

APPENDIX I

TREE SURVEY REPORT



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TREE SURVEY REPORT

2 Reddall Street “Warwick Farm”

Produced by William Beck

Date of Completion: 16/06/24

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Overview

On 26/5/24 I inspected the site of 2 Reddall Street “Warwick farm” where I inspected the tree line on the western boundary of the property. There are 263 *Pinus radiata*’s on the fence line with the trees being planted in two separate areas.

State Law:

NSW DPI lists a species found on the property as a weed specimen

- *Rubus fruticosus* (Blackberry)

Method

A ground-based inspection was undertaken on 26/5/24 which included, overall inspection of the tree, sounding and probing where necessarily required. These methods allow myself to:

- Identify the species
- collect the dimensions of the tree and its DBH (Diameter at Breast height 1.4m)
- Collect DARB (Diameter above root buttress) measurements
- Assess the surrounding infrastructure and environment for this specific tree
- Overall health and structure of the tree
- Retention value of the tree

** Tree descriptors are provided in the appendix**

Site descriptions

2 Reddall Street is approximately 27.5 acres with the majority of the western boundary lined with a tree line of *Pinus radiata*'s in two separate groupings. Tree group 1 has 58 trees growing along a 106m span consisting of heavy growth areas of blackberry. Both tree lines are 15m wide and are planted up to 4 trees in wide in areas but are most commonly 3 trees wide.

Tree group 2 consists of 205 trees growing over a 305m span. At the Southern end of the of group 2 there are multiple dead trees with the tree line ending as it goes below the dam. North of the dam are 181 trees that currently display relatively good health. There is some blackberry growing within this tree line specifically near the dam.

Throughout both group 1 and 2 in the middle of the tree lines are dead trees that have been outgrown by surrounding trees, there is approximately 60 dead trees.

Retention value summary

The approximately 60 trees that are dead are of low retention value. All 203 healthy trees that create the tree line are of medium retention value, as they provide certain benefits to the property.

Retention value	amount	Tree number(s)
High	0	
Medium	203	All healthy trees
Low	60	Dead trees

Tree data

Tree health	Tree Identification	Age	DBH (cm)	Height (m)	Width (m)	Health	Structure	Retention Value	U.L.E.	Comments
Dead	Pinus radiata	OM	-	-	-	-	-	L	L	There are multiple mature dead trees, as well as smaller juvenile dead trees that got out grown by surrounding trees
Alive	Pinus radiata	M	Largest = 0.73m Smallest = 0.24	Averaged 15-22m	-	Fair	Fair	M	S	

Site plan



Orange lines represents the 2 tree lines in the boundary.

Site Pictures



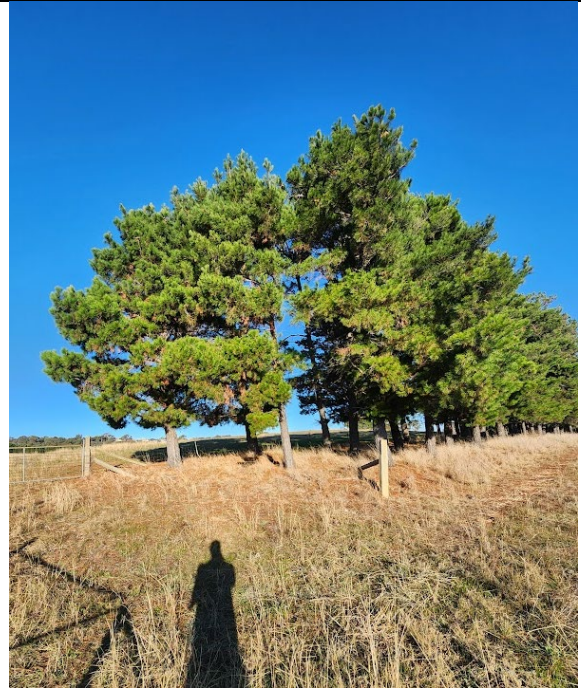
Tree Group 1: Photo direction Southwest.



Tree Group 2: Photo direction Northwest



Tree group 1 width of tree line



Tree group tree width of tree line



Multiple dead pines South of the dam in group 2



Large grouping of Blackberry growing at base of trees

Bibliography and references

Site map: [https://earth.google.com/web/@-](https://earth.google.com/web/@-34.82155497,148.90906296,495.16524291a,784.10903346d,35y,359.99999915h,0t,0r/data=MikKJwolCiExZ0RCa1JQZ3lGSi05OXBSU2ZZRzRNYVBzQ2YwMU1OZl8gAToDCgEw)

[34.82155497,148.90906296,495.16524291a,784.10903346d,35y,359.99999915h,0t,0r/data=MikKJwolCiExZ0RCa1JQZ3lGSi05OXBSU2ZZRzRNYVBzQ2YwMU1OZl8gAToDCgEw](https://earth.google.com/web/@-34.82155497,148.90906296,495.16524291a,784.10903346d,35y,359.99999915h,0t,0r/data=MikKJwolCiExZ0RCa1JQZ3lGSi05OXBSU2ZZRzRNYVBzQ2YwMU1OZl8gAToDCgEw)

<https://weeds.dpi.nsw.gov.au/>

<https://www.soe.epa.nsw.gov.au/all-themes/biodiversity/invasive-species#Table%2015.1>

Tree Photos: Taken by Arborist

Conifers of the world, Author James E. Eckenwander

Tree Descriptors

- **AGE**

Young	Juvenile or recently planted approximately 1-7 years.
Semi Mature	Tree actively growing.
Mature	Tree has reached expected size in situation.
Over Mature	Tree is over mature and has started to decline. (Senescent)

- **HEALTH**

Good	Foliage of tree is entire, with good colour, very little sign of pathogens and of good density. Growth indicators are good i.e. Extension growth of twigs and wound wood development. Minimal or no canopy die back (deadwood).
Fair	Tree is showing one or more of the following symptoms; < 25% dead wood, minor canopy die back, foliage generally with good colour though some imperfections may be present. Minor pathogen damage present, with growth indicators such as leaf size, canopy density and twig extension growth typical for the species in this location.
Poor	Tree is showing one or more of the following symptoms of tree decline; > 25% deadwood, canopy die back is observable, discoloured, or distorted leaves. Pathogens present, stress symptoms are observable as reduced leaf size, extension growth and canopy density.

Dead or dying

Tree is in severe decline; > 55% deadwood, very little foliage, epicormic shoots, minimal extension growth.

- **STRUCTURE**

Good	Trunk and scaffold branches show good taper and attachment with minor or no structural defects. Tree is a good example of the species with a well-developed form showing no obvious root problems or pests and diseases.
Fair	Tree shows some minor structural defects or minor damage to trunk e.g. bark missing, there could be cavities present. Minimal damage to structural roots. Tree could be seen as typical for this species.
Poor	There are major structural defects, damage to trunk or bark missing. Co-dominant stems could be present or poor structure with likely points of failure. Girdling or damaged roots obvious. Tree is structurally problematic.

Hazardous Tree is an immediate hazard with potential to fail, this should be rectified as soon as possible.

- **HAZARD** Hazard is rated into three levels: LOW, MEDIUM, and HIGH.

LOW;	Tree appears to be structurally sound, healthy with no signs of pests or disease, good vigour and is clear of any hazards.
MEDIUM;	Tree displays signs of structural problems, evidence of pests or disease, signs of low vigour, deadwood, decay, may be growing into an area that could create a hazard.
HIGH;	Tree is an immediate hazard with the potential to fail, this should be rectified as soon as possible.

- **RETENTION VALUE** Retention Value is rated into three levels: **LOW, MEDIUM, and HIGH.**

LOW;	Trees that offer little in terms of contributing to the future landscape. Should not be a constraint on development proposals and may be considered for removal.
MEDIUM;	Trees with some beneficial attributes that may benefit the site. Could be considered for retention if possible.
HIGH;	Trees with the potential to positively contribute to the site. Should be considered for retention if possible.

- **TREE PROTECTION ZONES**

The T.P.Z. applied is AS 4970-2009 'Protection of trees on development site'. AS 4970-2009 uses a multiplication method to determine the T.P.Z. based on T.P.Z. radius being 12 times stem diameter measured 1.4 metres above ground.
i.e. T.P.Z. radius = DBH x 12

- **STRUCTURAL ROOT ZONE**

The S.R.Z. applied is **AS 4970-2009 'Protection of trees on development site'**.
The SRZ is the area required for tree stability. A larger area is required to maintain a viable tree.
SRZ radius = $(D \times 50)^{0.42} \times 0.64$