JINDABYNE LANDSCAPING

Arborist Site Inspection Impact Assessment

Client:	Kosciuszko Thredbo, Euan Diver
Date of inspection	28/01/25
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 six 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, fence relocation work and paving and log slalom course construction.

The trees were inspected on 28January 2025 for encroachment for proposed works into the Tree Protection Zone (TPZ) and Structural Root Zones (SRZ) of the trees.

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 on site.

Department of Planning
Housing and Infrastructure

Issued under the Environmental Planning and Assessment Act 1979

Approved Section 4.55 (1A) Modification Application

No 24/14675 MOD 2 granted on the 19 June 2025

In respect to DA 6877

Signed G Hanna

Sheet No 29 of 38

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.

There will be encroachment into the TPZ and SRZ from proposed trenching and fence relocation work. (See tables below).

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 over hangs the playground area. The tree provides excellent shade to the playground area.

There is dead wood >50mm diameter evident and minor decline over all.

There will be encroachment into the TPZ and SRZ from proposed trenching and fence relocation work. (See tables below).

Tree Three
Tree Genus- Eucalyptus species.
Height: 20m.
DBH: Stem 1.- 67.5cm. Stem 2.- 95cm
Trunk Diameter at ground level: NA
Age: Mature
Comments: The tree vitality is average with a crown spread of approx. 10m. There will be no encroachment into the TPZ or SRZ from proposed works.

Tree Four
Tree Genus- Eucalyptus species.
Height: 20m.
DBH: Stem 1.- 51cm. Stem 2 - 57cm, Stem 3.-110cm
Trunk Diameter at ground level: NA
Age: Mature
Comments: The tree vitality is average with a crown spread of approx. 11m. There will be no encroachment into the TPZ or SRZ from proposed works.

Tree Five
Tree Genus- Eucalyptus species.
Height: 20m.
DBH: Stem 1.- 110cm. Stem 2.- 120cm
Trunk Diameter at ground level: NA
Age: Mature
Comments: The tree vitality is average with a crown spread of approx. 14m. There will be no encroachment into the TPZ or SRZ from proposed works.

Tree Six
Tree Genus- Eucalyptus species.
Height: 12m.
DBH: Stem 1.- 24cm. Stem 2.- 24cm, Stem 3.- 36cm, Stem 4.- 20cm,
Trunk Diameter at ground level: NA
Age: Mature
Comments: The tree vitality is good with a crown spread of approx. 10m. There will be no encroachment into the TPZ or SRZ from proposed works.

Impact Assessment

There are proposed trenching works planned to upgrade the storm water service from the village green that will be directed between trees one and two and approx. 6m from both trunk bases. There is also a fence to be relocated within the TPZ and SRZ of trees one and two.
See attached image.
Any encroachment by mechanical 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 will cause instability and can lead to whole tree failure and risk of harm to any users of the target areas beneath the tree.
A planned log slalom course will also encroach into the TPZ of tree 1. (See concept Plan)
This encroachment is 10 percent and is a permissible encroachment.

Tree 1. TPZ and SRZ Trenching 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 (m²)	578.7
Encroachment area (m²)	208.6
Encroachment (%)	36.0

Tree 1. TPZ Encroachment Calculation for Log Slalom Course	
Distance (m) of trench line from Trunk Centre	6.6
TPZ radius (m)	9.6
SRZ radius (m)	3.2
TPZ area (m²)	289
Encroachment area (m²)	28.9
Encroachment (%)	10

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 (m²)	221.7
Encroachment area (m²)	53.8
Encroachment (%)	24.3

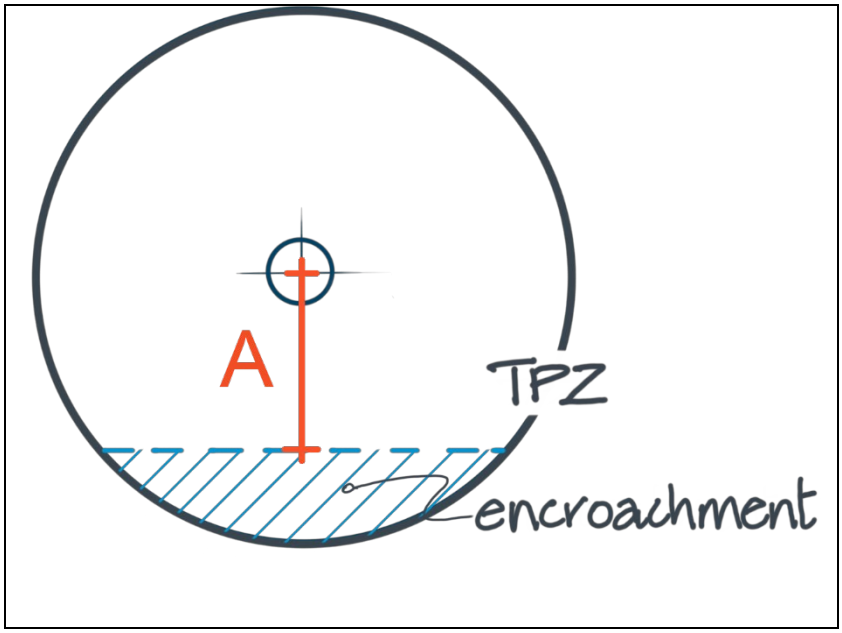
Tree 3. TPZ and SRZ Calculation Table	
Encroachment area (m²)	Nil

Tree 4. TPZ and SRZ Calculation Table	
Encroachment area (m²)	Nil

Tree 5. TPZ and SRZ Calculation Table	
Encroachment area (m²)	Nil

Tree 6. TPZ and SRZ Calculation Table	
Encroachment area (m²)	Nil

Lot 4 Sturgeon St. Jindabyne NSW 2627 Tel. 02 64571673 Mob. 0412633259
e.andrew@jindabynelandscaping.com.au



Typical TPZ and 10% encroachment detail

Recommendations

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

A solution to this should include planning for minimal impact excavation techniques such as Hydraulic Vacscavation 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 proposed Log Slalom course must be redesigned so the line of encroachment does not come closer than 6.6m from the centre of the main trunk to minimise the encroachment area to 10% or less. The footing detail for the logs should be bored footings which will aid in avoiding continuous disturbance with in the TPZ and limiting damage to sub soil roots.

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

If any change is 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 0412633259.

Andrew Downing
Senior Arborist

Lot 4 Sturgeon St. Jindabyne NSW 2627 Tel. 02 64571673 Mob. 0412633259
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Image 1. Trees 1 and 2

Image 2. Tree Three

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Image 3. Tree Four

Image 4. Tree Five

Image 5. Tree Six

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Image 6. Tree Locations

Image 7. Proposed New Features

Image 8. Proposed fence re-alignment