

PROPOSED VEGETATION MANAGMENT - MAP 4

Collingwood Beach Dune Vegetation Management Plan

Proposed management zones

- Zone 2 - Up to 70% cover of trees and tall shrubs
- Zone 3 - Up to 70% cover of trees and tall shrubs and under-prune tall trees
- Zone 4 - Under-prune mature trees and remove tall shrubs
- Zone 5 - Prune trees and tall shrubs to 1.5m high
- Zone 6 - Protection of incipient foredune vegetation

- Lot boundaries
- Foliage cover assessment methodology
- Photopoints (additional to foliage cover assessment)
- Stars: Trees to be retained in Zone 5
- Triangles: Norfolk Island Pines to under-prune in Zone 3
- Crosses: Recommended Eucalypt planting

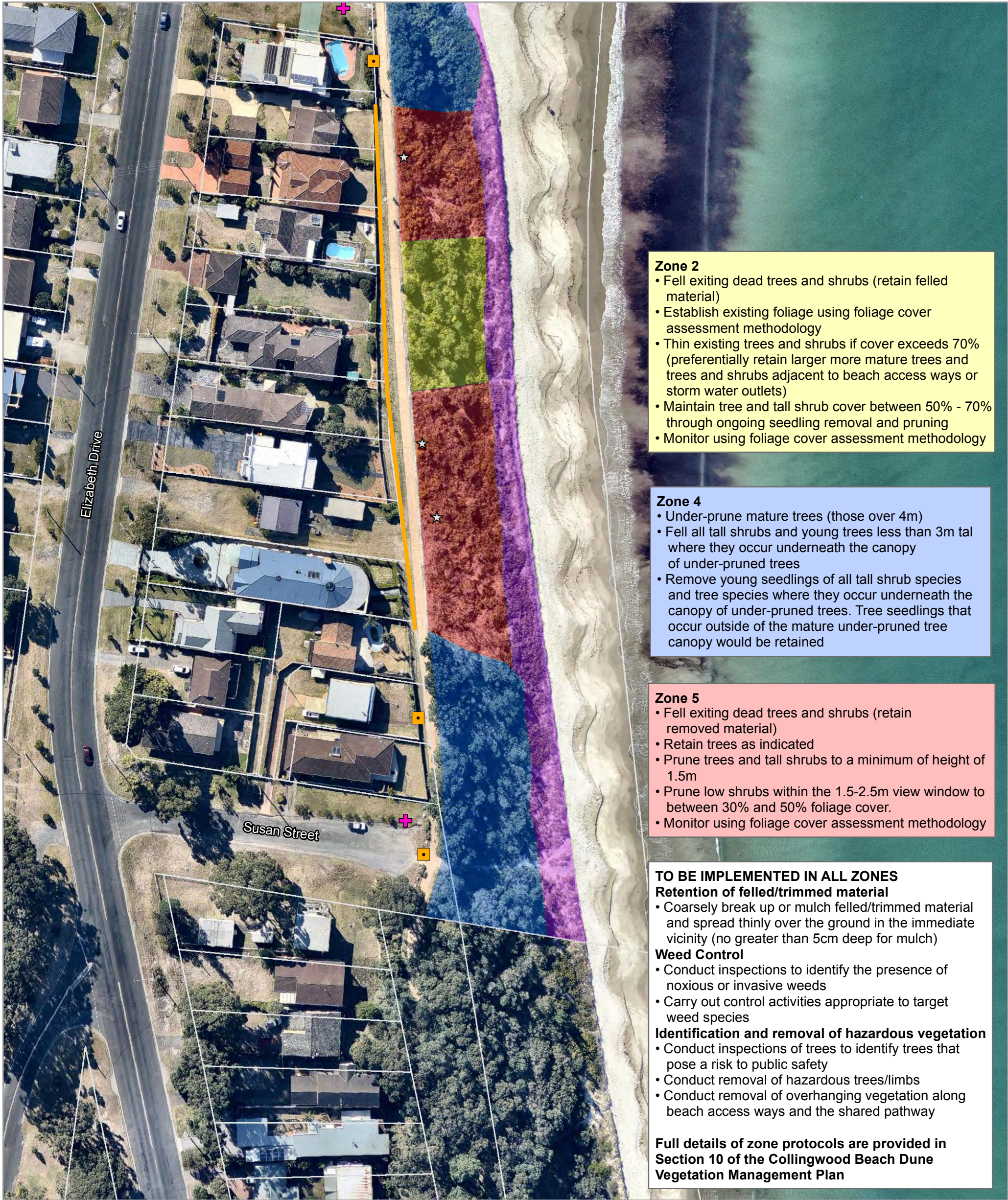
Notes:
- Vegetation data digitised by nghenvironmental
- Aerial imagery sourced from Nearmap courtesy of Shoalhaven City Council. Image date Aug 2014

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Author: DM

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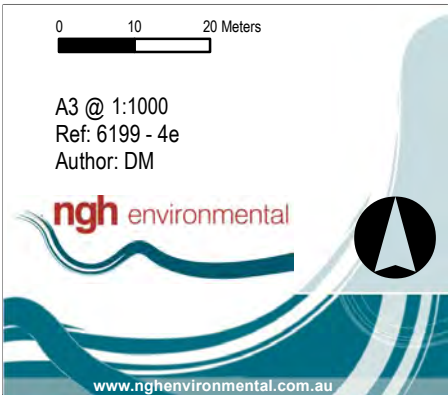
PROPOSED VEGETATION MANAGEMENT - MAP 5

Collingwood Beach Dune Vegetation Management Plan

- Proposed management zones
- Zone 2 - Up to 70% cover of trees and tall shrubs
 - Zone 4 - Under-prune mature trees and remove tall shrubs
 - Zone 5 - Prune trees and tall shrubs to 1.5m high
 - Zone 6 - Protection of incipient foredune vegetation
- Lot boundaries
- Foliage cover assessment methodology
- Photopoints (additional to foliage cover assessment)
- Trees to be retained in Zone 5
- Recommended Eucalypt planting

Notes:

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APPENDIX B DIGITAL IMAGE ANALYSIS FOR MONITORING FOLIAGE COVER

Digital image analysis provides a quantifiable and repeatable methodology for determining the percent cover foliage in an area. A series of digital images can be stitched together to form a continuous image of each zone or a representative section of the zone.

For zones where it is required, a 'view window' is defined. In this case it has been set as 1.5m – 2.5m for Zones 2, 3 and 5 (refer to Figure B-1). This is the most relevant height when retaining views from the walkway and single storey residences.



Figure B-1 Example of the view window as it applies to Zone 5

Using digital image processing software, it is a simple process to determine the percent foliage cover over the background view in the view window. This can assist in determining:

- Whether management is required
- What extent of management is required

Examples are provided below for each management zone 1-5 to get an understanding of the results.

Zone 1: Up to 100% foliage cover



Existing vegetation



Before foliage cover percentage: 90%

No foliage cover reduction proposed for this zone.

Zone 2: Up to 70% foliage cover in the 1.5m-2.5m view window (including trees and shrubs)



Existing vegetation



Before foliage cover percentage: 90%



After foliage cover percentage: 70%

Zone 3: Up to 70% foliage cover in the 1.5m - 2.5m view window, also under-pruning of tall pine trees



Existing vegetation



Before foliage cover percentage: 90%



After foliage cover percentage: 70%