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Tree Retention and Removal Report
Shellharbour Anglican College
Piper Street
Shellharbour

October 2022

Ms Zoe Madaschi
Development Assessment Officer
Shellharbour City Council

14th October 2022

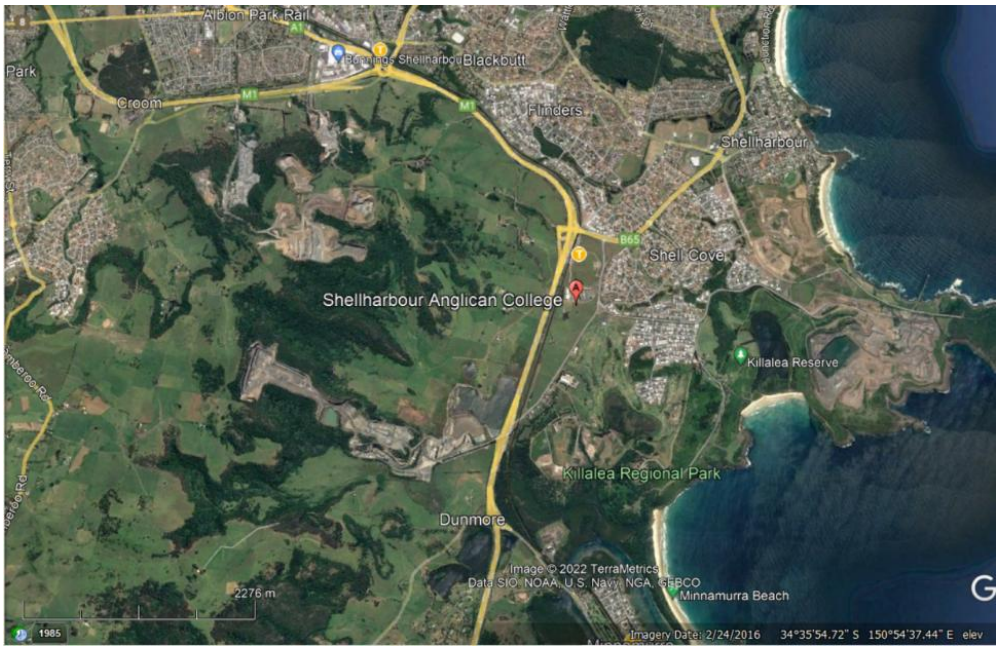
Dear Ms Madaschi

Re-Tree Retention-Removal Report Shellharbour Anglican College, 1 (Lot 2 DP1144885) Piper Drive, Dunmore

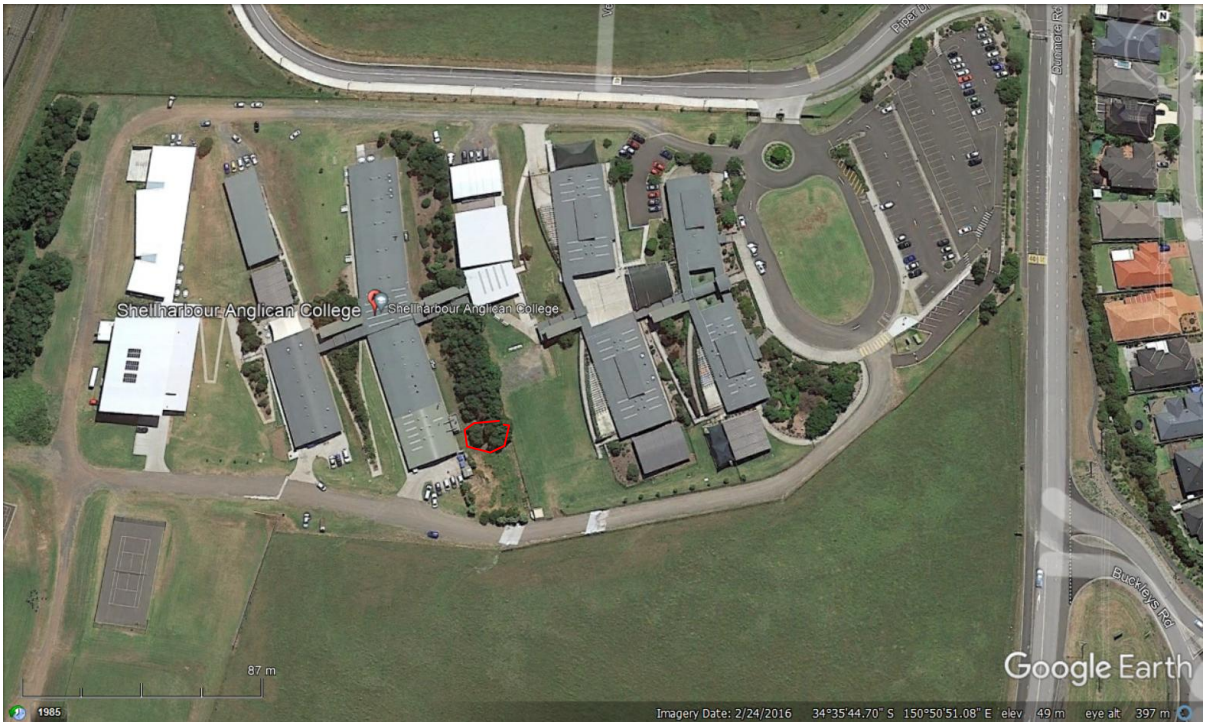
Introduction

This ecological report has been prepared to satisfy condition of consent as set out by Shellharbour City Council. The report relates to the removal and retention of trees on the footprint of the proposed construction at the Shellharbour Anglican College, 1 Piper Drive, Dunmore. The location of the college is shown in Figure 1.The inspection of the above site was undertaken on the 14th October 2022 and followed the marking and tagging of trees by Moores Trees Arboricultural Assessment.
The report primarily focused on the following:

- The ecological evaluation of ten trees (collectively known as the subject trees) prior to removal.
- The impact that the proposed building construction would have on the environment. .
- The protection of other retained trees in the vicinity of the development.



◄Figure 1 The Location of Shellharbour Anglican College: The college is equidistant from Shellharbour to the north and Dunmore to the south in the Shellharbour LGA.



▲**Figure 2 Developed Area on the College Site**: This aerial view outlines the classrooms and the administrative buildings which have been constructed on the benched areas cut into the steeply sloping site. Between the buildings, linear plantings of shrubs and trees have been undertaken. The trees to be removed (1-10) are outlined in red.

▲**Figure 3 Site Context:** The Shellharbour Anglican College site is highlighted and covers an area of approximately 8.75 ha. The area has a long history of agricultural production with the majority of arable land cleared. Since the early 2000s, the college management has been instrumental in introducing native vegetation to the site. Linear plantings of native trees, shrubs and ground covers have been introduced on the sloping land between the benched areas. This vegetation provides stepping stones through a significantly cleared landscape for native fauna.

Site Description: The site covers an area of approximately 8.75 ha and slopes steeply to the west, from a high of forty (40) meters, above sea level, in the east to a low of fifteen (15) meters in the west.
Major earthworks have been undertaken since 2004, with a series of benched areas having been constructed for buildings and a series of sloping land between each bench, to support the planting of native species. The area on which the ten (10) trees are to be removed, was planted approximately fifteen (15) years ago. Figure 2 outlines the area in red where the trees are to be removed.

The ecological evaluation of trees to be removed: The ten trees are proposed for removal, as they are on the footprint of the proposed development. The trees are listed in Table 1. All trees are relatively small as indicated by the Diameter at Breast Height (DBH) and all were planted approximately 15 years ago.

▼Table 1 Subject Trees

Tree	Scientific Name	Common Name	DBH	Height	Habitat Notes
1	*Eucalyptus tereticornis*	Forest Red Gum	0.27	10m	Young tree planted <15 years. No hollows present. Limited canopy available for nesting, roosting or feeding.
2	*Eucalyptus tereticornis*	Forest Red Gum	0.23	10m	Young tree planted <15 years. No hollows present. Limited canopy available for nesting, roosting or feeding.
3	*Eucalyptus tereticornis*	Forest Red Gum	0.18	9m	Young tree planted <15 years. No hollows present. Limited canopy available for nesting, roosting or feeding.
4	*Acacia melanoxylon*	Blackwood	0.24	9.5m	Young tree planted <15 years. No hollows present. Limited canopy available for nesting, roosting or feeding.
5	*Acacia melanoxylon*	Blackwood	0.19	9.5m	Young tree planted <15 years. No hollows present. Limited canopy available for nesting, roosting or feeding.
6	*Acacia maidenii*	Maidens Wattle	0.14	7m	Young tree planted <15 years. No hollows present. Limited canopy available for nesting, roosting or feeding.

7	*Eucalyptus tereticornis*	Forest Red Gum	0.26	10.5m	Young tree planted <15 years. No hollows present. Limited canopy available for nesting, roosting or feeding.
8	*Melaleuca bracteata*	Black Tea Tree	0.12	6m	Young tree planted <15 years. No hollows present. Limited canopy available for nesting, roosting or feeding.
9	*Melaleuca bracteata*	Black Tea Tree	0.12	6m	Young tree planted <15 years. No hollows present. Limited canopy available for nesting, roosting or feeding.
10	*Melaleuca bracteata*	Black Tea Tree	0.12	6m	Young tree planted <15 years. No hollows present. Limited canopy available for nesting, roosting or feeding.

Note: The ten trees were visually inspected to identify any hollows, splits or nests in the trees that may have provided habitat for native fauna. No habitat niches or habitat structures were found. Given the lack of scratches and scats, it is unlikely that fauna would find permanent habitat in these trees.
The front cover and Plates 1 and 2 provided views of the ten trees to be removed.

▲**Plate 1 Development Site:** The southern development area, containing the ten trees, adjoins the student's vegetable patch

▲**Plate 2 Trees Proposed for Removal:** Trees, 3 (*Eucalyptus tereticornis*) 4 and 5 (*Acacia melanoxylon*) are marked with tags to delineate the trees to be removed. The area is mulched and planted with shrubs and ground covers.

Proposed Tree Removal

Pre-clearance Protocols

Pre-clearance for trees are to be conducted during the construction phase. They are to be felled in accordance with the following procedures.

- Felling is to be supervised by a fauna specialist/ecologist, appropriate for the purpose of recuing displaced fauna.
- An appropriately skilled local wildlife carer /ecologict must be notified at least 24 hours prior to the tree felling, so that animals may be captured.

- Prior to felling of the identified and marked trees, the trees will be shaken or nudged by tree felling equipment to encourage any fauna to vacate the trees.
- If no animals emerge from the canopy after shaking or nudging, then the tree, will be felled and lowered to the ground if possible.
- If an animal emerges while shaking or nudging of the tree, then at least 30 minutes will be allowed for the animal to leave the tree. If the animal comes to ground, or when it is on a lower trunk, attempts will be made to capture the animal using a net. Captured animals are to be immediately transferred to a suitably sized cotton bag and checked for obvious injury during the transfer process.
- Captured animals will be placed in individual bags unless they are a family group to which separation would risk the survival of the young (i.e. lactating female with young).
- Once the tree has been felled, a search will be made of the branches around the tree for any fleeing fauna and unidentified hollows and splits should be inspected with a torch for the presence of any animals. Attempts will be made to capture any fleeing fauna with a net, and animals inside hollows should be extracted by hand. Captured animals will be immediately transferred to a suitably sized cotton bag and checked for obvious injury during the transfer process.
- Injured, shocked or immature captured animals will be placed in a cotton bag secured at the top. Bags will be wrapped in appropriate insulating material such as blankets and placed in a quiet, warm and preferably dark place until the wildlife care can collect them. Details of the location of the capture and proposed release areas will be provided to the wildlife care; and,
- Uninjured animals will be released in appropriate habitat as soon as practicable (at night for nocturnal species).

Tree Retention

The protection of trees, to be retained, adjacent to the north, will be adhered to with the erection of fencing compliant with AS 4970 “Protection of Trees on Construction Sites.
Shellharbour DCP 2017 Section 20.8 deals with existing trees/ vegetation on construction sites.

Recommendations

The following ameliorating measures are recommended to offset the impacts of the development to the environment.

- The removal of the ten trees is to be offset by planting of the same species in an appropriate location north of the construction site.
- The removal of shrubs and ground covers is to be offset by the planting of the same species.
- The trunks of the removed trees are to be placed across the slope in the area to the north, to stabilise the bank and provide habitat for insects which are the bottom of the food chain for native fauna.
- The upper branches and canopy of the removed trees are to be mulched and added to the existing mulch which has become reduced in places.
- To provide additional habitat, two nest boxes are recommended to be placed in retained trees.

In conclusion it is considered that impact of the development will be mitigated by the above measures and the improvement in biodiversity and habitat potential will be increased on the site.

Yours sincerely

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