Native Vegetation Clearance

89 Boyong Road, Mount Benson

Data Report (UPDATED)

Clearance under Section 28 of the *Native Vegetation Act 1991*

March 2025

Prepared by Peter Tucker

Table of contents

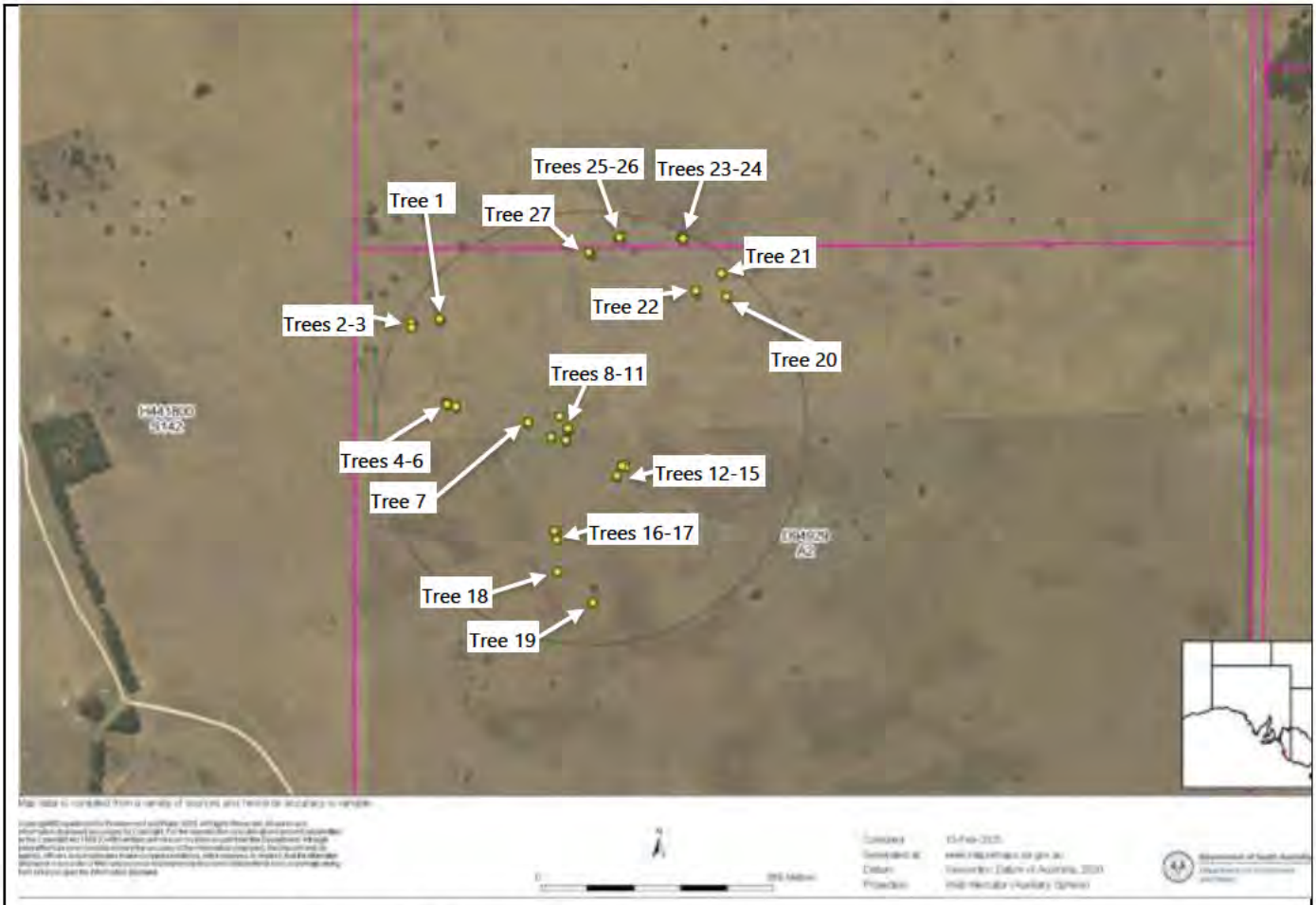
1. Application information

Application Details

Applicant:	Nareen Station Pty Ltd		
Key contact:	[redacted] P: 89 Boyong Rd, Mount Benson SA 5275 M: [redacted] E: [redacted]		
Landowner:	Nareen Station Pty Ltd		
Site Address:	89 Boyong Rd, Mount Benson		
Local Government Area:	District Council of Robe	Hundred:	Waterhouse
Title ID:	CT/6148/728 CT/6228/144	Parcel ID	D94929 A2 D121860 Q13

Summary of proposed clearance

Purpose of clearance	Clearance is required for installation of a 35ha pivot irrigator.
Description of the vegetation under application	22 small Rough-barked Manna Gum (*Eucalyptus viminalis* ssp. *cygnetensis*) ranging in condition from dead to good; 5 small Inland South Australian Blue Gum (*Eucalyptus leucoxylon* ssp. *pruinosa*) ranging in condition from dead to moderate.
Total proposed clearance - area (ha) and number of trees	27 scattered trees are proposed to be cleared.
Level of clearance	Level 4



Seriously at variance with the Principles of clearance?	All trees – Principle 1(b).
Substantially intact	Not Applicable: Scattered paddock trees.
Mitigation hierarchy	**Avoidance** – The size of the pivot irrigator has been reduced from 50ha to 35ha, which has avoided 20 trees. Consequently, the TBS has reduced from 122.66 to 60.88. Two earlier nearby pivot irrigators are 50ha in size and utilised the only suitable available land that did not contain native vegetation. **Minimisation** – Reducing the pivot irrigator from 50ha to 35ha means it is not possible to minimise vegetation clearance further. **Rehabilitation or restoration** – Vegetation clearance will be permanent and there will be no ability to rehabilitate or restore the area after vegetation clearance. **Offset** – It is proposed to offset vegetation clearance with an on ground SEB of 13.206ha.
SEB Offset proposal	13.206ha on-ground SEB.

2. Purpose of clearance

2.1 Description

Vegetation clearance is required for the installation of a 35 hectare pivot irrigator to grow Lucerne pasture to finish lambs and for hay production.

2.2 Background

The property 'Boyong' has been owned by the current owner for 28 years and primarily used for stock grazing (cattle and sheep) and hay production. Two 50ha pivot irrigators were commissioned in 2020 to provide greater flexibility and diversity for the farm business (Figure 1). They also enabled the business to better manage stock production during extended dry periods and were located where native vegetation was absent, avoiding the need to clear native vegetation. They have proved to be a success and are now a critical component of the farm's long term viability.

Following the previous success, the owner wants to install a third pivot irrigator (35ha), which will require the removal of 27 scattered paddock trees and will be located to the west of the two existing pivot irrigators.

No further vegetation clearance or irrigation is envisioned for this property.

The owner proposes to establish an on ground SEB of 13.206ha to meet SEB obligations for tree clearance associated with the new pivot irrigator. The SEB is larger than required so the fence line can be placed in a natural gap in the vegetation and avoid damage to trees.

The owner has a long history of protecting native vegetation and undertaking revegetation across three properties, one in South Australia and two in Western Victoria. When first purchased the owner set aside a 40ha patch of native vegetation on this property. However, this conviction to protect native vegetation began in 1985 with 20.1ha set aside on the Barrama property in Tarrayoukyan, Victoria. In the 40 years since, across three properties a total of 527.4ha has been protected for conservation including 68.1ha on the Boyong property and includes protection of watercourses, revegetation and protecting remnant vegetation from stock. A further 214.6ha has been placed under forestry.

In recent years, the owner has worked closely with the Limestone Coast Landscape Board, Healthy Coorong, Healthy Basin Plan for the Lake Hawdon North restoration project which aims to rehabilitate the area for migratory shore birds. This is an ongoing commitment and as the project advances, the owner is planning to help increase surface water flows from the Boyong property into Lake Hawdon North.

Surrounding land use is a mixture of dryland pasture, native vegetation, softwood forestry and irrigated pasture. Part of the property adjoins Bagdad Native Forest Reserve separated by Dairy Range Road. Prior to European settlement, large parts of the landscape to the east, south and west were dotted with wetlands of varying size. Today, most have been drained and converted to pasture. Lake Hawdon North, 3km to the south, is the largest remaining wetland. Robe, the closest township, is 14km to the south west.

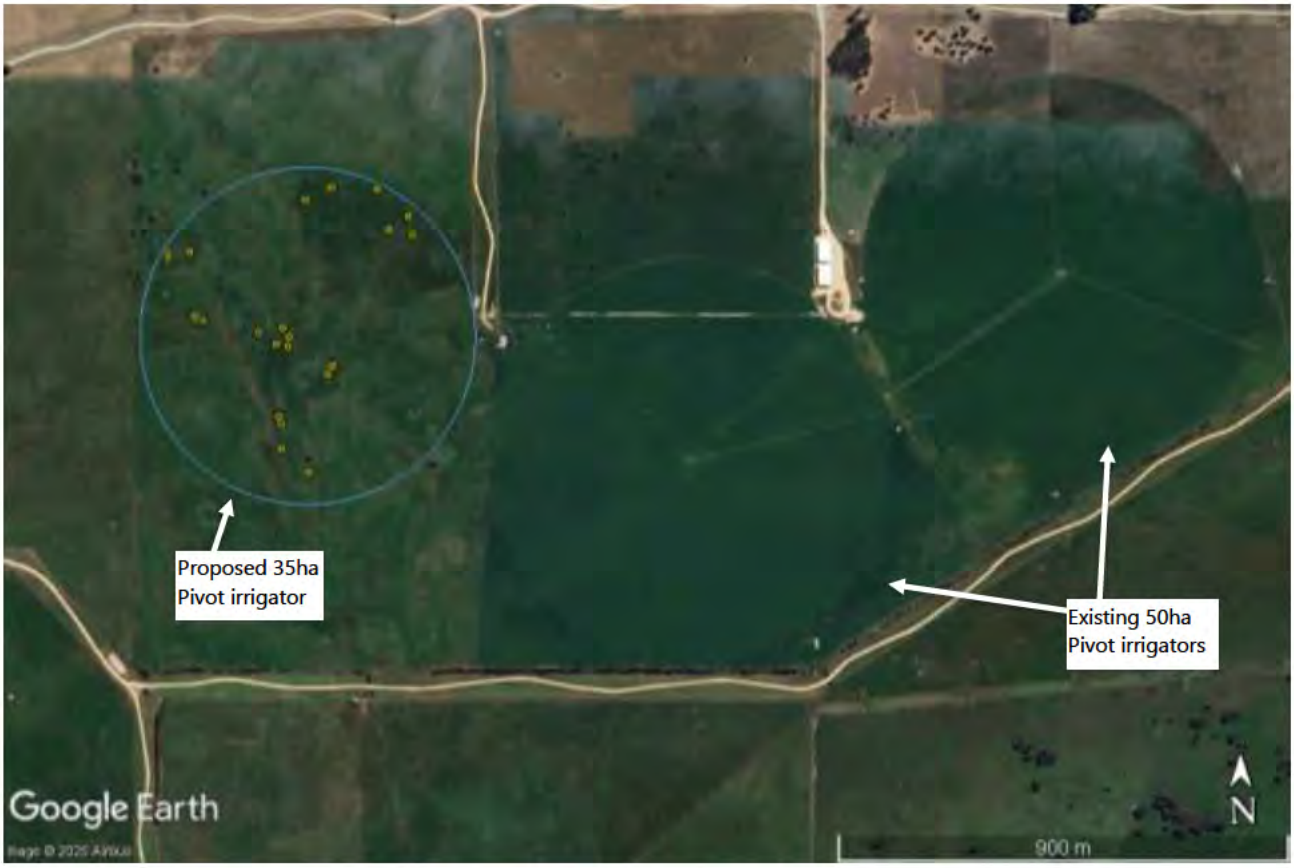


Figure 1. Google Earth image depicting the two recently installed pivot irrigators (50ha each) and the proposed smaller 35ha pivot irrigator.

2.3 General location map

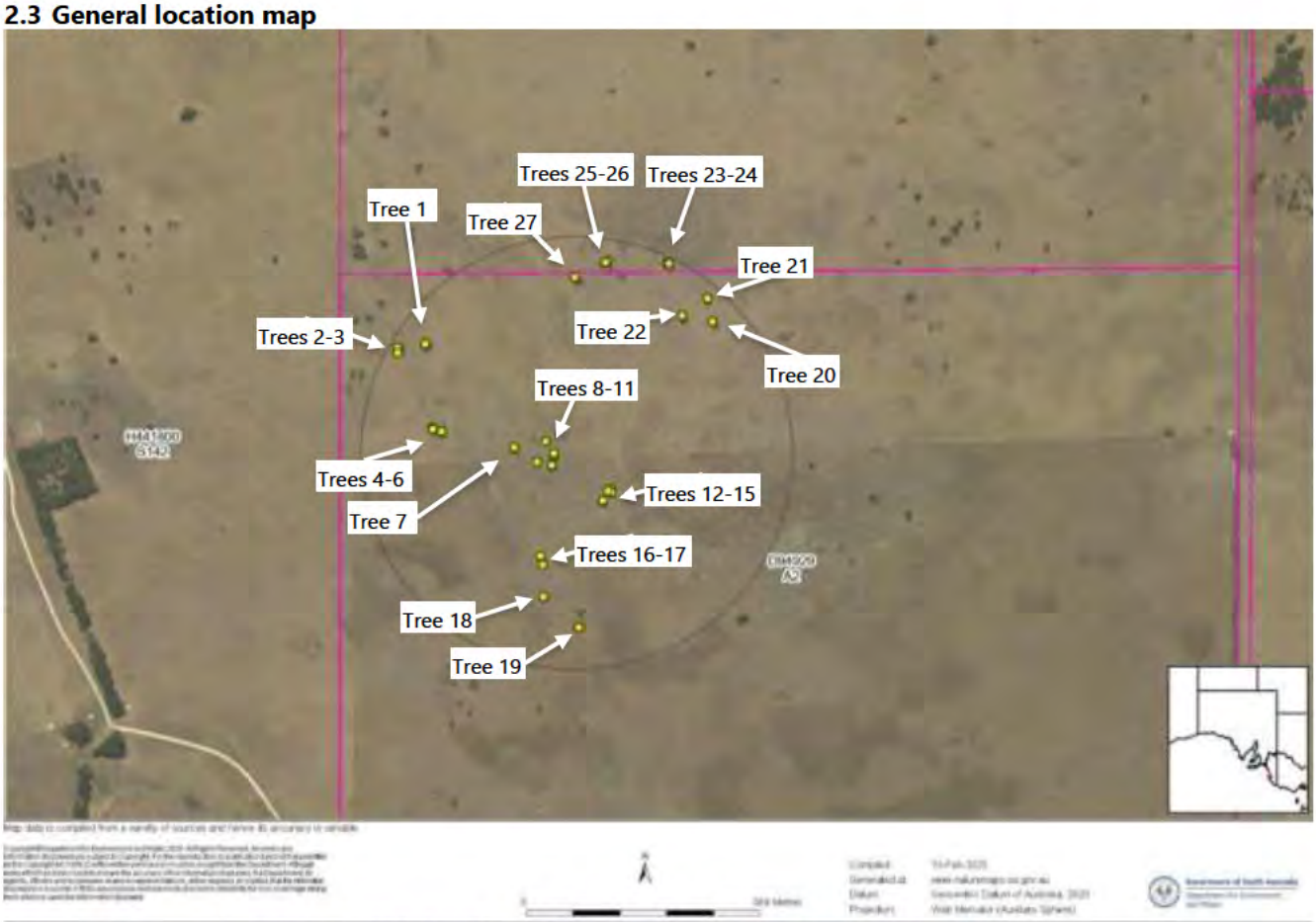


Figure 2. Site map of vegetation included in this application (Trees 1 - 27), defined by yellow dots.

Figure 3. Location map of surrounding landscape. Yellow dots define vegetation location.

2.4 Details of the proposal

Having exhausted land that was clear of native vegetation and suitable for irrigation, the owner now seeks to clear paddock trees for a third pivot irrigator. Initially, the preference was for another 50ha pivot irrigator. However, this would require the removal of 47 paddock trees, including a single clump of seven trees, which was unacceptable to the owner who values the paddock trees and patches of bushland on the property. Balancing the desire to retain as many trees as possible, yet improve the farm's long term resilience and financial viability a decision was made to reduce the pivot irrigator size from 50ha to 35ha resulting in 20 less trees needing to be removed (Figure 4). Consequently, the Total Biodiversity Score (TBS) for project reduced from 122.66 to 60.08.

Understanding the value of native vegetation in the landscape, the owner has proposed an on ground Significant Environmental Benefit (SEB) of 13.206ha. It is located 1300m to the north east of the clearance site and comprised of similar vegetation that would have occurred at the clearance site prior to European settlement. A revegetation component is incorporated in the SEB and includes species proposed to be removed for the pivot irrigator; Rough-bark Manna Gum and Inland SA Blue Gum. The owner will engage their regular revegetation consultant to collect seed from trees to be removed and used to establish seedlings for the on ground SEB. (A revegetation consultant visits the property each year to collect seed for use in Nareen Station's annual revegetation program around the property.) Hollow bearing trunks or limbs from removed trees will be placed within the SEB area prior to revegetation. These items form part of SEB Management Plan (attached).

Overall, the SEB will provide 80.52 SEB points, which is in excess of the 60.08 SEB points required to meet the clearance of 27 paddock trees. The owner is prepared to place the SEB under a Heritage Agreement and does not wish to retain any surplus SEB points in credit, but to donate the surplus toward conserving the local biodiversity.

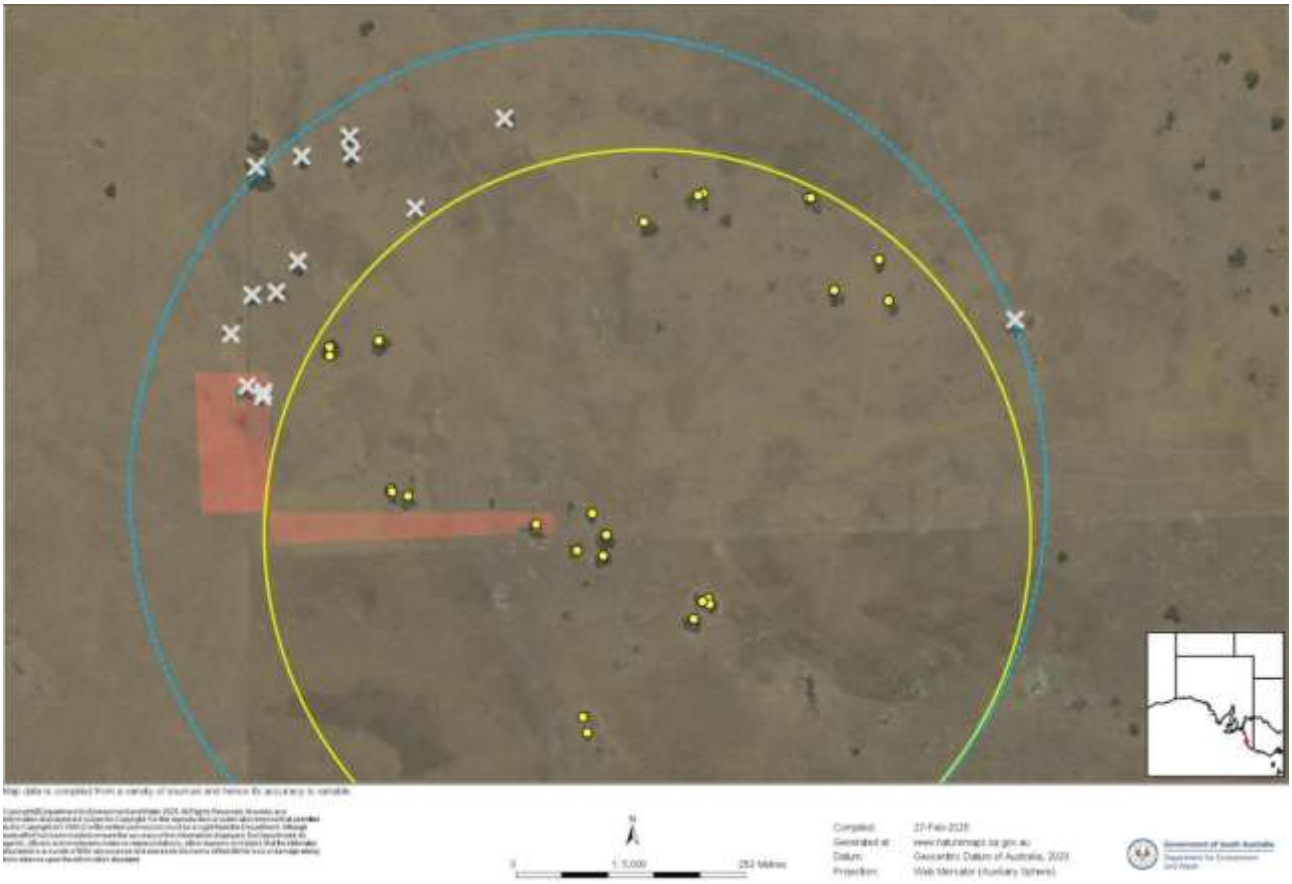


Figure 4. Larger 50ha pivot irrigator (blue polygon) with trees avoided (white crosses) by reducing pivot irrigator to 35ha (yellow polygon).

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. 12547 is applicable to this property and held in the name of Nareen Station Pty Ltd.

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 database 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 database search.

The site was inspected on 27 August 2024 and 31 January 2025 using the methods outlined in the Native Vegetation Council Scattered Tree Assessment Manual (September 2024). The surveys required nine hours to complete, including assessment of trees that have avoided clearance by reducing pivot irrigator size to 35ha.

3.2 Fauna assessment

Prior to site inspection a database search was conducted using 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 site was used for the database searches. In addition, a search of birds likely to use vegetation within the Lake Hawdon 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 27 August 2024 and 31 January 2025, 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 database fauna assessments that could potentially use the site for habitat have been included in the NVC Scattered Tree Scoresheet (attached).

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 and soils comprise a loamy sand. The site has a slightly higher elevation from land further afield (2.0 – 2.5km to the north west, south and east), which contain a current and historic wetlands, many of which are used for dryland pasture and artificially drained into the Lake Hawdon North wetland 3km to the south.

27 scattered paddock trees are proposed for clearance and consist of;

- 22 small Rough-barked Manna Gum (*Eucalyptus viminalis* ssp. *cygnetensis*) trees ranging in condition from dead to good; and
- 5 small Inland South Australian Blue Gum (*Eucalyptus leucoxylon* ssp. *pruinosa*) ranging in condition from dead to moderate.

Three dead trees are included in the assessment as they contain hollows that could potentially be used by the EPBC Act listed Blue-winged Parrot (*Neophema chrysostoma*) meeting a criterion of native vegetation under the Native Vegetation Act 1991.

The trees occur in a paddock used for set stock grazing of sheep and cattle. Vegetation occurs in the Lake Hawdon IBRA Association which contains 8% remnant vegetation and there is 14% remnancy within a 5km radius of the proposed vegetation clearance. Woakwine Conservation Park 7km to the south west and Lake Hawdon South Conservation Park 11km to the south. Heritage Agreement HA1539 is 1.4km to the west and HA1205 is 3.8km to the north. Bagdad Native Forest Reserve occurs 2.2km to the north.

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

Tree ID – Tree 1	
Eucalyptus viminalis ssp. *cygnetensis*	
Height (m) – 9	
Hollows – 1 large, 1 medium	
Diameter (cm) – 97.9	
Canopy dieback (%) – 10	
Total Biodiversity Score – 4.80	*Figure 5. Tree 1 looking to the south, GPS 401217 5895539.*

Figure 6. One large hollow observed in Tree 1.

Tree 1 is a small tree in good condition with one large and one medium hollow present. Tree 1 may provide habitat for threatened species listed in Section 4.2, including hollows suitable for EPBC listed Blue-winged Parrot.

Tree ID - 2
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 9
Hollows – 2 large
Diameter (cm) – 69.9
Canopy dieback (%) – 10
Total Biodiversity Score – 4.10

Figure 7. Tree 2 looking to the south east, GPS 401174 5895533. Tree 3 is to the left.

Figure 8. One large hollow observed in Tree 2.

Tree 2 is a small tree in good condition with two large hollows present. Tree 2 may provide habitat for threatened species listed in Section 4.2, including hollows suitable for EPBC listed Blue-winged Parrot.

Tree ID - 3
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 7
Hollows – one large
Diameter (cm) – 85.2
Canopy dieback (%) – 15
Total Biodiversity Score – 4.10

Figure 9. Tree 3 looking to the south east, GPS 401174, 5895525.

Figure 10. One large hollow observed in Tree 3.

Tree 3 is a small tree in good condition with one large hollow present. Tree 3 may provide habitat for threatened species listed in Section 4.2, including a hollow suitable for EPBC listed Blue-winged Parrot.

Tree ID - 4
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 8
Hollows – zero
Diameter (cm) – 65.3
Canopy dieback (%) – 60
Total Biodiversity Score – 1.01

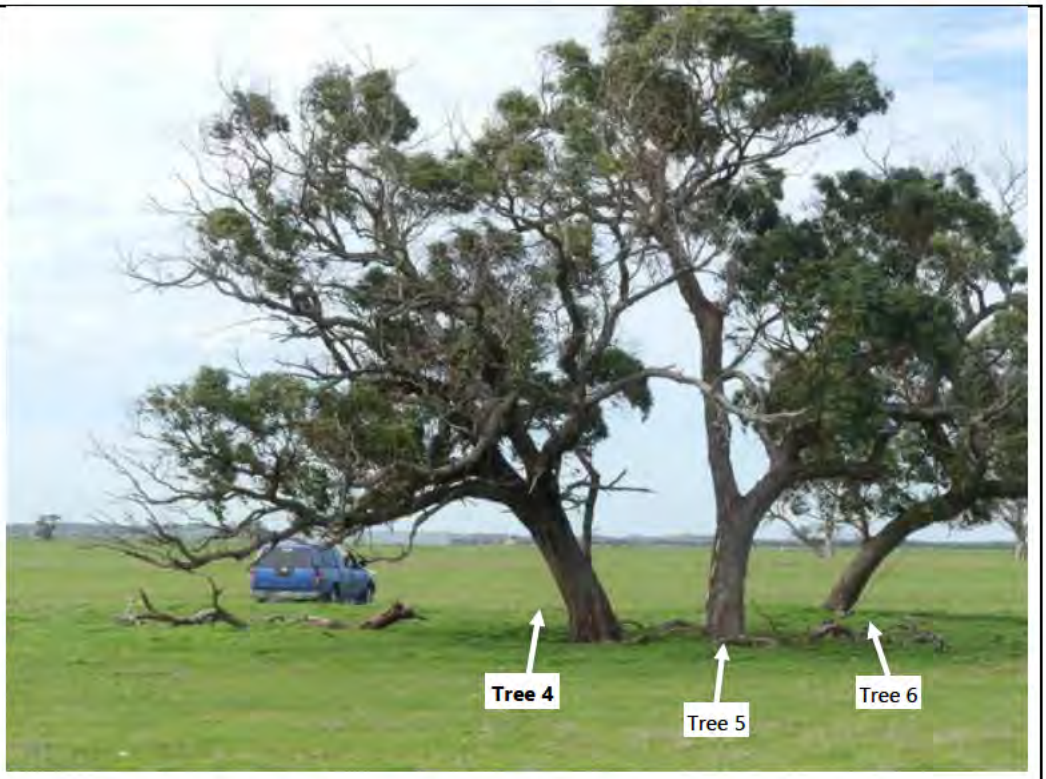


Figure 11. Tree 4 looking to the east, GPS 401229 5895410.

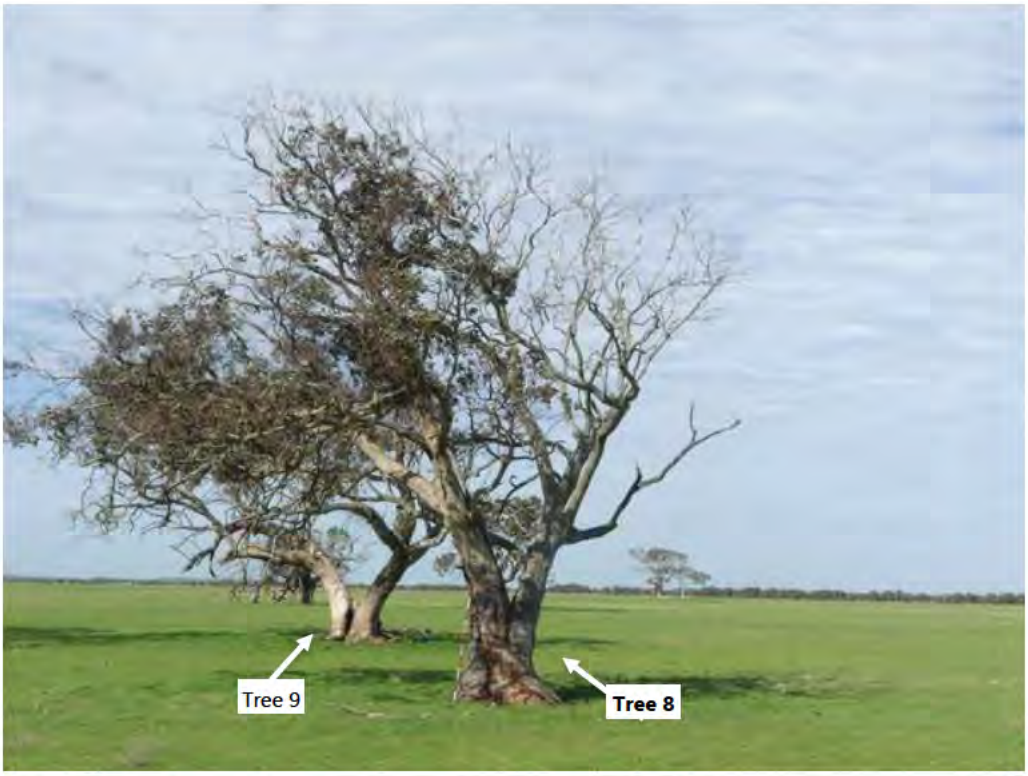
Tree 4 is a small tree in moderate condition with no hollows present. Tree 4 may provide habitat for threatened species listed in Section 4.2.

Tree ID - 5 *Eucalyptus viminalis* ssp. *cygnetensis* Height (m) – 10 Hollows – zero Diameter (cm) – 57.5 Canopy dieback (%) – 15 Total Biodiversity Score – 2.37	 *Figure 12. Tree 5 looking to the east, GPS 401230 5895407.*
Tree 5 is a small tree in good condition with no hollows present. Tree 5 may provide habitat for threatened species listed in Section 4.2.	

Tree ID - 6 *Eucalyptus viminalis* ssp. *cygnetensis* Height (m) – 9 Hollows – zero Diameter (cm) – 50.5 Canopy dieback (%) – 80 Total Biodiversity Score – 0.61	 *Figure 13. Tree 6 looking to the south east, GPS 401244 5895404.*

Tree 6 is a small tree in poor condition with no hollows present. Tree 6 may provide habitat for threatened species listed in Section 4.2.

Tree ID - 7	
Eucalyptus leucoxylon ssp. *pruinosa*	*Figure 14. Tree 7 looking to the south, GPS 401356 5895381.*
Height (m) – 12	
Hollows – one medium, two small	*Figure 15. One medium hollow observed in Tree 7.*
Diameter (cm) – 80.8	
Canopy dieback (%) – 65	
Total Biodiversity Score – 3.64	
Tree 7 is a medium sized tree in moderate condition with one medium and two small hollows present. Tree 7 may provide habitat for threatened species listed in Section 4.2, including hollows suitable for EPBC listed Blue-winged Parrot.	

Tree ID - 8 *Eucalyptus leucoxylon* ssp. *pruinosa* Height (m) – 9 Hollows – one small Diameter (cm) – 99.1 Canopy dieback (%) – 85 Total Biodiversity Score – 1.33	 *Figure 16. Tree 8 looking to the south east, GPS 401392 5895358.*  *Figure 17. One small hollow observed in Tree 8.*
Tree 8 is a small tree in poor condition with one small hollow present. Tree 8 may provide habitat for threatened species listed in Section 4.2.	

Tree ID - 9 *Eucalyptus leucoxylon* ssp. *pruinosa* Height (m) – 10 Hollows – one medium, five small Diameter (cm) – 84.5 Canopy dieback (%) – 70 Total Biodiversity Score – 2.62	 *Figure 18. Tree 9 looking to the south, GPS 401415 5895354.*  *Figure 19. Two trunks of Tree 9 connected at the base.*

Figure 20. One medium hollow observed in Tree 9.

Tree 9 is a small tree in poor condition with one medium and five small hollows present. Tree 9 may provide habitat for threatened species listed in Section 4.2, including hollows suitable for EPBC listed Blue-winged Parrot.

Tree ID - 10
Eucalyptus leucoxylon ssp. *pruinosa*
Height (m) – 11
Hollows – three small
Diameter (cm) – 94.8
Canopy dieback (%) – 45
Total Biodiversity Score – 3.98

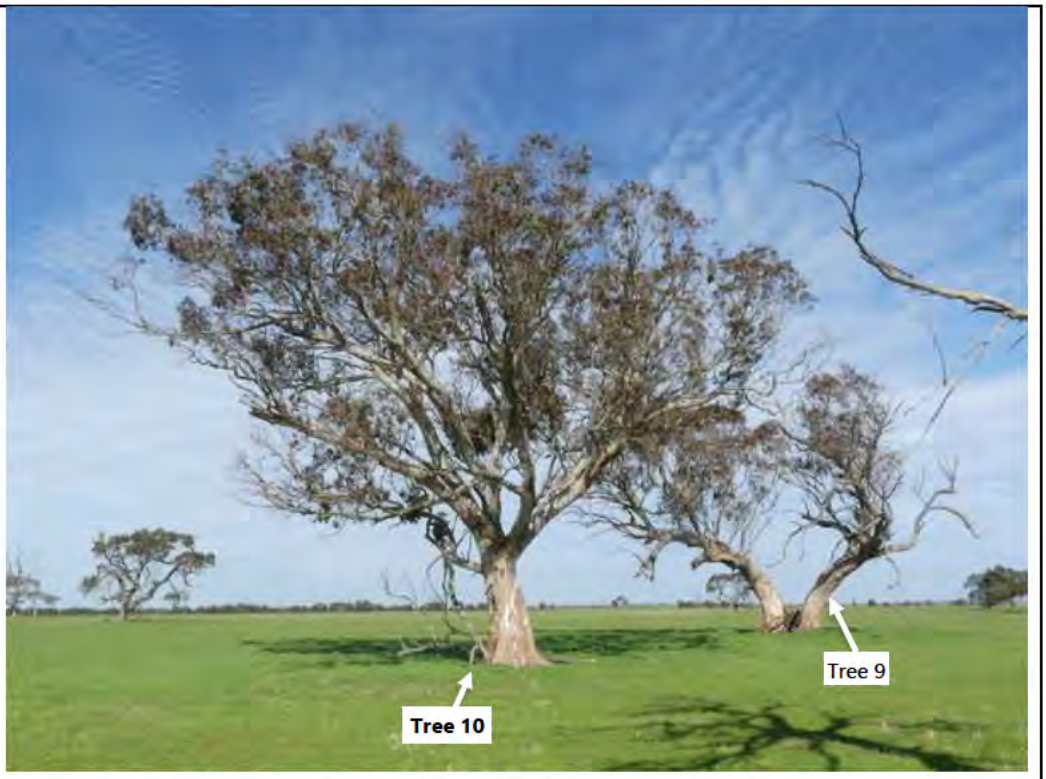


Figure 21. Tree 10 looking to the south east, GPS 401417 5895372.

Figure 22. One of three small hollows observed in Tree 10.

Tree 10 is a small tree in moderate condition with three small hollows present. Tree 10 may provide habitat for threatened species listed in Section 4.2, including one hollow suitable for EPBC listed Blue-winged Parrot.

Tree ID - 11
Eucalyptus leucoxylon ssp. *pruinosa*
Height (m) – 9
Hollows – three small
Diameter (cm) – 56.7
Canopy dieback (%) – 100
Total Biodiversity Score – 0.62

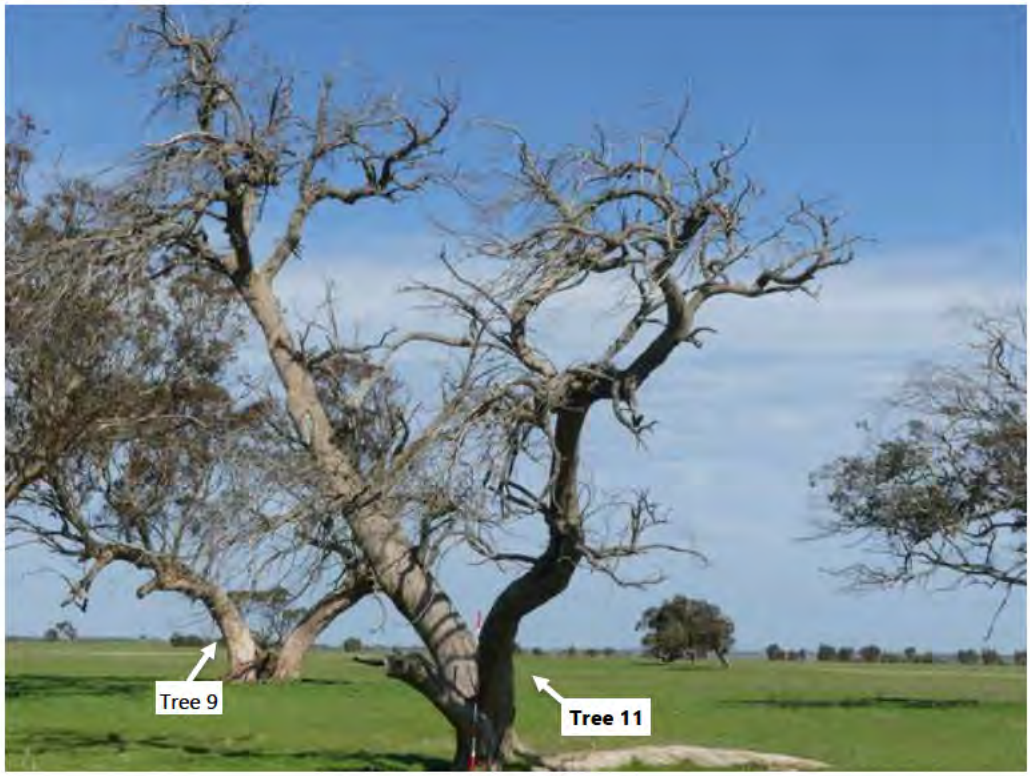


Figure 23. Tree 11 looking to the south, GPS 401405 5895391.

Figure 24. One small hollow observed in Tree 11.

Tree 11 is a small dead tree with three small hollows present. Tree 11 may provide habitat for threatened species listed in Section 4.2, including hollows suitable for EPBC listed Blue-winged Parrot.

Tree ID - 12
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 7
Hollows – one medium
Diameter (cm) – 62.1
Canopy dieback (%) – 100
Total Biodiversity Score – 0.53

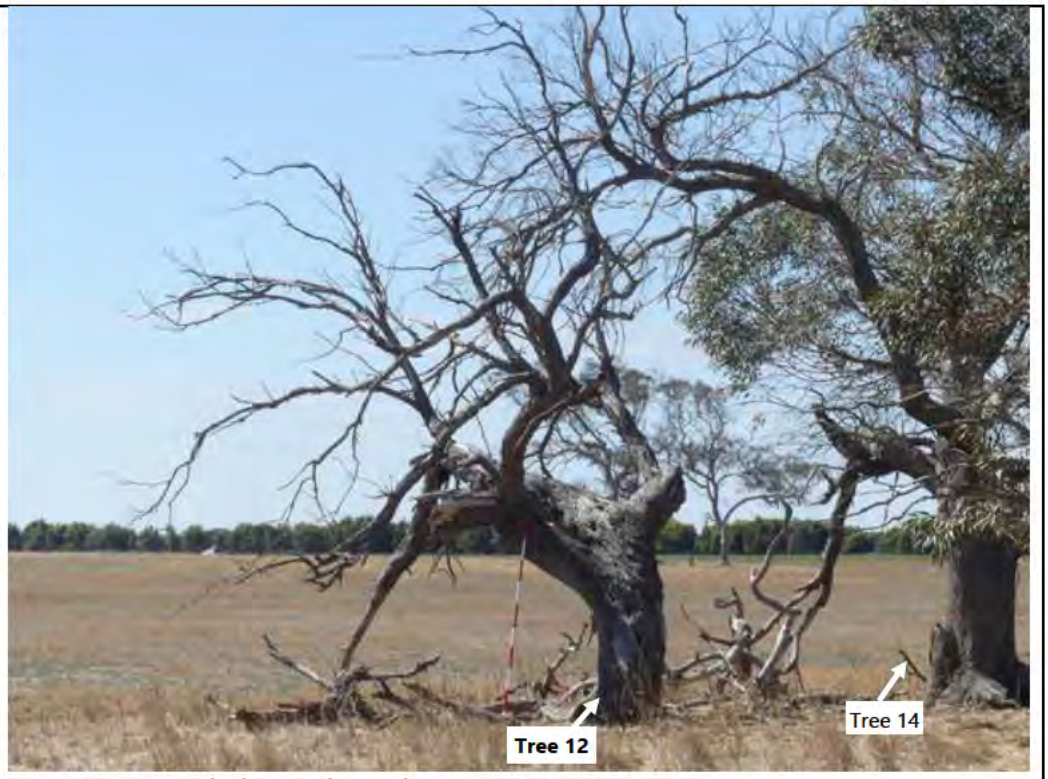


Figure 25. Tree 12 looking to the south east, GPS 401507 5895318.

Figure 26. One medium hollow observed in Tree 12.

Tree 12 is a small dead tree with one medium hollow present. Tree 12 may provide habitat for threatened species listed in Section 4.2, including a hollow suitable for EPBC listed Blue-winged Parrot.

Tree ID - 13
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 8
Hollows – two large
Diameter (cm) – 69.3
Canopy dieback (%) – 85
Total Biodiversity Score – 1.11

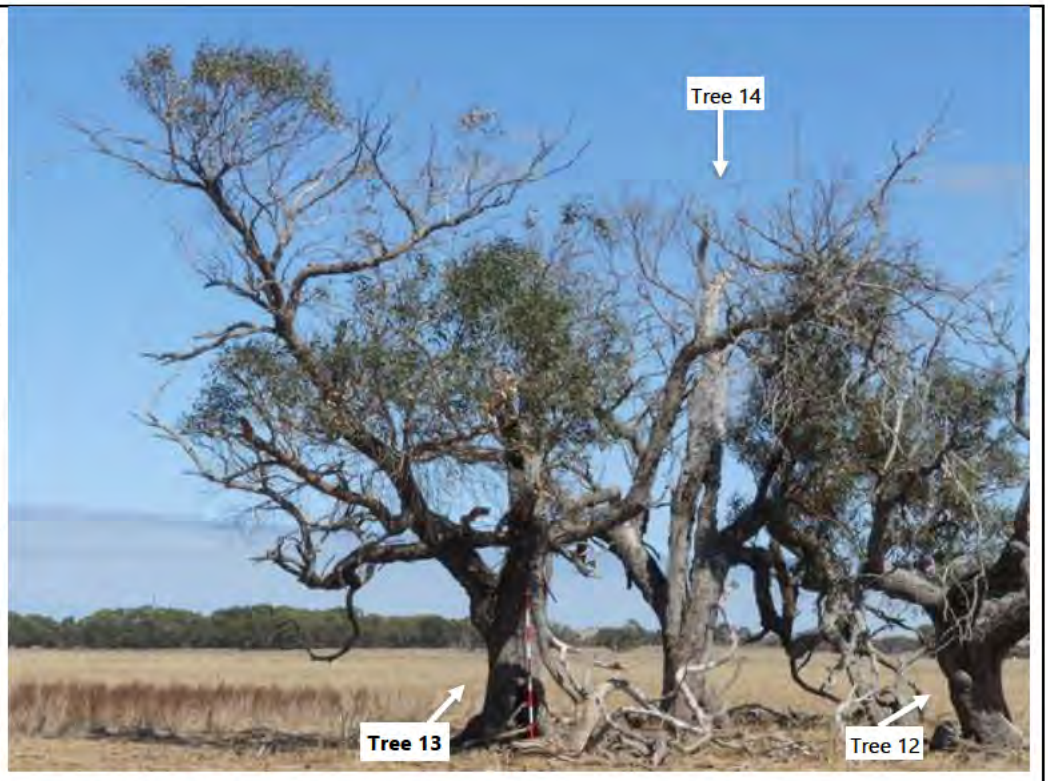


Figure 27. Tree 13 looking to the south west, GPS 401508 5895313.

Figure 28. One large hollow observed in Tree 13.

Tree 13 is a small tree in poor condition with two large hollows present. Tree 13 may provide habitat for threatened species listed in Section 4.2, including one hollow suitable for EPBC listed Blue-winged Parrot. Second large hollow is at ground level.

Tree ID - 14
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 8
Hollows – one large
Diameter (cm) – 82.1
Canopy dieback (%) – 75
Total Biodiversity Score – 2.17

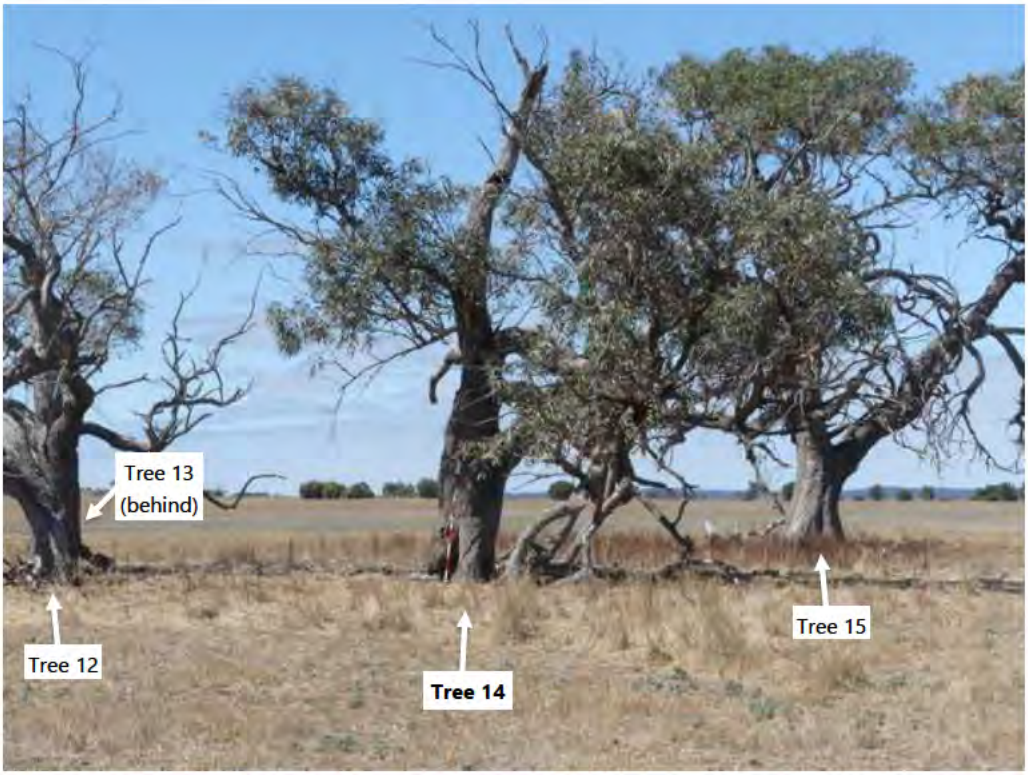


Figure 29. Tree 14 looking to the south, GPS 401502 5895315.

Figure 30. One large hollow observed in Tree 14.

Tree 14 is a small tree in poor condition with one large hollow present. Tree 14 may provide habitat for threatened species listed in Section 4.2, including a hollow suitable for EPBC listed Blue-winged Parrot.

Tree ID - 15
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 10
Hollows – six small
Diameter (cm) – 93.3
Canopy dieback (%) – 65
Total Biodiversity Score – 2.59

Figure 31. Tree 15 looking to the west, GPS 501494 5895300.

Figure 32. One small hollow observed in Tree 15.

Figure 33. One very small hollow observed in Tree 15.

Tree 15 is a small tree in moderate condition with six small hollows present. Tree 15 may provide habitat for threatened species listed in Section 4.2, including one hollow suitable for EPBC listed Blue-winged Parrot.

Tree ID - 16
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 6
Hollows – one large, two medium and three small
Diameter (cm) – 63.8
Canopy dieback (%) – 35
Total Biodiversity Score – 2.07

Figure 34. Tree 16 looking to the west, GPS 401399 5895214.

Figure 35. One medium hollow observed in Tree 16.

Tree 16 is a very small tree in moderate condition with six small hollows present. Tree 16 may provide habitat for threatened species listed in Section 4.2, including hollows suitable for EPBC listed Blue-winged Parrot.

Tree ID - 17
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 8
Hollows – five small
Diameter (cm) – 65.9
Canopy dieback (%) – 40
Total Biodiversity Score – 2.39

Figure 36. Tree 17 looking to the north west, GPS 401402 5895200.

Figure 37. One of five small hollows observed in Tree 17.

Tree 17 is a small tree in moderate condition with five small hollows present. Tree 17 may provide habitat for threatened species listed in Section 4.2, however all hollows are currently too small for EPBC listed Blue-winged Parrot.

Tree ID - 18
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 7
Hollows – one small
Diameter (cm) – 71.0
Canopy dieback (%) – 10
Total Biodiversity Score – 2.59

Figure 38. Tree 18 looking to the south west, GPS 401404 5895151.

Figure 39. One small hollow observed in Tree 18.

Tree 18 is a small tree in good condition with one small hollow present. Tree 18 may provide habitat for threatened species listed in Section 4.2, however the hollow is currently too small for EPBC listed Blue-winged Parrot.

Tree ID - 19
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 10
Hollows – two medium
Diameter (cm) – 89.2
Canopy dieback (%) – 60
Total Biodiversity Score – 2.53

Figure 40. Tree 19 looking to the south, GPS 401461 5895132.

Figure 41. One of two medium hollows observed in Tree 19.

Tree 19 is a small tree in moderate condition with two medium hollows present. Tree 19 may provide habitat for threatened species listed in Section 4.2, including hollows suitable for EPBC listed Blue-winged Parrot.

Tree ID - 20
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 9
Hollows – one large, one medium & three small
Diameter (cm) – 75.9
Canopy dieback (%) – 100
Total Biodiversity Score – 1.29

Figure 42. Tree 20 looking to the south east, GPS 401661 5895579.

Figure 43. One large hollow observed in Tree 20.

Tree 20 is a small dead tree with one large, one medium and three small hollows present. Tree 20 may provide habitat for threatened species listed in Section 4.2, including hollows suitable for EPBC listed Blue-winged Parrot.

Tree ID - 21
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 9
Hollows – one large, one medium
Diameter (cm) – 100.1
Canopy dieback (%) – 50
Total Biodiversity Score – 3.93

Figure 44. Tree 21 looking to the south east, GPS 401652 5895614. Tree in background is excluded from this application.

Figure 45. One medium hollow observed in Tree 21.

Tree 21 is a small tree in good condition with one large and one medium hollow present. Tree 21 may provide habitat for threatened species listed in Section 4.2, including hollows suitable for EPBC listed Blue-winged Parrot.

Tree ID - 22
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 9
Hollows – one small
Diameter (cm) – 102.0
Canopy dieback (%) – 30
Total Biodiversity Score – 3.48

Figure 46. Tree 22 looking to the east, GPS 401614 5895587.

Figure 47. One small hollow observed in Tree 22.

Tree 22 is a small tree in moderate condition with one small hollow present. Tree 22 may provide habitat for threatened species listed in Section 4.2, including a hollow suitable for EPBC listed Blue-winged Parrot.

Tree ID - 23
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 8
Hollows – one medium
Diameter (cm) – 71.8
Canopy dieback (%) – 70
Total Biodiversity Score – 1.28

Figure 48. Tree 23 looking to the east, GPS 401590 5895668. Photo contains two trees with Tree 24 immediately behind Tree 23 (see Tree 24 photo).

Figure 49. One medium hollow observed in Tree 23.

Tree 23 is a small tree in poor condition with one medium hollow present. Tree 23 may provide habitat for threatened species listed in Section 4.2, including a hollow suitable for EPBC listed Blue-winged Parrot.

Tree ID - 24
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 8
Hollows – two large
Diameter (cm) – 66.2
Canopy dieback (%) – 70
Total Biodiversity Score – 1.41

Figure 50. Tree 24 looking to the south, GPS 401592 5895667.

Figure 51. One of two large hollows observed in Tree 24.

Tree 24 is a small tree in poor condition with two large hollows present. Tree 24 may provide habitat for threatened species listed in Section 4.2, including hollows suitable for EPBC listed Blue-winged Parrot.

Tree ID - 25
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 7
Hollows – one medium
Diameter (cm) – 42.1
Canopy dieback (%) – 75
Total Biodiversity Score – 0.57

Figure 52. Tree 25 looking to the south east, GPS 401598 5895670.

Figure 53. One medium hollow observed in Tree 25.

Tree 25 is a small tree in poor condition with one medium hollow present. Tree 25 may provide habitat for threatened species listed in Section 4.2, including a hollow suitable for EPBC listed Blue-winged Parrot.

Tree ID - 26
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 5
Hollows – one small
Diameter (cm) – 50.7
Canopy dieback (%) – 95
Total Biodiversity Score – 0.39

Figure 54. Tree 26 looking to the south east, GPS 401494 5895668.

Figure 55. One small hollow observed in Tree 26.

Tree 26 is a small tree in poor condition with one medium hollow present. Tree 26 may provide habitat for threatened species listed in Section 4.2, including a hollow suitable for EPBC listed Blue-winged Parrot.

Tree ID - 27
Eucalyptus viminalis ssp. *cygnetensis*
Height (m) – 9
Hollows – one large, two small
Diameter (cm) – 104.9
Canopy dieback (%) – 75
Total Biodiversity Score – 2.57

Figure 56. Tree 27 looking to the south east, GPS 401447 5895645.

Figure 57. One large hollow observed in Tree 27.

Tree 27 is a small tree in poor condition with one large and two small hollows present. Tree 27 may provide habitat for threatened species listed in Section 4.2, including a hollow suitable for EPBC listed Blue-winged Parrot.

Site map showing areas of proposed impact

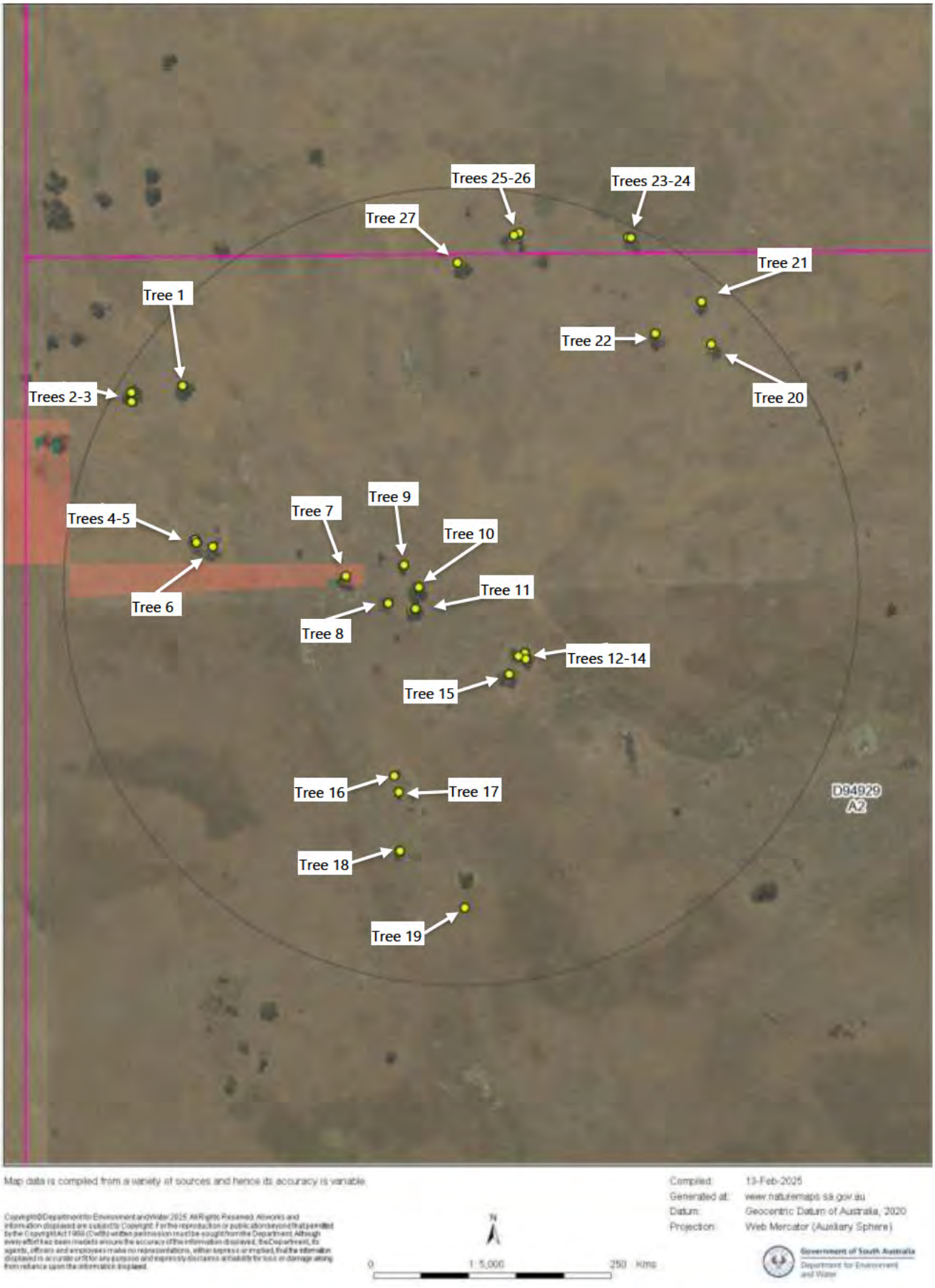


Figure 58. Impact map highlighting location of Trees 1-27, including outline of proposed 35ha pivot irrigator.

4.2 Threatened Species assessment

Species observed on site, or recorded within 5 km 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
Fauna						
Blue-winged Parrot (*Neophema chrysostoma*)	V	VU	2, 3, 5	2022	Coastal, sub-coastal and inland areas, favouring grassy habitats. And altered environments such as airfields, golf-courses and paddocks.	Highly likely – suitable habitat present.
Common Brushtail Possum (*Trichosurus vulpecula*)	R		2, 3	1997	Open dry eucalypt forest, woodlands, heath and urban areas.	Possible - suitable habitat present nearby, paddock trees may provide refuge, but no recent records.
Common Wombat (*Vombatus ursinus*)	R		2, 3	1997	Open vegetation of coastal shrubland, woodland and heathland.	Possible – suitable habitat present nearby, but no recent records.
Eastern Pygmy Possum (*Cercartetus nana*)	V		2, 3	2002	Woodland and heath, including small vegetation patches in fragmented landscapes.	Possible – marginal habitat provided by tree clusters, more suitable bushland habitat nearby, but no recent recorded records.
Grey-headed Flying-fox (*Pteropus poliocephalus*)	R	VU	2, 3	2020	Utilises a range of native and exotic trees for feeding and camping.	Highly likely- recorded by satellite tracking. Suitable habitat available, plus Bagdad Forest Reserve nearby. Unlikely roost site.
Peregrine Falcon (*Falco peregrinus*)	R		3	2024	Most habitats, requiring abundant prey and secure nest sites, prefers coastal and inland cliffs or open woodlands near water.	Highly likely - suitable habitat present on site.
Scarlet Robin (*Petroica boodang*)	R		2, 3	1997	Forests and woodlands with open understorey, can be found in grassland, farmland and urban areas.	Possible – suitable habitat present, mobile species through the Limestone Coast, but no recent records.
Southern Emuwren (South East) (*Stipiturus malachurus polionotum*)	R		2, 3	2005	Heaths and swampy vegetation.	Unlikely – no suitable habitat.

Swamp Rat (*Rattus lutreolus*)	R		2	2002	Thick vegetation amongst coastal heath, sedgelands, dune scrub and grassland areas.	Unlikely – no suitable habitat.
White-lipped Snake (*Drysdalia coronoides*)	R		2, 3	1997	Most areas, including heaths, sclerophyll forests and woodlands.	Possible – suitable bushland habitat nearby, but no recent records.
White-winged Chough (*Corcorax melanorhamphos*)	R		2, 3	2004	Open forests, woodlands and mallee, preferring wetter areas, with lots of leaf-litter.	Possible – records from Bagdad Forest Reserve.
Yellow-tailed Black Cockatoo (*Zanda funerea whiteae*)	V		2, 3, 6	1997	Eucalypt woodlands and pine plantations.	Likely - commonly observed in Limestone Coast, but no recent records.
Flora						
Late Spider-orchid (*Caladenia dilatata*)	E		2	2002	Heathland and coastal scrubland near swamps.	Unlikely - Grazed paddock under set stocking regime.
Late Spider-orchid (*Caladenia necrophylla*)	R		2	2022	Heathy woodland.	Unlikely - Grazed paddock under set stocking regime.
Metallica Sun-orchid (*Thelymitra epipactoides*)	E	EN	2, 5	2008	Fertile loams in open woodland, heath or grassland.	Unlikely - Grazed paddock under set stocking regime.
Potato Orchid (*Gastrodia sesamoides*)	R			2018	Humus rich soil under heavy forest in high rainfall areas, often in deep leaf litter along creeks	Unlikely – no suitable habitat. Grazed paddock.
Swamp Greenhood (*Pterostylis tenuissima*)	V	VU	5		Swamps and wet areas under *Leptospermum lanigerum*.	Unlikely – No suitable habitat present.
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 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 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 - 27 are scattered paddock trees growing in a paddock that has been cleared and grazed for many years. The remaining trees are not growing at pre-European densities. No other native vegetation is present.

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

Trees 1 - 27 occur in a cleared, grazed paddock that and are likely to have been subject to stock camping, compaction and nutrient addition, potentially contributing to areas of dieback and death of some trees. These impacts 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.

Trees 1-27 are **not** considered to be substantially intact vegetation, primarily due to being isolated paddock trees and not occurring 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 paddock trees with no other native species present.
	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 The following threatened fauna were identified from a database survey that may be able to use Trees 1 – 27 for habitat; • Blue-winged Parrot (AUS VU, SA V); • Common Brushtail Possum (SA R); • Common Wombat (SA R); • Eastern Pygmy Possum (SA V); • Grey-headed Flying-fox (AUS VU, SA R); • Peregrine Falcon (SA R); • Scarlet Robin (SA R); • Southern Emuwren (South East) (SA R); • Swamp Rat (SA R); • White-lipped Snake (SA R); • White-winged Chough (SA R); and • Yellow-tailed Black Cockatoo (SA VU). Trees 1, 2, 3, 7, 9, 10 - 16, 19, 20 - 27 contained hollows suitable EPBC listed Blue-winged Parrot. The listed threatened species may use Trees 1 - 27 for nesting, feeding habitat or movement through the landscape.

Tree	Fauna Habitat Score	Biodiversity Score
1	1.8	4.80
2	1.8	4.10
3	1.8	4.10
4	1.8	1.01
5	1.8	2.37
6	1.8	0.61
7	1.8	3.64
8	1.8	1.33
9	1.8	2.62
10	1.8	3.98
11	1.8	0.62
12	1.8	0.53
13	1.8	1.11
14	1.8	2.17
15	1.8	2.59
16	1.8	2.07
17	1.8	2.39
18	1.8	2.59
19	1.8	2.53
20	1.8	1.29
21	1.8	3.93
22	1.8	3.48
23	1.8	1.28
24	1.8	1.41
25	1.8	0.57
26	1.8	0.39
27	1.8	2.57

Assessment against the principles

Seriously at Variance
All Trees

	Moderating factors that may be considered by the NVC *Significant Benefit* The proposed on ground SEB is greater than required for the vegetation clearance; 81.52 SEB points vs 60.08. The owner does not want to retain the SEB credits for future use and will put them toward conservation. The SEB is 1300m from the proposed clearance and currently grazed by cattle. It will require a revegetation component that includes canopy species of the same type as proposed for clearance. Seed will be collected these trees to be used in the SEB revegetation. Hollow logs from removed trees will be placed in the SEB. Currently, Common Wombat (SA R) use an area within the proposed SEB for habitat with an active burrow present. The owner is prepared to enter into a Heritage Agreement for the SEB. *Non-essential habitat* Removal of Trees 1-27 is expected to have a negligible impact on the long term populations on the listed threatened fauna with large numbers of mature paddock trees occurring in nearby paddocks. An additional 13 trees within the same paddock were observed to contain at least one hollow suitable for Blue-winged Parrot. These trees were avoided by opting for a smaller pivot irrigator.
Principle 1c - plants of a rare, vulnerable or endangered species	Relevant information No threatened flora were observed during the assessment within the area required for the pivot irrigator. Database searches identified the following threatened plants that may be present, but undetectable at the time of the assessment; • Late Spider-orchid (*Caladenia dilatata*) (SA E); • Late Spider-orchid (*Caladenia necrophylla*) (SA R); • Metallic Sun-orchid (*Thelymitra epipactoides*) (AUS EN, SA E); • Potato Orchid (*Gastrodia sesamoides*) (SA R); and • Swamp Greenhood (*Pterostylis tenuissima*) (AUS VU, SA V). Threatened Flora Score Trees 1-27 – 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 Trees 1-27 are scattered paddock trees and not part of a threatened ecosystem. Threatened Community Score - 0
	Assessment against the principles Not at Variance
	Moderating factors that may be considered by the NVC Not Applicable
Principle 1e - it is significant as a remnant of	Relevant information Trees 1 – 27 range in condition from good to dead. Trees are isolated from each other and subject to stock camping (soil compaction, nutrient addition, erosion). It is likely the healthier

vegetation in an area which has been extensively cleared.	trees would remain for many years, but trees with signs of dieback may not. It is unlikely trees will regenerate to replace older trees that will eventually die. Remnancy; IBRA Association (Lake Hawdon) – 8% IBRA Subregion (Bridgewater) – 14% Total Biodiversity Score Trees 1 – 8 – 60.08
	<u>Assessment against the principles</u> **Seriously At Variance** All Trees
	<u>Moderating factors that may be considered by the NVC</u> *Impact Significance* While the IBRA Association contains 8% remnant vegetation there are several small patches of native vegetation nearby and numerous additional paddock in the same paddock and adjoining paddocks. Bagdad Native Forest Reserve occurs 2km to the north. It is unlikely the removal of Trees 1 – 27 will negatively impact the Rough-barked Manna Gum species. *Quality of Remnant* Ten of the nominated trees show 75% dieback, including three dead trees. Only five of the trees have dieback of 15% or better. None of the trees exhibited zero dieback. Stock camping contributes to compaction, nutrient addition and in some cases exposure of roots as stock dig away soil making the soil prone to wind erosion undermining the trees' stability during high winds. Trees 1-27 are likely to degrade further and unlikely to persist over the next 20 – 50 years.
Principle 1f - it is growing in, or in association with, a wetland environment.	<u>Relevant information</u> Trees 1 – 27 are not growing in association with a wetland.
	<u>Assessment against the principles</u> Not at Variance
	<u>Moderating factors that may be considered by the NVC</u> Not Applicable
Principle 1g - it contributes significantly to the amenity of the area in which it is growing or is situated.	<u>Relevant information</u> Trees 1 – 27 occur 7km from the Princess Highway, off the unsealed Dairy Range Road which is used by local traffic and not part of a recognised tourist route. Trees 1 – 27 are 2.2km south of Dairy Range Road and cannot be seen from the road. It is unlikely the proposed tree clearance would impact the landscape character. Cultural and Historic values of the area are unknown, but would likely hold significance for First Nations people.
	N/A
	<u>Moderating factors that may be considered by the NVC</u>

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 NVC will consider if the applicant has avoided and minimised the clearance of native vegetation as much as practically possible.

a) Avoidance

Two earlier pivot irrigators were located in areas of the property where no native vegetation occurred. A third pivot irrigator is now required and no further suitable land is available for irrigation without impacting a greater number of scattered paddock trees. Other areas of the property are not suited to irrigation due to shallow soils over limestone. Initially a 50ha pivot irrigator was preferred, which is the same size as the earlier pivot irrigators. To avoid vegetation clearance the pivot irrigator's size has been reduced from 50ha to 35ha. This has reduced the required vegetation clearance from 47 to 27 paddock trees. Consequently, the TBS has reduced from 122.66 to 60.88.

b) Minimisation

Reducing the pivot irrigator from 50ha to 35ha means it is not possible to minimise vegetation clearance further.

c) Rehabilitation or restoration

Vegetation clearance will be permanent and there will be no ability to rehabilitate or restore the area after vegetation clearance.

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

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

It is proposed to offset vegetation clearance with an on ground SEB of 13.206ha.

4.6 Risk Assessment

Determine the level of risk associated with the application

Total clearance	No. of trees	27
	Area (ha)	N/A
	Total biodiversity Score	60.08
Seriously at variance with principle 1(b), 1(c) or 1 (d)		1(b)
Risk assessment outcome		Level 4

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	1.8	0	4.80	1	5.28	$5,378.34	$295.81
2	1	1.8	0	4.10	1	4.51	$4,594.00	$252.67
3	1	1.8	0	4.10	1	4.51	$4,594.00	$252.67
4	1	1.8	0	1.01	1	1.11	$1,130.67	$62.19
5	1	1.8	0	2.37	1	2.61	$2,658.61	$146.22
6	1	1.8	0	0.61	1	0.67	$682.48	$37.54
7	1	1.8	0	3.64	1	4.00	$4,074.50	$224.10
8	1	1.8	0	1.33	1	1.46	$1,487.19	$81.80
9	1	1.8	0	2.62	1	2.88	$2,933.64	$161.35
10	1	1.8	0	3.98	1	4.38	$4,461.58	$245.39
11	1	1.8	0	0.62	1	0.68	$692.67	$38.10
12	1	1.8	0	0.53	1	0.58	$590.80	$32.49
13	1	1.8	0	1.11	1	1.22	$1,242.72	$68.35
14	1	1.8	0	2.17	1	2.39	$2,434.52	$133.90
15	1	1.8	0	2.59	1	2.85	$2,903.08	$159.67
16	1	1.8	0	2.07	1	2.28	$2,322.47	$127.74
17	1	1.8	0	2.39	1	2.63	$2,678.99	$147.34
18	1	1.8	0	2.59	1	2.85	$2,903.08	$159.67
19	1	1.8	0	2.53	1	2.78	$2,831.78	$155.75
20	1	1.8	0	1.29	1	1.42	$1,446.45	$79.55
21	1	1.8	0	3.93	1	4.32	$4,400.46	$242.03
22	1	1.8	0	3.48	1	3.83	$3,901.34	$214.57
23	1	1.8	0	1.28	1	1.41	$1,436.26	$78.99
24	1	1.8	0	1.41	1	1.55	$1,578.87	$86.84
25	1	1.8	0	0.57	1	0.63	$641.73	$35.30
26	1	1.8	0	0.39	1	0.43	$438.01	$24.09
27	1	1.8	0	2.57	1	2.83	$2,882.71	$158.55
Total	**27**			**60.08**		**66.09**	**$67, 320.95**	**$3, 702.67**

Totals summary table

Economies of Scale Factor	0.5
Rainfall (mm) Factor	617
SEB Points of Gain/ha Factor	7.5

SEB Uplift Factor	1.10
Management Cost ($/ha)	$24, 764.00

	Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
Application	60.08	66.09	$67,320.95	$3,702.67	$71,023.62

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 a SEB will result in a positive impact on the environment that is over and above the negative impact of the clearance.

ACHIEVING A 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 a 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

Land owner:	Nareen Station Pty Ltd		
Site Address:	89 Boyong Rd, Mount Benson SA 5272		
Local Government Area:	District Council of Robe	Hundred:	Waterhouse
Title ID:	CT/6141	Parcel ID	Sec 81

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

The site is located within a flat landscape and soils comprise a loamy sand. A large ephemeral wetland occurs 1200m to the east, but is currently grazed.

The SEB is comprised of three vegetation communities and consists of;

- Site A1 - 6.760ha of Rough-barked Manna Gum (*Eucalyptus viminalis* ssp. *cygnetensis*) Low Woodland;
- Site A2 - 4.462ha of Messmate Stringybark (*Eucalyptus obliqua*) +/- Inland SA Blue Gum (*Eucalyptus leucoxylon* ssp. *pruinosa*) Low Open Forest; and
- Site A3 - 1.984ha Rough-bark Manna Gum +/- Messmate Stringybark Low Open Forest.

Site A1 is in moderate condition with large open areas missing canopy species and open to regular stock grazing. Sand-heath Yacca (*Xanthorrhoea caespitosa*) is prominent in the understory. Site A2 is in moderate to good condition and has been fenced from stock for several years. Site A3 is in moderate condition, unfenced and subject to regular stock grazing.

The sites occur in the Lake Hawdon IBRA Association which contains 8% remnant vegetation with 14% remaining within a 5km radius. The closest gazetted native vegetation is Bagdad Native Forest Reserve 1100m to the north. Woakwine Conservation Park is 8.6km to the south west. Heritage Agreement HA1205 is 2.5km to the north and adjoins Bagdad Native Forest Reserve.

Information relating to the relevant land

The property has been owned by the current owner for 28 years. The proposed SEB has been grazed by stock since taking ownership, but Site A2 was fenced to exclude stock shortly after purchase as the owner could see it was in better condition than vegetation on the rest of the property that did not have the diversity of shrubs and other species. Sites A1 and A3 continue to have unimpeded stock access.

The SEB is larger than required providing 81.52 SEB points to ensure the fence line does not impact existing trees, but is placed in a natural gap between the trees.

Geothermal Exploration Licence GEL 745 is active in the area until 3 April 2029.

No Heritage Agreements, easements or other contractual arrangements exist on the property.

General location map

Figure 59. Map of the proposed SEB site (yellow polygons).

Figure 60. Map of landscape surrounding the proposed SEB site.

Description of the vegetation

Vegetation Association Site A1	Rough-barked Manna Gum (*Eucalyptus viminalis* ssp. *cygnetensis*) Low Woodland

Figure 61. Site A1 looking to the south, GPS 402759 5896765.

Figure 62. Photograph representing the open areas within Site A1 requiring revegetation.

General description	The dominant native species are Rough-barked Manna Gum and Sand-heath Yacca. A small patch of Swamp Gum (*Eucalyptus ovata* ssp. *ovata*) was observed outside of the assessment area. Generally, a shrub layer is missing and represented by a few examples of Kangaroo Thorn (*Acacia paradoxa*). Native ground layer species are dominated by Sand-heath Yacca, Wallaby-grass (*Rytidosperma* sp.) and Sword-sedge (*Lepidosperma* sp.). There are large areas of Site A1 with no trees present and no signs observed of regeneration. Exotic species are dominated by pasture species and weeds of pasture such as Phalaris (*Phalaris aquatica*), Yorkshire Fog (*Holcus lanatus*), Great Brome (*Bromus diandrus*) and Fescue (*Vulpia* sp.). Overall vegetation condition is poor to moderate. The site is grazed by cattle, which were observed during the assessment. Native herbivores are likely to include kangaroo/wallaby (*Macropus sp.*) and Common Wombat (*Vombatus ursinus*) with an active burrow observed in Site A2.				
Threatened species or community	No threatened flora, fauna (NP&W Act or EPBC Act) nor vegetation community were observed during the assessment.				
Landscape context score	1.16	Vegetation Condition Score	22.19	Conservation significance score	1.08
Gain Score	6.22	Area (ha)	6.760	SEB Points of Gain	42.05

Vegetation Association Site A2	Messmate Stringybark (*Eucalyptus obliqua*) +/- Inland SA Blue Gum (*Eucalyptus leucoxylon* ssp. *pruinosa*) Low Open Forest

Figure 63. Site A2 looking to the south, GPS 402563 5896730.

General description	Site A2 has been fenced to exclude stock for approximately 20 years. The dominant native species is Messmate Stringybark with occasional examples of Inland SA Blue Gum.

	Generally, the canopy is complete with only minor gaps present. A dense shrub layer is present with dominant species being Sweet Bursaria (*Bursaria spinosa*), Kangaroo Thorn (*Acacia paradoxa*) and Silver Banksia (*Banksia marginata*). The ground layer is dominated by Sand-heath Yacca, Sword-sedge and Wallaby-grass. The dominant exotic species is Coastal Wattle (*Acacia longifolia* ssp. *sophorae*), occurring more than 4km from the coast. Remaining exotic plants are generally pasture species or weeds of pasture with the most common being Cocksfoot (*Dactylis glomerata*), Bearded Oat (*Avena barbata*) and Yorkshire Fog. Overall vegetation condition is moderate to good. Generally, disturbance is limited to Common Wombat with an active burrow observed during the site assessment and Kangaroo/Wallaby grazing.				
Threatened species or community	An active Common Wombat (SA Rare) burrow was observed in Site A2. No other threatened fauna, flora, nor vegetation community were observed				
Landscape context score	1.16	Vegetation Condition Score	37.95	Conservation significance score	1.08
Gain Score	5.92	Area (ha)	4.462	SEB Points of Gain	26.42

Vegetation Association Site A3	Rough-bark Manna Gum (*Eucalyptus viminalis* ssp. *cygnetensis*) +/- Messmate Stringybark (*Eucalyptus obliqua*) Low Open Forest

Figure 64. Site A3 looking to the east, GPS 402566 5896906.

General description	The dominant native species is Rough-barked Manna Gum with occasional examples of Messmate Stringybark. The shrub layer was sparce and included Kangaroo Thorn and Sweet Bursaria. Native ground layer species are dominated by Sand-heath Yacca and Sword-sedge.

	Dominate exotic species include Phalaris, Yorkshire Fog, Tall Meadow Fescue (*Lolium arundinaceum*) and Rough Dogs-tail Grass (*Cynosurus echinatus*). Overall vegetation condition is moderate to poor. The site is continuous with Site A1 and grazed by cattle. Native herbivores are likely to include kangaroo/wallaby and Common Wombat with an active burrow observed in Site A2.				
Threatened species or community	No threatened flora, fauna (NP&W Act or EPBC Act) nor vegetation community were observed during the assessment.				
Landscape context score	1.16	Vegetation Condition Score	26.06	Conservation significance score	1.08
Gain Score	6.58	Area (ha)	1.984	SEB Points of Gain	13.05

Site map showing areas of the proposed SEB

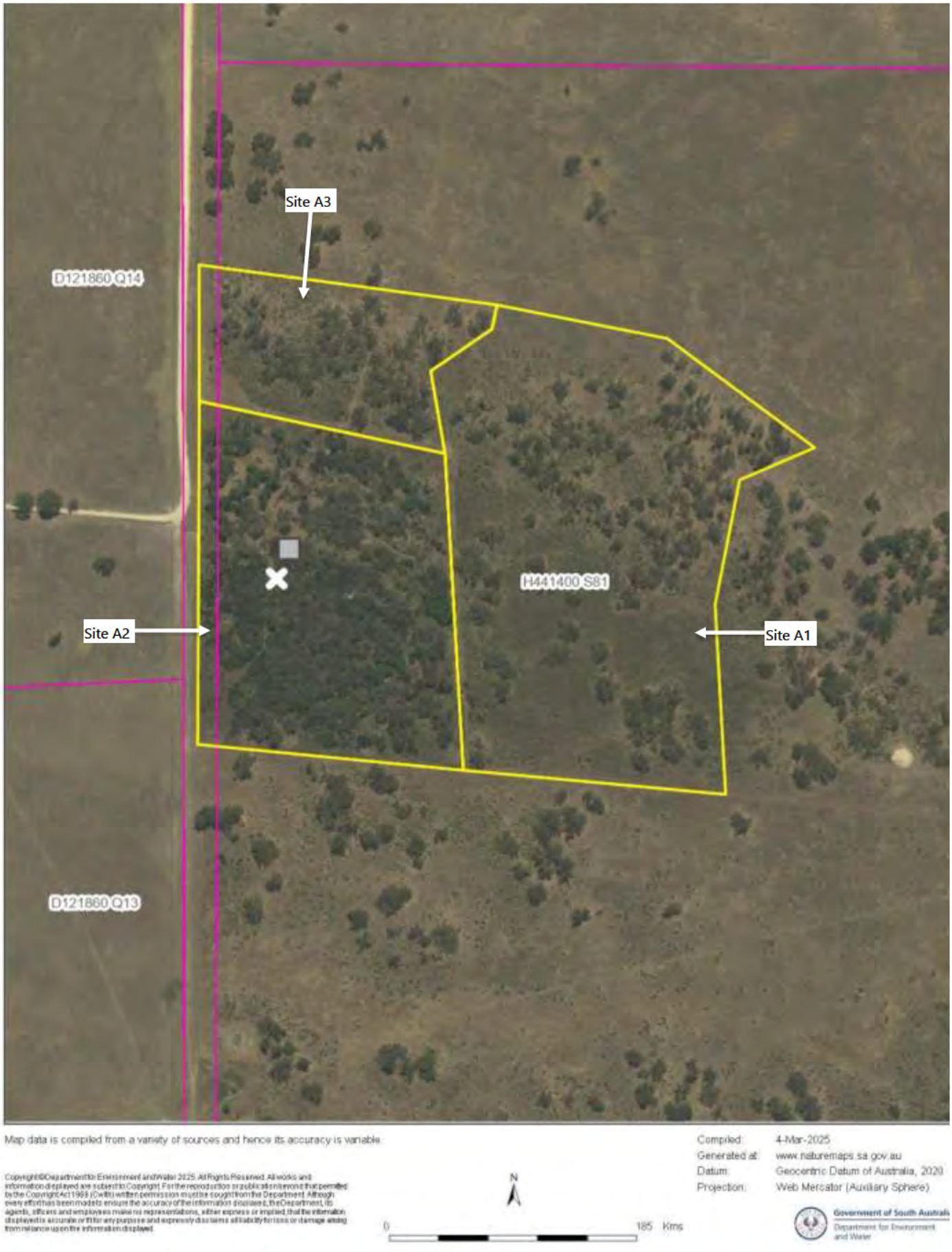


Figure 65. Site map of proposed SEB showing location of active (white 'X') and inactive (grey square) Common Wombat burrows.

Photo log

Figure 66. Active Common Wombat burrow observed in Site A2, GPS 402563 5896730.

Fauna and Flora assessment

Nine threatened fauna were identified from database searches that are likely use the SEB site for habitat (Table 1),. During the assessment of Site A2 an active and one inactive Common Wombat burrow was observed (Figure 65Figure 66). Most of the threatened species are mobile species with the SEB site providing habitat as they move through the landscape. Each site within the SEB contained suitable hollows for threatened species. Sites A1 and A2 had a mix of large and small hollows at varying heights, whereas only small hollows were observed in Site A2.

Two EPBC species were identified in the database searches with the Blue-winged Parrot (*Neophema* chrysostoma), which could use hollows in all three sites. The Grey-headed Flying Fox (*Pteropus poliocephalus*) may use the sites for feeding, but unlikely to the sites for communal roosting.

Table 1. Threatened fauna likely to use the proposed SEB site for habitat and identified from database searches occurring within a 5km radius.

Common Name	Species	EPBC Act	NP&W Act
Blue-winged Parrot	*Neophema chrysostoma*	VU	V
Common Brushtail	*Trichosurus vulpecula*		R
Common Wombat	*Vombatus ursinus*		R
Grey-headed Flying-fox	*Pteropus poliocephalus*	VU	R
Peregrine Falcone	*Falco peregrinus Macropus*		R
Scarlet Robin	*Petroica boodang boodang*		R
White-lipped Snake	*Drysdalia coronoides*		R
White-winged Chough	*Corcorax melanorhamphos*		R
Yellow-tailed Black Cockatoo	*Zanda funerea whiteae*		V

Environmental Benefits

The proposed SEB will secure habitat for Common Wombat (SA R) with an active burrow observed in Site A2. Habitat will be secured for an additional eight threatened species identified from database searches, including nesting habitat for Blue-winged Parrot (AUS VU, SA V). Vegetation condition is expected to improve with the removal of stock from Sites A1 and A3, plus the addition of missing structural components through a targeted revegetation program. Site A2 has been fenced for many years, but vegetation condition will improve with active management of environmental weeds, including Coastal Wattle, which has not occurred in the past. Similarly, vegetation condition will improve in Sites A1 and A3 as weeds are managed.

Summary Table

Block	Site	Vegetation Association	UBS	Gain Score	Area (ha)	SEB Points of Gain
A	1	Rough-barked Manna Gum Low Woodland	27.80	6.22	6.760	42.05
A	2	Messmate Strinybark +/- Inland SA Blue Gum Low Open Forest	47.54	5.92	4.462	26.42
A	3	Rough-barked Manna Gum +/- Messmate Stringybark Low Open Forest	32.65	6.58	1.984	13.05
				Total	**13.206**	**81.52**

SEB Management Plan

The Management Plan for the proposed SEB area is attached in the appendices.

7. Appendices

Appendix 1. Scattered Tree Assessment Scoresheet associated with the proposed clearance (also submitted in Excel format)

Appendix 2. Bushland Assessment Scoresheets associated with the proposed SEB Area (submitted separately)

Appendix 3. SEB Native Vegetation Management Plan (submitted separately)