Native Vegetation Clearance

Skeer Property Data Report

Clearance under Section 28 of the Native Vegetation Act 1991

October 2021

Prepared by Peter Tucker

Table of contents

1. Application information

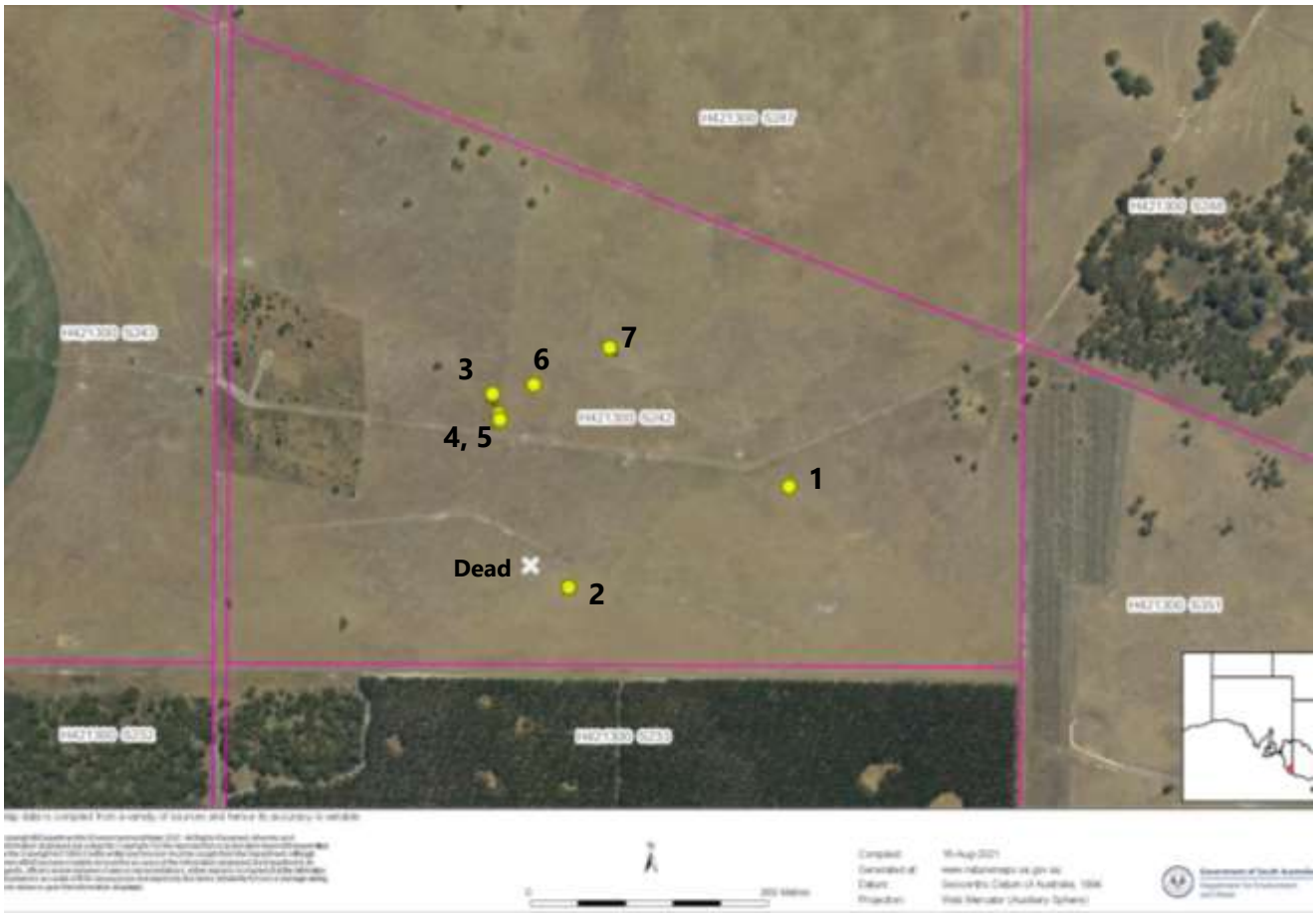
Application Details

Applicant:	Mrs Rosalie Skeer		
Key contact:	Mr James Skeer		
Landowner:	Mrs Rosalie Skeer		
Site Address:	[redacted], Monbulla SA 5277		
Local Government Area:	Wattle Range Council	Hundred:	Monbulla
Title ID:	CT/6202/266	Parcel ID	Sec 242

Summary of proposed clearance

Purpose of clearance	Clearance is required for the installation of a 37-hectare pivot irrigator to grow improved pasture.
Description of the vegetation under application	Seven Rough-barked Manna Gum (*Eucalyptus viminalis* ssp. *cygnetensis*), ranging in condition from good to poor and height from small to large.
Total proposed clearance - area (ha) and number of trees	7 scattered trees are proposed to be cleared. (1 dead tree is noted.)
Level of clearance	Level 3
Overlay (Planning and Design Code)	Native Vegetation Overlay

Map of proposed clearance area



Seriously at variance with the Principles of Clearance?	All seven trees are Seriously at Variance with Principle b).
Substantially intact	Not Applicable: Scattered paddock trees
Mitigation hierarchy	**Avoidance –** Several alternative locations for the pivot irrigator have been investigated by the owner. However, all other options are unsuitable due to poor drainage, including several wetlands listed in NatureMaps on adjoining paddocks, unsuitable soil or too close to a powerline (Victorian interconnector). An existing pivot irrigator occurs in the only the other suitable location on the property. Clearance of Trees 1 – 7 is unavoidable. **Minimisation** – The proposed location is the last remaining area on the property suitable for irrigation. Moving the irrigator north or east is unsuitable due to slightly lower elevation and poor drainage. A smaller pivot irrigator would not reduce the number of trees required for clearance. It is not possible to minimise vegetation clearance. **Rehabilitation** - The proposed vegetation clearance is the minimum required for the pivot irrigator. There will be no ability to rehabilitate or restore the area. An on ground SEB is proposed.
SEB Offset proposal	4.88 ha on-ground SEB is proposed to offset proposed vegetation clearance.

2. Purpose of clearance

2.1 Description

Clearance is required for the installation of a 37-hectare pivot irrigator to grow improved pasture for cattle and sheep production.

2.2 Background

The property has been owned by the Skeer family since the 1940s. Currently the property is used for grazing cattle only. However, if clearance is approved it will provide an opportunity to fatten lambs from a nearby property, which are currently sold early due to insufficient pasture. This second property is unsuitable for irrigation due to poor drainage, inappropriate soils, powerlines and obstacles including native trees making center pivot irrigation impractical. The capacity to hold lambs longer will enable the Skeer family to benefit from higher prices for finished lambs. Currently, lambs from the second property are sold early and purchasers benefit from fattening the lambs and selling them when they are older and a heavy weight. Additionally, the pivot irrigator will help to drought proof the property by lessening the impact of prolonged dry periods.

No further irrigation is envisioned for the property. No other suitable areas for irrigation occur on the property.

The property contains 14 patches of native vegetation totalling 186 hectares, of which four (75ha) have been fenced to exclude stock. The owner has participated in several conservation programs to enhance habitat for the nationally listed (Endangered) South East Red-tailed Black Cockatoo, including;

- Bucks for Bush Program (Natural Resources South East) - fencing remnant vegetation and bushland weed control;
- Trees For Life - paddock tree replacement program; and
- BirdLife Australia - addition of nesting hollows and protection of potential nesting trees (to exclude possums).

The South East Red-tailed Black Cockatoo is regularly observed on the property during spring and summer where it utilises Desert/Brown Stringybark (*Eucalyptus arenacea/baxteri*) habitat. The birds have never been observed in the vicinity of the proposed tree clearance where trees are sparsely occurring Rough-barked Manna Gum, provide no suitable nesting hollows for South East Red-tailed Black Cockatoo and are not a suitable food source.

Surrounding land use is a mixture of forestry, dryland and irrigated pasture and native vegetation. Penola Conservation Park is 4km to the north east. Several Heritage Agreements and Management Agreement areas occur nearby. The property is situated in the Monbulla district, approximately 16km to the west of Penola within the Wattle Range District Council.

2.3 General location map

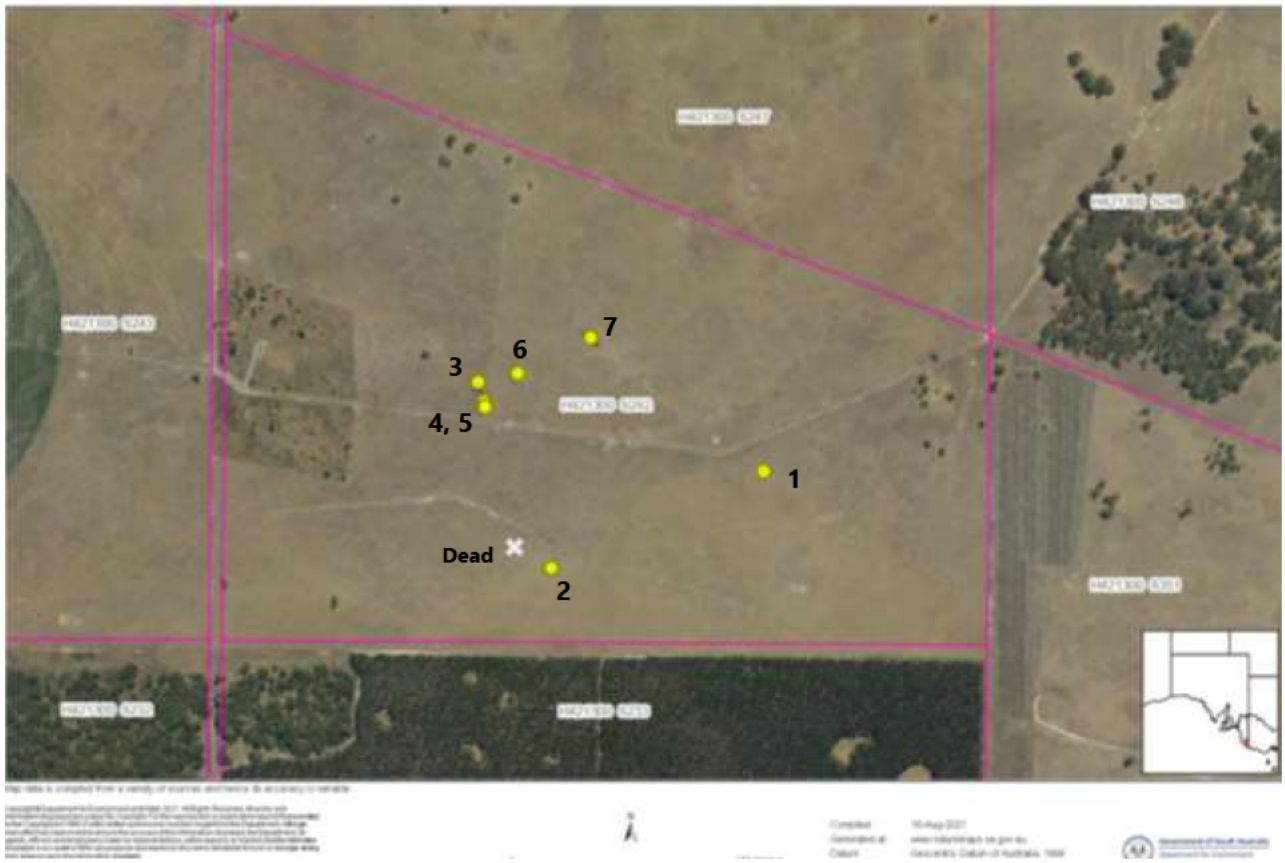


Figure 1. Site map of vegetation included in this application (Trees 1 - 7), defined by yellow dots, plus one dead tree defined by a white cross.

Figure 2. Location map of surrounding landscape. Yellow dots define the location of the seven trees.

2.4 Details of the proposal

The proposal is to clear seven trees for a pivot irrigator. The owner has considered several locations for a pivot irrigator. However, all other options have been determined to be unsuitable due to poor drainage, unsuitable heavy soil, too close to a powerline (Victorian interconnector) or restricted by property boundary. NatureMaps lists several small wetlands for the property. While they contain predominately annual pasture, they are unsuitable for irrigation due to poor drainage, i.e., improved pasture will not survive. The chosen area is slightly more elevated than the surrounding paddocks, sufficient to make irrigation viable. Due to the property boundary and other nearby paddock trees, the pivot could only be moved to the north or east where soil and drainage are unsuitable for irrigation. A smaller pivot irrigator would not reduce the number of trees required for clearance for similar reasons.

Several years ago, the owner installed a similar pivot irrigator in the only other suitable location on the property, Section 243 an adjoining paddock to the west. This pivot irrigator did not require removal of trees.

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

Native Vegetation Act 1991.

This application addresses the approval process required under the Native Vegetation Act 1991. There have been no previous clearance applications on this land parcel and no future clearance applications are envisaged to be made by the owner for land identified in this application.

Water Resources Act 1997

Water license No. 13733 is applicable to this property.

Environment Protection and Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act 1999 is addressed in this application.

National Parks and Wildlife Act 1972

The National Parks and Wildlife Act 1972 is addressed in this application.

3. Method

3.1 Flora assessment

Prior to site inspection a desktop search was conducted using NatureMaps, Atlas of Living Australia and an EPBC Protected Matters Search to determine possible presence of plant species listed under the EPBC Act 1999 or NP&W 1972 Act. A radius of five kilometres around the site was used for the desktop search.

The site was inspected on 19 July 2021 using the methods outlined in the Native Vegetation Council Scattered Tree Assessment Manual (July 2020).

3.2 Fauna assessment

Prior to site inspection a desktop search was conducted on NatureMaps, Atlas of Living Australia and an EPBC Protected Matters Search to determine possible presence of fauna species listed under the EPBC Act 1999 or NP&W 1972 Act. A radius of five kilometres around the sites was used for the desktop searches. In addition, a search of birds likely to use vegetation within the Callendale IBRA Environmental Association was undertaken (Source: G. Carpenter, Biodiversity Assessment Section, Department of Water, Land and Biodiversity Conservation).

The site was surveyed for fauna on 19 July 2021, which included walking the site searching for the presence of potential threatened species or evidence of their recent presence, such as scats and tracks. The survey was conducted concurrently with the flora survey.

All fauna captured in the desktop fauna assessments that could potentially use the site for habitat have been included in the NVC Scattered Tree Scoresheets (attached). Fauna species unsuited to the habitat were excluded as per agreement with the Native Vegetation Management Branch (28 July 2021).

4. Assessment Outcomes

4.1 Vegetation Assessment

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

The site is located within a flat landscape with shallow sandy soil over clay. The surrounding landscape is dotted with ephemeral wetland, but the site is one of the areas on the property where water drains unimpeded. The proposed pivot irrigator covers 37-hectares on which seven native trees occur, plus one dead tree that does not meet the criteria of a dead tree under the Native Vegetation Act. The seven trees range in condition from good to poor.

The seven trees are isolated paddock trees with in a cleared landscape. The Callendale IBRA Association has 14% native vegetation remaining and 13% remaining within a radius of 5km. Penola Conservation Park is located 4.5km to the north east and Heritage Agreement HA1113 is located 3.4km to the west. Much of surrounding landscape contains Tasmanian Blue Gum Plantations of various ages.

No fauna or additional native plants were observed during the site assessment.

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

Tree ID – Tree 1	
Eucalyptus viminalis ssp. *cygnetensis*	
Height (m) – 7	
Hollows – none	
Diameter (cm) – 52.8	
Canopy dieback (%) – none	
Total Biodiversity Score – 1.24	*Figure 3. Tree 1 looking to the south, GPS 468873 5862922.*
Tree 1 is a small tree in good condition with no hollows present. Tree 1 may provide habitat for threatened fauna listed in Section 4.2.	

Tree ID – Tree 2	 *Figure 4. Tree 2 looking to the south west, GPS 468538 5862768.*  *Figure 5. One medium hollow identified in Tree 2 located approximately 4m from ground level.*
Eucalyptus viminalis ssp. *cygnetensis*	
Height (m) – 10	
Hollows – 1 medium, 1 small	
Diameter (cm) – 114.5	
Canopy dieback (%) – 70	
Total Biodiversity Score – 2.61	

Figure 6. One small hollow identified in Tree 2.

Tree 2 is in moderate condition with one small and one medium hollow present. The tree was likely to have been larger at one time, but appears to be have been struck by lightning in the past, evidenced by a large scar which extends from the large broken former trunk to the ground. The remaining portion of the tree appears to be healthy. The owner has retained the fallen trunk around the base of the tree. Tree 2 may provide habitat for threatened fauna listed in Section 4.2.

Tree ID – Tree 3
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 12
Hollows – 1 medium
Diameter (cm) – 93.6
Canopy dieback (%) – 20
Total Biodiversity Score – 3.88

Figure 7. Tree 3 looking to the south east, GPS 468421 5863060. Trees 4 and 5 are in the background.

Figure 8. One medium hollow identified in Tree 3.

Tree 3 is in moderate condition with one medium hollow present. Tree three exhibited dieback of one lower branch. Tree 3 may provide habitat for threatened fauna listed in Section 4.2.

Tree ID – Tree 4
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 7
Hollows – none
Diameter (cm) – 74.2
Canopy dieback (%) – 90
Total Biodiversity Score – 0.48

Figure 9. Tree 4 (centre) looking to the south east, GPS 468431 5863029. Tree 5 is to the right.

Tree 4 is in poor condition with no hollows present. Tree 4 has lost all of its former canopy with the limbs still present at the base of the tree. A small amount of regrowth is evident. Tree 4 may provide habitat for threatened fauna listed in Section 4.2.

Tree ID –Tree 5	 *Figure 10. Tree 5 (right) looking to the south east, GPS 468433 5863021. Tree 4 is to the left*
Eucalyptus viminalis ssp. *cygnetensis*	
Height (m) – 15	
Hollows – none	
Diameter (cm) – 87.0	
Canopy dieback (%) – zero	
Total Biodiversity Score – 4.43	
Tree 5 is a small tree in good condition with no hollows present. Tree 5 may provide habitat for threatened fauna listed in Section 4.2.	

Tree ID – Tree 6	
Eucalyptus viminalis ssp. *cygnetensis*	*Figure 11. Tree 6 looking to the north east, GPS 468484 5863074*
Height (m) – 13	
Hollows – 1 large, 1 medium	*Figure 12. One large hollow observed in Tree 6.*
Diameter (cm) – 76.2	
Canopy dieback (%) – 20	
Total Biodiversity Score – 4.25	

Figure 13. One medium hollow identified in Tree 6 within 4m of ground level.

Tree 6 is a small tree in good condition with one large (ground level) and one medium hollow present. The canopy was sparse, but healthy exhibiting approximately 20% dieback. Tree 6 may provide habitat for threatened fauna listed in Section 4.2.

Tree ID – Tree 7
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 11
Hollows – 1 medium, 1 small
Diameter (cm) – 90.1
Canopy dieback (%) – 50
Total Biodiversity Score – 3.38

Figure 14. Tree 7 looking to the south east, GPS 468599 5863131.

Figure 14. One medium hollow observed in Tree 7.

Figure 16. One small hollow observed in Tree 7.

Tree 7 is a small tree in good condition with one small and one medium hollow present. The tree lost all of its canopy in the past, but the resulting regrowth is healthy. Tree 7 may provide habitat for threatened fauna listed in Section 4.2.

Tree #	Tree spp.	No. of trees	Height (m)	Hollows	Diameter (cm)	Canopy dieback (%)	Biodiversity Score	General comments	Photo #
1	*Eucalyptus viminalis* ssp. *cygnetensis*	1	7.0	None	52.8	Zero	1.24	Small tree in good condition providing perching habitat.	3
2	*Eucalyptus viminalis* ssp. *cygnetensis*	1	10.0	1 medium, 1 small	114.5	70	2.49	Medium tree in moderate condition providing habitat for a threatened species.	4
3	*Eucalyptus viminalis* ssp. *cygnetensis*	1	12.0	1 medium	93.6	20	3.88	Medium tree in good condition providing habitat for a threatened species.	7
4	*Eucalyptus viminalis* ssp. *cygnetensis*	1	7.0	None	74.2	90	0.48	Small tree in poor condition providing perching habitat.	9

5	*Eucalyptus viminalis* ssp. *cygnetensis*	1	15.0	None	87	Zero	4.43	Large tree in good condition providing perching habitat.	10
6	*Eucalyptus viminalis* ssp. *cygnetensis*	1	13.0	1 large, 1 medium	76.2	20	4.25	Medium tree in good condition providing habitat for a threatened species.	11
7	*Eucalyptus viminalis* ssp. *cygnetensis*	1	11.0	1 medium, 1 small	90.1	50	3.38	Medium tree in moderate condition providing habitat for a threatened species.	14

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

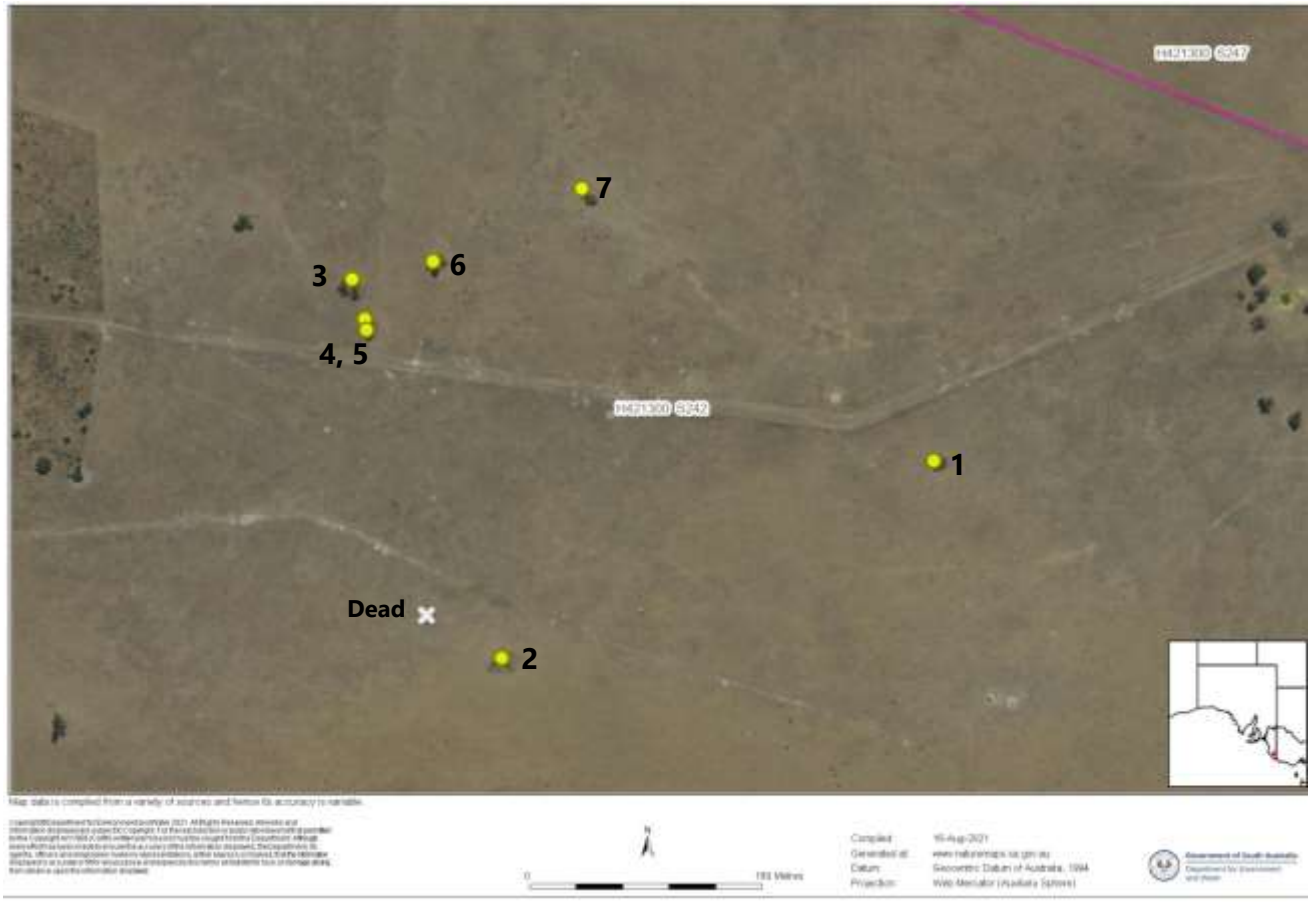


Figure 17. Stie Impact Map highlighting tree locations (yellow dots) contained in this application. One dead tree is identified by a white cross.

Photo log

Figure 18. A dead tree looking to the south, GPS 468480 5862801. This tree contained one small hollow. No hollows suitable for South East Red-tailed Black Cockatoo were observed, i.e., large hollow within 45 degrees of vertical 8m above ground level.

Figure 19. One small hollow identified in the dead tree.

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 – Comments
Calyptorhynchus banksii ssp. *graptogyne* (SE Red-tailed Black Cockatoo)	E	EN	2, 3, 5	2012	Feeding, *Eucalyptus arenacea/baxteri or Allocasuarina luehmannii.*	Unlikely – no suitable habitat. Frequently seen in suitable habitat

					Nesting, any large hollow >8m from the ground and within 45deg of vertical.	elsewhere on the property, remote from clearance site.
Litoria reniformis (Southern Bell Frog)	V	VU	2, 3, 5	1995	Near permanent or ephemeral waterbodies or flood plains.	Unlikely – no recent records, site provides marginal habitat.
Neophema chrysostoma (Blue-winged Parrot)	V		2, 6	2008	Coastal, sub-coastal and inland areas, favouring grassy habitats. And altered environments such as airfields, golf-courses and paddocks.	Likely – suitable habitat present.
Trichosurus vulpecula (Common Brushtail Possum)	R		2, 3	1997	Open dry eucalypt forest, woodlands, heath and urban areas.	Unlikely - no suitable habitat.
Vombatus ursinus (Common Wombat)	R		2, 3	1997	Open vegetation of coastal shrubland, woodland and heathland.	Unlikely – no suitable habitat.
*Myiagra inquieta (*Restless Flycatcher)	R		2	2008	Open forests and woodlands.	Unlikely – No suitable habitat.
Petaurus breviceps (Sugar Glider)	R		2, 3	2016	Open woodlands and forests	Unlikely – no suitable habitat.
Hirundapus caudacutus caudatus (White-throated Needletail)	V		3	1997	Aerial birds that will roost in trees.	Unlikely – suitable roosting habitat, but no recent records.
Corcorax melanorhamphos (White-winged Chough)	R		2, 3	2003	Open forests, woodlands and mallee, preferring wetter areas, with lots of leaf-litter.	Unlikely – no suitable habitat.
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 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 provides 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 provides 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 Presence of Substantially Intact Vegetation

If the vegetation is considered to represent a substantially intact stratum, the NVC cannot approve clearance, unless for the purpose of harvesting native vegetation (section 27(3)).

Provide information on whether the native vegetation constitutes a continuous intact stratum.
Trees 1 – 7 do not meet all the NVC criteria for a continuous intact stratum, namely;

- The seven trees are not growing at a pre-European density for a Rough-barked Manna Gum Woodland;
- The stratum consists only of Rough-barked Manna Gum and does not contain other species that would be found in a pre-European example of the stratum;
- The trees are scattered and not part of a contiguous stratum;
- Exotic perennial species do not occupy more than 20% of the stratum.

There are no other native species present in the area. There are no native shrub or ground species present, exotic plants occupy the entire ground layer.

Provide information on whether the native vegetation has been subject to degradation within the past 20 years.

All of the trees occur within an historically cleared paddock and have been subject to stock camping, compaction and nutrient addition. In recent years, all stock have been cattle. Additionally, all of the trees have been subjected to cattle rubbing against their trunks. It is unknown if these activities have directly contributed to tree degradation, but are consistent with activities commonly associated with paddock tree degradation. It is likely the trees have degraded during the previous 20 years.

Provide a key finding on whether any or all of the area of impact could be considered as substantially intact.

The trees are **not** considered to be substantially intact vegetation, due to reduced species diversity in the stratum and trees are not at a pre-European density.

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

If the clearance is seriously at variance with one or more of the principles, the NVC cannot approve clearance, however, the Act provides the NVC with a degree of discretion in certain situations

Principle of Clearance	Considerations
Principle 1a - it comprises a high level of diversity of plant species	Relevant information The proposed clearance is for scattered trees.
	Assessment against the principles Not at Variance

	Moderating factors that may be considered by the NVC Not Applicable
Principle 1b - significance as a habitat for wildlife	Relevant information No threatened fauna were observed during the field survey. The following threatened fauna were identified from a desktop survey as likely to use the trees for habitat; • Blue-winged Parrot (SA V). Potentially the trees 2, 3, 6 and 7 could provide nesting habitat for Blue-winged parrot. All seven trees could provide habitat for movement through the landscape. Tree | Fauna Habitat Score | Biodiversity Score 1 | 1.4 | 1.24 2 | 1.4 | 2.49 3 | 1.4 | 3.88 4 | 1.4 | 0.48 5 | 1.4 | 4.43 6 | 1.4 | 4.25 7 | 1.4 | 3.38
	Assessment against the principles **Seriously at Variance** - all seven trees.
	Moderating factors that may be considered by the NVC Trees 2, 3, 6 and 7 contained hollows suitable for Blue-winged Parrot, the remain tree contained suitable perching habitat. While the trees are in moderate to good condition, there are several other similar paddock trees nearby. The proposed on ground SEB is within 200m of Tree 3 and contains several trees with suitable hollows, including a large number of dead standing trees. The property also contains 186 hectares of bushland over 14 patches mainly in the northern half of the property. The adjoining property to the south contains has several large patches of remnant bushland amongst Tasmanian Blue Gum Plantations. Blue-winged Parrot readily move across the landscape in search of habitat and food resources and the removal of Trees 1 – 7 is likely to have a negligible impact on the species. Therefore, it is recommended to moderate the assessment of all seven trees to **At Variance**.
Principle 1c - plants of a rare, vulnerable or endangered species	Relevant information No threatened flora were observed during the site assessment, nor likely to occur based on desktop database searches. The understory vegetation contained 100% exotic flora within the vicinity of the proposed vegetation clearance. Threatened Flora Score(s) Trees 1 to 7 – 0.00
	Assessment against the principles Not at Variance
	Moderating factors that may be considered by the NVC Not Applicable.

***Principle 1d - the vegetation comprises the whole or part of a plant community that is Rare, Vulnerable or endangered*:**	Relevant information The seven trees proposed to be cleared are scattered paddock trees and therefore Not Applicable to this Principle.
	Assessment against the principles Not at Variance
	Moderating factors that may be considered by the NVC Prior to European settlement trees 1 – 7 would have been part of a Rough-barked Manna Gum Woodland (NatureMaps), which is now considered to be Vulnerable at the State level. (DEH Provisional List of Threatened Ecosystems of South Australia). However, trees 1 – 7 are scattered paddock trees with distance between trees ranging from 30m to 360m, except for Trees 4 and 5 which are only 5m apart.
Principle 1e - it is significant as a remnant of vegetation in an area which has been extensively cleared.	Relevant information Remnancy; IBRA Association (Callendale) – 14% IBRA Subregion (Lucindale) – 13% Total Biodiversity Score Trees 1to 7 inclusive – 20.15
	Assessment against the principles **At Variance**
	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 proposed clearance area is not associated with a wetland environment.
	Assessment against the principles Not at Variance
	Moderating factors that may be considered by the NVC Not Applicable The closest recorded wetland is Brimbrimbie Wetland, which occurs 250m to the north in an adjoining paddock. NatureMaps has no data for the Environmental Value Assessment of this wetland. The area is exotic pasture, which retains water in wet years.
Principle 1g - it contributes significantly to the amenity of the area in which it is growing or is situated.	Relevant information Trees 1 – 7 are not located near a township. The trees occur 2.25km south of the Penola – Robe tourist route (Clay Wells Road). This section of road is tree lined, or bushland occurs between the road and the trees. Trees 1 – 7 are not visible from the tourist route and do not contribute significantly to the area's amenity.
	N/A
	Moderating factors that may be considered by the NVC

Principles of Clearance (h-m) will be considered by comments provided by the local NRM Board or relevant Minister. The Data Report should contain information on these principles where relevant and where sufficient information or expertise is available.

4.5 Address the Mitigation Hierarchy

The Native Vegetation Council will consider if the applicant has avoided and minimized the clearance of native vegetation as much as practically possible.

a) Avoidance

The owner has considered several locations for a pivot irrigator. However, all other options have been determined to be unsuitable due to poor drainage, unsuitable soil or too close to a powerline (Victorian interconnector). NatureMaps lists several small wetlands for the property. While they contain predominately annual pasture, they are unsuitable for irrigation due to poor drainage, i.e., improved pasture will not survive. The chosen area is slightly more elevated than these paddocks, sufficient to make irrigation viable.
The owner has already installed a pivot irrigator in the only other suitable location on the property, Section 243 an adjoining paddock to the west.

To install a pivot irrigator, clearance of Trees 1 – 7 is unavoidable for the reasons mentioned above.

b) Minimisation

The proposed location of a pivot irrigator is the only remaining location on the property suitable for irrigated pasture. Other elevated land contains patches of native vegetation, several of which have been fenced to exclude stock, and therefore are unsuitable. Due to the property boundary and other paddock trees, the pivot could only be moved to the north or east where soil and drainage are unsuitable for irrigation. A smaller pivot irrigator would not reduce the number of trees required for clearance.

It is not possible to minimise vegetation clearance.

c) Rehabilitation or restoration

The proposed vegetation clearance is the minimum required for the pivot irrigator. There will be no ability to rehabilitate or restore the area. An on ground SEB is proposed.

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.

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.

An on ground SEB of XX hectares is proposed to offset the vegetation clearance.

4.6 Risk Assessment

Determine the level of risk associated with the application

Total clearance	No. of trees	7
	Area (ha)	
	Total biodiversity Score	20.15
Seriously at variance with principle 1(b), 1(c) or 1 (d)		1(b)
Risk assessment outcome		Level 3

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	0.00	1.24	1.0	1.30	$1, 088.11	$59.85
2	1	1.4	0.00	2.49	1.0	2.61	$2, 182.21	$120.02
3	1	1.4	0.00	3.88	1.0	4.07	$3,405.88	$187.32
4	1	1.4	0.00	0.48	1.0	0.51	$424.50	$23.35
5	1	1.4	0.00	4.43	1.0	4.65	$3892.60	$214.09
6	1	1.4	0.00	4.25	1.0	4.46	$3, 732.48	$205.29
7	1	1.4	0.00	3.38	1.0	3.55	$2, 967.01	$163.19
Total	**7**			**20.15**		**21.16**	**$17, 692.79**	**$973.10**

Totals summary table

	Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
Application	20.15	21.16	$17, 692.79	$973.10	$18, 665.90

Economies of Scale Factor	0.5
Rainfall (mm)	634

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:

☒ Establish a new SEB Area on land owned by the proponent.

☐ Use SEB Credit that the proponent has established. Provide the SEB Credit Ref. No. _____

☐ Apply to have SEB Credit assigned from another person or body. The application form needs to be submitted with this Data Report.

☐ Apply to have an SEB to be delivered by a Third Party. The application form needs to be submitted with this Data Report.

☐ Pay into the Native Vegetation Fund.

ON-GROUND SEB

Ownership:	Mrs Rosalie Skeer		
Site Address:	6890 Clay Wells Road, Monbulla SA 5277		
Local Government Area:	Wattle Range Council	Hundred:	Monbulla
Title ID:	CT/6202/266	Parcel ID	Sec 242

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

The nominated SEB is located 200m to the west of the trees included in this vegetation clearance proposal. The landform is similar the proposed clearance area being a flat plane, although the SEB area has a slightly higher elevation to the surrounding paddocks.

The SEB comprised one vegetation community;

1. Site A, Sand-heath Yacca (*Xanthorrhoea caespitosa*) Shrubland with emergent Desert/Brown Stringybark (*Eucalyptus arenacea/baxteri*) in poor condition.

The owner fenced the area approximately ten years ago in an effort to protect the many declining trees. It is expected the decline was due to stock camping in paddocks where few trees occurred. Unfortunately, many of the trees continued to declined and die. Fenced stock yards occur in the patch, being chosen for the slightly higher ground compared to surrounding paddocks. The site has since been used to quarantine sick cattle from time to time. Recruitment by natural regeneration has been limited and likely due to established pasture grasses. The proposed SEB will be revegetated following actions in the attached Native Vegetation Management Plan.

Site A1 occurs as two patches separated by a 12m wide raceway. Vegetation was assessed in both patches and deemed to be the same. The owner wishes to retain a small area (0.9ha) in the northern patch for quarantining sick cattle when required.

The SEB occurs on a property with a mixture of pasture and remnant vegetation totalling 186 hectares over 14 patches, four (75ha) of which have been fenced. The surrounding landscape includes a mixture of forestry, dryland and irrigated pasture and native vegetation. Penola Conservation Park is 4km to the north east. Several Heritage Agreements and Management Agreement areas occur nearby.

Information relating to the relevant land

The land has been owned by the Skeer family since the 1940s and has been used for cattle and sheep grazing since this time. Currently, the property is used for cattle grazing only. There are no mining leases, Heritage Agreements, easements or other contractual arrangements on the property.

General location map

Figure 20. Map of proposed SEB location, included paddock trees proposed to be cleared for a pivot irrigator.

Figure 21. Map of landscape surrounding the proposed SEB (yellow polygons).

Description of the vegetation

Vegetation Association	Site A1 - Sand-heath Yacca (*Xanthorrhoea caespitosa*) Shrubland with emergent Desert/Brown Stringybark (*Eucalyptus arenacea/baxteri*).

Figure 22. Representative photograph of SEB Site A1, looking to the east. GPS 468157 5863105.

Figure 23. Representative photograph of SEB Site A1, looking to the north west. GPS 468122 5863142.

General description	Site A1 occurs as two patches separated by a 12m wide raceway. The dominant native species are Sand-heath Yacca (*Xanthorrhoea caespitosa*), Bare Twig-rush (*Baumea juncea*) with emergent occurrences of Desert/Brown Stringybark (*Eucalyptus arenacea/baxteri*). Also present, but in fewer numbers are Black Wattle (*Acacia mearnsii*), Blackwood (*Acacia melanoxylon*) and Rough-barked Manna Gum. The dominant exotic species are Yorkshire Fog (*Holcus lanatus*), Great Brome (*Bromus diandrus*) and Rough Cat's Ear (*Hypochaeris radicata*). Overall vegetation condition was poor. No clear signs of disturbance were observed, but kangaroo scats were noted. Pre-European vegetation is likely to have been a Desert/Brown Stringybark +/- Rough-barked Manna Gum Low Open Forest and restricted to this small area of elevated land.				
Threatened species or community	No threatened flora or fauna were observed. However, several hollows suitable for Blue-winged Parrot (*Neophema chrysostoma)* were observed.				
Landscape context score	1.14	Vegetation Condition Score	12.04	Conservation significance score	1.04
Gain Score	4.47	Area (ha)	4.88	SEB Points of Gain	21.83

Site map showing areas of the proposed SEB

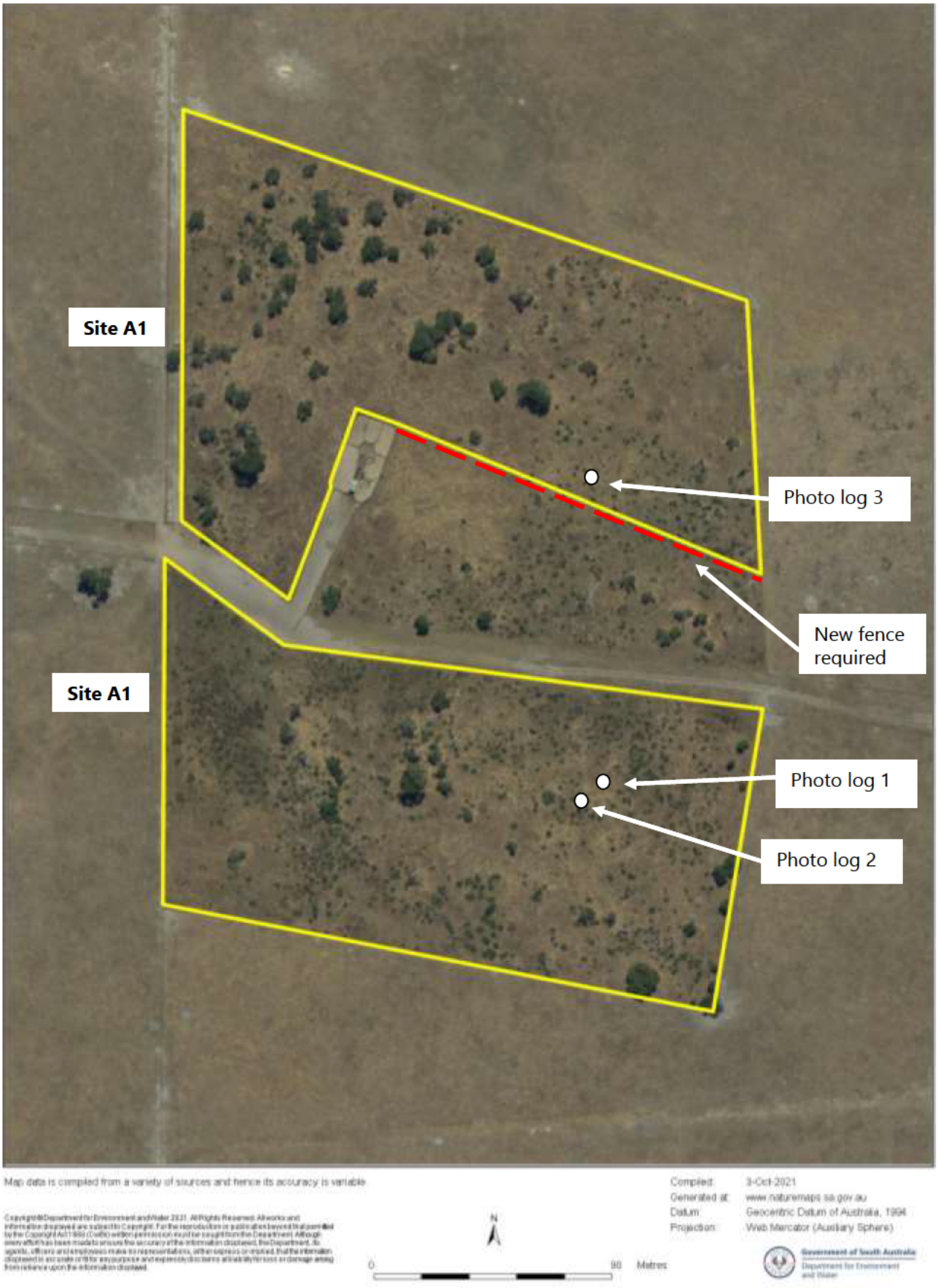


Figure 24. Map of Site A1 for the proposed SEB. A new 150m fence is required to create a quarantine area for sick cattle.

Photo log

Figure 25. Photo Log 1, view to the west from the southern patch. GPS 468165 5862996.

Figure 26. Photo Log 2, example of a medium hollow observed in the southern patch, GPS 486163 586986. Hollows were also present in the northern patch.

Figure 27. Photo Log 3, example of vegetation in the northern patch looking to the east, including numerous dead standing trees. GPS 468158 5863104.

Fauna and Flora assessment

Species recorded within 5km of the application area since 1995, or the vegetation is considered to provide suitable habitat. No threatened species were observed on site.

Species (common name)	NP&W Act	EPBC Act	Data source	Date of last record	Species known habitat preferences	Likelihood of use for habitat – Comments
Calyptorhynchus banksii ssp. *graptogyne* (SE Red-tailed Black Cockatoo)	E	EN	2, 3, 5	2012	Feeding, *Eucalyptus arenacea/baxteri or Allocasuarina luehmannii.* Nesting, any large hollow >8m from the ground and within 45deg of vertical.	Unlikely – no suitable habitat. Frequently seen in suitable habitat elsewhere on the property, remote from clearance site.
Litoria reniformis (Southern Bell Frog)	V	VU	2, 3, 5	1995	Near permanent or ephemeral waterbodies or flood plains.	Unlikely – no recent records, site provides marginal habitat.
Neophema chrysostoma (Blue-winged Parrot)	V		2, 6	2008	Coastal, sub-coastal and inland areas, favouring grassy habitats. And altered environments such as airfields, golf-courses and paddocks.	Likely – suitable habitat present.
Trichosurus vulpecula (Common Brushtail Possum)	R		2, 3	1997	Open dry eucalypt forest, woodlands, heath and urban areas.	Unlikely - no suitable habitat.
Vombatus ursinus (Common Wombat)	R		2, 3	1997	Open vegetation of coastal shrubland,	Unlikely – no suitable habitat.

					woodland and heathland.	
*Myiagra inquieta (*Restless Flycatcher)	R		2	2008	Open forests and woodlands.	Unlikely – No suitable habitat.
Petaurus breviceps (Sugar Glider)	R		2, 3	2016	Open woodlands and forests	Unlikely – no suitable habitat.
Hirundapus caudacutus caudatus (White-throated Needletail)	V		3	1997	Aerial birds that will roost in trees.	Unlikely – suitable roosting habitat, but no recent records.
Corcorax melanorhamphos (White-winged Chough)	R		2, 3	2003	Open forests, woodlands and mallee, preferring wetter areas, with lots of leaf-litter.	Unlikely – no suitable habitat.
FLORA						
Caladenia formosa (Elegant Spider Orchid)	V	VU	2, 3	2004	Heathy woodlands on sand.	Unlikely. No suitable habitat.
Glycine latrobeana (Clover Glycine)	V	VU	2, 3	2002	Grassland and Grassy Woodland on heavy soil.	Unlikely. No suitable habitat.
Caladenia necrophylla (Late Spider-orchid)	R		2, 3	2004	Heathy woodland.	Unlikely, suitable area but very degraded.
Eleocharis atricha (Tuber Spike-rush)	V		2, 3	1995	Swamps, seasonally wet areas, heath and woodland.	Unlikely, suitable area but very degraded. Not observed during survey.
Eucalyptus fasciculosa (Pink gum)	R		2, 3	2007	Generally considered to grow on well drained sandy soil of low fertility.	Unlikely. No suitable habitat. Not observed during survey.
Mentha diemenica (NC) (Slender Mint)	R		2, 3	2002	Damp areas of grassy ecosystems.	Unlikely. No suitable habitat.
Pentapogon quadrifidus var. quadrifidus (Five-awn Spear-grass_	R		2, 3	1995	Damp or seasonally damp areas in woodlands.	Unlikely, suitable area but very degraded. Not observed during survey.
Tricostularia pauciflora (Needle Bog-rush)	E		2, 3	1995	Damp sandy heath in low lying areas.	Unlikely. No suitable habitat.
Utricularia violacea (Violet Bladderwort)	R		2, 3	1995	Wet heaths and swamps.	Unlikely. No suitable habitat.
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 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 provided 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 provided 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.

Environmental Benefits

The proposed SEB area has been fenced from stock for approximately ten years, but has generally failed to arrest the decline of trees impacted by years of stock camping or regenerate naturally. Currently, the vegetation provides habitat for the NPW Act listed (Vulnerable) Blue-winged Parrot with several suitable hollows in the standing dead trees. Habitat is also available for common fauna species.

Over time, active management of the area for conservation via revegetation and weed management is expected to provide addition resources for the EPBC Act listed (Endangered) South East Red-tailed Black Cockatoo, which is frequently observed in other parts of the property during spring and summer. Fourteen patches of bushland occur on the property and include suitable food resources for South East Red-tailed Black Cockatoo. Details of the management action are provided in the attached Native Vegetation Management Plan.

Summary Table

Block	Site	Vegetation Association	UBS	Gain Score	Area (ha)	SEB Point of Gain
A	**1**	Site A1 - Sand-heath Yacca (*Xanthorrhoea caespitosa*) Shrubland with emergent Desert/Brown Stringybark (*Eucalyptus arenacea/baxteri*).	**14.28**	**4.47**	**4.88**	**21.83**
				Total	**4.88**	**21.83**

SEB Management Plan

The Management Plan for the proposed SEB area is attached as a PDF document.

7. Appendices

Appendix 1. Scattered Tree and Bushland Vegetation Assessment Scoresheets associated with the proposed clearance and SEB Area (to be submitted in Excel format)

Appendix 2. SEB Management Plan