Native Vegetation Clearance Data Report

Stage 4 Amy Gillett Bikeway Adelaide Hills Council

Clearance under the *Native Vegetation Regulations 2017*

18th April 2024

Prepared by Sheree Edwards, Senior Environmental Consultant

Document Information

Client	Adelaide Hills Council
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1. Application information

Application details

Applicant:	Adelaide Hills Council		
Key contact:	[redacted]		
Landowner:	*Department for Transport and Infrastructure*		
Site Address:	Dis-used Railway Corridor – Sections between Mount Torrens and Birdwood.		
Local Government Area:	Adelaide Hills Council	Hundred:	Talunga
Title ID:	CT/6230/61 CT/6230/61 CT/6230/61 CT/6230/61 CT/6230/61 CT/6230/61	Parcel ID	D114390 Q43 D114390 Q44 D114390 A45 D114390 A46 D114390 A47 D114390 A48

Summary of proposed clearance

Purpose of clearance	Clearance required for the construction of a public shared-use path for walkers, cyclists and horse riders
Native Vegetation Regulation	Regulation 12, Schedule 1; clause 36 Recreation Track
Description of the vegetation under application	A1: *Eucalyptus camaldulensis* ssp. *camaldulensis* Low Open Woodland over exotic species with emergent *Juncus pallidus*, *Juncus subsecundus*, *Acacia pycnantha* B1: *Eucalyptus camaldulensis* ssp. *camaldulensis* Woodland over *Acacia pycnantha*, Exotic species C1: *Eucalyptus viminalis /Eucalyptus camaldulensis* ssp. *camaldulensis* Open Forest over *Acacia pycnantha*, exotic species D1: *Eucalyptus camaldulensis* ssp. *camaldulensis* Open Forest over exotic species +/- *Acacia pycnantha*, *Acaena echinata* E1: *Eucalyptus camaldulensis* ssp. *camaldulensis* Low Open Woodland over *Rytidosperma* sp., exotic species F1: *Eucalyptus camaldulensis* ssp. *camaldulensis* Open Forest over *Acacia pycnantha*, *Rytidosperma* sp., *Juncus subsecundus*, **Juncus usitatus*, exotic grasses 15 River Red Gum (*Eucalyptus camaldulensis* ssp. *camaldulensis*) trees.
Total proposed clearance - area (ha) and number of trees	0.615 ha of bushland & 15 scattered trees
Level of clearance	Level 4

Map of proposed clearance area  	
Mitigation hierarchy	Refer to Section 4.4: Address the Mitigation Hierarchy
SEB Offset proposal	Payment = $25,211.01 (no GST) plus admin fee of $1,386.55 (GST incl) = $26,597.56.

2. Purpose of clearance

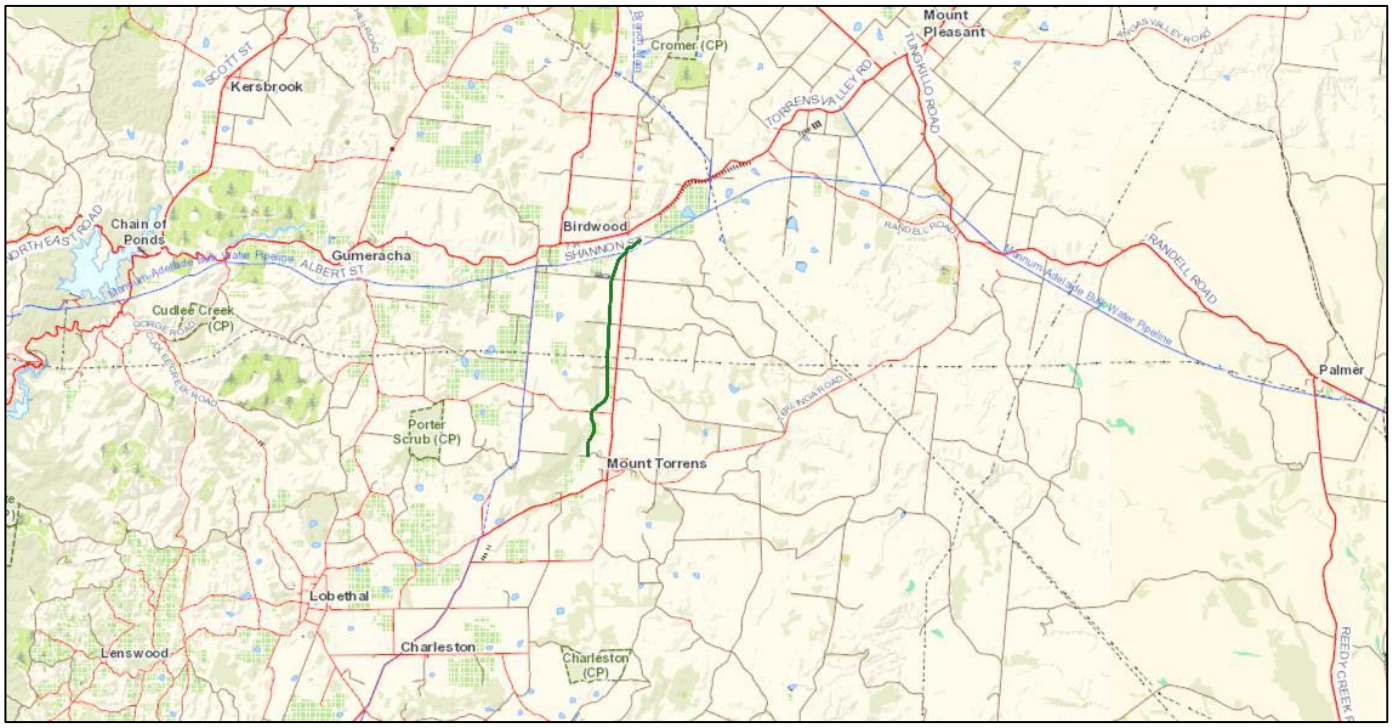
2.1 Description & Background

Terra Gana Pty Ltd have been engaged by the Adelaide Hills Council to undertake a native vegetation clearance assessment of the proposed alignment of Stage 4 of the Amy Gillett Bikeway. The bikeway is proposed to be constructed along the dis-used railway corridor, between Oval Road, Mount Torrens and Onkaparinga Valley Road, Birdwood. The Amy Gillett Bikeway is an existing 15km shared-use path for walkers, cyclists and horse riders, commencing just north of Oakbank, passing through Woodside and currently terminating at Oval Rd, Mount Torrens (Stages 1 to 3). Stage 4 would see the bikeway extend from Mount Torrens to Blocks Lane in Birdwood adding approximately 6 km to the bikeway. The width of the proposed bikeway alignment is aimed to be 5m wide by 5m high, and the applicant will minimise unnecessary clearance of vegetation within bushland sites by micro-siting during the initial works (all within the clearance envelope identified in this report).

This report details the native vegetation to be impacted along the length of the proposed Stage 4 Amy Gillet Bikeway, extending from Oval Road, Mount Torrens and Onkaparinga Valley Road, Birdwood. Scattered trees and patches of bushland are included in the assessment and guided by detailed site plans. Measures have been discussed at length to avoid and minimise native vegetation impacts with the Applicant. The section between Oval Road, Mount Torrens and what is marked A1 includes fencing, proposed set down areas and a section of the proposed bikeway. Every attempt has been made and effectively has avoided any impacts to native vegetation. Similarly, the area adjoining Onkapringa Valley Road, Birdwood where it is predominantly ornamental trees with and without mown grass understorey. As well as sections, as shown in the mapping.

The alignment of the proposed bikeway has been marked on the mapping included in this report. There are native scattered trees along this length where the applicant has moved the alignment slightly to avoid impacts to native vegetation. This has been done with advice from the accredited consultant. Detailed site plans attached show the alignment in greater detail.

General location maps



2.2 Details of the proposal

Refer Attachment 1 – Site Plans.

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

- Native Vegetation Act 1991 (application here-in)

2.4 Native Vegetation Regulation

The regulation and the associated clause(s) in Schedule 1 in Division 5 of the Native Vegetation Regulations under which the proposed clearance is suggested to be assessed is Regulation 12(36) Recreation Track.

3. Method

3.1 Flora assessment

Preliminary native vegetation assessment was undertaken by Jacobs (contracted by Department for Infrastructure and Transport) of the entire corridor in July 2022 as part of the initial planning and scoping of this project. The data from that assessment has been utilised as a foundation for this assessment. Field validation was completed by Sheree Edwards, Accredited Native Vegetation Consultant on the 4th and 5th of March 2024.

The field validation reviewed data and collated additional data to assist the Adelaide Hills Council in addressing the Mitigation Hierarchy under the Native Vegetation Regulations. The alignment of the proposed bikeway intercepts scattered trees and patches of bushland, which have been assessed using the scattered tree and bushland methodology, by Jacobs and recently validated by Terra Gana Pty Ltd.

3.2 Fauna assessment

The fauna assessment is based on a habitat suitability assessment relying largely on database records and corroborated with the suitable habitat present on site. Data has also been utilized from the initial assessment work completed by Jacobs. Refer to Section 4.2: Threatened Species Assessment

Database records were obtained for threatened fauna species listed under the National Parks and Wildlife Act 1972 (SA) and the Environmental Protection and Biodiversity Conservation Act 1999 (Commonwealth). The following databases were queried for records since 1995 and within 5km's of the proposed clearance site - EPBC Act Protected Matters Search Tool, Biological Database of South Australia, and Atlas of Living Australia.

4. Assessment Outcomes

4.1 Vegetation Assessment

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

Landscape:
The proposed native vegetation clearance is situated within the Mount Torrens Land System. Which is dominated by linear ridges, although less than 5% of the total area comprises steep and very rocky crests. Moderately steep non-arable ridges occupy about 45% of total area, and about 40% is undulating to gently rolling low hills. Soils are characteristically moderately deep to deep sandy loams with brown mottled clayey subsoils. Many are waterlogged during winter. Most have low inherent fertility and all are prone to acidification. About 10% of the land area is drainage depressions and fans. Soils are similar to those of the rising ground, but waterlogging is a greater threat and salinity is more likely to be a problem, albeit minor.

Vegetation:
The proposed native vegetation clearance is situated along a dis-used railway corridor with mixed adjoining land uses. With grazing being the predominant adjoining land-use, with rural residential areas distributed along. Historical clearance, current grazing pressures and amenity plantings have compromised the vegetation quality of this section of the railway corridor. The vegetation is a mix of scattered trees and patches of vegetation in varying degrees of condition as described below. However variable, the patches of vegetation are relatively homogenous in condition.

Details of the vegetation associations and scattered trees proposed to be impacted

Vegetation Association	A1: *Eucalyptus camaldulensis* ssp. *camaldulensis* Low Open Woodland over exotic species +/- *Juncus pallidus*, *Juncus subsecundus*, *Acacia pycnantha*				
 					
General description	A1 is highly disturbed with a dominance of exotic species representing the understorey. Patches of *Ulex europaeus* (Gorse) in this area of vegetation and on the adjoining land to the east. Patchy upperstorey, with introduced trees present.				
Threatened species or community	No threatened flora or fauna under the NP&W Act or EPBC Act listed species or community recorded. Refer to Threatened Species Assessment.				
Landscape context score	1.16	Vegetation Condition Score	13.75	Conservation significance score	1.08
Unit biodiversity Score	17.23	Area (ha)	0.057	Total biodiversity Score	0.98

Vegetation Association	B1: *Eucalyptus camaldulensis* ssp. *camaldulensis* Woodland over *Acacia pycnantha*, Exotic species				
					
General description	B1 is in relatively good condition, however scattered Ulex europaeus (Gorse) was recorded. Dense stands of *Acacia pycnantha* dominate the mid-storey with fringing pasture grasses and weeds adjoining the neighbouring cleared area.				
Threatened species or community	No threatened flora or fauna under the NP&W Act or EPBC Act listed species or community recorded. Refer to Threatened Species Assessment.				
Landscape context score	1.16	Vegetation Condition Score	24.23	Conservation significance score	1.06
Unit biodiversity Score	29.80	Area (ha)	0.014	Total biodiversity Score	0.42

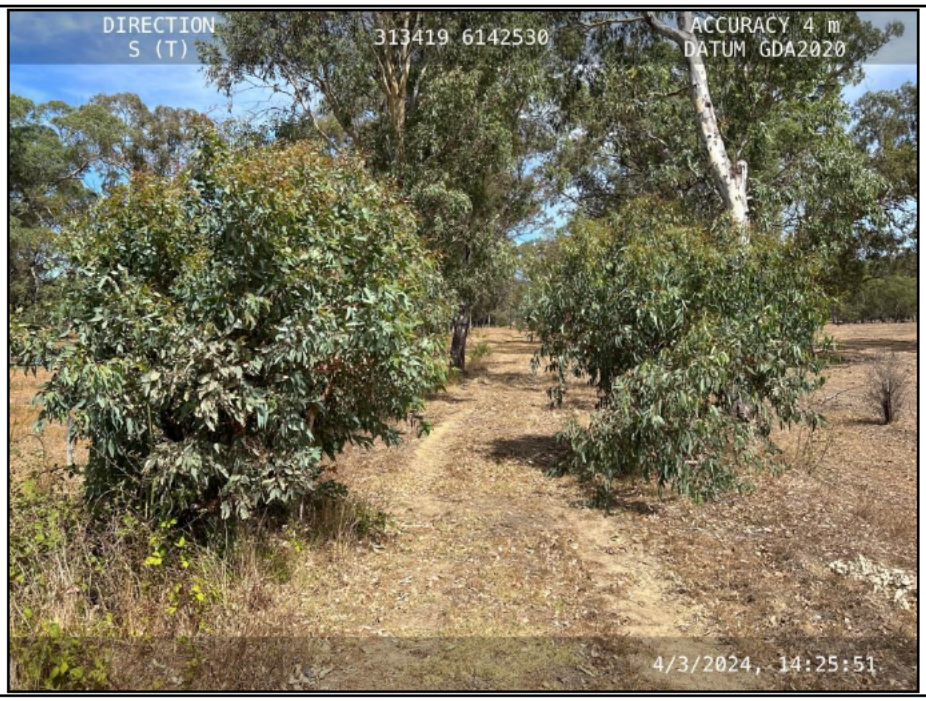
Vegetation Association	C1 & D1: *Eucalyptus viminalis/Eucalyptus camaldulensis* ssp. *camaldulensis* Woodland over *Acacia pycnantha,* exotic species				
					
General description	C1 & D1 are represented predominantly by a regenerating mixed Eucalypt and Golden Wattle upperstorey with a medium density introduced pasture grass understorey. This site was impacted by a bushfire in the last 5 years and there is a considerable amount of fallen timber and regeneration (mostly *Acacia pycnantha)* occurring in this site.				
Threatened species or community	No threatened flora or fauna under the NP&W Act or EPBC Act listed species or community recorded. Refer to Threatened Species Assessment.				
Landscape context score	1.16	Vegetation Condition Score	28.37	Conservation significance score	1.08
Unit biodiversity Score	35.54	Area (ha)	0.38	Total biodiversity Score	13.51

Vegetation Association	E1: *Eucalyptus camaldulensis* ssp. *camaldulensis* Low Open Woodland over *Rytidosperma* sp., exotic species				
					
General description	E1 is represented predominantly by a regenerating mixed Eucalypt upperstorey with a medium density introduced pasture grass understorey.				
Threatened species or community	No threatened flora or fauna under the NP&W Act or EPBC Act listed species or community recorded. Refer to Threatened Species Assessment.				
Landscape context score	1.16	Vegetation Condition Score	22.31	Conservation significance score	1.04
Unit biodiversity Score	26.92	Area (ha)	0.100	Total biodiversity Score	2.69

Vegetation Association	F1: *Eucalyptus camaldulensis* ssp. *camaldulensis/Eucalyptus viminalis* woodland over exotic species				
	 				
General description	F1 is represented predominantly by a regenerating mixed Eucalypt upperstorey with a medium density introduced pasture grass understorey.				
Threatened species or community	No threatened flora or fauna under the NP&W Act or EPBC Act listed species or community recorded. Refer to Threatened Species Assessment.				
Landscape context score	1.16	Vegetation Condition Score	29.22	Conservation significance score	1.06
Unit biodiversity Score	2.30	Area (ha)	0.064	Total biodiversity Score	2.30

Tree ID – Tree 1	
Tree spp. *Eucalyptus camaldulensis* ssp. *camaldulensis*	
Number of trees – 1	
Height (m) – 7	
Hollows – 0 recorded	
Diameter (cm) – 14	
Canopy dieback (%) – 0	
Total Biodiversity Score – 0.28	
A medium size healthy Eucalypt tree sited in the centre of the alignment of the proposed bikeway.	

Tree ID – Tree 2	
Tree spp. *Eucalyptus camaldulensis* ssp. *camaldulensis*	
Number of trees – 10	
Height (m) – 6	
Hollows – 0 recorded	
Diameter (cm) – 8	
Canopy dieback (%) – 5	
Total Biodiversity Score – 2.05	
10 medium sized Eucalypt trees, assessed as a clump.	

Tree ID – Tree 3	
Tree spp. *Eucalyptus camaldulensis* ssp. *camaldulensis*	
Number of trees – 2	
Height (m) – 1.5	
Hollows – 0 recorded	
Diameter (cm) – 7	
Canopy dieback (%) – 15	
Total Biodiversity Score – 0.13	
2 x regenerating Eucalypt trees (one behind the other). The one on the right-hand side will be RETAINED. The two on the left-hand side are proposed to be removed.	

Tree ID – Tree 4	
Tree spp. *Eucalyptus camaldulensis* ssp. *camaldulensis*	
Number of trees – 1	
Height (m) – 4	
Hollows – 0 recorded	
Diameter (cm) – 7	
Canopy dieback (%) – 0	
Total Biodiversity Score – 0.18	
Medium sized Eucalypt tree in excellent condition.	

Tree ID – Tree 5 Tree spp. *Eucalyptus camaldulensis* ssp. *camaldulensis* Number of trees – 2 Height (m) – 5.5 Hollows – 0 recorded Diameter (cm) –25 Canopy dieback (%) – 0 Total Biodiversity Score – 0.35	
Medium sized Eucalypt tree in excellent condition.	

<u>Site maps</u> showing areas of proposed impact

Proposed NV Impact - Scattered Trees 4 -5

Map data is compiled from a variety of sources and hence its accuracy is variable.

N

0 93 Kms

Compiled: 17-Apr-2024
Generated at: www.naturemaps.sa.gov.au
Datum: Geocentric Datum of Australia, 2020
Projection: Web Mercator (Auxiliary Sphere)

Government of South Australia
Department for Environment and Water

Proposed NV Impact - Bushland Assessment A1

Map data is compiled from a variety of sources and hence its accuracy is variable.

N

0 93 Kms

Compiled: 17-Apr-2024
Generated at: www.naturemaps.sa.gov.au
Datum: Geocentric Datum of Australia, 2020
Projection: Web Mercator (Auxiliary Sphere)

Government of South Australia
Department for Environment and Water

Proposed NV Impact - Bushland Assessment B1

Map data is compiled from a variety of sources and hence its accuracy is variable.

N

0 46 Kms

Compiled: 17-Apr-2024
Generated at: www.naturemaps.sa.gov.au
Datum: Geocentric Datum of Australia, 2020
Projection: Web Mercator (Auxiliary Sphere)

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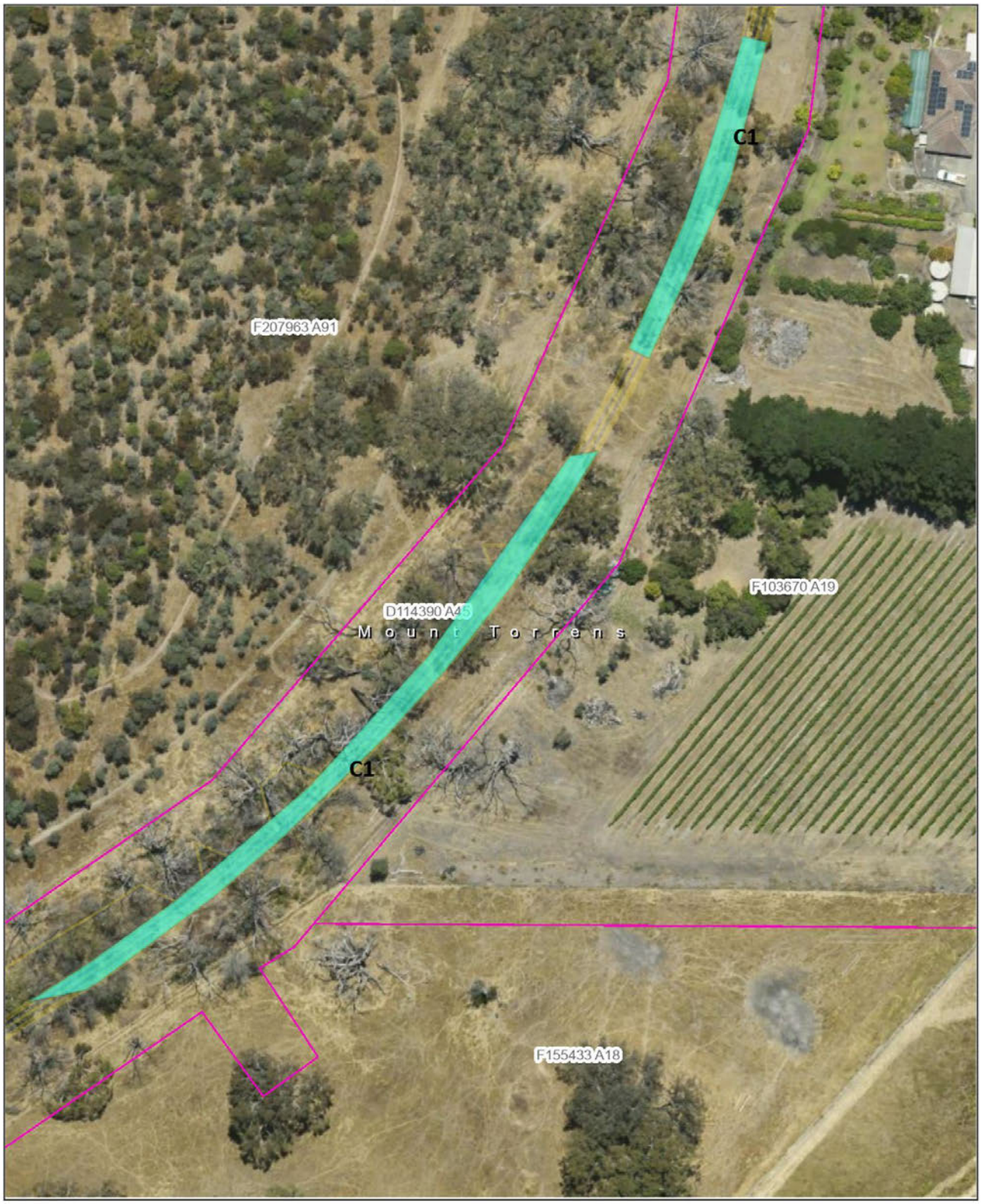
Department for Environment and Water

Proposed NV Impact - Bushland Assessment C1



Map data is compiled from a variety of sources and hence its accuracy is variable.

N

0 46 Kms

Compiled: 17-Apr-2024
Generated at: www.naturemaps.sa.gov.au
Datum: Geocentric Datum of Australia, 2020
Projection: Web Mercator (Auxiliary Sphere)

Government of South Australia
Department for Environment and Water

Proposed NV Impact - Bushland Assessment D1

Map data is compiled from a variety of sources and hence its accuracy is variable.

N

0 185 Kms

Compiled: 17-Apr-2024
Generated at: www.naturemaps.sa.gov.au
Datum: Geocentric Datum of Australia, 2020
Projection: Web Mercator (Auxiliary Sphere)

Government of South Australia
Department for Environment and Water

Proposed NV Impact - Bushland Assessment - E1

Map data is compiled from a variety of sources and hence its accuracy is variable.

N

0 93 Kms

Compiled: 19-Apr-2024
Generated at: www.naturemaps.sa.gov.au
Datum: Geocentric Datum of Australia, 2020
Projection: Web Mercator (Auxiliary Sphere)

Government of South Australia
Department for Environment and Water

Proposed NV Impact - Bushland Assessment E1

Map data is compiled from a variety of sources and hence its accuracy is variable.

N

0 46 Kms

Compiled: 17-Apr-2024
Generated at: www.naturemaps.sa.gov.au
Datum: Geocentric Datum of Australia, 2020
Projection: Web Mercator (Auxiliary Sphere)

Government of South Australia
Department for Environment and Water

Proposed NV Impact - Bushland Assessment F1

Map data is compiled from a variety of sources and hence its accuracy is variable.

N

0 93 Kms

Compiled: 17-Apr-2024
Generated at: www.naturemaps.sa.gov.au
Datum: Geocentric Datum of Australia, 2020
Projection: Web Mercator (Auxiliary Sphere)

Government of South Australia
Department for Environment and Water

Photo log

A summary of photos indicating some areas where no native vegetation will be impacted along the proposed alignment.

A summary of photos indicating some areas where no native vegetation will be impacted in the proposed alignment and set down areas adjoining Oval Road, Mount Torrens.

A summary of photos indicating some areas where no native vegetation to be impacted at the proposed end point, adjoining Onkaparinga Valley Road, Birdwood.

Summary photo indicating some areas there is planted vegetation along.

4.2 Threatened Species assessment

Species observed on site, or recorded within 5km (50km in the arid zone) of the application area since 1995, or the vegetation is considered to provide suitable habitat

Species	Common name	NP&W Act	EPBC Act	Data source	Date of last record	Species known habitat preferences & likelihood of use for habitat.
Falculculus frontatus frontatus	Eastern shriketit	R	-	3	14-May-2016	Records within 5kms for A1, B1. The vegetation would provide very limited habitat resources for this species.
Microeca fascinans fascinans	Jacky Winter	R	-	3	24-Oct-2021	Records within 5kms for A1, B1, C1, D1. The vegetation would provide habitat resources for this species –

						corridors for movement, foraging and perching. Hooded Robins are found in lightly timbered woodland, mainly dominated by acacia and/or eucalypts.
Neophema elegans elegans	Elegant Parrot	R	-	3	15-Sep-2023	Records within 5kms for A1, B1, C1, D1. It is possible, however unlikely this vegetation would provide valuable habitat for this species. Perhaps corridors for movement between other areas of vegetation. Inhabiting open habitats, the Elegant Parrot can be found in a wide variety of habitats, including grasslands, shrublands, mallee, woodlands and thickets, bluebush plains, heathlands, saltmarsh and farmland.
Oriolus sagittatus sagittatus	Olive-backed Oriole	R	-	3	14-Aug-2002	Records within 5kms for A1, B1, C1, D1, E1, F1 & Trees 1, 2, 4 & 5. It is likely this habitat and trees would provide habitat resources for this species. The Olive-backed Oriole lives in forests, woodlands and rainforests, as well as well-treed urban areas, particularly parks and golf courses.
Petroica boodang boodang	Scarlet Robin	R	-	3	15-Sep-2023	Records within 5kms for A1, B1, C1, D1. It is likely that some of the areas of vegetation will provide perching and areas for foraging of this species.
Pteropus poliocephalus	Grey-headed Flying Fox	R	VU	3	22-Jan-2020	Records within 5kms for A1, C1, D1. The area provides limited habitat and feeding resources for this species. Taller trees could be utilised for roosting, however unlikely in this landscape. Grey Headed Flying-Fox are a canopy-feeding frugivore and nectarivore, which utilises vegetation communities including rainforests, open forests, closed and open woodlands, Melaleuca swamps and Banksia woodlands. Also known to utilise urban gardens and cultivated fruit crops.
Trichosurus vulpecula	Common Brushtail Possum	R	-	3	05-Jun-2021	Records within 5kms for A1, B1, C1, D1, E1, F1 & Trees 1, 2, 4 & 5. The vegetation would provide valuable habitat for this species and a corridor

						for movement – particularly in areas of better quality with taller trees. Common Brushtail Possums are found in Eucalyptus and Sheoak woodlands. As arboreal animals, they make their nests (also known as dens) in tree hollows or other dark confined spaces such as hollow logs, dense vegetation or rock crevices.
Myiagra inquieta	Restless Flycatcher	R	-	3	15-Feb-1998	Records within 5kms for C1, D1, E1, F1 & Trees 1, 2, 4 & 5. It is likely this habitat and trees would provide habitat resources for this species. The Restless Flycatcher is found in open forests and woodlands and is frequently seen in farmland.
Zanda funerea whiteae	Yellow-tailed Black Cockatoo	V	-	3	18-Mar-2018	Records within 5kms for F1. The area provides limited habitat and feeding resources for this species. The natural habitat they prefer ranges from coastal heath, woodland and forest but they are increasingly to be found in pine plantations and patches of pine trees in urban and rural areas.
Source; 1- BDBSA, 2 - AoLA, 3 – NatureMaps 4 – Observed/recorded in the field, 5 - Protected matters search tool, 6 – others NP&W Act; E= Endangered, V = Vulnerable, R= Rare 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.

All direct and indirect impacts have been considered in this application. Including fencing considerations, set down and potential car park areas. An extensive process of impact minimization have been undertaken as part of the planning of this proposal, with many areas identified to the applicant where no vegetation would be impacted as a result of planned works. The impact maps indicate the areas which will be impacted. The site plans refer to the overall project area.

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 applicant was not able to avoid impacting native vegetation as part of this project proposal.

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 applicant has taken all reasonable steps to avoid and minimize impacts to native vegetation as part of this proposal. The width of the proposed alignment is aimed to be 5m wide by 5m high, and the applicant will minimise unnecessary clearance of vegetation within bushland sites by micro-siting during the initial works (all within the clearance envelope identified in this report). The alignment of the proposed bikeway has achieved this by:

- *Aligning best (where possible) the proposed bikeway in the section of the corridor where the rail tracks were originally. The ground is compacted in these areas, and where patches of native vegetation exists, it is in comparatively poorer condition.*
- *The Jacobs preliminary investigations provided the applicant with significant data to enable an informed decision to minimize impacts to vegetation. Several iterations of the alignment has been considered, with the final proposed alignment impacting the least native vegetation.*
- *The applicant's intent is to retain as much native vegetation as possible along the corridor, for both amenity and biodiversity purposes.*
- *In consultation with the Accredited Consultant, (backed up by a field validation and survey process), the applicant altered the alignment to minimize impacts to native vegetation. Refer photographs in the photo log which show native vegetation avoided as part of this process. It included:*
    - *A significant patch of native grassland in the parcel adjoining Oval Road, Mount Torrens.*
    - *All native vegetation in the sections adjoining the Onkaparinga Valley Road, Birdwood.*
    - *Numerous mature Eucalyptus trees along the length of the proposed bikeway, where the alignment has weaved around them.*
    - *Utilising existing bridge structures to reduce construction impacts to native vegetation.*
    - *Set down and car park areas avoid all impacts to native vegetation.*

This process has been documented in detail. Can provide additional information if required.

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.

No rehabilitation or restoration is included in this proposal.

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.

The applicant will address the Significant Environmental Benefit Offset by making a payment into the Native Vegetation Fund.

The NVC will only consider an offset once avoidance, minimization and restoration have been documented and fulfilled. The SEB Policy explains the biodiversity offsetting principles that must be met.

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	Relevant information	Assessment against the principles
Principle 1b - significance as a habitat for wildlife	Refer to the Threatened Species Assessment for additional information. Patch A1: Threatened Fauna Score: 0.08 Unit Biodiversity Score: 17.23 Patch B1: Threatened Fauna Score: 0.06 Unit Biodiversity Score: 29.80 Patch C1 & D1: Threatened Fauna score: 0.08 Unit Biodiversity Score: 35.54 Patch E1: Threatened Fauna score: 0.04 Unit Biodiversity Score: 26.92 Patch F1: Threatened Fauna score: 0.06 Unit Biodiversity Score: 25.93 Trees; 1, 2, 4, 5. Fauna Habitat Score: 1 Tree 3: Fauna Habitat Score: 0 Combined Biodiversity Score: 1.09 The vegetation supports a high diversity of animal species, including many common species and declining birds of the Mount Lofty Ranges. The future potential also is for the site to support the grassy woodland specialist species which are	Assessment against the principle: Seriously at Variance - Vegetation Associations - A1, B1, C1, D1 & F1. (At Variance – E1 & Trees 1, 2, 3 & 4) Moderating factors that may be considered by the NVC: The Native Vegetation Council (or delegate) may choose to consider the 'Impact Significance' moderating factor when assessing this native vegetation application. The Native Vegetation Council may wish to decrease the risk from 'Seriously at variance' to 'At Variance' with impact significance considerations. This determination is at the assessment and discretion of the Native Vegetation Council (or delegate). It is unlikely that this clearance impact will result in accelerated declines of the listed threatened species. Including a decrease in species occupancy and population size. Due to the location, it is unlikely to fragment existing local threatened species populations or adversely affect critical habitats of a species. It is noted that the cumulative impacts (from clearance, land degradation and other impacts) contribute to declines across the landscape and this can be seen in incremental and long-term degradation of habitats and species decline. However, much of the declines in species' have been observed from long term historical degradation across the landscape.

	continuing to decline across the Mount Lofty Ranges and Adelaide Plains due to historical and continuing habitat fragmentation and other impacts.	
Principle 1c - plants of a rare, vulnerable or endangered species	The PMST search identified 16 flora species that may occur in the 5km study area. Of these, four have been observed within 5km *Caladenia argocalla* (White Beauty Spider-Orchid), *Caladenia behrii* (Pink-lipped Spider Orchid), *Caladenia rigida* (Stiff White Spider-orchid) and *Glycine latrobeana* (Clover Glycine). Of the species highlighted in the PMST all are considered unlikely to occur. No threatened species were recorded for the site or that may be present but undetectable at the time of assessment. Threatened Flora Score(s) – 0	Assessment against the principle - Not at Variance
***Principle 1d - the vegetation comprises the whole or part of a plant community that is Rare, Vulnerable or endangered*:**	No vegetation that comprises the whole or part of a plant community that is Rare, Vulnerable or endangered was recorded. One Critically Endangered TEC for Australia was identified in the PMST as 'likely to occur" within the study area: • Peppermint Box (Eucalyptus odorata) Grassy Woodland of South Australia. This community was NOT found to occur during the vegetation survey, nor were any individual E. odorata trees observed (noting that many trees were bushfire affected). The nearest mapped Peppermint Box Woodland is more than 4km east of the site with a very small patch over 4km to the east. This community is considered unlikely to occur. Threatened Community Score – 1	Assessment against the principle - Not at Variance

4.6 Risk Assessment

Determine the level of risk associated with the application

Total clearance	No. of trees	15
	Area (ha)	0.615
	Total biodiversity Score	22.90
Seriously at variance with principle 1(b), 1(c) or 1 (d)		1(b)
Risk assessment outcome		Level 4

4.7 NVC Guidelines

Provide any other information that demonstrates that the clearance complies with any relevant NVC guidelines related to the activity.

The proposal can be defined as a public recreation trail and is therefore subject to Regulation 12(36) – Recreation track of the Native Vegetation Regulations, 2017. Regulation 12(36) allows clearance of vegetation to establish or maintain a track for public recreational use involving the use of non-motorised vehicles, such as for bicycles or horses. Clearance must be risk assessed and meet the legislative requirements of Regulation 12(36) including achieving the Mitigation Hierarchy to avoid, minimise, rehabilitate and offset vegetation clearance, and including provision of a Significant Environmental Benefit (SEB).

5. Clearance summary

Clearance Area Summary table

Block	Site	Species diversity score	Threatened Ecological community Score	Threatened plant score	Threatened fauna score	UBS	Area (ha)	Total Biodiversity score	Loss factor	Loadings/ Reductions	SEB Points required	SEB payment	Admin Fee
A	1	10	1	0	0.08	17.23	0.057	0.98	1	-	1.03	$1,147.36	$63.05
B	1	10	1	0	0.06	29.80	0.014	0.42	1	-	0.44	$475.29	$26.14
C	1	14	1	0	0.08	35.54	0.38	13.51	1	-	14.18	$15,005.67	$825.31
D	1												
E	1	10	1	0	0.04	26.92	0.100	2.69	1	-	2.83	$2,889.57	$158.93
F	1	14	1	0	0.06	35.93	0.064	2.30	1	-	2.41	$2,468.31	$135.76
						Total	**0.615**	**19.90**			**20.89**	**$21,986.20**	**$1.209.19**

Scattered trees Summary table

Tree ID	Number of trees	Fauna Habitat score	Threatened flora score	Biodiversity score	Loss factor	SEB Points required	SEB Payment (incl admin fee)
1	1	1	0	0.28	1	0.30	$322.50
2	10	1	0	2.05	1	2.15	$2,324.29
3	2	0	0	0.13	1	0.14	$150.22
4	1	1	0	0.18	1	0.19	$203.69
5	1	1	0	0.35	1	0.37	$401.48
Total	**15**			**3.00**		**3.15**	**$3,402.17**

Totals summary table

Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
22.90	24.04	$25,211.01	$1,386.55	$26,597.56

Economies of Scale Factor	0.5
Rainfall (mm)	685

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

Indicate how the SEB will be achieved by ticking the appropriate box and providing the associated information:

☒ 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 amount required = $25,211.01 (no GST) plus admin fee of $1,386.55 (GST incl) = $26,597.56