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ARBORICULTURAL ASSESSMENT

GENERIC INSPECTION METHODOLOGY



A1.0 Qualifications

1.0.1 I have based this report on my site observations and the information provided to me. I have over fifteen years' experience in the field of tree management and arboricultural practice. A summary of my relevant qualifications includes:

- Bachelor of Science (Hons) – Plant Ecology - University of NSW
- Bachelor of Science – Botany/Environmental Studies - Tasmania University
- Diploma of Horticulture - Arboriculture - Ryde TAFE
- VALID Tree Risk-Benefit Assessment certified validator
- Quantified Tree Risk Assessment certified advanced practitioner - Lic. No. 4148

A1.1 General

1.1.1 I conducted a survey and basic inspection of the subject trees from the ground. No aerial or climbing inspections, core testing, drilling or ultrasound diagnosis were undertaken. No excavations to determine the location and/or condition of roots were conducted. No plant samples were analysed for formal identification of any pests or disease.

1.1.2 The biological and mechanical features of the trees were assessed for health & vitality, structural condition and defects.

1.1.3 Tree trunk diameter at standard height (DSH) was measured or estimated at 1.4 metres above ground level and rounded to the nearest 0.10 metres. Tree Basal diameter was estimated to be 0.1x greater than the DBH. Tree height was estimated. All distances were taken from the centre of the trunk unless otherwise indicated.

A1.2 Tree Health Assessment

1.2.1 The trees were inspected for external signs of health or disease including; fungal fruiting bodies, insect infestation, epicormic shoots, extent of dieback, mechanical trunk damage and crown foliage condition and density. Physiological vitality was assessed based on shoot initiation and elongation as well as callus and wound/reaction wood response.

1.2.2 The overall health of the trees was rated as follows:

Description	
Good	Good health and vitality - exhibiting minor pest/disease, good extension growth, minor abnormalities in foliage size, colour or density.
Moderate	Moderate health and vitality - containing defects and/or damage that may be able to be remediated to provide an acceptable level of risk.
Poor	Poor health and vitality - exhibiting extensive or untreatable pest/disease, poor extension growth, significant deadwood and dieback, evidence of rapid decline, sparse foliage cover, abnormal foliage colour or size.
Moribund	Tree is in terminal decline, Lacking vitality or vigour
Dead	Tree is dead

A1.3 Tree Structure Assessment

1.3.1 The structure of the trees was assessed by observing their form and growth habit, as modified by the growing environment (aspect, exposure to prevailing winds, competing vegetation, proximity to infrastructure). It was also assessed by inspecting the state of the scaffold (i.e. trunk and major branches) including previous pruning, mechanical wounding, structural defects such as included bark, cavities, cracks, crooked trunk or weak trunk/branch junctions. Any evidence of previous branch failure was also noted. The presence or absence of internal decay/hollowing of specific tree parts was confirmed by changes in resonance along the length of the trunk when knocked with a mallet. Any visual signs of defects, disturbance or mechanical damage to major woody roots, or within the root zone of the tree were also noted.

1.3.2 Trees often contain dead branches, cavities and other structural defects but these were recorded only where they could significantly affect the outcome of the risk assessment, or where there were other management reasons to do so.

1.3.3 The overall structure of the tree was rated as follows:

Description	
Good	Good structure - may contain minor defects and/or damage that can be successfully remediated or do not require treatment with an acceptable level of risk.
Fair	Fair structure - containing defects and/or damage that may be able to be remediated to provide an acceptable level of risk.
Poor	Poor structure - Evidence of instability or contains defects and/or damage which render the tree potentially hazardous/ prone to failure or cannot be successfully remediated.
Dead	Tree is dead

A1.4 Useful Life Expectancy

1.4.1 The ULE is an estimate of the sustainable longevity of the subject tree(s) in its growing environment. The ULE is modified where necessary to take in consideration tree(s) health, structural condition and site suitability. The tree(s) has been allocated one of the following ULE categories (Modified from Barrell, 2001):

- I. Long (>40 years)
- II. Medium (15-40 years)
- III. Short (5-15 years)
- IV. Transient (< 5 years)

The estimated ULE of the subject tree is shown in the Tree Schedule in **Appendix 2**.

A1.5 Conservation Value Assessment

Table 1: Kingborough Council working definition of native tree conservation value set out in Kingborough Council Policy 6.10 “Biodiversity Offset Policy” (version 2.1, November 2023)

Description	Characteristics	Rationale	Biodiversity Value
<i>Eucalyptus globulus</i> or <i>E. ovata</i>	DBH >70cm	Swift parrot foraging habitat	Very high
<i>E. viminalis</i>	DBH >25cm and within or directly adjacent to significant forty-spotted pardalote habitat	Forty-spotted pardalote habitat	Very high
Native trees with known or potential nesting hollows	Hollows present; and/or, DBH > 70cm in dry forests or cleared settings; or, DBH >100cm in wet forests	Habitat for hollow dependent species	Very high
<i>Eucalyptus globulus</i> or <i>E. ovata</i>	DBH >40cm and <70cm	Swift parrot foraging habitat	High
<i>E. viminalis</i>	DBH >25cm and: <ul style="list-style-type: none"> on Bruny Island; or within 5,000m of significant forty-spotted pardalote habitat or within potential forty-spotted pardalote habitat 	Forty-spotted pardalote habitat	High
A species that is listed in the <i>Threatened Species Protection Act 1995</i> or the <i>Environment Protection and Biodiversity Conservation Act 1999 (C'th)</i>	N/A	Listed threatened species	High
Priority species (including <i>Eucalyptus rubida</i>)	DBH >25cm	Meets IUCN criteria for endangered within Kingborough	High

A1.6 Landscape Significance

1.6.1 Landscape Significance was determined by assessing the combination of the cultural, environmental and aesthetic values of the subject tree(s). Whilst these values may be fairly subjective and difficult to assess consistently, some measure is necessary to assist in determining the retention value of each tree. To ensure in a consistent approach, the assessment criteria shown in the table below have been used in this assessment. A rating of Very High, High, Moderate, Low has been allocated to the tree(s)/ tree groups. This provides a relative value of Landscape Significance which may aid in determining tree Retention Value. If the tree(s) can be categorized into more than one value, the higher value has been allocated.

Env/Lscape Significance	Description
Very High	(a) The subject tree is listed as a Heritage Item under the relevant <i>Planning Scheme</i> with a local or state level of significance.
	(b) The subject tree is listed on Council's Significant Tree Register or is considered to meet the criteria for significance assessment of trees and/or landscapes by a suitably qualified professional. The criteria are based on general principles outlined in the Burra Charter and on criteria from the Register of the National Estate.
	(c) The subject tree has been identified by a suitably qualified professional as a species scheduled as a Threatened or Vulnerable Species or forms part of an Endangered Ecological Community associated with the subject site, as defined under the provisions of the <i>Threatened Species Protection Act 1995 (TAS)</i> or the <i>Environmental Protection and Biodiversity Conservation Act 1999</i> .
	(d) The subject tree is a remnant tree, being a tree in existence prior to development of the area
	(e) The subject tree is considered by relevant Council policy &/or <i>Planning Scheme</i> criteria to have "Very High Conservation Value"
High	(f) The subject tree forms part of the curtilage of a Heritage Item with a known or documented association with that item or is a Council tree located within a designated Heritage Precinct Area under the <i>Planning Scheme</i> .
	(g) The subject tree creates a 'sense of place' or is considered 'landmark' tree.
	(h) The subject tree is of local, cultural or historical importance or is widely known.
	(i) The subject tree species is known to provide habitat to a threatened species, is part of a Threatened Native Vegetation Community and/or is considered by relevant Council policy criteria &/or <i>Planning Scheme</i> to have "High Conservation Value"
	(j) The subject tree is an excellent representative of the species in terms of aesthetic value.
	(k) The subject tree is of a size/scale to make a significant contribution to the canopy cover of the locality
	(l) The subject tree is located within in neighbouring private/ council/ government land.
Moderate	(m) The subject tree makes a positive contribution to the visual character or amenity of the area.
	(n) The subject tree provides a specific function such as screening or minimising the scale of a building.
	(o) The subject tree has a known habitat value.
	(p) The subject tree is a good representative of the species in terms of aesthetic value.
	(q) The subject tree is an environmental weed species and/or is Declared Weed under the relevant legislation
	(r) The subject tree makes little or no contribution to the amenity of the locality.
	(s) The subject tree is a poor representative of the species in terms of aesthetic value.
Low	(t) The subject tree is dead, dying or has a high associated risk.

Modified from Moreton (2006)

A1.7 Tree Retention Value

1.7.1 Retention Value was based on the subject tree's Useful Life Expectancy and Landscape Significance. This determination is independent from (while being necessarily informed by) the relevant Planning Scheme and as such ***trees not required to be retained by the Planning Scheme may still be categorised as having a high Retention Value due to their intrinsic landscape qualities and overall contribution to the visual amenity to the local environs.***

1.7.2 Retention Value were modified where necessary to take into consideration the subject tree's health, structural condition and site suitability. ***As a consequence trees that are required to be retained by the Planning Scheme may still be categorised as having a low Retention Value to poor health, structural faults or unacceptable associated risk.***

1.7.3 The subject tree(s) have been allocated one of the following Retention Values:

RV1. PRIORITY FOR RETENTION: These trees are considered important for retention and should be retained and protected if practicable. 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 if works are to proceed within the Tree Protection Zone.

RV2. CONSIDER FOR RETENTION: These trees may be retained and protected. These are considered less critical however, their retention should remain priority with the removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.

RV3. CONSIDER FOR REMOVAL: These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.

RV4. PRIORITY FOR REMOVAL: These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.

ULE	Landscape Significance			
	Very High	High	Moderate	Low
Long: >40 years			RV2	RV3
Medium: 15-40 years	RV1			
Short: 5-15 years	RV2		RV3	RV4
Transient: < 5 years	RV3	RV4		