JINDABYNE LANDSCAPING

Arborist Site Inspection Impact Assessment

Client:	Kosciuszko Thredbo, Mr. Euan Diver
Date of inspection	22 Oct 24
Address	Village Green, Friday Drive THREDBO NSW
Arborist completing inspection:	Andrew Downing Senior Arborist Assess Trees at AQF 5, QTRA Licenced User

Brief

A request from Euan Diver was received to inspect two trees located on the edge of the village green and inside the children's playground area for the impact to tree health from proposed storm water trenching work.
The trees were inspected on 2 July 24.
A stage 1, ground based, walk by Visual Tree Assessment (VTA) was performed. ("Visual Tree Assessment" method, as developed by *Mattheck and Breloer 1992*).
No invasive inspection methods were used. No root mapping was performed, and no aerial inspection was undertaken.
All information in this site report covers only the trees inspected and the health and condition of the trees at the time of inspection.
All information and recommendations made in this report are based on visual evidence observed onsite.

Observations

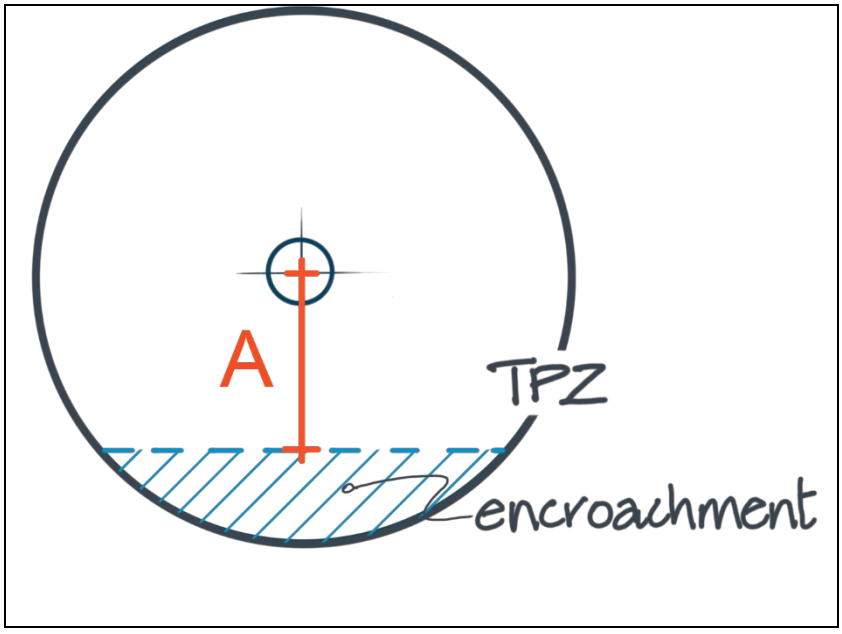
Tree One
Tree Genus-Eucalyptus sp.
Height: 17m.
DBH: 80cm x 2 stems
Trunk Diameter at ground level: 146.5cm
Age: Mature
Comments: The tree vitality is good with large co dominant stems and healthy florescence. It has a large spreading canopy approx. 25m x 16m and over hangs the playground area. The tree provides excellent shade to the under storey and playground area.
There is minor dead wood evident which is typical for the tree species.

Tree Two
Tree Genus- Eucalyptus species.
Height: 11m.
DBH: 70cm
Trunk Diameter at ground level: 79.5cm
Age: Mature
Comments: The tree vitality is average. It has a medium spreading canopy approx. 8m x 5m and overhangs the playground area. The tree provides excellent shade to the playground area.
There is dead wood >50mm diameter evident and minor decline over all.

Impact Assessment
There are proposed trenching works planned to upgrade the storm water service from the village green that will be directed between the two trees and approx. 6m from both trunk bases. See attached image. Any encroachment by trenching into the Tree Protection Zone (TPZ) that will cause damage to tree roots will have a negative impact on tree health and should be avoided. While a ten percent encroachment is permissible anything above this should be avoided. Any encroachment over thirty percent can cause partial decline or whole tree death. Encroachment into the Structural Root Zone (SRZ) will cause instability and can lead to whole tree failure and risk of harm to any users of the target areas beneath the tree.

Tree 1. TPZ and SRZ Calculation Table	
Distance (m) for minor encroachment (10%)	9.3
Distance (m) of trench line from trunk centre	3.0
TPZ radius (m)	13.6
SRZ radius (m)	1.5
TPZ area (m^2)	578.7
Encroachment area (m^2)	208.6
Encroachment (%)	36.0

Tree 2. TPZ and SRZ Calculation Table	
Distance (m) for minor encroachment (10%)	5.8
Distance (m) of trench line from Trunk Centre	3.5
TPZ radius (m)	8.4
SRZ radius (m)	3.0
TPZ area (m^2)	221.7
Encroachment area (m^2)	53.8
Encroachment (%)	24.3



Typical TPZ and 10% encroachment detail

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Recommendations

The proposed line of excavation through the TPZ of both trees exceeds the permissible encroachment allowance of 10 percent.

A solution to this should include planning for minimal impact excavation techniques such as Hydraulic Vacuum Excavation using high pressure water to cut through soil and vacuum suction to remove liquid debris or careful hand excavation. Any tree roots encountered must be avoided and left undamaged. Minor roots less than 20mm diameter may be cleanly cut using loppers or a hand saw.

Backfilling of trenches post works should be done using washed river sand and watered in to ensure any air pockets are completely filled.

The area beneath the trees and inside the TPZ should be mulched with organic mulch to a depth of 100-150mm.

If any change are noticed in a tree's structure, health, or soil condition beneath, then an Arborist inspection should be performed, and action implemented as recommended.

Any recommendations in this report will not ensure that trees are safe but will lower the risk of harm from tree failure to a tolerable or broadly acceptable level of risk and as low as reasonably practicable.

For any further information or discussion please contact me on mobile 0412-633259.

Andrew Downing
Senior Arborist

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Trees 1 and 2

Proposed Trench

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