ecological associates pty ltd

Native Vegetation Clearance

Clover Park Scattered Trees Footpath and Track Entrance

Data Report

Clearance under the *Native Vegetation Regulations 2017*

29 March 2022

Prepared by Marcus Cooling

Table of contents

1. Application information

Application Details

Applicant:	Lanser		
Key contact:			
Landowner:	Lanser		
Site Address:	269 Flaxley Road Mount Barker SA 5251		
Local Government Area:	Mount Barker Council	Hundred:	Macclesfield
Title ID:	CT / 6275 / 148	Parcel ID	D130400 A1021

Summary of proposed clearance

Purpose of clearance	Clearance is required to construct a footpath and entry point to a track.
Native Vegetation Regulation	Regulation 12 (35) Residential subdivision
Description of the vegetation under application	River Red Gum woodland growing over exotic grasses
Total proposed clearance - area (ha) and number of trees	30 *Eucalyptus camaldulensis* var. *camaldulensis* scattered trees
Level of clearance	**Level 3**
Overlay (Planning and Design Code)	Native Vegetation / Regulated and Significant Tree
Map of proposed clearance area	

Mitigation hierarchy	Clearance will be offset with a payment to the Native Vegetation Fund.
SEB Offset proposal	Payment of $15,578.53 to the Native Vegetation Fund

2. Purpose of clearance

2.1 Description

It is proposed to clear 30 native trees to construct a footpath next to Heysen Boulevard at the Clover Park subdivision. A vehicle entrance from Heysen Boulevard to an adjacent track (Martin Road reserve) requires the removal of five trees.

2.2 Background

The Clover Park residential subdivision is being constructed in former farmland at Mount Barker. The development will create approximately two commercial and 285 residential allotments, plus reserve areas.

Heysen Boulevard is one of the main road entrances to the subdivision. The boulevard runs east-west and joins the arterial Flaxley Road in the west. The Heysen Boulevard road and footpath has been completed from Flaxley Road to the intersection with Lilac Parade. The next section of Heysen Boulevard to the intersection with Kachina Drive is currently being constructed. A footpath is planned on the north side of the boulevard where native trees are growing.

Heysen Boulevard runs alongside and replaces the existing Martin Road. Martin Road is a narrow unsealed road lined on both sides by native trees growing over exotic grasses. The trees include mature and regenerating *Eucalyptus camaldulensis, E. viminalis* and *E. leucoxylon*. The footpath is planned in areas that will impact on *Eucalyptus camaldulensis* trees between Martin Road and Heysen Boulevard.

A temporary vehicle entrance track is required to maintain vehicle access from Heysen Boulevard to Martin Road near the intersection of Kachina Drive. In the future Heysen Boulevard will be extended to the east beyond the Clover Park development and Martin Road will no longer be used.

2.3 General location map

The site is located 3.3 km south-west of Mount Barker (Figure 1).

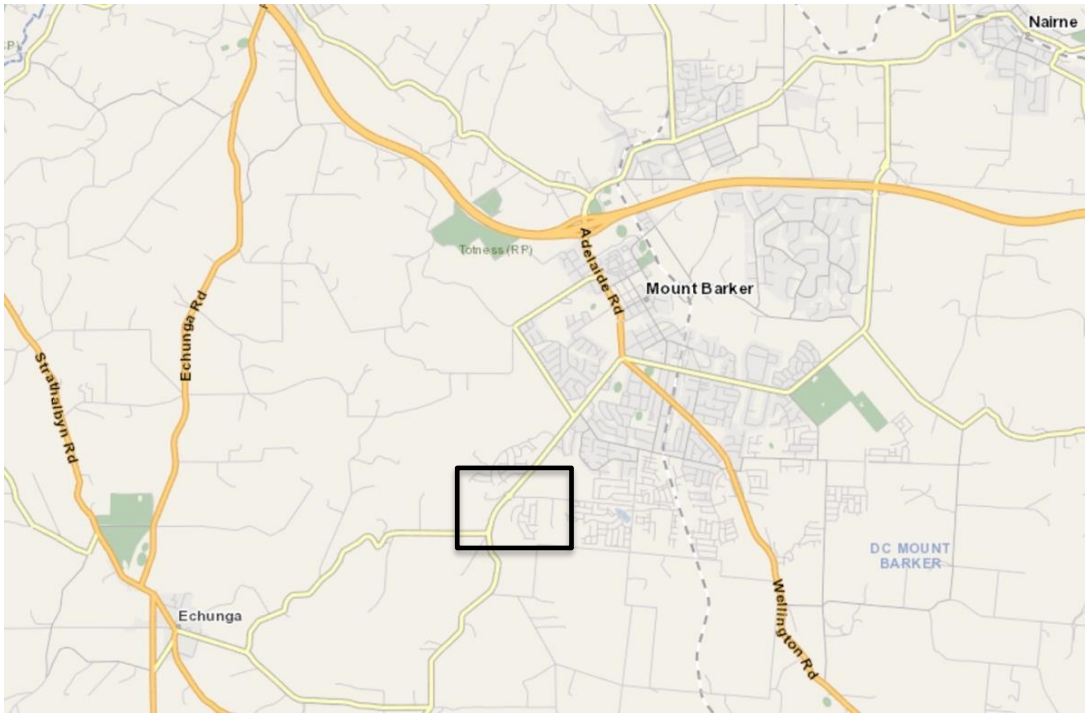


Figure 1. Location Map.

The footpath is to be constructed at the northern edge of land parcel D130400 A1021 adjacent to the Martin Road reserve (Figure 2). The site is zoned Residential Neighbourhood.

Figure 2. Site Map.

2.4 Details of the proposal

Vegetation clearance is required to construct a footpath on the northern side of Heysen Boulevard. The footpath will continue from the existing footpath that currently terminates at the Lilac Parade roundabout (Figure 3). The track entrance from Heysen Boulevard is required to maintain access to Martin Road until the future eastern continuation of Heysen Boulevard is constructed.

All of the affected trees are *Eucalyptus camaldulensis*. Trees were considered be subject to clearance where they are in the footprint of the footpath or with a centre 1 m from the footpath. This is to allow for the future growth of trees which would lift the concrete footpath and require removal. A distance of 1 m was used to provide a 0.5 m separation from the footpath for trees with a future diameter at the base of 1 m.

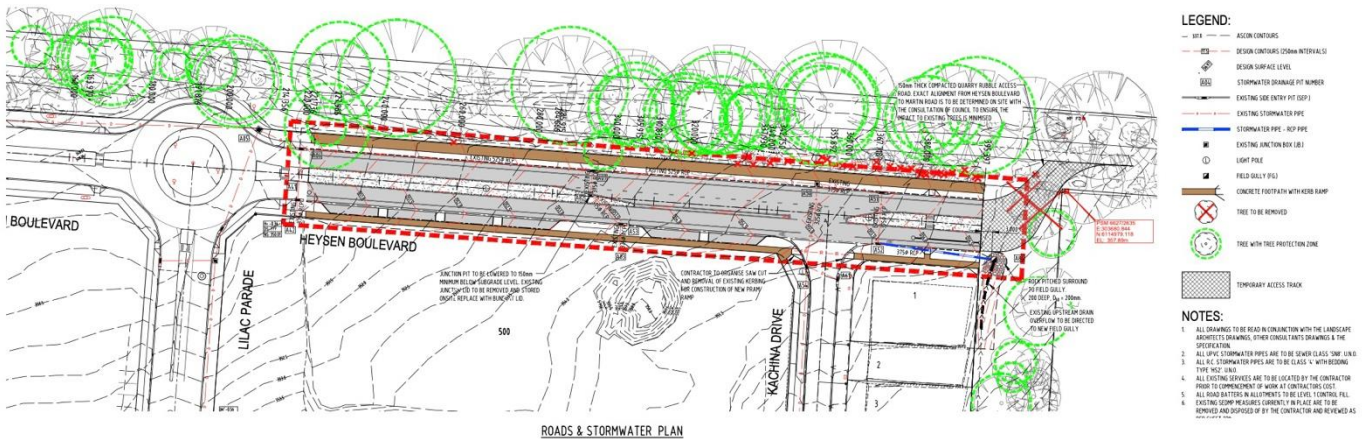


Figure 3. Site Plan.

2.5 Approvals <u>required</u> *or* <u>obtained</u>

Under the *Native Vegetation Act 1991*, approval is required to remove native vegetation for this project.

The project affects two Regulated Trees (Trees 22 and 23) and one Significant Tree (Tree 14) protected under the *Planning, Development and Infrastructure Act 2016,* however no additional approvals are required for trees that are assessed under the *Native Vegetation Act 1991*.

The subdivision was granted development approval by the Mount Barker Council on 11 July 2017, notification 580/D063/16. The development approval includes requirements on the developer to meet obligations under the River Murray Act, Native Vegetation Act, Natural Resources Management Act (now Landscape South Australia Act, among others.

2.6 Native Vegetation Regulation

Clearance is proposed under Regulation 12(35) - clearance in association with a subdivision.

2.7 Development Application information (if applicable)

See section 2.5 above.

3. Method

3.1 Flora assessment

The site was inspected on 9th March 2022. Four hours were spent on site. Thirty one trees were assessed according to the Scattered Tree methodology. Scattered trees were inspected and photographed, and the bearing and location of each photograph recorded.

3.2 Fauna assessment

Records of threatened fauna reported since 1995 were reviewed for a 5 km search radius around the site using NatureMaps and Atlas of Living Australia (17th March 2023). "Matters of National Environmental Significance" (MNES) known to occur within a 5 km search radius were identified using the EPBC protected matters search tool (17th March 2023).

The dependence of these species on scattered trees was assessed based on Scattered Tree habitat notes in the Native Vegetation Council (NVC) Scattered Tree Assessment Manual (2019) and reviewed by Sharon Gillam of the Department for Environment and Water. Very small trees were considered unsuitable for large fauna including Brushtail Possum and Yellow-tailed Black Cockatoo.

Records of aquatic species and records since 1995 were excluded, unless they are listed as 'Scattered Tree'-Using Wildlife' in Appendix 4 of the Scattered Tree Assessment Manual.

National Conservation Ratings are in accordance with the most recent *EPBC Act* Listing Status available in the Species Profile and Threats Database.

State Conservation Ratings are in accordance with the *National Parks and Wildlife Act 1972*.

Regional Conservation Ratings were obtained from "Gillam, S. and Urban, R. (2014) Regional Species Conservation Assessment Project, Phase 1 Report: Regional Species Status Assessments, Adelaide and Mount Lofty Ranges NRM Region. Department of Environment, Water and Natural Resources, South Australia." Species with near-threatened status were excluded.

4. Assessment Outcomes

4.1 Vegetation Assessment

General description of the vegetation, the site and matters of significance

The site is located in the Hahndorf IBRA Association of the Flinders Lofty Block Bioregion. The landscape comprises rolling hills with broad drainage lines with deep loam and clay soils. Remnant vegetation on hillslopes and ridges is predominantly woodlands with *Eucalytpus leucoxoylon, E. fasciculosa* and *E. obliqua*. Drainage lines support woodlands of *Eucalyptus camaldulensis* over grasses and sedges.

The site is located on a west-sloping hill that drains to Western Flat Creek, a tributary of Mount Barker Creek.

Vegetation remnancy in the IBBRA Association is 8% of which 6% is formally protected. The nearest Heritage Agreement covers 3.1 Ha and lies ~2 km west of the site.

Surrounding land use currently consists of a mix of residential housing on large acreage to the west and north of the proposed development, a recently developed housing estate to the east, and an active construction site to the south.

The vegetation under application is part of the roadside vegetation of Martin Road that continues outside the road reserve into the Clover Park subdivision area. The vegetation includes mature and regenerating trees of *Eucalyptus camaldulensis, E. leucoxylon* subsp. *leucoxylon* and *E. viminalis* growing over exotic plants. The understorey is dominated by Phalaris sp. and also includes Rubus sp. and Prunus sp.

Details of the vegetation associates/scattered trees proposed to be impacted

<table>
<tr><td>Tree 1</td><td rowspan="8"> 
Photo direction: east. Waypoint 9 Photo 6773</td></tr>
<tr><td>Eucalyptus camaldulensis var. camaldulensis</td></tr>
<tr><td>Number of trees – 1</td></tr>
<tr><td>Height (m) – 5 m</td></tr>
<tr><td>Hollows – 0</td></tr>
<tr><td>Diameter (cm) – 10</td></tr>
<tr><td>Canopy dieback (%) – 0%</td></tr>
<tr><td>Total Biodiversity Score –
0.25</td></tr>
<tr><td colspan="2">The tree is a sapling Eucalyptus camaldulensis without hollows and minimal canopy dieback.
The tree potentially provides food resources for food and/or perching habitat forfive State-threatened and two species of regional conservation significance (section 4.2).</td></tr>
</table>

Tree 2 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 8 m Hollows – 0 Diameter (cm) – 15 Canopy dieback (%) – 10% Total Biodiversity Score – 0.33	 Photo direction: east. Photo 6774 Waypoint 8
The tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat forfive State-threatened and two species of regional conservation significance (section 4.2).	

Tree 3 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 6 m Hollows – 0 Diameter (cm) – 7 Canopy dieback (%) – 0% Total Biodiversity Score – 0.25	 Photo direction: north-east. Photo 6776 Waypoint 11
The tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat forfive State-threatened and two species of regional conservation significance (section 4.2).	

Tree 4 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 3.5 m Hollows – 0 Diameter (cm) – 4 Canopy dieback (%) – 0% Total Biodiversity Score – 0.19	 Photo direction: north-east. Photo 6775 Waypoint 10
The tree is a sapling *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for four State-threatened and two species of regional conservation significance (section 4.2).	

Tree 5 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 6 m Hollows – 0 Diameter (cm) – 12 Canopy dieback (%) – 30% Total Biodiversity Score – 0.20	 Photo direction: east. Photo 6777 Waypoint 12
The young tree has some canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 6 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 7 m Hollows – 0 Diameter (cm) – 12 Canopy dieback (%) – 10% Total Biodiversity Score – 0.28	 Photo direction: east. Photo 6778 Waypoint 13
The young tree has no hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 7 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 6 m Hollows – 0 Diameter (cm) – 13 Canopy dieback (%) – 10% Total Biodiversity Score – 0.27	 Photo direction: west. Photo 6779, Waypoint 14
The young tree has no hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 8 - DEAD *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1	 Photo direction: west. Photo 6780, Waypoint 15
This is a dead young tree. It is included here for completeness.	

Tree 9 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 7 m Hollows – 0 Diameter (cm) – 15 Canopy dieback (%) – 10% Total Biodiversity Score – 0.3	 Photo direction: east. Photo 6781, Waypoint 16
The young tree has no hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 10 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 3.5 m Hollows – 0 Diameter (cm) – 4 Canopy dieback (%) – 0% Total Biodiversity Score – 0.19	 Photo direction: east. Photo 6782, Waypoint 17
The tree is a sapling *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for four State-threatened and two species of regional conservation significance (section 4.2).	

Tree 11 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 4 m Hollows – 0 Diameter (cm) – 4 Canopy dieback (%) – 0% Total Biodiversity Score – 0.19	 Photo direction: north-east. Photo 6784 Waypoint 18
The tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for four State-threatened and two species of regional conservation significance (section 4.2).	

Tree 12 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 7 m Hollows – 0 Diameter (cm) – 13 Canopy dieback (%) – 10% Total Biodiversity Score – 0.29	 Photo direction: east. Photo 6784 Waypoint 19
The tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

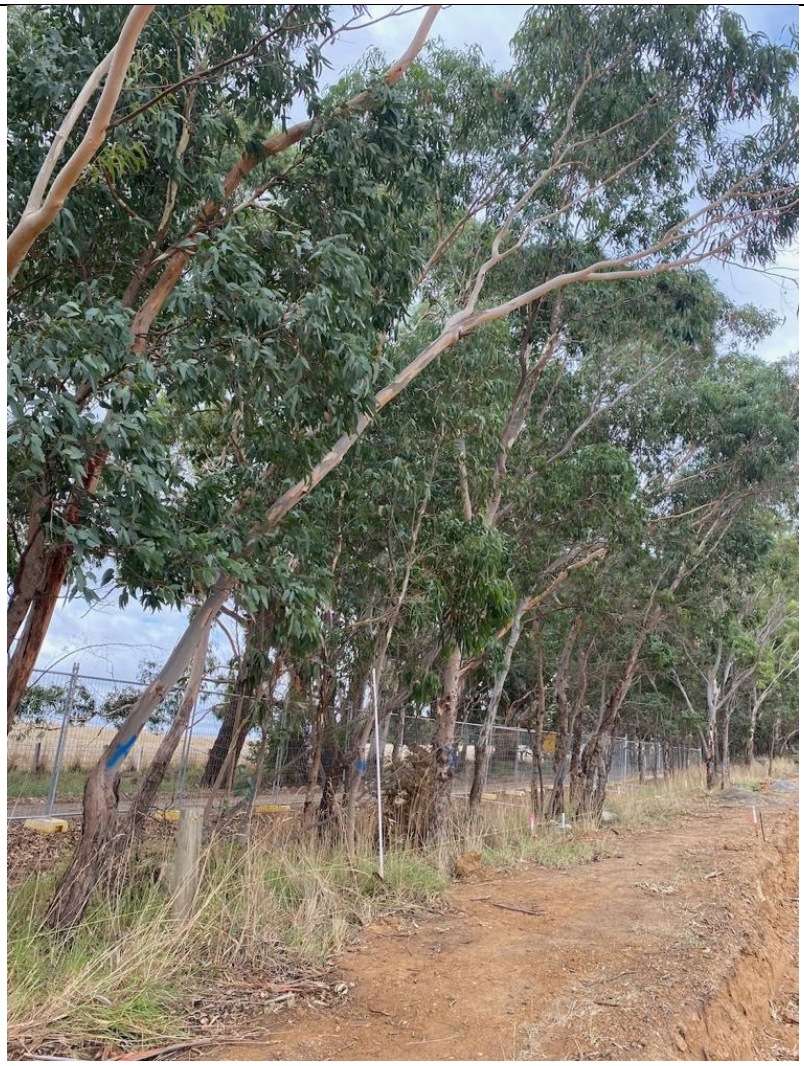
Tree 13 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 9 m Hollows – 0 Diameter (cm) – 18 Canopy dieback (%) – 80% Total Biodiversity Score – 0.17	 Photo direction: north-west. Photo 6785, Waypoint 20
This tree is a young *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 14 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 18 m Hollows – 0 Diameter (cm) – 90, 70 Canopy dieback (%) – 30% Total Biodiversity Score – 3.43	 Photo direction: north-east. Photo 6786, Waypoint 21
This young tree is in poor health with a sparse canopy. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2). This is a Significant Tree.	

Tree 15 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 3 m Hollows – 0 Diameter (cm) – 1 Canopy dieback (%) – 0% Total Biodiversity Score – 0.16	 Photo direction: north. Photo 6787, Waypoint 22
This tree is a sapling *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for four State-threatened and two species of regional conservation significance (section 4.2).	

Tree 16 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 9 m Hollows – 0 Diameter (cm) – 13 Canopy dieback (%) – 0% Total Biodiversity Score – 0.37	 Photo direction: north. Photo 6788, Waypoint 23
The large tree is in good condition with minimal canopy dieback. It has no hollows. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 17 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 7 m Hollows – 0 Diameter (cm) – 20 Canopy dieback (%) – 0% Total Biodiversity Score – 0.39	 Photo direction: east. Photo 6789, Waypoint 24
This tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 18 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 5 m Hollows – 0 Diameter (cm) – 5 Canopy dieback (%) – 0% Total Biodiversity Score – 0.22	 Photo direction: north-east. Photo 6790, Waypoint 25
This tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for four State-threatened and two species of regional conservation significance (section 4.2).	

Tree 19 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 12 m Hollows – 0 Diameter (cm) – 25 Canopy dieback (%) – 60% Total Biodiversity Score – 0.33	 Photo direction: north. Photo 6791, Waypoint 26
This tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 20 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 9 m Hollows – 0 Diameter (cm) – 12 Canopy dieback (%) – 0% Total Biodiversity Score – 0.36	 Photo direction: east. Waypoint 6792, Waypoint 27
This tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 21 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 9 Hollows – 0 Diameter (cm) – 13 Canopy dieback (%) – 0% Total Biodiversity Score – 0.37	 Photo direction: north-east. Waypoint 6793, Waypoint 28
This tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 22 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 9 Hollows – 0 Diameter (cm) – 25, 80 Canopy dieback (%) – 0% Total Biodiversity Score – 2.18	 Photo direction: north. Photo 6794, Waypoint 29
This tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2). This is a Regulated Tree.	

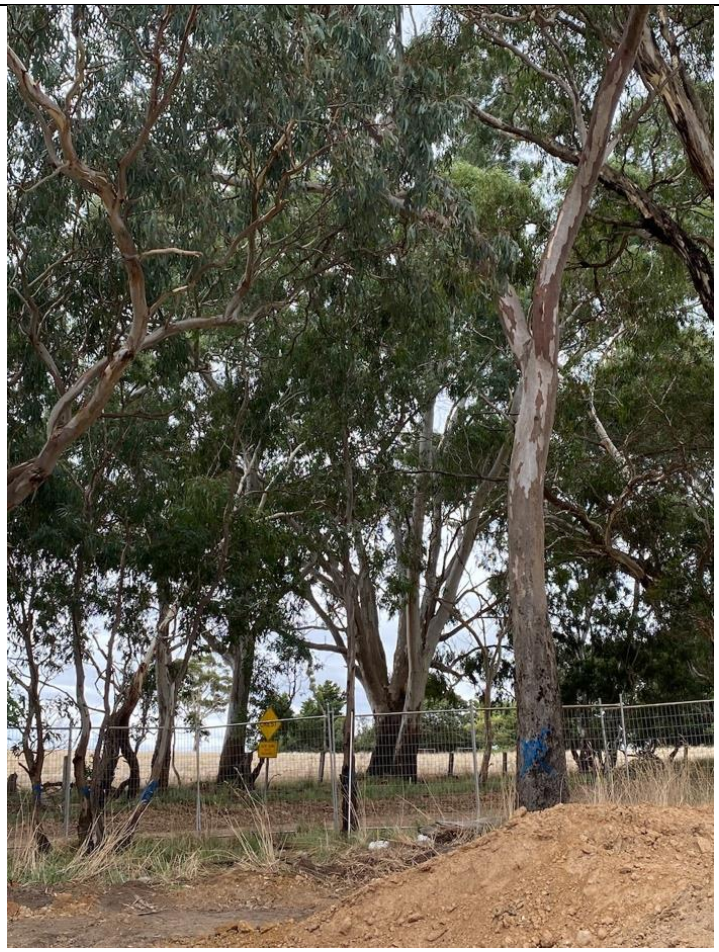
Tree 23 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) –11 Hollows – 0 Diameter (cm) – 30, 20 Canopy dieback (%) – 0% Total Biodiversity Score – 0.64	 Photo direction: north. Photo 6795, Waypoint 30
This tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2). This is a Regulated Tree.	

Tree 24 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 6.5 Hollows – 0 Diameter (cm) – 10 Canopy dieback (%) – 0% Total Biodiversity Score – 0.28	 Photo direction: south-east. Photo 6796, Waypoint 31
This tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for four State-threatened and two species of regional conservation significance (section 4.2).	

Tree 25 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 2 Hollows – 0 Diameter (cm) – 2 Canopy dieback (%) – 0% Total Biodiversity Score – 0.15	 Photo direction: south-east, Photo 6798, Waypoint 32
This tree is a sapling *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for four State-threatened and two species of regional conservation significance (section 4.2).	

Tree 26 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 2 m Hollows – 0 Diameter (cm) – 1 Canopy dieback (%) – 0% Total Biodiversity Score – 0.15	 Photo direction: south-east, Photo 6797, Waypoint 33
This tree is a sapling *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for four State-threatened and two species of regional conservation significance (section 4.2).	

Tree 27 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 16 m Hollows – 0 Diameter (cm) – 20 Canopy dieback (%) – 0% Total Biodiversity Score – 0.99	 Photo direction: north. Photo 6765 Waypoint 2
This tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 28 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 8 m Hollows – 0 Diameter (cm) – 13 Canopy dieback (%) – 0% Total Biodiversity Score – 0.34	 Photo direction: north. Photo 6766. Waypoint 3
The tree is a small immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 29 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 5 m Hollows – 0 Diameter (cm) – 13 Canopy dieback (%) – 30% Total Biodiversity Score – 0.19	 Photo direction: north. Photo 6767, Waypoint 3
The tree is an immature *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 30 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 4 m Hollows – 0 Diameter (cm) – 8 Canopy dieback (%) – 20 Total Biodiversity Score – 0.17	 Photo direction: north. Photo 6768, Waypoint 5
The tree is a sapling *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for five State-threatened and two species of regional conservation significance (section 4.2).	

Tree 31 *Eucalyptus camaldulensis* var. *camaldulensis* Number of trees – 1 Height (m) – 1.8 m Hollows – 0 Diameter (cm) – 3 Canopy dieback (%) – 0% Total Biodiversity Score – 0.15	 Photo direction: north. Photo 6777, Waypoint 6
The tree is a sapling *Eucalyptus camaldulensis* without hollows and minimal canopy dieback. The tree potentially provides food resources for food and/or perching habitat for four State-threatened and two species of regional conservation significance (section 4.2).	

Site map showing areas of proposed impact

Figure 4. Location of trees

Photo log

Photo	Description	Waypoint	Direction
6770	Existing footpath on north side of Heysen Boulevard at Lilac Pde		West
6771	Proposed foothpath on north side of the section of Heysen Boulevard under construction		East
6773	Tree 1 footpath	8	East
6774	Tree 2 footpath	9	East
6776	Tree 3 footpath	11	East
6775	Tree 4 footpath	10	North
6777	Tree 5 footpath	12	North-east
6778	Tree 6 footpath	13	East
6779	Tree 7 footpath	14	West
6780	Tree 8 footpath	15	West
6781	Tree 9 footpath	16	East
6782	Tree 10 footpath	17	East
6783	Tree 11 footpath	18	North-east
6784	Tree 12 footpath	19	East
6785	Tree 13 footpath	20	North-west
6786	Tree 14 footpath	21	North-east
6787	Tree 15 footpath	22	North-east
6788	Tree 16 footpath	23	North
6789	Tree 17 footpath	24	East
6790	Tree 18 footpath	25	North-east
6791	Tree 19 footpath	26	North
6792	Tree 20 footpath	27	East
6793	Tree 21 footpath	28	North-east
6794	Tree 22 footpath	29	East
6795	Tree 23 footpath	30	East
6796	Tree 24 footpath	31	East
6797	Tree 26 foothpath	33	North
6798	Tree 25 footpath	32	North
6765	Tree 27 track	2	North
6766	Tree 28 track	3	North
6767	Tree 29 track	4	North
6768	Tree 30 track	5	North
6769	Tree 30 track	6	North
6799	Eastern end of proposed footpath looking west from the Kachina Drive intersection		West

4.2 Threatened Species assessment

Species observed on site, or recorded within 5km of the application area since 1995, or the vegetation is considered to provide suitable habitat

Species (common name)	NP&W Act	EPBC Act	AMLR Rating	Data source	Date of last record	Species known habitat preferences	Likelihood of use for habitat – Comments
Falcunculus frontatus frontatus (Eastern Shriketit)	R			2, 3	2021	Open forest and woodlands, parks, farms with scattered trees.	Highly likely. Use scattered trees for perching & food.
Melithreptus gularis (Black-chinned Honeyeater)	V			2	2015	Forages in the outer canopy of eucalypts for nectar and honeydew, including scattered paddock trees.	Highly likely. Use scattered trees for perching and food.
Microeca fascinans fascinans (Jacky Winter)	R			2	2018	Open eucalypt & mallee woodland with open shrub layer & bare ground. Often seen in farmland and parks. Snatches flying insects from low perches.	Highly likely. Use scattered trees for perching.
Neophema elegans elegans (Elegant Parrot)	R			2, 3	2021	Open habitats including mallee & woodlands (for breeding), grasslands, shrublands and farmland (feeding). Nests in hollows.	Highly likely. May use scattered trees for perching. Hollows in assessed trees are too small for the species.
Zanda funerea whiteae (Yellow-tailed Black Cockatoo)	V			2, 3	2020	Forests, woodlands, urban areas, particularly eucalypts and pines. Nest in large tree hollows. Feed on seeds and wood-boring grubs.	Highly likely. Use scattered trees for perching and food (no large hollows present in assessed trees).
Trichosurus vulpecula (Common Brushtail Possum)	R			2	2021	Wide range of habitats from forest to urban areas, including paddock trees. Makes dens in hollows. Feeds on leaves, flowers & fruit.	Highly likely. Uses scattered trees for feeding (no large hollows present in assessed trees).
Zosterops lateralis (Silvereye)			VU	2	2021	Forests, woodlands, shrublands, farms and urban areas.	Highly likely. Uses scattered trees for feeding and perching. Recorded nearby.
Barnardius zonarius (Australian Ringneck)			RA	2	2016	Eucalypt woodlands and eucalypt-lined watercourses.	Likely. May use scattered trees for feeding and perching
Source; 1- BDBSA, 2 - AoLA, 3 – NatueMaps, 4 – Observed/recorded in the field, 5 - Protected matters search tool, 6 – others NP&W Act; E= Endangered, V = Vulnerable, R= Rare; AMLR (Mount Lofty Ranges Regional Ratings): VU = Vulnerable; RA= Rare, NT = Near threatened. EPBC Act; Ex = Extinct, CR = Critically endangered, EN = Endangered; VU = Vulnerable							

Criteria for the likelihood of occurrence of species within the Study area.

Likelihood	Criteria
Highly Likely/Known	Recorded in the last 10 years, the species does not have highly specific niche requirements, the habitat is present and falls within the known range of the species distribution or; The species was recorded as part of field surveys.
Likely	Recorded within the previous 20 years, the area falls within the known distribution of the species and the area provides habitat or feeding resources for the species.
Possible	Recorded within the previous 20 years, the area falls inside the known distribution of the species, but the area provide limited habitat or feeding resources for the species. Recorded within 20 -40 years, survey effort is considered adequate, habitat and feeding resources present, and species of similar habitat needs have been recorded in the area.
Unlikely	Recorded within the previous 20 years, but the area provide no habitat or feeding resources for the species, including perching, roosting or nesting opportunities, corridor for movement or shelter. Recorded within 20 -40 years; however, suitable habitat does not occur, and species of similar habitat requirements have not been recorded in the area. No records despite adequate survey effort.

4.3 Cumulative impact

When exercising a power or making a decision under Division 5 of the Native Vegetation Regulations 2017, the NVC must consider the potential cumulative impact, both direct and indirect, that is reasonably likely to result from a proposed clearance activity.

An overall tree survey was completed in 2015 during the planning stages of the Clover Park subdivision (*Nicolle, D. 2015 Tree Assessment - Maglita Estate, Mount Barker. Calyptra Melrose Park*). The tree survey was used to plan the subdivision to maximise tree retention and minimise impacts. The largest tree clearance requirement was identified at the start of the project to construct the roundabout at the corner of Flaxley Road and Heysen Boulevard (NVC 2017_3030). This application included trees that have been removed from the proposed stormwater detention basin expansion area.

As the project has progressed additional tree clearance requirements have been identified including:

- Wagtail Way (2020_3002)
- 1 tree sewer pump station (2022_3158)
- 12 trees growing in the wall of a former farm dam near Heysen Boulevard
- 17 trees growing at the site of a stormwater detention basin expantion at the corner of Heysen Boulevard and Flaxley Road..

4.4 Address the Mitigation Hierarchy

When exercising a power or making a decision under Division 5 of the Native Vegetation Regulations 2017, the NVC must have regard to the mitigation hierarchy. The NVC will also consider, with the aim to minimize, impacts on biological diversity, soil, water and other natural resources, threatened species or ecological communities under the EPBC Act or listed species under the NP&W Act.

a) Avoidance – outline measures taken to avoid clearance of native vegetation

The clearance of scattered trees has been avoided by relocating the footpath 0.5 m closer to the edge of Heysen Boulevard than originally planned. This has avoided impacts to several trees.

b) Minimization – if clearance cannot be avoided, outline measures taken to minimize the extent, duration and intensity of impacts of the clearance on biodiversity to the fullest possible extent (whether the impact is direct, indirect or cumulative).

The route for the vehicle entrance to Martins Road has been selected in an area where trees are already expected to be removed for the future extension of Heysen Boulevard.

c) Rehabilitation or restoration – outline measures taken to rehabilitate ecosystems that have been degraded, and to restore ecosystems that have been degraded, or destroyed by the impact of clearance that cannot be avoided or further minimized, such as allowing for the re-establishment of the vegetation.

The clearance of the trees is permanent and cannot be rehabilitated.

d) Offset – any adverse impact on native vegetation that cannot be avoided or further minimized should be offset by the achievement of a significant environmental benefit that outweighs that impact.

Clearance will be offset with a payment to the Native Vegetation Fund.

4.5 Principles of Clearance (Schedule 1, *Native Vegetation Act 1991*)

The Native Vegetation Council will consider Principles 1(b), 1(c) and 1(d) when assigning a level of Risk under Regulation 16 of the Native Vegetation Regulations. The Native Vegetation Council will consider all the Principles of clearance of the Act as relevant, when considering an application referred under the *Planning, Development and Infrastructure Act 2016*.

Principle of clearance	Considerations
Principle 1a - it comprises a high level of diversity of plant species	Relevant information One tree species will be cleared.
	Assessment against the principles Not at variance
	Moderating factors that may be considered by the NVC - NA
Principle 1b - significance as a habitat for wildlife	Relevant information The larger trees potentially provide food and/or perching habitat for two State-Vulnerable and four State Rare species including the Black-chinned Honeyeater, Elegant Parrot, Eastern Shriketit and Common Brushtail Possum. Two species of rare or vulnerable regional conservation significance may also use the trees: Silvereye and Australian Ringneck. The impact area includes small and medium sized trees that may provide food and perching resources for a high diversity of animal species that can utilise scattered trees in an urban environment. None of the trees provide hollows.
	Assessment against the principles **Seriously at Variance** **- Trees 1 to 7, 9 to 31**
	Moderating factors that may be considered by the NVC The understorey is highly degraded, and the trees are located in an urbanised environment and are not likely to support species that require intact understorey or are sensitive to disturbance.
Principle 1c - plants of a rare, vulnerable or endangered species	Relevant information The tree species to be cleared is not rare or threatened Threatened Flora Score(s) - Trees 1 to 7, 9 to 31 = 0
	Assessment against the principles Seriously at Variance None At Variance – None
	Moderating factors that may be considered by the NVC
Principle 1d - the vegetation comprises the whole or part of a plant	Relevant information The trees are not part of a rare or threatened plant community. Threatened Community Score - NA

***community that is Rare, Vulnerable or endangered*:**	Assessment against the principles Seriously at Variance None
	Moderating factors that may be considered by the NVC
Principle 1e - it is significant as a remnant of vegetation in an area which has been extensively cleared.	Relevant information Vegetation remnancy for the Mount Lofty Ranges subregion is 15% Vegetation remnancy for the Hahndorf Association is 8% Total Biodiversity Score – 13.78
	Assessment against the principles **At Variance – Trees 1 to 7, 9 to 31**
	Moderating factors that may be considered by the NVC
Principle 1f - it is growing in, or in association with, a wetland environment.	Relevant information The trees are not associated with a wetland environment.
	Assessment against the principles Not at variance
	Moderating factors that may be considered by the NVC
Principle 1g - it contributes significantly to the amenity of the area in which it is growing or is situated.	Relevant information The trees growing either side of Martin Road contribute to the amenity of the area. The trees to be cleared for the footpath are a minor component of the corridor as they are mostly immature and their removal will not significantly change the appearance of the corridor.
	N/A
	Moderating factors that may be considered by the NVC

4.6 Risk Assessment

Determine the level of risk associated with the application

Total clearance	No. of trees	30
	Area (ha)	
	Total biodiversity Score	13.78
Seriously at variance with principle 1(b), 1(c) or 1 (d)		1b
Risk assessment outcome		**Level 4**

Principle	**Seriously at variance**	**Trees**

a - Plant species diversity		
b - Wildlife habitat	Yes	1-8, 9-31
c - Rare plant species		
d - Rare plant communities		
e - Remnancy	Yes	All
f - Wetland		

5. Clearance summary

Scattered trees Summary table

Tree or Cluster ID	Number of trees	Fauna Habitat score	Threatened flora score	Biodiversity score	Loss factor	SEB Points required	SEB Payment	Admin Fee
1	1	**1.4**	0	0.25	1	0.27	$286.20	
2	1	**1.4**	0	0.33	1	0.34	$367.65	
3	1	**1.4**	0	0.25	1	0.26	$280.32	
4	1	**1.4**	0	0.19	1	0.19	$208.61	
5	1	**1.4**	0	0.20	1	0.21	$228.28	
6	1	**1.4**	0	0.28	1	0.29	$313.54	
7	1	**1.4**	0	0.27	1	0.28	$300.83	
8	1	**0**	0		1			
9	1	**1.4**	0	0.30	1	0.32	$343.21	
10	1	**1.4**	0	0.19	1	0.19	$208.61	
11	1	**1.4**	0	0.19	1	0.20	$217.30	
12	1	**1.4**	0	0.29	1	0.30	$323.23	
13	1	**1.4**	0	0.17	1	0.17	$186.70	
14	1	**1.4**	0	3.43	1	3.60	$3,860.94	
15	1	**1.4**	0	0.16	1	0.17	$179.57	
16	1	**1.4**	0	0.37	1	0.39	$413.07	
17	1	**1.4**	0	0.39	1	0.41	$440.30	
18	1	**1.4**	0	0.22	1	0.23	$243.40	
19	1	**1.4**	0	0.33	1	0.35	$374.36	
20	1	**1.4**	0	0.36	1	0.37	$401.65	
21	1	**1.4**	0	0.37	1	0.39	$413.07	
22	1	**1.4**	0	2.18	1	2.29	$2,452.65	
23	1	**1.4**	0	0.64	1	0.67	$716.92	
24	1	**1.4**	0	0.28	1	0.30	$319.12	
25	1	**1.4**	0	0.15	1	0.16	$170.83	
26	1	**1.4**	0	0.15	1	0.15	$164.51	
27	1	**1.4**	0	0.99	1	1.04	$1,118.88	
28	1	**1.4**	0	0.34	1	0.36	$386.63	
29	1	**1.4**	0	0.19	1	0.20	$218.00	
30	1	**1.4**	0	0.17	1	0.18	$192.05	
31	1	**1.4**	0	0.15	1	0.16	$174.25	
Total	**30**			**13.78**		**12.6**	**$13,519.25**	

Totals summary table

	Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
Application	13.76	14.45	$14.766.38	$812.15	$15,578.53

Risk level Level 2, 3 or 4	3

IBRA Association percent vegetation remnancy (%)	8
IBRA Subregion percent vegetation remnancy (%)	15
Is the vegetation associated with a Wetland	Yes
Economies of Scale Factor	0.5
Rainfall (mm)	764

6. Significant Environmental Benefit

A Significant Environmental Benefit (SEB) is required for approval to clear under Division 5 of the *Native Vegetation Regulations 2017*. The NVC must be satisfied that as a result of the loss of vegetation from the clearance that an SEB will result in a positive impact on the environment that is over and above the negative impact of the clearance.

ACHIEVING AN SEB

x Pay into the Native Vegetation Fund.

PAYMENT SEB

If a proponent proposes to achieve the SEB by paying into the Native Vegetation Fund, summary information must be provided on the amount required to be paid and the manner of payment:

Payment of $15.578.53

7. Appendices

Appendix 1. Scattered Tree Vegetation Assessment Scoresheets

Appendix 2. Threatened Fauna Records Excel Spreadsheet