ARBORIST REPORT

1955 PTTWATER RD,

BAYVIEW

August, 2022

Document Controls

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Prepared For	*Matt Schott*	
Approved By	Michael Dixon Managing Director	Michael Dixon *01/08/2022*

Contents

1 Background

Waratah Eco Works (WEW) have been commissioned by Matthew Schott to prepare an Arborist Report to accompany an application for a tree removal at 1955 Pittwater Rd, Bayview.

The tree is located on the council verge in front of a current development/construction site. Our client has taken over the site from another developer and has needed to change the original design. The hardstand for the fire hydrant will need to be located on the road verge in front of the property as the driveway is not a suitable location. Under the FRNSW and AS 2419.1-2021 requirements for a hardstand, the proposed new placement on the road verge is deemed a suitable location. Clause 7.3.3 of AS 2419.1-2021 requires that the fire hydrant outlets and fire brigade booster connection inlets face the hardstand. Given these requirements the tree on the council verge will be severely impacted upon with further excavation required for the hardstand and hydrant access.

The client has provided the following background information:

1. Email from their fire engineer dated 01/06/2022 advising the hydrant booster assembly face the street as this is a safer option for Fire and Rescue NSW.

2. Email from their fire engineer dated 05/07/2022 advising the clearance requirements for Fire and Rescue NSW and that this needs to be unobstructed.

3. Email from their civil engineer dated 08/07/2022 providing an updated driveway entrance plan with the hydrant booster assembly in the Fire and Rescue NSW compliant location with the relevant clearances and no obstructions.

4. Link below for the original Arborist report & TPZ as the file size is too large. The nominates tree #3 which will be impacted per this design.

https://we.tl/t-EGHXrINCi6

This report provides an arborist assessment of the tree, it's attributes and health and makes recommendations for ongoing management. An onsite site inspection was conducted on the 28th of July 2022.

The assessment has been undertaken by Michael Dixon Director Waratah Eco Works AFQ5, B. App. Science Horticulture, M.Sc. Coastal Resource Management, UPLA Tree Care Cert.

2 Tree Assessment

2.1 Methodology

An on-site inspection was made by the consulting arborist on Thursday the 28th of July to record photographs of the tree, determine key factors listed below, assess values, make recommendations and prepare a Safe Useful Life Expectancy (SULE) assessment of the tree.

The tree assessments were carried out using the Visual Tree Assessment (VTA) method.

The findings of this report are based on the observations and site conditions at the time of inspection.

All of the observations were visual and carried out from ground level only. The accuracy of the assessment of the subject trees structural condition and health is limited to the visibility of the tree at the time of inspection.

No soil or tissue testing was carried out as part of the tree inspection. None of the surrounding surfaces adjacent to trees were lifted or removed during the tree inspections.

Tree identification is based on accessible visual characteristics at the time of inspection. As key identifying features are not always available the accuracy of identification is not guaranteed. Where tree species is unknown, it is indicated with an spp.

2.2 Tree Location

Tree location 1955 Pittwater Rd, Bayview

1 Chiltern Rd, Ingleside NSW 2101 – Ph: 02 9979 3313 Mob: 0402 030 187

3 Definitions

3.1.1 Definition of a tree

The Definition of a tree in this report is consistent with the Northern Beaches Council's definition of a tree as per Part A1,9 of the Pittwater Development Control Plan (2014) being: "A palm or woody perennial plant with a single or multi stem greater than five metres in height"

3.1.2 Significance in the Environment

Trees need to be considered in the overall environment and are subject to specific legislation and planning instruments such as:

- Biodiversity Conservation Act (NSW) 2016
- Biosecurity Act (NSW) 2015, and
- Development Control Codes.
- AS 4970-2009 Protection of Trees on Development sites

Biodiversity Conservation Act (NSW) 2016

The Biodiversity Conservation Act lists in its schedules a number of species, populations or ecological communities that are either endangered or vulnerable. The Act requires biodiversity offsets to be made if an activity or development is going to have a significant effect on species, populations or endangered ecological communities listed in the schedules of the Act. Where identified on or adjacent the site, threatened tree species are considered in this report, however no attempt is made to identify trees as components of threatened ecological communities or populations.

Biosecurity Act (NSW) 2015

The purpose of the Biosecurity Act is to protect the NSW economy, environment and community from the negative impact of pests, diseases and weeds. In NSW, all plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. The Act identifies weed species under 4 categories being:

- Weeds of National Significance;
- National Environmental Alert Weeds;
- Water Weeds;
- Native Plants Considered to be Weeds.

The Act makes provision for Regional Strategic Weed Management Plans which may include additional weed species that can be managed at a regional or local level.

Development Control Codes

There are a number of environmental pest species that commonly cause problems in developed urban areas or readily spread into natural bushland areas. In urban areas, these species can have aggressive root systems and cause damage to built structures or services. Alternatively, some species can be problematic in natural bushland areas degrading habitats and reducing natural

biodiversity. Many of these are recognised by Councils as pest species and are exempt from protection under Council's Development Control Plans (DCP).

AS 4970-2009 Protection of trees on development sites

Provides guidance for arborists, architects, builders, engineers, land managers, landscape architects and contractors, planners, building surveyors, those concerned with the care and protection of trees, and all others interested in integration between trees and construction. It describes the best practices for the planning and protection of trees on development sites. The procedures described are based on plant biology and current best practices as covered in recently published literature.

3.1.3 Landscape Significance

Assessment of a tree's significance in the landscape is generally categorised as either:

- Very High Landscape Significance - prominent from a broad landscape perspective;
- High Landscape Significance - prominent from a neighbourhood perspective;
- Moderate Landscape Significance - prominent from adjacent areas surrounding the site, and
- Low Landscape Significance - prominent from a site perspective only.

3.1.4 Tree Defects and Conditions

3.1.4.1 Bracket Fungus

These wood-decaying fungi produce very distinctive shelf-like fruiting structures or brackets. They are most commonly found on stumps or near the base of living trees, often at the site of an old wound. Wood-decaying fungi can occur on both coniferous and hardwood species.

These fungi degrade the lignin (the strengthening material) components of the wood and lead to reduced wood strength. The decayed areas within the tree may extend 2-3 metres above or below the fruiting bodies. Unless confined by compartmentalization, decay fungi can invade heartwood for considerable vertical distances. Currently, there is no control for wood decaying fungi and once a tree is infected it is only a matter of time before it fails. In the meanwhile the tree can pose a hazard as they are very susceptible to windthrow. Often the only obvious evidence of infection is the presence of brackets.

3.1.4.2 Termites

Termites that build arboreal nests are called *Nasutitermes walkeri* and *Microcerotermes* sp. The arboreal nest is generally connected to another part of the colony in the root crown of the tree. Shelter tubes are characteristic of this species and are often found on the outside of the tree trunk. Subterranean tunnels radiate from the base of the tree to various food sources. These tunnels are usually on the surface or just below the soil level. These termites have mud tunnels to connect from the ground to the upper tree canopy. They can also have a maze of tunnels underground.

Subterranean termites are also very common in Australia and can cause considerable damage to trees.

Termite damage in trees can create weak points in the trunk or branches which can result in failure during storms or high winds. Trees may appear structurally sound on the outside but can have substantial damage to the heartwood causing decay and reduced wood strength.

3.1.4.3 Lightning Strike

Lightning strike in trees can cause substantial structural damage or kill the tree. When lightning strikes, it turns the liquids inside the tree to gas instantly, and the tree bark explodes. Some 50% of trees hit by lightning die immediately. Some of the others become weakened and susceptible to disease. Lightning damage in trees varies widely. Sometimes, a tree splinters or shatters when hit. In other trees, lightning blows off a strip of bark. Still others appear undamaged, yet suffer unseen root injury that will kill them in short order.

4 Tree Assessment

4.1 Tree 1

Date of Inspection	28/07/2022
Tree Species	*Corymbia maculata*
Tree Position	North east boundary of the property
Height (approx.)	19m
TPZ	8.4m
Diameter of tree 1.5m from ground (DBH)	900mm
Canopy Span	111m²
Age Class	50+ years
Crown Class	Canopy
Live Crown Ratio	85%
Special Value	Native tree
Landscape significance	High
SULE rating	3B Removal

4.1.1 Description

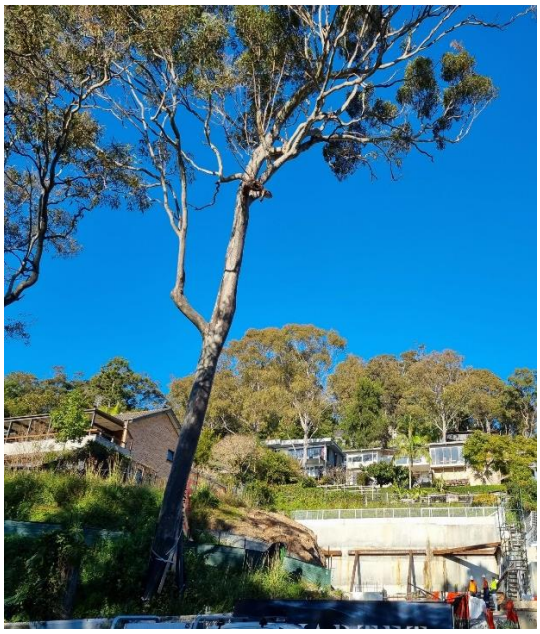
Corymbia maculata, commonly known as Spotted Gum, is a species of medium-sized to tall tree that is endemic to eastern Australia. It typically grows to a height of 45–60 m and forms a lignotuber. *Corymbia maculata* is a widespread species in open forest from near Bega and north along the coast of New South Wales to near Taree. There is a disjunct population near Orbost in Victoria. It often forms dense, pure stands in forest and often grows on moderately infertile soil. It is a common species in the Pittwater area of Sydney's Northern Beaches.

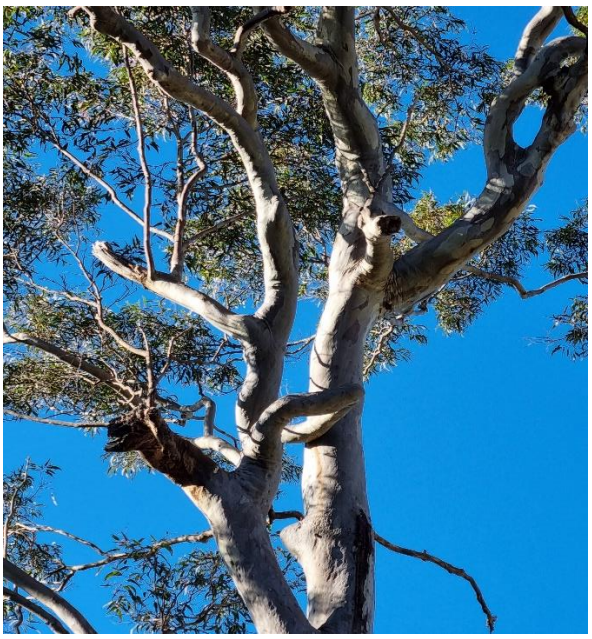
a) Form and Structure

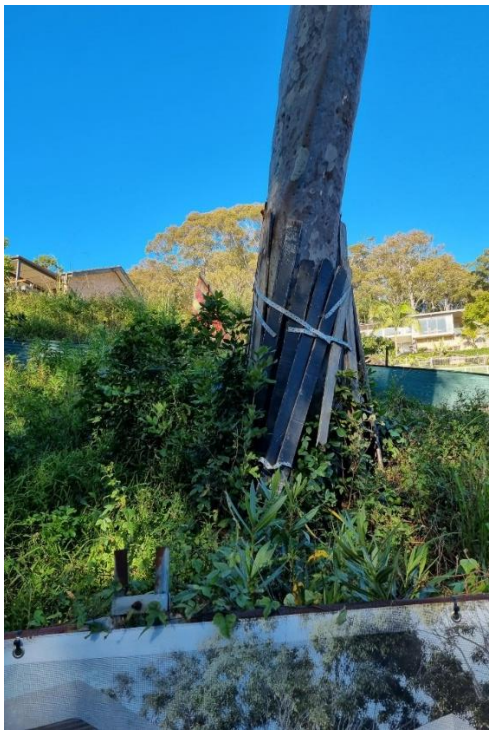
This *Corymbia maculata* is large tree with a single dominant trunk. It has a prominent lean to the north west. Approximately 80% of the canopy is to the North and west of the main trunk giving the tree an unbalanced morphology. There is evidence of historical storm damage resulting in tear outs and crowded branch regrowth in the canopy. The ground around the base of the tree appears to be the original soil profile with recent vegetation clearing evident. The slope on the north and western side of the trunk has been excavated to expose some secondary and feeder roots.

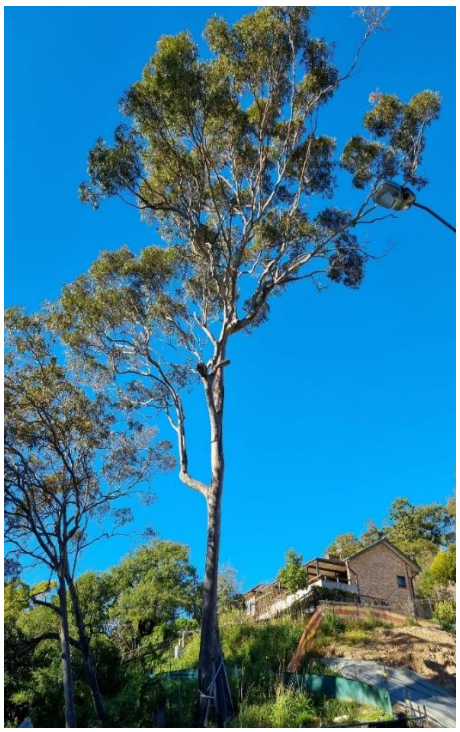
b) Habitat Value -Medium

Several small hollows have formed in this tree due to previous storm damage. The tree could possibly be used by fauna including arboreal mammals and birds.









Corymbia maculata, 1955 Pittwater Rd, Bayview

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5 Recommendations

Given the information provided by the client, there will be further impact on primary, secondary and feeder roots in order to meet FRNSW requirements for the hardstand and hydrant access. It is likely that the tree's stability will be compromised and therefore it is recommended that the tree be removed and replaced by a ratio of 9:1 with locally endemic species (see list below). We recommend that a condition of removal be that the tree is replaced by a minimum of four *Corymbia maculata* as well as a minimum of five species from the list below.

6 Appendix

Recommended replacement species

Trees
Eleocarpus reticulatus
Backhousia myrtifolia
Achronichia oblongifolia
Banksia integrifolia
Acmena smithii
Banksi serrata
Allocasuarina littoralis
Allocasuarina torulosa

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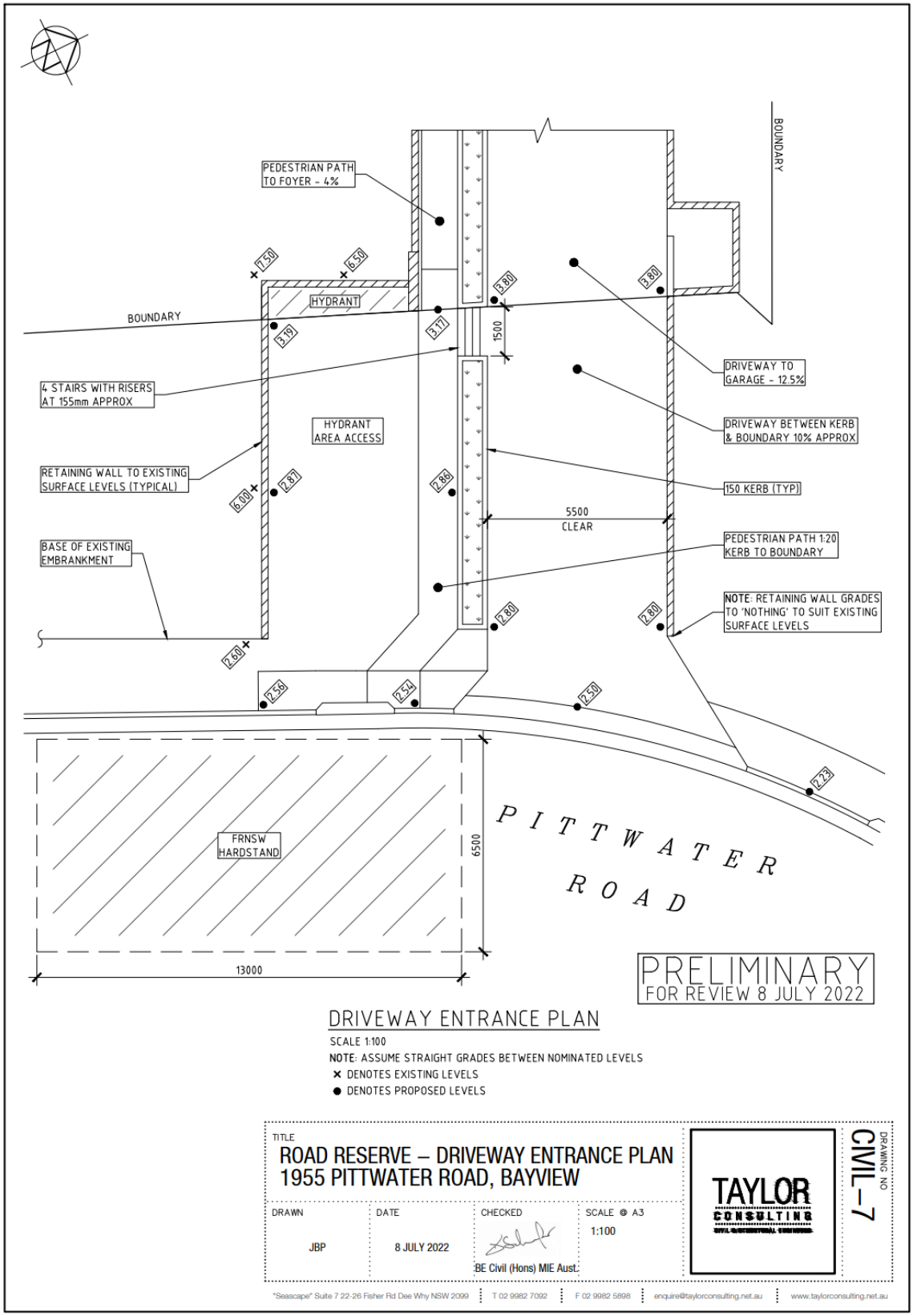
SULE categories

	CATEGORY				
	LONG SULE **1**	**MEDIUM SULE** **2**	**SHORT SULE** **3**	**REMOVAL** **4**	**MOVE/REPLACE** **5**
	Trees that appeared to be retainable at the time of assessment for over 40 years with an acceptable level of risk	Trees that appeared to be retainable at the time of assessment for 15-40 years with an acceptable level of risk	Trees that appeared to be retainable at the time of assessment for 5-15 years with an acceptable level of risk	Trees that should be removed within the next five years	Trees that can be reliably moved or replaced.
Subcategory					
A	Structurally sound trees located in positions that can accommodate future growth	Trees that may live between 15-40 more years	Trees that may only live between 5-15 more years	Dead, dying, suppressed or declining trees because of disease or inhospitable conditions	Small trees less than 5m in height
B	Trees that could be made suitable for retention in the long term by remedial care	Trees that could live for more than 40 years but may be removed for safety or nuisance reasons	Trees that could live for more than 15 years but may be removed for safety or nuisance reasons	Dangerous trees because of instability or recent loss of adjacent trees	Young trees less than 15 years old but over 5m in height
C	Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary effort to secure their long-term retention	Trees that could live for more than 40 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting	Trees that could live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting	Dangerous trees because of structural defects including cavities, decay, included bark, wounds or poor form.	Formal hedges and trees intended for regular pruning to artificially control growth.
D		Trees that can be made suitable for retention in the medium term by remedial tree care	Trees that require substantial remedial care and are only suitable for retention in the short term	Damaged trees that are clearly not safe to retain	
E				Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting	
F				Trees that are damaging or may cause damage to existing structures within 5 years	
G				Trees that will become dangerous after removal of other trees for the reasons given in (A) to (F)	
H				Trees in categories (A) to (G) that have a high wildlife habitat value and with appropriate treatment to be retained subject to regular review.	



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