |

legislation

| | | Tree significance | | | | |
|------------------------------|-----------------------|-------------------|--------|-----|--|--|
| | | High | Medium | Low | | |
| Useful Life Expectancy | Long >40 years | | | | | |
| | Medium 15-40 years | | | | | |
| | Short <1-15 years | | | | | |
| | Dead | | | | | |

B2 Matrix assessment

Legend:

| Priority for retention (High): Tree considered important so should be retained and protected. Design modification or re-location of structure should be considered to accommodate the setbacks as prescribed by the <i>Australian Standard AS4970 Protection of trees on development sites</i> . Tree sensitive construction measures must be implemented if works are to proceed within the Tree Protection Zone. |
|---|
| Consider for retention (Medium): Tree considered less important, however, retention should remain priority. Removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted. |
| Consider for removal (Low): Tree not considered important for retention, nor requiring special works or design modification to be implemented for their retention. |
| Consider for removal (Low): Tree not considered important for retention, nor requiring special works or design modification to be implemented for their retention. |



