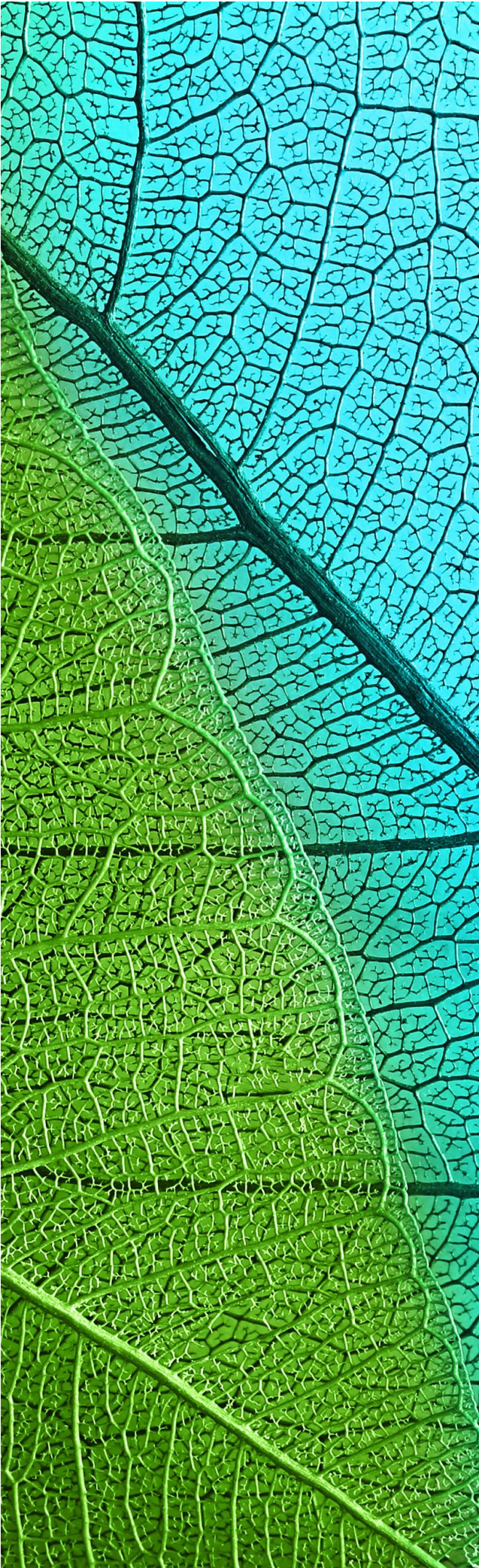




Somerton Intermodal Terminal

EPBC Act
Preliminary
Documentation
(EPBC 2023/09728)

Prepared for Austrak

September 2026

Report No. 23026.10 (2.1)



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Executive Summary

On 9 April 2024 the delegate of the Minister for the Environment determined that the proposed action to establish a major transportation and dispatch facility at Somerton, Victoria was a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and that the controlling provisions were sections 18 and 18A (listed threatened species and communities; Somerton Intermodal Terminal – EPBC 2023/09728). It has been determined that the proposed action will be assessed by preliminary documentation. This preliminary documentation has been prepared in response to the *Request for additional information – assessment by preliminary documentation* (RFI) received by Austrak on 29th April 2024 (Appendix 1: Request for additional information – assessment by preliminary documentation). The information requirements contained in the RFI and where in this document each of these is addressed is included in Table 1 below.

Table 1: Information requirements

Section	Sub-section	Information requirement (from RFI)	Relevant section
1: Description of the Action	1.1	Updated mapping and description of all components of the Action that captures the activities associated with both stages of the project. This should include the proposed construction activities associated with each stage of the project. The department considers that the action within 'Stage 1' isolates vegetation within the area delineated as 'Stage 2' to the point where the point there is a functional loss of vegetation. The department recommends a full discussion and evaluation of the impacts that occur within Stage 1 & 2.	Section 1
2: Habitat Assessment	2.1	The presence, status and extent of listed threatened species and communities within Stage 1 & 2, as determined by desktop assessment and/or targeted surveys as required. All surveys must be undertaken in accordance with the guidance outlined in the Species Profile and Threats Database. Include robust desktop survey that identifies and describes known historical records of the listed threatened species and ecological communities in the broader region. Records should be supported by an appropriate source (i.e., Commonwealth and State databases, published research, publicly available survey reports, etc.), the year of the record and a description of the habitat in which the record was identified.	Section 2
3: Impact Assessment	3.1	An assessment of the likely past and future impacts associated with the vegetation clearance and construction of the project. Including isolation and functional loss within the Stage 2 area.	Section 3
	3.2	Include the direct and indirect, past and future loss and/or disturbance of MNES individuals and habitat as a result of the proposed action. This must include the quality of the habitat impacted and quantification of the individuals and habitat area (in hectares) to be impacted.	Section 3

Section	Sub-section	Information requirement (from RFI)	Relevant section
4: Avoidance, Management and Mitigation Measures	4.1	A detailed summary of measures proposed to be undertaken by the proponent to avoid, mitigate and manage relevant impacts of the proposed action on relevant MNES. This should include for each measure: i. A statement of the objectives, ongoing management and monitoring, and locations and timing ii. The party responsible iii. The policy basis, for example consideration of the <i>Significant impact guidelines for the vulnerable growling grass frog (Litoria raniformis)</i>	Section 4
	4.2	The proposed measures must be based on best available practices, appropriate standards, evidence of success for other similar actions and supported by published scientific evidence.	Section 4
	4.3	All proposed measures for MNES must be drafted to meet the ‘S.M.A.R.T’ principle: ▪ S – Specific (what and how) ▪ M – Measurable (baseline information, number/value, auditable) ▪ A – Achievable (timeframe, money, personnel) ▪ R – Relevant (conservation advice, recovery plans, threat abatement plans) ▪ T – Time-bound (specific timeframe to complete)	Section 4
5: Offsets	5.1	An assessment of the likelihood of residual significant impacts occurring on relevant MNES, after avoidance, mitigation and management measures have been applied.	Section 5.1
	5.2	If residual impacts are likely to be significant, please provide a summary of the proposed environmental offset and key commitments to achieve a conservation gain for each protected matter with residual significant impacts.	Section 5.2

Section	Sub-section	Information requirement (from RFI)	Relevant section
	5.3	Where offset area/s have been nominated, include a draft OAMP (Offset Area Management Plan) as an appendix to the PD. The draft OAMP must meet the information requirements set out in Appendix B, and must be prepared by a suitably qualified ecologist and in accordance with the department's Environmental Management Plan Guidelines (2014), available at: www.environment.gov.au/epbc/publications/environmental-management-planguidelines .	An offset site to compensate for impacts to assumed SLL habitat has been nominated, and Austrak and the Landowner have entered into an MOU to secure the site. An Offset Management Plan (OMP) for the site, including detail of how it meets the department's EPBC Act Environmental Offsets Policy (October 2012), is included in Appendix 8. Austrak have undertaken significant steps to identify a suitable offset sites to compensate for impacts to GEWVVP. A proposed offset strategy for GEWVVP is included in Section 5.2.1 and Appendix 4, 5, 6, and 7.
	5.4	If proposing an offset, it must directly contribute to the ongoing viability of the species and ecological communities and deliver an overall conservation outcome that improves or maintains the viability of the protected matter, as compared to what is likely to have occurred if neither the action nor the offset had taken place. The offset proposal should demonstrate how the conservation outcome will be delivered for the protected matter.	An offset site to compensate for impacts to assumed SLL habitat has been nominated, and Austrak and the Landowner have entered into an MOU to secure the site. An OMP for the site, including detail of how it meets the department's EPBC Act Environmental Offsets Policy (October 2012), is included is included in Appendix 8. Austrak have undertaken significant steps to identify a suitable offset sites to compensate for impacts to GEWVVP. A proposed offset strategy for GEWVVP is included in Section 5.2.1 and Appendix 4, 5, 6, and 7.

Section	Sub-section	Information requirement (from RFI)	Relevant section
	5.5	If proposing an offset, it must meet the requirements of the department's EPBC Act Environmental Offsets Policy (October 2012). The department's Offset Assessment Guide must be used as a guide to estimate the area of offset required to adequately compensate for the residual significant impacts of the project. In all cases, targets and criteria should be specific and measurable. The documents are available at https://www.dcceew.gov.au/environment/epbc/publications/epbc-act-environmentaloffsets-policy .	An offset site to compensate for impacts to assumed SLL habitat has been nominated, and Austrak and the Landowner have entered into an MOU to secure the site. An OMP for the site, including detail of how it meets the department's EPBC Act Environmental Offsets Policy (October 2012), is included in Appendix 8. Austrak have undertaken significant steps to identify a suitable offset sites to compensate for impacts to GEWVVP. A proposed offset strategy for GEWVVP is included in Section 5.2.1 and Appendix 4, 5, 6, and 7.
6: Ecologically Sustainable Development (ESD)	6.1	A description of how the proposed action meets the principles of ESD, as defined in section 3A of the EPBC Act. The following principles are principles of ecologically sustainable development: ▪ decision making processes should effectively integrate both long term and short term economic, environmental, social and equitable considerations. ▪ if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. ▪ the principle of inter-generational equity—that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations. ▪ the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision making. ▪ improved valuation, pricing and incentive mechanisms should be promoted.	Section 6
7: Economic and Social Matters	7.1	An analysis of the economic and social impacts of the action, both positive and negative.	Section 7.1
	7.2	Details of any public consultation activities undertaken and their outcomes.	Section 7.2

Section	Sub-section	Information requirement (from RFI)	Relevant section
	7.3	Identify existing or potential native title rights and interests, including any areas and objects that are of particular significance to Indigenous peoples and communities, possibly impacted by the proposed action and the potential for managing those impacts. Describe any Indigenous consultation that has been undertaken, or will be undertaken, in relation to the proposed action and their outcomes. The department considers that best practice consultation, in accordance with the <u>Interim Engaging with First Nations People and Communities on Assessments and Approvals under Environment Protection and Biodiversity Conservation Act 1999 (interim guidance)</u> - DCCEEW includes: ▪ identifying and acknowledging all relevant affected Indigenous peoples and communities. ▪ committing to early engagement. ▪ building trust through early and ongoing communication for the duration of the project, including approvals, implementation and future management. ▪ setting appropriate timeframes for consultation; and ▪ demonstrating cultural awareness. Describe any state requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action with regards to Indigenous peoples and communities.	Section 7.3
	7.4	Projected economic costs and benefits of the project, including the basis for their estimate through cost/benefit analysis or similar studies.	Section 7.4
	7.5	Employment opportunities expected to be generated by the project (including construction and operational phases).	Section 7.5
8: Environmental record of the person	8.1	The person proposing to take the action	Section 8
	8.2	For an action for which a person has applied for a permit, the person making the application	Section 8

Section	Sub-section	Information requirement (from RFI)	Relevant section
proposing to take the action	8.3	If the person is a body corporate—the history of its executive officers in relation to environmental matters	Section 8
	8.4	If the person is a body corporate that is a subsidiary of another body or company (the parent body)—the history in relation to environmental matters of the parent body and its executive officers.	Section 8

1 Description of the Action

This section provides information on the proposed action. The proposed action is the construction and operation of a transportation and dispatch facility at Somerton in Victoria (see Figure 1).

1.1 Project Overview

The proposed action refers to the Somerton Intermodal Terminal Project, which represents a collaborative initiative between Aware Super, and the Victorian and Federal Governments, forming a key component of the Government's Port Rail Shuttle Network Project. Upon its full realisation, this project will establish a rail connection enabling freight transportation from the Port of Melbourne to the heart of Melbourne's industrial north, Somerton. The overall investment in this project is projected to be approximately \$600 million, with an anticipated annual reduction of 500,000 trucks on the road. Additionally, it is expected to curtail annual fuel consumption by 451 million litres and mitigate carbon emissions by 189,000 tonnes.

1.2 Location of the Project

The location of the project is shown in Figure 1. The proposed action will occur at the following addresses:

- 70 Cliffords Road Somerton 3062;
- 160 Union Road Somerton 3062;
- 115-135 Hume Highway Somerton 3062;
- 20 Cliffords Road Somerton 3062; and
- The Craigieburn Rail corridor extending from Somerton Road to Aitken Creek.

1.3 The Proposed Action

The project area encompasses 67.67 hectares (ha) as shown in Figure 2.

The activities associated with the proposed action are outlined below.

- Installation of concrete hardstands;
- Installation of Services;
- Installation of 50 kms of rail;
- Installation of 6 rail mounted Gantry Cranes;
- Construction of Light Vehicle Charging and Parking;
- Construction of a maintenance workshop and container repair workshop;
- Construction of an administration building;
- Construction of reach stacker storage and charging; and
- Construction of a container wash bay and driver crib room.

A Construction Site Environmental Management Plan (CEMP) and Earthworks Environmental Management Plan have been prepared for the project and are included at Appendix 10 and Appendix 11 respectively.

The project was initially Referred as proposed to be undertaken in two stages. Given DCCEEW's determination that the Stage 1 works would functionally isolate any communities, habitat or

species occurring in Stage 2, the proponent has now determined that the project will no longer be staged and Preliminary Documentation has now been prepared for the entire project.

1.4 Social and economic benefits of the Proposed Action

The overall investment in this project is estimated to be approximately \$600 million, with an anticipated annual reduction of 500,000 trucks on the road. Additionally, it is expected to curtail annual fuel consumption by 451 million litres and mitigate carbon emissions by 189,000 tonnes.

The project's environmental and economic benefits are anticipated to surpass the figures provided once the Federal Inland Rail Project is completed. The project area encompasses both privately and publicly owned land.

1.5 Alternatives to the Proposed Action

The project rail and associated infrastructure is being constructed in the existing rail corridor connecting to the existing main national ARTC freight network and broad gauge rail network. The project works includes infrastructure upgrade of the private adjoining existing Somerton Terminal that has been operating since early 2000s and upgrade of existing ARTC main freight network in the rail corridor. Existing infrastructure is being utilised for the project that is not present in alternate locations. Construction completion and operational milestone dates have been set by the Port Rail Shuttle Network Grant Agreement. Therefore, there are no viable alternatives to the Proposed Action and its associated impacts.

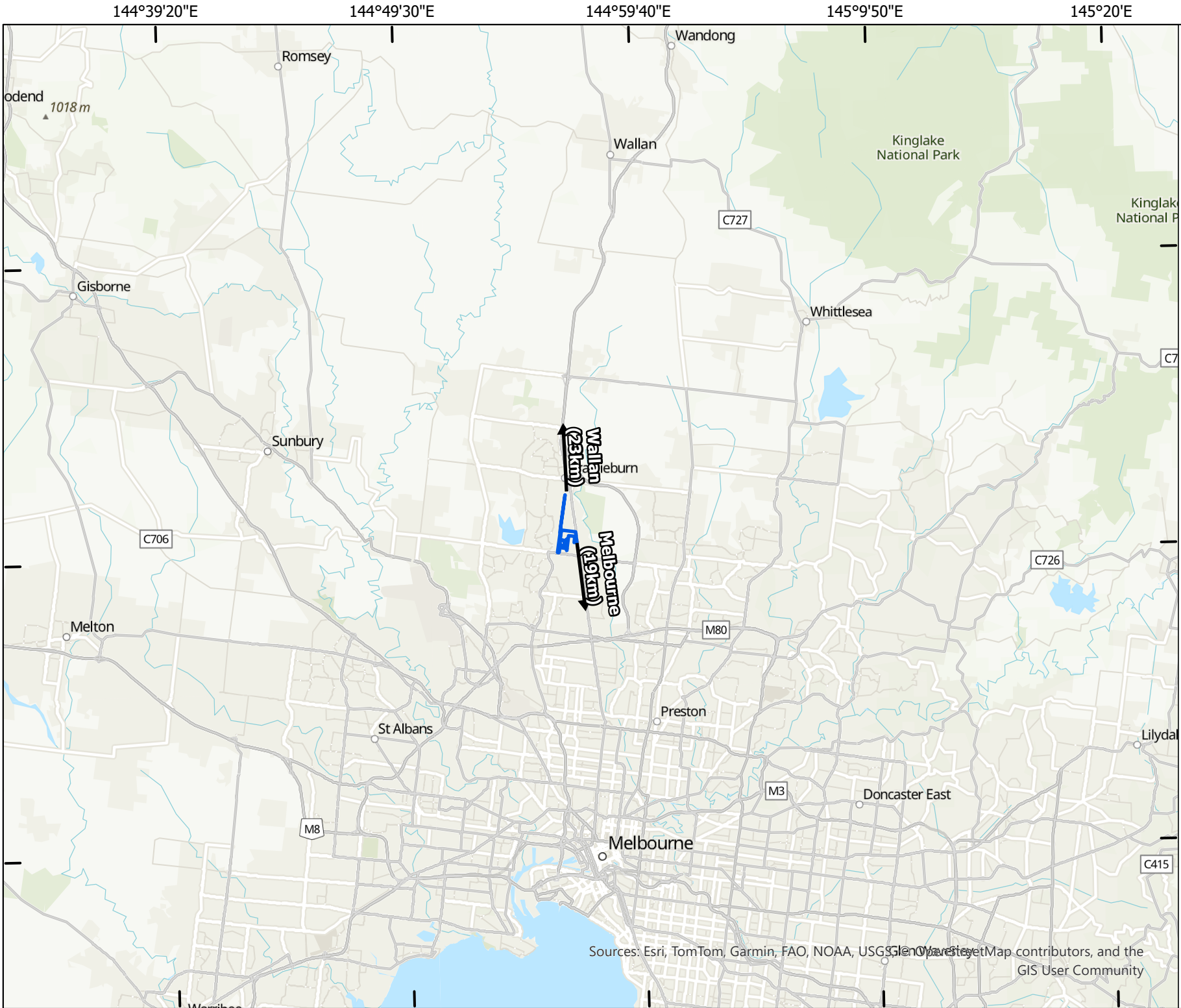


Figure 1. Location of site

Project No: 23026.10
Project: Austrak Somerton Business Park, VIC
Date: 4/09/2026

 Project area

Sources: Esri Basemap 2026



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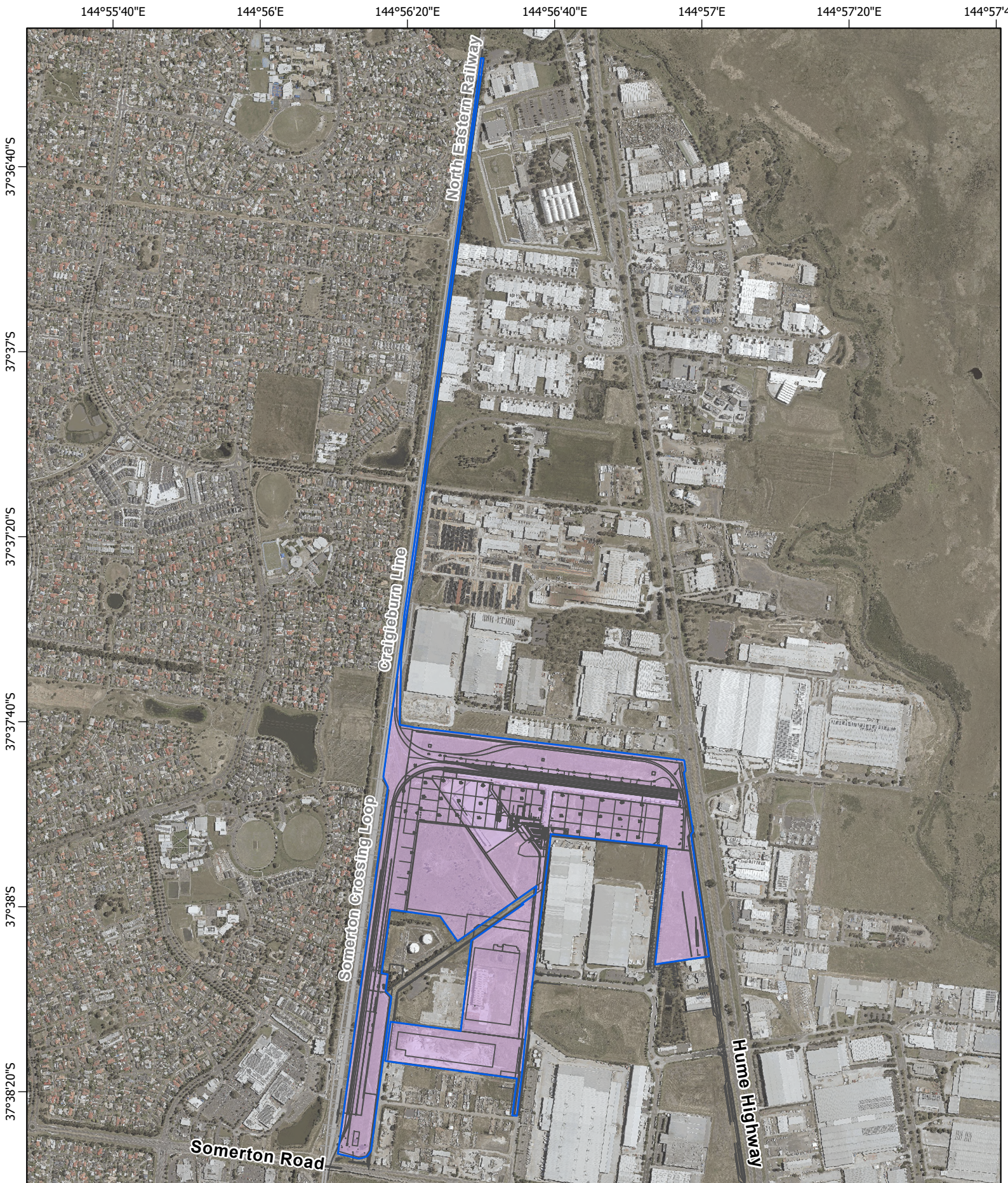
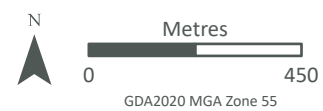


Figure 2. Development plan

Project No: 23026.10 **Project:** Austrak Somerton Business Park, VIC **Date:** 4/09/2026

- Project area
- Proposed development
- Railway



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Sources: Vicmap 2026

2 Habitat Assessment

The Somerton Intermodal Terminal was the subject of an EPBC Referral in 2023, with the Referral Decision designating the project as a ‘Controlled Action’ (EPBC 2023/09728). This Referral was informed by a range of ecological assessments of the site. These included:

- Native vegetation surveys (Nature Advisory 2023a, Nature Advisory 2023b);
- Flora assessment and targeted surveys for threatened flora species (Nature Advisory 2023e); and
- Fauna assessment and targeted surveys for threatened fauna species (Nature Advisory 2023c, Nature Advisory 2023d).

2.1 Flora and Fauna assessment methods

2.1.1 Desktop assessment

The existing documentation below, relating to the project area, was reviewed:

- Victorian Biodiversity Atlas administered by the Department of Energy, Environment and Climate Action (DEECA 2023); and
- The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) Protected Matters Search Tool (DCCEEW 2023a).

Flora and fauna species records and information about the potential occurrence of listed matters was obtained from an area termed the ‘search region’, defined here as an area with a radius of ten kilometres from the boundary of the study area.

A list of the flora and fauna species recorded in the search region was obtained from the *Victorian Biodiversity Atlas* (VBA), a database administered by DEECA (2023).

The online EPBC Act *Protected Matters Search Tool* (DCCEEW 2023a) was consulted to determine whether nationally listed species or communities potentially occurred in the search region based on habitat modelling.

2.1.2 Flora and fauna field assessment

Nature Advisory undertook flora and fauna assessments of the study area on 9th May and 7th June 2023. During the assessments, the study area was surveyed on foot.

Areas in the study area found to support native vegetation or with potential to support listed matters were mapped through a combination of aerial photograph interpretation and ground-truthing using ArcGIS Field Maps® (Esri) on a hand-held device.

The findings of Nature Advisory’s flora and fauna assessments are documented in:

- *Port of Somerton Australia: Austrak Business Park – Flora and Fauna Assessment*, Report No. 23026.01 (3.1) (Nature Advisory 2023a); and
- *Port of Somerton Australia: Craigieburn rail corridor – Flora and Fauna Assessment*, Report No. 23026.02 (2.1) (Nature Advisory 2023b).

2.1.3 Targeted surveys

Nature Advisory undertook targeted surveys of the study area between 5th December 2023 and the 11th January 2024. During the assessments, the study area was surveyed on foot.

All targeted surveys were undertaken in accordance with the relevant survey guidelines.

The findings of Nature Advisory's targeted survey assessments are documented in:

- *Somerton Business Park – Targeted Growling Grass Frog Survey*, Report No. 23026.04 (1.0) (Nature Advisory 2023c).
- *Somerton Business Park – Targeted Golden Sun Moth Survey*, Report No. 23026.05 (1.0) (Nature Advisory 2023d).
- *Somerton Business Park – Targeted Flora Survey*, Report No. 23026.06 (1.0) (Nature Advisory 2023e).

2.2 Survey results

2.2.1 Site description

The study area supported soils of volcanic origin on a flat to gently undulating landscape. There are no defined drainage lines or natural watercourses within the study area, however Aitken Creek occurs beyond the northern boundary of the rail reserve and three dams occur in the southern portion of the study area. These dams contained water of varying depth and permanency at the time of the assessment. The study area supported the remains of a large factory, an extensive area of stockpiling in the southern component and another area of stockpiling in the north. There were several unused train tracks and areas of stockpiling in the southern half of the rail reserve.

Past land use was presumably pastoral, while land current use is industrial and for transportation. Surrounding land use is residential to the west and industrial in all other directions.

The Craigieburn Grassland Nature Conservation Reserve is the largest area of remnant native vegetation remaining in the region and while it is situated only 500 metres east of the study area at its closest point, there is no structural connection between the reserve and the site. The study area is surrounded by industrial and commercial development as well as the rail corridor, with negligible habitat connection to any surrounding conservation reserves or parkland.

The study area lies within the Victorian Volcanic Plain bioregion and falls within the Port Phillip and Westernport catchment and Hume local government area.

2.2.2 Existing disturbance

At the time of the first flora and fauna field survey, evidence of recent ground disturbance was identified within the study area, both within the rail reserve and the Somerton Business Park. The total area of disturbance was determined to be 6.470 hectares. There is no existing documentation of the historical ecological condition of this area, therefore potential impacts to MNES within this disturbance area are unknown. The total area of disturbance does not include areas which have had a long-standing history of soil disturbance/stockpiling, as evident when reviewing historical aerial imagery (refer to Figure 4).

2.2.3 Native vegetation

The majority of the southern portion of the study area was dominated by a wide variety of introduced weeds, the more dominant of which were Toowoomba Canary-grass, Brown-top Bent, Kikuyu, Ox-tongue, Chilean Needle-grass, Artichoke Thistle and annual grasses. A proportion of the north-western section of the study area didn't support any vegetation as it had been cleared to a bare earth condition. The proponent has advised that this clearing was undertaken to establish a fire break to protect the 2 million litres of jet fuel stored on the neighbouring site.

Patches of native vegetation were restricted to areas in the north and west of the study area, in the form of highly modified treeless and treed Plains Grassy Woodland and a simplified example of Tall Marsh fringing a dam. Patches of Plains Grassy Woodland were recorded throughout the rail reserve. Although

many of these patches lacked a canopy element, they were considered to represent Plains Grassy Woodland due to the presence of woody understorey elements and proximity to more in-tact remnant woodland areas.

2.2.4 Fauna habitat

The study area supported the following four fauna habitat types:

- Treed habitat
- Grassland habitat;
- Aquatic habitat; and
- Anthropogenic structure habitat.

2.2.4.1 Treed habitat

This habitat type was represented by small patches of River Red-gum, planted non-indigenous eucalypts along Union Road and dense stands of understorey shrubs such as Blackwood and Black Wattle. The majority of the understorey comprised introduced grasses. Large hollow-bearing trees were absent and logs were sparse. This habitat in the study area is now fragmented due to past clearing and industrial development. Treed habitat in the study area was considered low quality and only likely to support common birds of urban and semi-urban landscapes.

2.2.4.2 Grassland habitat

This habitat type was dominant throughout the study area and comprised areas of remnant, largely treeless, native grassland and regularly slashed or mown areas of introduced grasses and broad-leaf weeds. The areas of native grassland were presumably a grassy woodland in the past (due to the presence of River Red Gums within and nearby to the study area), which has all but been cleared of canopy trees. While the native grassland currently occupies a small portion of the study area, it was presumed to be more extensive prior to recent clearing. It comprised a grassy ground layer, dominated by Kangaroo Grass, with scatterings of Grey Tussock-grass, Weeping Grass, and Rough Spear-grass, Native forb diversity and cover was low. Understorey trees and shrubs were present at low cover. These were Lightwood, Black Wattle and Tree Violet. Outcropping basalt rock cover was sparse to moderate, limiting the value of this habitat type for species which utilize this structural element.

Past land use was presumably largely pastoral, as evidenced by old, barbed wire farm fencing. Native grassland habitat in the study area is now fragmented due to recent clearing, although it was considered moderate quality and may support listed threatened flora and fauna species. The weedy slashed/mown areas of grassland were considered to be low quality for fauna.

2.2.4.3 Aquatic habitat

Occurred as a semi-permanent deep farm dam in the east of the study area, which was full at the time of the site assessment. The dam was fringed with a dense stand of mature indigenous Bulrush, River Club-sedge and rush. Indigenous forbs were very scarce, namely Variable Willow-herb. Aquatic habitat in the study area was considered moderate quality and may support listed threatened fauna species, namely Growling Grass Frog.

2.2.4.4 Anthropogenic structure habitat

This habitat type comprised the remains of old disused industrial buildings and piles of dumped waste materials. The disused buildings may provide roosting habitat for native Barn Owls and perhaps nesting opportunities for Peregrine Falcons. The waste piles may provide habitat for snakes and lizards.

2.2.5 Ecological Communities

The EPBC *Protected Matters Search Tool* (DCCEEW 2023a) indicated that five ecological communities listed under the EPBC Act had the potential to occur in the search region (Table 2).

Table 2: EPBC Act-listed ecological communities and likelihood of occurrence in the study area

Ecological Community	EPBC Status	Occurrence in the study area
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Does occur within rail reserve (Zone 1H). DCCEEW considered to occur in the study area (Zones 2A, 2B, 2D, 2E and 2F) and Zone 1A in the rail reserve
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Does not occur within the study area.
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Does not occur within the study area.
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Does not occur within the study area.
Grey Box (<i>Eucalyptus microcarpa</i>) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Endangered	Does not occur within the study area.

The following listed ecological community was recorded in the study area. A justification for the presence or otherwise of each of these communities is also provided below.

- **Grassy Eucalypt Woodland of the Victorian Volcanic Plain (GEWVVP)** – listed as Critically Endangered under the EPBC Act. A total of 0.502 hectares of GEWVVP were recorded in the study area (Habitat Zone 1H in the rail reserve). Below is a summary of how native vegetation in the study area compared to the key diagnostic characteristics and condition thresholds for the GEWVVP community (TSSC 2008a):
 - Native vegetation comprising Habitat Zone 1H met the key diagnostic characteristics and the condition thresholds for both size (>0.5 ha) and weed cover (<50% cover) to be considered as the community in a derived grassland state.
 - Native vegetation comprising Habitat Zones 1A, 2A and 2B met the key diagnostic characteristics and native grass species cover thresholds of the treeless variant of the community, however, they did not meet the minimum size threshold (<0.5 ha). Therefore, as conditions currently are at the site, the native vegetation comprising these habitat zones would not qualify as the GEWVVP community. Nonetheless, DCCEEW have determined that these zones should be considered GEWVVP for the purposes of this preliminary documentation.
 - Native vegetation comprising Habitat Zone 2E met the minimum size threshold (>0.5 ha), but did not meet the native grass species cover thresholds to qualify as the community in the grassland derived state. Nonetheless, DCCEEW have determined that this zone should be considered GEWVVP for the purposes of this preliminary documentation.

- The remainder of native vegetation patches recorded within the study area either did not meet the key diagnostic characteristics or did not meet the condition thresholds to qualify as the GEWVVP community, due to the high weed cover or insufficient size. Nonetheless, DCCEEW have determined that these zones should be considered GEWVVP for the purposes of this preliminary documentation.

Given the recent site history, including areas of disturbance, DCCEEW have identified (Langford pers. comm. 24th June 2024) that impacts to GEWVVP should be calculated based on the areas of Habitat Zones 1A and 1H from the rail reserve, and all Plains Grassy Woodland (EVC 55_61) zones in the planning area unit (Habitat Zones 2A, 2B, 2D, 2E and 2F) as per Table 3 below, noting:

- Only 1H from the rail reserve met the condition thresholds for the community;
- Only zones 1A from the rail reserve and 2A and 2B from the business park met all condition thresholds for the community **except** the minimum size threshold;
- All other Plains Grassy Woodland zones in the business park (2D, 2E, 2F) had insufficient native grass cover and too high weed cover to allow them to qualify as the community; and
- Zones 2D and 2F from the business park will not be directly removed. DCCEEW are considering them functionally isolated by the proposed project such that they are indirectly impacted.

Table 3: Summary assessment and condition scores of Habitat Zones as GEWVVP

Location	Habitat Zone	EVC no.	Area (ha)	Condition Score (out of 100)	Assessed as GEWVVP	DCCEEW Considered GEWVVP	Weighted condition score*
Business Park	2A	55_61	0.073	19	No - only too small	Yes	1.387
	2B	55_61	0.055	17	No - only too small	Yes	0.935
	2C	821	0.079	29	No - non-indicative EVC type	N/A	
	2D	55_61	0.047	20	No - too small, native grass cover too low	Yes	0.94
	2E	55_61	1.905	14	No - native grass cover too low	Yes	26.67
	2F	55_61	0.023	9	No - too small, no indicator species present.	Yes	0.207
Rail Reserve	1A	55_61	0.182	26	No - only too small	Yes	4.732
	1B	55_61	0.005	19	No - only too small	N/A	
	1C	55_61	0.009	15	No - too small, native grass cover too low		
	1D	55_61	0.007	15	No - too small, native grass cover too low		
	1E	55_61	0.012	19	No - too small, native grass cover too low		

Location	Habitat Zone	EVC no.	Area (ha)	Condition Score (out of 100)	Assessed as GEWVVP	DCCEEW Considered GEWVVP	Weighted condition score*
	1F	55_61	0.055	18	No - too small, native grass cover too low		
	1G	55_61	0.143	25	No - too small, native grass cover too low		
	1H	55_61	0.502	36	Yes	Yes	18.072
	1I	55_61	0.09	32	No - too small, native grass cover too low	N/A	
	1J	55_61	0.064	32	No - too small, native grass cover too low		
	Overall GEWVVP values				0.502 ha	2.285 ha	52.943/2.787
					2.787 ha of GEWVVP		19** overall condition score

*Weighted condition score = Area x condition score of individual patch

**Sum of weighted condition scores divided by total area of GEWVVP to give an overall condition score

The following four listed ecological communities were deemed unlikely to occur or do not occur within the study area. A justification for each of these communities is listed below.

- **Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains** – listed as Critically Endangered under the EPBC Act. Native vegetation did not qualify for this listed ecological community as it did not meet the following key diagnostic characteristics (TSSC 2012):
 - Tall Marsh vegetation associated with aquatic habitat in Habitat Zone 2C was not dominated by species characteristic of this community.
- **White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland** – listed as Critically Endangered under the EPBC Act. Native vegetation did not qualify for this listed ecological community as it did not meet the following key diagnostic characteristics (TSSC 2006):
 - White Box, Yellow Box or Blakely's Red Gum were not recorded on site, and there is no indication that they would have historically been present.
- **Natural Temperate Grassland of the Victorian Volcanic Plain** – listed as Critically Endangered under the EPBC Act. Native vegetation did not qualify for this listed ecological community as it did not meet the following key diagnostic characteristics (TSSC 2008b):
 - Vegetation dominated by native grasses was determined to be a derived grassland, which would have historically supported woodland vegetation. The presence of scattered River Red Gums within the broader study area and surrounding landscape supports this conclusion.
- **Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia** – listed as Endangered under the EPBC Act. Native vegetation did not qualify for this listed ecological community as it did not meet the following key diagnostic characteristics (TSSC 2010):
 - Grey Box was not recorded on site, and there is no indication that this species would have historically been present.

2.2.6 Flora species

The EPBC Protected Matters Search Tool (DCCEEW 2023a) and VBA (DEECA 2023) indicated that within the search region there were records of, or there occurred potential suitable habitat for 15 flora species listed under the Commonwealth EPBC Act.

The likelihood of occurrence in the study area of species listed under the EPBC Act is addressed in Appendix 2. Species considered ‘likely to occur’ are those that have a very high chance of being in the study area based on numerous records in the search region and suitable habitat in the study area. Species considered to have the ‘potential to occur’ are those for which suitable habitat exists, but recent records are scarce.

This analysis indicates that one listed flora species is considered to have the potential to occur:

- Matted Flax-lily

Subsequently, targeted surveys for Matted Flax-lily were undertaken on the 5th December in areas of suitable habitat (Habitat Zones 1A, 1H, 2A, 2B, 2E and adjacent undisturbed areas) (Nature Advisory 2023e). No individuals were recorded during these surveys and is therefore considered unlikely to occur within the study area.

No other flora species are considered to have the potential to occur on site.

2.2.7 Fauna species

The EPBC Protected Matters Search Tool (DCCEEW 2023a) and VBA (DEECA 2023) indicated that within the search region there were records of, or there occurred potential suitable habitat for 26 threatened fauna species and nine migratory species listed under the EPBC Act.

Nature Advisory undertook an assessment of the likelihood of occurrence of the listed fauna species as detailed in Appendix 3.

This analysis of potential occurrence of listed fauna species excludes:

- Marine fauna given the study area is inland; and
- Migratory oceanic bird species (such as albatrosses and petrels) given the study area is inland.

Species considered ‘likely to occur’ are those that have a very high chance of being in the study area given the existence of numerous records in the search region and suitable habitat in the study area. Using the precautionary approach, species considered to have the ‘potential to occur’ are those where suitable habitat exists, but recent records are scarce.

Three species were found to have the ‘potential to occur’:

- Striped Legless Lizard
- Golden Sun Moth
- Growling Grass Frog

2.2.7.1 Striped Legless Lizard

Potential habitat for Striped Legless Lizard was found within Habitat Zones 1A, 1H, 2A, 2B and 2E (Figure 3). This habitat was considered to be of moderate to low quality. These areas comprised native species including Kangaroo Grass, tussock grasses and spear-grass, which were interspersed with non-native species. Grassy ground cover was typically dense with some inter-tussock space. Bare ground was limited but cracks in the soil as well as large, embedded rocks were found on site. These features are well-known habitat indicators for the species.

There is negligible connectivity between patches of habitat on site to any other areas of grassland that may support the species. The study area is immediately bordered by a regional train line and residential areas to the west and encroaching industrial development in all other directions. In addition, the nearest records of the species – approximately 3km from the site – are dated from 1988-1990 and were observed east of the Merri Creek within Craigieburn Grassland Nature Conservation Reserve.

Notwithstanding the above, given the seasonal survey constraints for Striped Legless Lizard, its presence has been assumed within the study area.

A significant portion of the potential habitat mapped for Striped Legless Lizard occurs within the Stage 2 footprint of the proposal (within and surrounding Habitat Zone 2E).

2.2.7.2 Golden Sun Moth

Suitable habitat for the Golden Sun Moth was determined to occur within and adjacent to Habitat Zones 1A, 1H, 2A, 2B and 2E (Figure 3). Subsequently, targeted surveys for the Golden Sun Moth were undertaken between December 2023 and January 2024. No individuals were recorded; therefore, the Golden Sun Moth is now considered unlikely to occur in the study area. Detailed information on the survey methodology and results is provided in Nature Advisory 2023d.

2.2.7.3 Growling Grass Frog

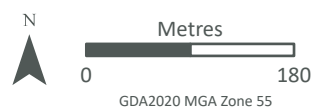
The Growling Grass Frog was deemed to have the potential to occur in the study area within the waterbody surrounded by Habitat Zone 2C (Figure 3). Targeted surveys were undertaken between November and December 2023. No individuals were recorded; therefore, the Growling Grass Frog is now considered unlikely to occur in the study area. Detailed information on the survey methodology and results is provided in Nature Advisory 2023c.



Figure 3. Existing ecological values

Project No: 23026.10 **Project:** Austrak Somerton Business Park, VIC **Date:** 4/09/2026

 Project area	 Plains Grassy Woodland (EVC 55_61)	 Assumed Grassy Eucalypt Woodland of the Victorian Volcanic Plains (GEWVVP)
— Railway	 Tall Marsh (EVC 821)	 Assumed Striped Legless Lizard habitat
Native vegetation	Matters of National Environmental Significance	
● Large Scattered Tree	 Confirmed Grassy Eucalypt Woodland of the Victorian Volcanic Plains (GEWVVP)	
● Large Tree in Patch		
● Small Scattered Tree		



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Sources: Vicmap 2026

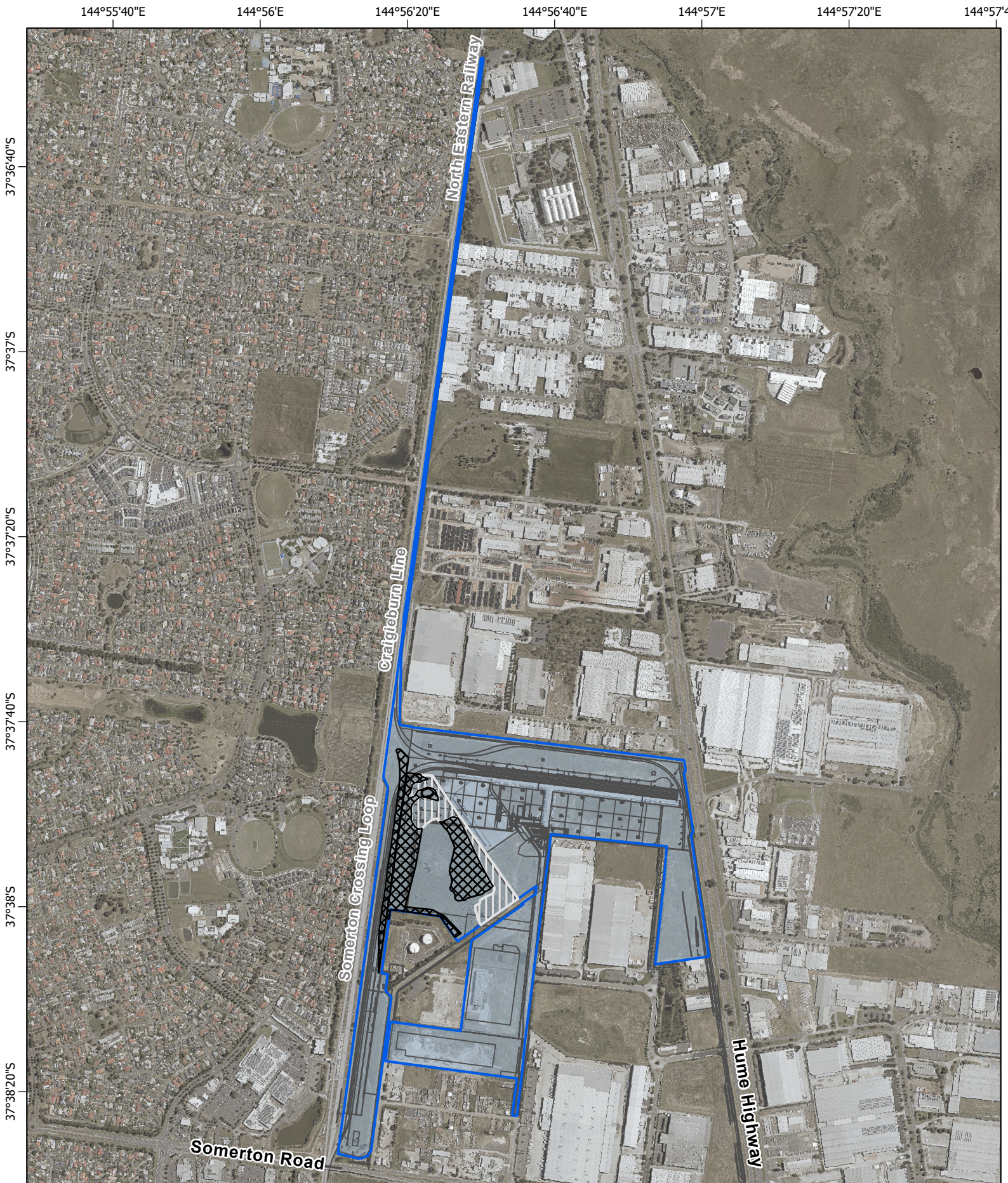
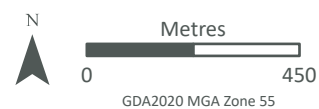


Figure 4. Disturbance areas

Project No: 23026.10 **Project:** Austrak Somerton Business Park, VIC **Date:** 4/09/2026

- | | |
|--|---|
| Project area | Disturbance area |
| Proposed development | Recent disturbance |
| Railway | Historical disturbance |



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Sources: Vicmap 2026

3 Impact Assessment

The impacts of the project on MNES are described below. Figure 4 shows the proposed layout, while Figure 5 shows the resultant impacts to known and assumed MNES.

3.1 Direct impacts to MNES

The proposed development will directly impact on one known MNES – *Grassy Eucalypt Woodland of the Victorian Volcanic Plain* and one MNES that potentially occurs within the project area – *Striped Legless Lizard*. These impacts are described below. No other MNES will be impacted by the proposed development.

3.1.1 *Grassy Eucalypt Woodland of the Victorian Volcanic Plain*

The project will result in the removal of 0.502 ha of known GEWVVP from the project area (Habitat Zone 1H, within the Craigieburn railway corridor) and a further 2.285 hectares of assumed GEWVVP (Habitat Zones 1A, 2A, 2B and 2E) to give a total of **2.787 ha** of impact to GEWVVP (known and assumed). Given the quantum of the removal, the action would be considered to reduce the extent of GEWVVP to a degree that it is considered a Significant Impact (Figure 5).

3.1.2 *Potential Habitat for Striped Legless Lizard*

Given that the appropriate survey period for *Striped Legless Lizard* has now passed and the disturbance history of the impact site, the presence of *Striped Legless Lizard* has been assumed and is subsequently be considered impacted.

Assuming presence of *Striped Legless Lizard*, the works will result in the removal of **4.189 ha** of assumed habitat from 1A and 1H within the Craigieburn railway corridor and 2A, 2B, 2D, 2E and 2F within the project area as well as within non-native vegetation adjacent to these areas (Figure 5). Non-disturbed non-native areas adjacent to these areas of suitable habitat were included as *Striped Legless Lizard* are known to move beyond areas of higher quality habitat into areas dominated by weeds, as long as these areas provide structural diversity and are within proximity to higher quality habitats.

3.2 Indirect impacts to MNES

All MNES occurring (or potentially occurring) within the project area have been considered impacted. There are no indirect impacts to MNES within the project area anticipated. The project will operate within a CEMP to ensure that no indirect impacts to MNES off-site (beyond the project area) occur.

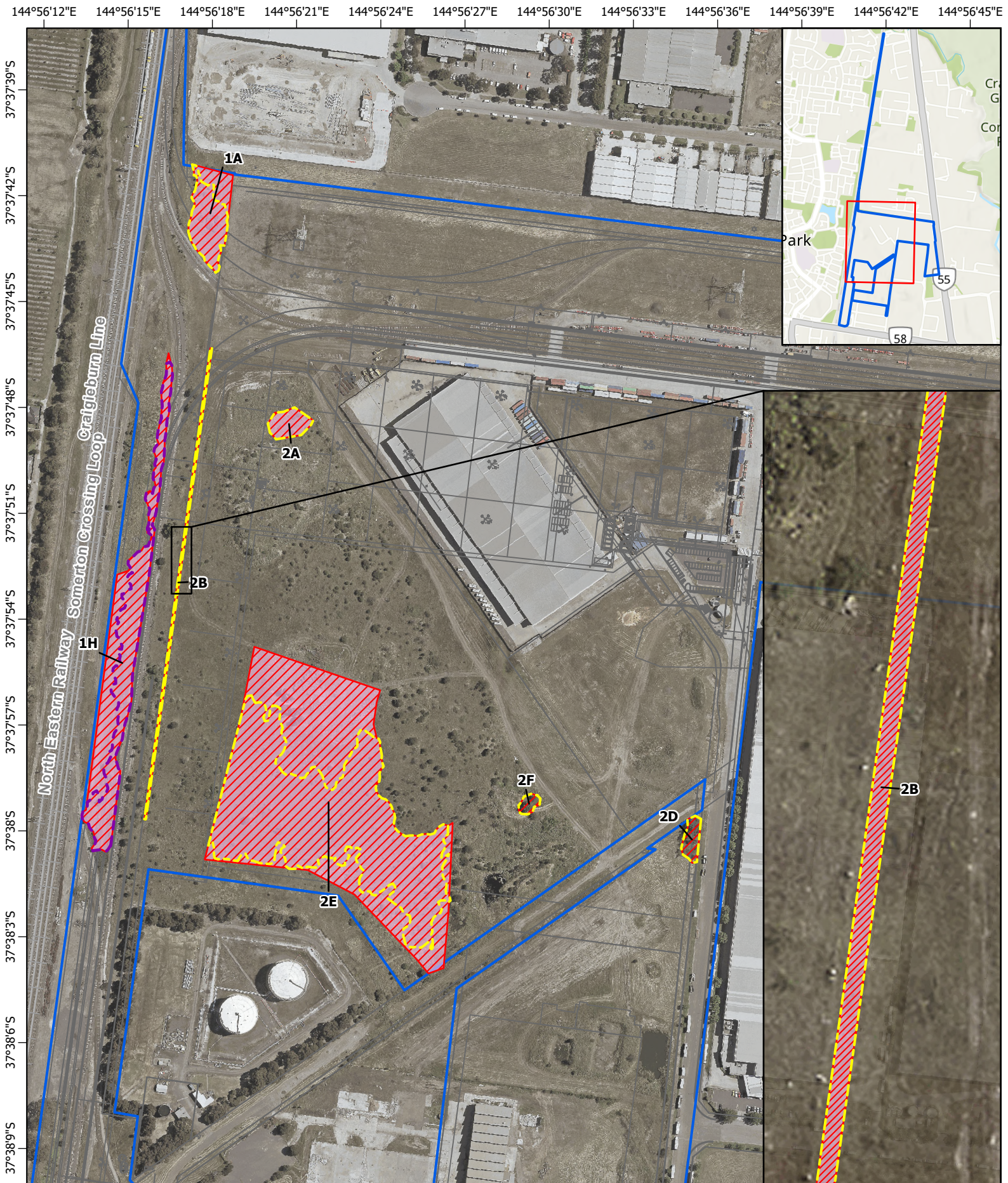


Figure 5. Impacts to MNES

Project No: 23026.10 **Project:** Austrak Somerton Business Park, VIC **Date:** 4/09/2026

Project area

Railway

Matters of National Environmental Significance

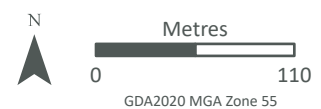
Confirmed Grassy Eucalypt Woodland of the Victorian Volcanic Plains (GEWVVP)

Assumed Grassy Eucalypt Woodland of the Victorian Volcanic Plains (GEWVVP)

Assumed Striped Legless Lizard habitat

Impacts to MNES values

Sources: Vicmap 2026



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4 Avoidance and Mitigation Measures

4.1 Avoidance of impacts

Efforts to avoid and minimise impacts to MNES are presented as follows:

- **Strategic level planning** – The Somerton Intermodal Terminal forms the northern terminus of the Victorian State Government’s Port Rail Shuttle Network. The intention of the Port Rail Shuttle Network is to connect the Port of Melbourne to major freight hubs using the existing rail network, encouraging the use of rail freight. This is intended to remove congestion around the Port of Melbourne, reduce transport costs for freight, and reduce the number of truck trips on the suburban Melbourne roads. With road travel producing significantly more carbon emissions than rail travel, the network is also intended to reduce emissions of greenhouse gasses (Victorian State Government 2023). The location of the Terminal has been dictated by its location adjacent to the existing ARTC railway line.
- **Site level planning** – Given the location of MNES within the project area and the infrastructure required to support the project, avoiding or minimising impacts to MNES is likely to be very difficult. Any potential avoidance would be minimal, and residual MNES would likely be subject to significant indirect impacts, effectively negating the benefit of their retention. As such, no feasible opportunities exist to avoid and minimise impacts on MNES without undermining the key objectives of the proposal.

4.2 Mitigation of Impacts

No mitigation of impacts is proposed given that the nature of the project would functionally isolate any remaining MNES. Rather, Austrak are committed to managing the impacts to MNES through significant commitments to adequately offset impacts.

5 Residual Impacts and Proposed Offsets

Austrak are committed to managing the impacts to MNES through significant commitments to adequately offset impacts as detailed below.

5.1 Significant impact assessment of residual impacts

5.1.1 Listed ecological communities

The project will result in the following losses:

- 2.787 hectares of known and assumed *Grassy Eucalypt Woodland of the Victorian Volcanic Plains* GEWVVP (EPBC Act: Critically Endangered).

The impacts of the project on this community are considered in Table 4 against the EPBC Act Significant Impact Guidelines for Endangered or Critically Endangered ecological communities (DoE 2013).

This assessment references *Commonwealth Listing Advice on Grassy Eucalypt Woodland of the Victorian Volcanic Plain* (TSSC 2008a).

The assessment has determined that the proposed action has the potential to result in a significant impact to this community.

Table 4: Significant Impact Assessment – GEWVVP (Critically Endangered)

Significant impact criterion	Assessment	Significant impact likelihood
Reduce the extent of an ecological community	The extent of the community was estimated to be within the range of 18,000 to 60,500 ha in 2007 (TSSC 2008a). The removal of 2.787 ha of GEWVVP would constitute 0.0002 – 0.00005% of the 2007 extent. Although this isn't necessarily considered a significant reduction in area, it still reduces the overall extent and could therefore be considered a significant impact.	Potential
Fragment or increase fragmentation of an ecological community	The GEWVVP recorded on site is not connected to any similar habitat in adjacent industrial areas. Therefore, the proposed impacts to GEWVVP are unlikely to fragment this community.	Unlikely
Adversely affect habitat critical to the survival of an ecological community	The GEWVVP recorded within the study area is unlikely to constitute habitat critical to the survival of the ecological community, given its industrial context, isolation in the broader landscape and degraded quality (lack of canopy, high levels of weed invasion) (see Nature Advisory 2023b). As such, the proposed removal and ground disturbance in an area which may have supported the community is unlikely to adversely affect habitat critical to the survival of GEWVVP, given its persistence in a low quality and isolated state.	Unlikely

Significant impact criterion	Assessment	Significant impact likelihood
Modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns	Abiotic factors necessary for the community's survival (i.e. in areas away from the project area) will not be impacted by the project, as construction mitigation measures (such as sediment fencing, stormwater management and dust suppression) will be put in place to protect abiotic factors beyond the project area.	Unlikely
Cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting	No areas of the community are proposed to be retained by the action. Therefore, this criterion is not considered applicable.	N/A
Cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to: – assisting invasive species, that are harmful to the listed ecological community, to become established, or – causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community	Construction mitigation measures will be put in place to ensure project does not facilitate the spread of invasive species or pollutants, including undertaking weed monitoring and control and sediment fencing. Furthermore, there will be no remaining areas of GEWVVP on site under the current development proposal for a reduction in quality or integrity to occur in.	Unlikely
Interfere with the recovery of an ecological community	The area of the proposed development is not considered important for the recovery of the community given its industrial context, isolation in the broader landscape, and degraded quality (lack of canopy and high levels of weed invasion) (see Nature Advisory 2023b).	Unlikely

5.1.2 Listed fauna

The proposed project would result in the loss of 4.189 ha of assumed Striped Legless Lizard habitat from 1A and 1H within the Craigieburn railway corridor and 2A, 2B, 2D, 2E and 2F within the project area as well as within non-native vegetation adjacent to these areas (Figure 5).

The impacts of the proposed project on Striped Legless Lizard are considered in Table 5 against the EPBC Act Significant Impact Guidelines for vulnerable species (DoE 2013). This assessment references the *Environment Protection and Biodiversity Conservation Act 1999 referral guidelines for the vulnerable striped legless lizard, Delma impar* (DSEWPac 2011).

This assessment has determined that the proposed action has the potential to result in a significant impact to Striped Legless Lizard if found on site.

Table 5: Significant Impact Assessment – Striped Legless Lizard (EPBC: Vulnerable)

Significant impact criterion	Assessment	Significant impact likelihood
Lead to a long-term decrease in the size of an important population of a species.	The project area is considered unlikely to support an important population, given it constitutes a small, isolated areas of habitat which is currently under pressure, and is likely to experience long-term pressures (DSEWPac 2011).	Unlikely
Reduce the area of occupancy of an important population.	The project area is considered unlikely to support an important population, given it constitutes a small, isolated areas of habitat which is currently under pressure, and is likely to experience long-term pressures (DSEWPac 2011).	Unlikely
Fragment an existing important population into two or more populations.	The project is not anticipated to fragment a population as there is no suitable habitat being retained within the broader study area and no connectivity to known populations in the landscape.	Unlikely
Adversely affect habitat critical to the survival of a species.	It is considered unlikely that the project area supports habitat critical to the survival of Striped Legless Lizard given its isolation, industrial context, disturbance history and high weed cover.	Unlikely
Disrupt the breeding cycle of a population.	The project may disrupt the breeding cycle of a population of Striped Legless Lizard if it was found to occur in the study area.	Potential
Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.	The project will result in removal of 4.189 ha of suitable (albeit marginal) habitat for the Striped Legless Lizard, and as such there would be a decline in the species locally if it is present.	Potential

Significant impact criterion	Assessment	Significant impact likelihood
Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat.	A Construction Site Environmental Management Plan and Earthworks Environmental Management Plan have been prepared for the project and are included at Appendix 10 and Appendix 11 respectively. Provided construction mitigation measures are put in place to ensure project does not facilitate the spread of invasive species, including implementation of pest plant and animal monitoring and control, the project is unlikely to result in the introduction of invasive species that are harmful to Striped Legless Lizard.	Unlikely
Introduce disease that may cause the species to decline.	A Construction Site Environmental Management Plan and Earthworks Environmental Management Plan have been prepared for the project and are included at Appendix 10 and Appendix 11 respectively. Provided construction mitigation measures are put in place to ensure project does not facilitate the spread or introduction of disease, including strict cleaning procedures and protocol during construction, the project is unlikely to introduce disease that may cause the species to decline.	Unlikely
Interfere substantially with the recovery of the species.	The project is unlikely to substantially interfere with the recovery of this species due to the isolation, industrial context, disturbance history and high weed cover.	Unlikely

5.1.3 Summary

Assessment against the EPBC Act Significant Impact Guidelines found that the project has the potential to have a significant impact on the following MNES:

- Ecological communities:
 - Grassy Eucalypt Woodland of the Victorian Volcanic Plain
- Fauna species
 - Striped Legless Lizard

The Project is not expected to have an impact on any other MNES, including the Growling Grass Frog, Matted Flax-lily and Golden Sun Moth as they were not recorded during targeted surveys.

5.2 Offsets

5.2.1 Grassy Eucalypt Woodland of the Victorian Volcanic Plain (GEWVVP)

Austrak have undertaken significant steps to identify a suitable direct offset site to offset impacts to 2.787 ha of known and assumed GEWVVP in the project area. A summary of the exhaustive search is provided below:

1. A site in Snake Valley was nominated by an offset broker (Vegetation Link), which had previously been assessed by Biosis as supporting GEWVVP. However, its presence relied on a re-interpretation of the bioregional boundary within the site, based on site conditions. The evidence presented by Biosis was supported by an assessment undertaken by Nature Advisory. Subsequently, Austrak entered into a contractual agreement with the landowner to purchase the property, subject to it meeting the offset requirements. An offset

management plan was prepared for the site by Nature Advisory. However, in the process of seeking to register the site, Trust for Nature have rejected the re-interpretation of the bioregional boundary, making the site unviable as a GEWVVP offset site (documentation provided in Appendix 4).

2. Nature Advisory, Vegetation Link and Trust for Nature conducted exhaustive searches for alternative GEWVVP offset sites but were unable to provide any alternatives or potential leads.
3. Austrak have also reached out to all other known offset site brokers in an effort to identify any alternative GEWVVP offset sites (Appendix 5).

To the best of the proponent's knowledge, and demonstrated by the extensive effort undertaken, there are currently no suitable direct GEWVVP offset sites available.

Following discussions with DCCEEW, an offset strategy has been formulated to address impacts to GEWVVP. While suitable direct offsets for GEWVVP are currently unavailable, a property located at Redesdale has been identified that meets the soil and floristic key diagnostic characteristics and condition thresholds for GEWVVP and is of a suitable size and quality to satisfy offset requirements.

However, notwithstanding its ecological suitability, it has been deemed that the Redesdale site cannot be classified as a direct offset solely because it falls outside the Victorian Volcanic Plains (VVP) IBRA bioregion boundary. As such, this represents a technical constraint based on geographic delineation, rather than any shortcoming in ecological value of the site itself.

In response to this, the proposed offset strategy adopts a two-part approach:

- An indirect offset through on-title, in perpetuity protection and a management period of a 10.000 ha offset site at a property in Redesdale, which will deliver outcomes consistent with those expected of a direct offset in terms of vegetation quality, condition, and long-term security.
- An additional compensatory measure to provide additionality through funding for the enhancement of existing GEWVVP at Mount Ridley Reserve.

Table 6 outlines how the Redesdale offset site satisfies the Commonwealth offset principles for GEWVVP.

Section 5.2.1.2 details the proposed enhancement measures at Mount Ridley Reserve and demonstrates how these measures compensate for the indirect offset classification limitation of the Redesdale site.

Table 6: GEWVVP Commonwealth Offset Principles - GEWVVP

Commonwealth Offset principle	Redesdale offset site
Deliver an overall conservation outcome that improves or maintains the viability of the aspect of the environment that is protected by national environment law and affected by the proposed action.	Y – The Redesdale offset site meets the key diagnostic criteria for soils and floristics for GEWVVP. Although it is located outside the bioregional definition of GEWVVP, there are no direct offsets available for GEWVVP, therefore this offset strategy will still deliver conservation outcomes consistent with those expected of a direct offset in terms of vegetation quality, condition, and long-term security.
Be built around direct offsets but may include other compensatory measures.	Y – The Redesdale offset site meets the requirements for a direct offset in all criteria, with the exception of its location outside the VVP IBRA bioregion. In the absence of available direct offsets, additional compensatory measures have been incorporated, including funding to enhance GEWVVP at Mount Ridley Reserve (refer to Section 5.2.1.2).
Be in proportion to the level of statutory protection that applies to the protected matter	Y – The offset will be secured on-title in perpetuity and managed in accordance with the Offset Management Plan (OMP), ensuring the level of statutory protection is in proportion to the matter being impacted. The gain calculator demonstrates that the offset site is proportional to the level of statutory protection (critically endangered) to the protected matter (GEWVVP).
Be of a size and scale proportionate to the residual impacts on the protected matter	Y – As demonstrated from the gain calculator, the proposed offset delivers gain that is proportionate to, and exceeds (111.51% of the offset target), the residual impact to the protected matter (2.787 ha). This is achieved through the protection and management of the Redesdale 10 ha offset site. In addition, the enhancement of GEWVVP at Mount Ridley Reserve will further contribute to positive conservation outcomes, ensuring the overall offset strategy is appropriately scaled to the impact.
Effectively account for and manage the risks of the offset not succeeding	Y – Risks to the success of the offset are appropriately managed through securing the site on title in perpetuity and implementing management actions in accordance with the OMP, which includes measures to address key threats and ensure long-term ecological outcomes. Additionally, a precautionary 60% confidence in result was applied to the gain calculator to further mitigate the risk of the offset not succeeding to its intended outcomes.

Commonwealth Offset principle	Redesdale offset site
Be additional to what is already required, determined by law or planning regulations or agreed to under other schemes or programs	Y – The Redesdale site is not subject to any current offset obligation and is located on private land without statutory requirements for its protection, enhancement, or management. Therefore, the proposed on-title protection and implementation of the OMP represent a conservation gain beyond existing law or planning regulations. This proposal would focus on offsets additional to those already required under the state offset requirements for the project.
Be efficient, effective, timely, transparent, scientifically robust and reasonable	Y – The OMP sets out targeted management actions, along with clear monitoring and reporting requirements to track performance and inform adaptive management. These measures are well-established and considered both practical and effective in achieving the intended ecological outcomes within a reasonable timeframe.
Have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced.	Y – The OMP provides the means to measure against performance criteria, monitoring and reporting requirements, and auditing to track improvements in habitat quality over time. The offset will be secured on title and will be enforceable under the EPBC Act, ensuring compliance and accountability for its ongoing management.
Be informed by scientifically robust information and incorporate the precautionary principle in the absence of scientific certainty	Y – The impact and offset site assessments were undertaken by qualified ecologists using established and accepted methodologies. The gain calculator applies the precautionary principle and offsets exceeding the residual impact to the protected matter will be secured. The OMP is informed by ecological input, ensuring that management actions are robust and designed with achievable conservation outcomes.
Be conducted in a consistent and transparent manner.	Y – All assessments would be documented for transparency.

5.2.1.1 Redesdale Offset Site

The property is located in Redesdale, 90 km northwest of Melbourne and 25 km southeast of Bendigo. The property falls within the mapped Victorian Midlands IBRA bioregion (DEECA 2025); however, it lies on an outlier newer volcanic outflow that runs north along the Coliban River valley. A preliminary assessment was undertaken by Trust for Nature (TFN) in conjunction with representatives from Cassina Environmental Pty Ltd and Vegetation Link on 24 February 2025. This confirmed that the following site attributes are consistent with the key diagnostic characteristics for GEWVVP:

- The vegetation is consistent with GEWVVP, being an overstorey dominated by River Red Gum (*Eucalyptus camaldulensis*) with occasional Grey Box (*Eucalyptus microcarpa*). The mature trees present are consistent with the growth and shape of a woodland. The midstorey is absent, which is consistent with most woodland sites on private property in Victoria; however, fringing vegetation included Tree Violet (*Melicytus dentatus*) which is consistent with GEWVVP. The groundlayer is predominantly grassy with other species present consistent with GEWVVP.
- The geology is indicative of GEWVVP, which is limited to Quaternary basalt soils on low elevation plains and stony rises on the basalt flows. The surrounding landscape includes classic basalt stony rises typically found on the VVP.
- The soils are consistent with GEWVVP, being dark, heavy cracking clays interspersed with lighter grey cracking clays in the gilgai areas. Surface basalt rock was also present.

Only one characteristic does not meet the requirements for GEWVVP which is that the site is not geographically located in the IBRA bioregion boundary (Figure 6).

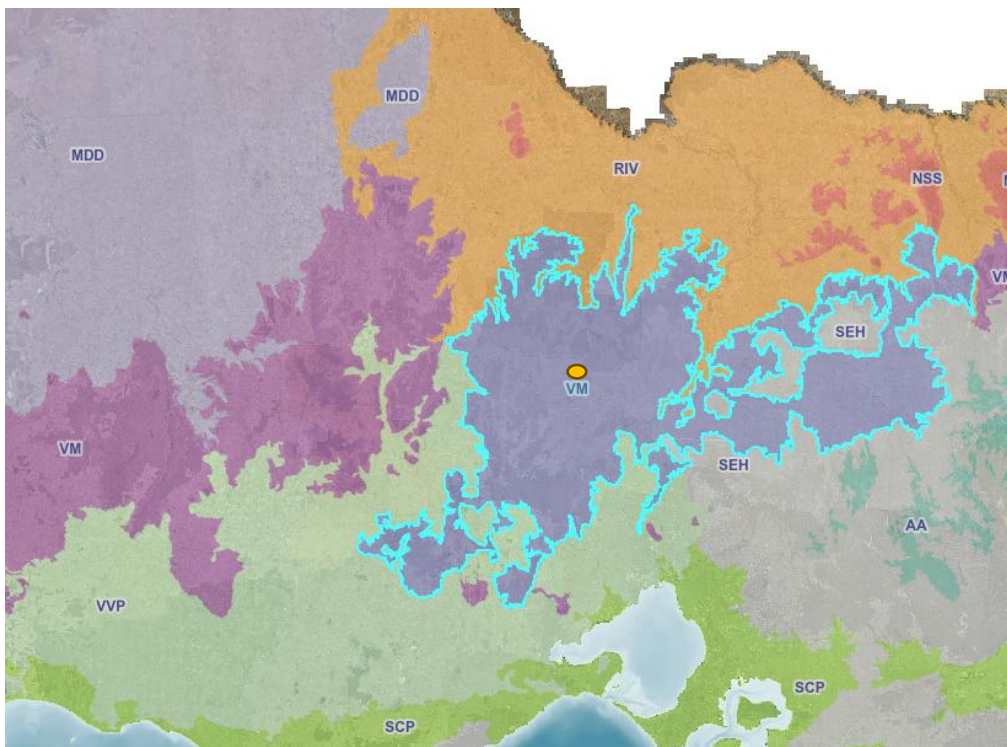


Figure 6: Map showing location of the Redesdale site (Yellow dot) in relation to the VVP bioregion (courtesy of Trust for Nature).

An OMP for the Redesdale Offset Site is included in Appendix 6.

5.2.1.2 Mount Ridely Reserve

Mount Ridley Reserve is located in Mickleham and managed by Parks Victoria. This existing reserve sits within the VVP bioregion it supports a mosaic of Plains Grassy Woodland (EVC 55) and Plains Grassland (EVC 132) (DEECA 2025) including areas that qualifies as Grassy Eucalypt Woodland of the Victorian Volcanic Plain (GEWVVP), listed as Critically Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Parks Victoria currently maintains Mount Ridley Reserve, utilising Parks Victoria Ranger staff to deliver the following activities

- **Annual fuel break slashing** as well as being on a 3-5 year planned burning cycle (as resourcing and priorities permit).
- **Boundary fencing:** The reserve boundary fencing is regularly (average once per week) monitored for breaches by Parks Victoria rangers and Parks Victoria regularly receive reports via email and other reporting apps of any damage to the perimeter fencing which is promptly repaired.
- **Woody weeds:** Primarily Gorse and African boxthorn are treated by Parks Victoria staff as capacity and priorities permit.
- **Control of herbaceous weeds:** Control of herbaceous weeds are treated by Parks Victoria staff as capacity and priorities permit.
- **Monitor and control new and established pest animals:** Currently conducted on an ad-hoc basis. There are signs of low numbers of fox and rabbit. There has been a confirmed sighting of a single sambar deer within the Reserve in the latter half of 2024.
- **Vehicle/rubbish dumping** and signage/gate vandalism is frequent in this area. It is regularly monitored by Ranger staff and addressed/ repaired as budget and priorities permits.

Parks Victoria anticipate that with existing management, the condition of the GEWVVP is likely to be maintained but not improve. The site is currently moderately degraded due to an over-abundant population of Eastern Grey Kangaroo, and infestations of both high-threat and lower threat weeds. To improve site condition, Parks Victoria identified that a Kangaroo Management Plan (KMP) would need to be prepared to establish the impacts of the kangaroo population on the GEWVVP, and guide the protection, enhancement and ongoing management of this critically endangered ecosystem. Parks Victoria has identified the following proposed management actions that could be implemented to enhance GEWVVP at Mount Ridley Reserve in line with the National Draft Recovery Plan **Objective 1 – Maintain and improve the condition and extent of the GEW ecological community throughout its geographic distribution.**

*All patches of the GEW ecological community should be managed for long-term maintenance of structure and diversity, particularly through biomass management and pest plant and animal control. Additional sites should be restored to meet the description and condition thresholds for the GEW ecological community:*¹

- Preparation of a Kangaroo Management Plan with options analysis for the protection and enhancement of GEWVVP
- Targeted and intensive weed control to reduce weedy understorey cover

¹ <https://consult.dcceew.gov.au/draft-national-recovery-plan-for-the-grassy-eucalypt-woodland-of-the-victorian-volcanic-plain>

- Revegetation to enhance indigenous understorey diversity and cover

A site meeting between Parks Victoria, representatives from the Proponent, Merri Creek Management Committee (a suitably qualified contractor with experience in rehabilitation of GEWVVP), and Nature Advisory was held on 11 May 2026, at which the following was discussed:

- The feasibility of kangaroo exclusion fencing around a higher-quality area of GEWVVP within the reserve. There was concern this could have impacts to landscape level management of the kangaroo population by restricting movement and causing higher grazing pressure on other areas of vegetation. Ongoing maintenance of kangaroo exclusionary fencing was also discussed as a challenge for Parks Victoria.
- Use of kangaroo ‘exclusion’ plots, constructed from post-and-wire farm fencing, which involves fencing around narrow linear areas (approximately 2-3m wide by 10-20m long) of GEWVVP. The size and shape of the plots act as a deterrent for kangaroos entering, but do not limit kangaroo movement across the landscape. It also deemed more feasible for Parks Victoria to maintain these plots long term in comparison to exclusionary fencing.
- Weed control and revegetation within the plots, and targeted eucalyptus thinning to support the enhancement of GEWVVP.

Estimated costings for these activities are provided in Table 7 below.

Table 7: Estimated costs for GEWVVP at Mt Ridley

Activity	Purpose	Estimated cost
Development of a Kangaroo Management Plan for the entire Mount Ridley Conservation Reserve	Over-grazing has been identified as the greatest threat to the enhancement of GEWVVP at Mount Ridley. This plan would seek to identify impacts and management actions to allow for GEWVVP recovery and enhancement.	\$20,075
Enhancement works of GEWVVP undertaken by suitably qualified contractors with experience in rehabilitating GEWVVP	To implement targeted enhancement works of GEWVVP. Actions will include the installation of kangaroo exclusion plots, weed control, revegetation and biomass management. This will be an upper-limiting cost depending on implementation.	Up to \$230,000
Implementation Oversight	Administrative and management oversight of the works, including subcontracting procedures, site assessments, and adaptive management advice on enhancement works and impacts of kangaroos and management actions.	Up to \$30,000
TOTAL		Up to \$280,075

It is proposed that Austrak will provide funding to Nature Advisory to deliver the program of additional GEWVVP enhancement work, beyond the current management works implemented at Mount Ridley by Parks Victoria. Nature Advisory propose to subcontract Merri Creek Management Committee for components of the enhancement works, and Parks Victoria will provide access agreements for the works to be undertaken at Mount Ridley for both Nature Advisory and Merri Creek Management Committee. The level of funding is based on the above estimated costs.

The compensatory measures aim to enhance existing GEWVVP within the Mount Ridley Reserve. As the site is located within an existing conservation reserve managed by Parks Victoria, it benefits from existing statutory obligations to maintain GEWVVP once the enhancement measures have been achieved. An agreement for the proposed funding is provided in Appendix 7.

5.2.2 *Striped Legless Lizard*

A suitable site to offset impacts to 4.189 hectares of potential habitat for Striped Legless Lizard in the project area has been identified in Glen hope. Offsets are being proposed in accordance with DCCEEW's *EPBC Act Environmental Offsets Policy* (DSEWPaC 2012), as detailed in Table 8. A OMP for this offset site is provided in Appendix 8.

Table 8: GEWVP Commonwealth Offset Principles - SLL

Commonwealth Offset principle	Glenhope offset site
Deliver an overall conservation outcome that improves or maintains the viability of the aspect of the environment that is protected by national environment law and affected by the proposed action.	Y – The Glenhope offset site meets the key diagnostic criteria for habitat for SLL and targeted surveys for the species confirms that they occupy the site. Therefore this offset strategy will deliver conservation outcomes in terms of improvement to habitat quality, condition, and long-term security.
Be built around direct offsets but may include other compensatory measures.	Y – The Glenhope offset site meets the requirements for a direct offset in all criteria.
Be in proportion to the level of statutory protection that applies to the protected matter	Y – The offset will be secured on-title in perpetuity and managed in accordance with the Offset Management Plan (OMP), ensuring the level of statutory protection is in proportion to the matter being impacted. The gain calculator demonstrates that the offset site is proportional to the level of statutory protection (vulnerable) to the protected matter (SLL).
Be of a size and scale proportionate to the residual impacts on the protected matter	Y – As demonstrated from the gain calculator, the proposed offset delivers gain that is proportionate to, and exceeds (104.53% of the offset target), the residual impact to the protected matter (4.189 ha). This is achieved through the protection and management of the Glenhope 13.96 ha offset site.
Effectively account for and manage the risks of the offset not succeeding	Y – Risks to the success of the offset are appropriately managed through securing the site on title in perpetuity and implementing management actions in accordance with the OMP, which includes measures to address key threats and ensure long-term ecological outcomes.
Be additional to what is already required, determined by law or planning regulations or agreed to under other schemes or programs	Y – The Glenhope site is not subject to any current offset obligation and is located on private land without statutory requirements for its protection, enhancement, or management. Therefore, the proposed on-title protection and implementation of the OMP represent a conservation gain beyond existing law or planning regulations. This proposal would focus on offsets additional to those already required under the state offset requirements for the project.

Commonwealth Offset principle	Glenhope offset site
Be efficient, effective, timely, transparent, scientifically robust and reasonable	Y – The OMP sets out targeted management actions, along with clear monitoring and reporting requirements to track performance and inform adaptive management. These measures are well-established and considered both practical and effective in achieving the intended ecological outcomes within a reasonable timeframe.
Have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced.	Y - The OMP provides the means to measure against performance criteria, monitoring and reporting requirements, and auditing to track improvements in habitat quality over time. The offset will be secured on title and will be enforceable under the EPBC Act, ensuring compliance and accountability for its ongoing management.
Be informed by scientifically robust information and incorporate the precautionary principle in the absence of scientific certainty	Y – The offset site assessments were undertaken by qualified ecologists using established and accepted methodologies. The gain calculator applies the precautionary principle and offsets exceeding the residual impact to the protected matter will be secured. The OMP is informed by ecological input, ensuring that management actions are robust and designed with achievable conservation outcomes.
Be conducted in a consistent and transparent manner.	Y – All assessments would be documented for transparency.

6 Ecologically Sustainable Development (ESD)

The Somerton Intermodal Terminal aims to be a benchmark for sustainable industrial development. How the proposed action meets the principles of Ecologically Sustainable Development (ESD) as defined in Section 3A of the EPBC Act is addressed below.

6.1 Integration of Economic, Environmental, Social, and Equitable Considerations

Under the ESD principles, decision-making processes should effectively integrate both long-term and short-term economic, environmental, social, and equitable considerations.

- **Economic:** The terminal reduces operational costs through the use of all-electric equipment, leading to long-term savings and reduced maintenance costs. It also stimulates the local economy by creating job opportunities and supporting local businesses.
- **Environmental:** The terminal's design minimises carbon emissions through the promotion of electric vehicles and equipment.
- **Social:** Safer, less congested roads will be provided through the reduction in truck traffic.
- **Equitable:** The project promotes equity by ensuring that all community members benefit from improved air quality, economic opportunities, and enhanced public safety.

6.2 Precautionary Principle

Under the ESD principles, if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

- **Risk Assessment:** Comprehensive risk assessments identify potential environmental impacts, guiding the implementation of precautionary measures.
- **Mitigation Strategies:** Proactive strategies include the use of all-electric equipment to mitigate greenhouse gas emissions and the implementation of green infrastructure to manage stormwater and prevent habitat destruction.
- **Continuous Monitoring:** Ongoing environmental monitoring allows for the timely identification and mitigation of any unforeseen impacts, ensuring adaptive management.

6.3 Inter-generational Equity

The ESD principles include that of inter-generational equity—that the present generation should ensure that the health, diversity, and productivity of the environment is maintained or enhanced for the benefit of future generations.

- **Sustainable Design:** The terminal incorporates sustainable building practices and materials that enhance energy efficiency and reduce resource consumption.
- **Renewable Energy:** Installation of photovoltaic panels and other renewable energy systems ensures a reduction in reliance on fossil fuels, preserving environmental quality for future generations.
- **Resource Management:** Efficient water management systems, including rainwater harvesting and the use of recycled water, to conserve valuable water resources.

6.4 Conservation of Biological Diversity and Ecological Integrity

Under the ESD principles, the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision making.

- **Habitat Protection:** The project includes measures to protect local habitats and biodiversity, such as creating green corridors and implementing landscaping with native plant species.
- **Pollution Prevention:** Strategies to reduce pollution, including minimising waste and preventing chemical runoff, are prioritized to maintain ecological integrity.
- **Biodiversity Offsetting:** Where impacts on biodiversity are unavoidable, appropriate offsetting measures are implemented to ensure no net loss of biodiversity.

6.5 Improved Valuation, Pricing, and Incentive Mechanisms

Under the ESD principles, improved valuation, pricing, and incentive mechanisms should be promoted.

- **Environmental Valuation:** The economic value of ecosystem services provided by the terminal's green infrastructure is quantified, promoting investment in sustainable practices.
- **Incentive Programs:** Incentives for the use of electric vehicles and equipment are provided to encourage the adoption of low-emission technologies.
- **Carbon Pricing:** Incorporating carbon pricing into the project's financial planning encourages the reduction of greenhouse gas emissions and promotes investment in renewable energy.

6.6 Summary

The Somerton Intermodal Terminal demonstrates a comprehensive approach to sustainable development, ensuring that the project meets the principles of ESD as defined by the EPBC Act. By integrating economic, environmental, social, and equitable considerations, adopting the precautionary principle, promoting inter-generational equity, conserving biological diversity, and implementing improved valuation and incentive mechanisms, the terminal sets a high standard for future industrial projects. This holistic approach not only benefits the present generation but also ensures a sustainable and thriving environment for future generations.

7 Economic and Social Matters

7.1 Sustainability Management Plan

The *Port of Somerton Australia Sustainability Management Plan* (SMP), issued on May 1, 2023 (Co-Perform 2023) and included as Appendix 9, provides a comprehensive sustainability assessment for the Port of Somerton project. The SMP addresses sustainable development for works within the existing transport terminal, emphasizing a holistic approach that extends beyond regulatory requirements. It outlines the project's Environmentally Sustainable Design responses in governance, economic, environmental, and social dimensions. Key points are summarised below.

7.1.1 Governance

The governance framework integrates sustainability into all phases of the project, from design to construction and operation. Key governance measures include:

- Embedding sustainability principles in procurement processes.
- Promoting the use of all-electric gantry and reach stacker equipment to reduce reliance on fossil fuels.
- Ensuring that sustainability is a core consideration throughout the project's lifespan.

7.1.2 Economic

The project significantly impacts regional sustainability and the economy by:

- Reducing 500,000 truck trips annually, saving 454 million truck kilometres and 451 million litres of fuel, thereby decreasing carbon emissions.
- Supporting sustainable development and creating job opportunities in Melbourne's northern suburbs.
- Encouraging market transformation towards electric equipment, reducing long-term operational costs and maintenance.

7.1.3 Environment

The environmental strategies focus on minimising carbon emissions, efficient resource use, and promoting a circular economy by:

- Implementing all-electric buildings and equipment to facilitate net-zero carbon operations.
- Utilising recycled materials like CTCR (cementitious treated crushed rock) to minimise natural resource consumption and landfill waste.
- Installing water-efficient fixtures and systems and promoting rainwater harvesting and reuse.
- Setting a target minimum recycling rate of 80% for demolition and construction waste.

7.1.4 Social

Social sustainability is achieved through effective stakeholder engagement, promoting diversity and inclusion, and ensuring that the project meets community needs:

- Enhancing local air quality by significantly reducing truck movements, leading to fewer emissions.
- Promoting community benefits, including improved safety and quicker commutes due to reduced road congestion.

- Creating new job opportunities and supporting local economic growth.

7.1.5 Specific Design Responses

7.1.5.1 Buildings and Infrastructure

- All-electric buildings with no gas connections to support future net-zero carbon goals.
- Roof areas designed to accommodate photovoltaic panels for renewable energy.
- Efficient air conditioning systems with variable speed fans and compressors to reduce energy consumption.
- Use of green concrete and other low carbon materials where possible.

7.1.5.2 Water Management

- Adoption of water-sensitive urban design (WSUD) strategies.
- Reclaimed water use in concrete mixes and recycling pump test water in fire systems to reduce potable water demand.

7.1.5.3 Waste Management

- Specifications include a target of 80% recycling for demolition and construction waste.
- Operational waste collection and recycling facilities designed for ease of use.

7.2 Public consultation activities

The Project has been subject to advertisement for the removal of native vegetation for a period of 14 days, at both a state and federal level.

7.3 Indigenous consultation

A *Significant Ground Disturbance Assessment* for the proposed Somerton Intermodal Terminal at Austrak Business Park has been prepared by Dr Matt Cupper (2023). The assessment's main objective was to determine whether a mandatory Aboriginal Cultural Heritage Management Plan (CHMP) is required under Section 46 of the Aboriginal Heritage Act 2006. The key points of the assessment are summarised below:

- **Location and Development:** The Somerton Intermodal Terminal is planned at the corner of the Hume Highway and Somerton Road, Somerton. It will serve as a multi-modal freight terminal with facilities interfacing road and rail.
- **Legislative Context:** The assessment was conducted according to the *Victorian Aboriginal Heritage Regulations 2018* and the *Aboriginal Heritage Act 2006*. The regulations require a CHMP if the activity area is within a culturally sensitive area and involves a high impact activity.
- **Assessment Findings:**
 - **Cultural Heritage Sensitivity:** The proposed activity area is not located within an area defined as culturally sensitive by the Victorian Aboriginal Heritage Regulations 2018.
 - **High Impact Activity:** The use of land for a transport terminal qualifies as a high impact activity. However, since the area is not culturally sensitive, a mandatory CHMP is not required.
- **Previous Cultural Heritage:** No Aboriginal cultural heritage has been previously identified in the activity area. Predictive modelling and observations of prior ground disturbances suggest a low likelihood of encountering Aboriginal cultural heritage during construction.

- **Recommendations:**
 - If any previously unidentified Aboriginal cultural heritage items are found during construction, all work within 20 meters of the material must cease immediately. A heritage advisor or First Peoples – State Relations should be consulted for appropriate actions.
 - In case of human remains, activities must be suspended, and the Police or Victorian Coroner's office should be notified immediately. If the remains are suspected to be Aboriginal Ancestral remains, the Coronial Admissions and Enquiries hotline must be contacted immediately.
- **Conclusions:** The proposed redevelopment does not require a mandatory CHMP. The likelihood of encountering Aboriginal cultural heritage is low, but caution is advised in the event of unexpected discoveries during construction.

This summary encapsulates the primary findings and recommendations of the report, ensuring compliance with legislative requirements while emphasising the need for caution and appropriate action if Aboriginal cultural heritage items are encountered.

7.4 Economic costs and benefits

The economic cost of the project is estimated to be \$600m. Projected economic benefits include:

- Reducing 500,000 truck trips annually, saving 454 million truck kilometres and 451 million litres of fuel, thereby decreasing carbon emissions.
- Supporting sustainable development and creating job opportunities in Melbourne's northern suburbs.
- Encouraging market transformation towards electric equipment, reducing long-term operational costs and maintenance.
- Implementing all-electric buildings and equipment to facilitate net-zero carbon operations.
- Utilising recycled materials like CTCR (cementitious treated crushed rock) to minimize natural resource consumption and landfill waste. Enhancing local air quality by significantly reducing truck movements, leading to fewer emissions.
- Promoting community benefits, including improved safety and quicker commutes due to reduced road congestion.
- Creating new job opportunities and supporting local economic growth.

7.5 Projected employment opportunities

The project is anticipated to provide 190 Jobs through the construction phase and an additional 70 ongoing Jobs when operational.

8 Environmental Record of Persons Proposing to Take the Action

Austrak OSX has no previous exposure or involvement in environmental management, as this is the company's only land holdings that were transacted recently for the sole purpose of the Project Works. It can be confirmed that no associate of the company has ever been involved in historical actions or any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources.

9 Conclusion

The Port of Somerton project is a model for sustainable industrial development, integrating best practices in environmental management, resource efficiency, and social responsibility. Its comprehensive approach to sustainability not only meets but exceeds regulatory requirements, promoting a future-ready, eco-friendly infrastructure.

The proposed development of the site as an intermodal terminal is consistent with the industrial and transport context and zoning in which the site is located. This state significant project will provide social and economic benefits, create employment opportunities and reduce road traffic and carbon emissions. In addition, the proposed development has been designed to incorporate modern Environmentally Sustainable Design requirements that will guide the development of facilities in line with modern sustainability and environmental practices.

The ecological values on site represent small and low-quality fragments of habitat within a highly urbanised landscape that is not favourable for the persistence and protection of environmental values. The MNES values of GEWVVP and Striped Legless Lizard (assumed) within the site are under environmental pressures and are isolated from any similar habitat in the surrounding region, making their long-term viability uncertain.

Austrak are committed to managing and mitigating their impacts to both GEWVVP and SLL through significant commitments to offset impacts in accordance with DCCEEWs offset policy as outlined under section 5.2. of this document.

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Appendix 1: Request for additional information – assessment by preliminary documentation

Request for additional information – assessment by preliminary documentation

Somerton Intermodal Terminal – Stage 1 – EPBC 2023/09728

On 9 April 2024 the delegate of the Minister for the Environment determined that the proposed action to establish a major transportation and dispatch facility at Somerton, Victoria was a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and that the controlling provisions were sections 18 and 18A (listed threatened species and communities).

It has been determined that the proposed action will be assessed by preliminary documentation. Preliminary documentation for the proposal will include:

- The information contained in the original referral.
- The further information you provide on the impacts of the action and the strategies you propose to avoid, mitigate and offset those impacts (as described below); and
- Any other relevant information on the matters protected by the EPBC Act.

The preliminary documentation should be sufficient to allow the Minister (or delegate) to make an informed decision on whether to approve, under Part 9 of the EPBC Act, the taking of the action for the purposes of each controlling provision.

The preliminary documentation must address the matters set out below and follow the content, style and formatting requirements set out in [Appendix A](#).

1. DESCRIPTION OF THE ACTION

Information required	
1.1	Updated mapping and description of all components of the Action that captures the activities associated with both stages of the project. This should include the proposed construction activities associated with each stage of the project. The department considers that the action within 'Stage 1' isolates vegetation within the area delineated as 'Stage 2' to the point where the point there is a functional loss of vegetation. The department recommends a full discussion and evaluation of the impacts that occur within Stage 1 & 2.

2. HABITAT ASSESSMENT

Background

Based on the information provided in your referral, and other available information, the department considers that the listed species and communities identified below may be significantly impacted by the proposed action.

- Grassy Eucalypt Woodland of the Victorian Volcanic Plain – Critically Endangered
- Matted Flax-lily (*Daniella amoena*) – Endangered
- Growling Grass Frog (*Litoria raniformis*) – Vulnerable

- Golden Sun Moth (*Synemon plana*) – Vulnerable
- Striped Legless Lizard (*Delma impar*) – Vulnerable

It is the proponent's responsibility to be aware of any changes to the distribution of listed threatened species, and information available in the Species Profile and Threats (SPRAT) Database. The proponent must ensure that a recent Protected Matters Search Tool (PMST) report has been generated and considered before finalising the draft preliminary documentation.

Habitat assessments must be informed by desktop and field surveys (in accordance with departmental guidelines or as defined by best practice surveys), and with reference to relevant departmental documents (e.g., approved Conservation Advice, Recovery Plans, draft referral guidelines and Listing Advice, and SPRAT Database), including published research and other relevant sources.

2.1 Species and communities' general information

Information required	
2.1.1	The presence, status and extent of listed threatened species and communities within Stage 1 & 2, as determined by desktop assessment and/or targeted surveys as required. All surveys must be undertaken in accordance with the guidance outlined in the Species Profile and Threats Database. Include robust desktop survey that identifies and describes known historical records of the listed threatened species and ecological communities in the broader region. Records should be supported by an appropriate source (i.e., Commonwealth and State databases, published research, publicly available survey reports, etc.), the year of the record and a description of the habitat in which the record was identified.

3. IMPACT ASSESSMENT

Background

The proposed action is considered likely to have impacts to threatened species and communities (section 18 and section 18a) The preliminary documentation must include an assessment of direct, indirect, and consequential impacts as a result of the proposed action and must be assessed in accordance with relevant departmental policies and guidelines, including the SPRAT Database.

Consideration of impacts include direct, indirect, and facilitated impacts, occurring as a result of the action, including consideration of the nature, likelihood, and severity of the impacts.

The department considers the proposed action may result in, but is not limited to, the following impacts:

- Decrease in habitat quality or quantity

Listed Threatened Species and Communities

Information required	
3.1	An assessment of the likely past and future impacts associated with the vegetation clearance and construction of the project. Including isolation and functional loss within the Stage 2 area.
3.2	Include the direct and indirect, past and future loss and/or disturbance of MNES individuals and habitat as a result of the proposed action. This must include the quality of the habitat impacted and quantification of the individuals and habitat area (in hectares) to be impacted.

4. AVOIDANCE, MITIGATION AND MANAGEMENT MEASURES

Background

Avoidance and mitigation measures are the primary methods of eliminating and reducing significant impacts on MNES. Where possible and practicable, it is best to avoid impacts. If impacts cannot be avoided, then they should be minimised or mitigated as much as possible. Avoidance and mitigation measures must be investigated thoroughly as a part of the assessment and be supported by evidence to demonstrate likely success.

Management commitments by the person proposing to take the action must be clearly distinguished from recommendations or statements of best practice made by the document author or other technical expert.

The SPRAT Database, and associated statutory documents, may provide relevant mitigation measures for listed threatened species and ecological communities and listed migratory species.

The department notes the referral includes a description of the proposed avoidance, mitigation and management measures to be implemented by the proponent during the construction, operation and maintenance stages of the proposed action.

Information required	
4.1	A detailed summary of measures proposed to be undertaken by the proponent to avoid, mitigate and manage relevant impacts of the proposed action on relevant MNES. This should include for each measure: i. A statement of the objectives, ongoing management and monitoring, and locations and timing ii. The party responsible iii. The policy basis, for example consideration of the <i>Significant impact guidelines for the vulnerable growling grass frog</i> (<i>Litoria raniformis</i>)

4.2	The proposed measures must be based on best available practices, appropriate standards, evidence of success for other similar actions and supported by published scientific evidence.
4.3	All proposed measures for MNES must be drafted to meet the 'S.M.A.R.T' principle: • S – Specific (what and how) • M – Measurable (baseline information, number/value, auditable) • A – Achievable (timeframe, money, personnel) • R – Relevant (conservation advice, recovery plans, threat abatement plans) • T – Time-bound (specific timeframe to complete)

5. OFFSETS

Background

Environmental offsets are measures that compensate for the residual significant impacts of an action on the environment. Offsets provide environmental benefits to counterbalance the impacts that remain after consideration of avoidance and mitigation measures. It is important to consider environmental offsets early in the assessment process. Correspondence with the department regarding offsetting is highly encouraged. The department's *EPBC Act Environmental Offsets Policy* (2012) (Offsets Policy) is available at: www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy.

Information required	
5.1	An assessment of the likelihood of residual significant impacts occurring on relevant MNES, after avoidance, mitigation and management measures have been applied.
5.2	If residual impacts are likely to be significant, please provide a summary of the proposed environmental offset and key commitments to achieve a conservation gain for each protected matter with residual significant impacts.
5.3	Where offset area/s have been nominated, include a draft OAMP (Offset Area Management Plan) as an appendix to the PD. The draft OAMP must meet the information requirements set out in Appendix B, and must be prepared by a suitably qualified ecologist and in accordance with the department's Environmental Management Plan Guidelines (2014), available at: www.environment.gov.au/epbc/publications/environmental-management-plan-guidelines .
5.4	If proposing an offset, it must directly contribute to the ongoing viability of the species and ecological communities and deliver an overall conservation outcome that improves or maintains the viability of the protected matter, as compared to what is likely to have

	occurred if neither the action nor the offset had taken place. The offset proposal should demonstrate how the conservation outcome will be delivered for the protected matter.
5.5	If proposing an offset, it must meet the requirements of the department's <i>EPBC Act Environmental Offsets Policy</i> (October 2012). The department's <i>Offset Assessment Guide</i> must be used as a guide to estimate the area of offset required to adequately compensate for the residual significant impacts of the project. In all cases, targets and criteria should be specific and measurable. The documents are available at https://www.dcceew.gov.au/environment/epbc/publications/epbc-act-environmental-offsets-policy .

6. ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD)

Information required	
6.1	A description of how the proposed action meets the principles of ESD, as defined in section 3A of the EPBC Act. The following principles are <i>principles of ecologically sustainable development</i>: • decision making processes should effectively integrate both long term and short term economic, environmental, social and equitable considerations. • if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. • the principle of inter-generational equity—that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations. • the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision making. • improved valuation, pricing and incentive mechanisms should be promoted.

7. ECONOMIC AND SOCIAL MATTERS

Information required	
7.1	An analysis of the economic and social impacts of the action, both positive and negative.
7.2	Details of any public consultation activities undertaken and their outcomes.

7.3	Details of any consultation with Indigenous stakeholders. Indigenous engagement Identify existing or potential native title rights and interests, including any areas and objects that are of particular significance to Indigenous peoples and communities, possibly impacted by the proposed action and the potential for managing those impacts. Describe any Indigenous consultation that has been undertaken, or will be undertaken, in relation to the proposed action and their outcomes. The department considers that best practice consultation, in accordance with the <u>The Interim Engaging with First Nations People and Communities on Assessments and Approvals under Environment Protection and Biodiversity Conservation Act 1999 (interim guidance)</u> - DCCEEW includes: • identifying and acknowledging all relevant affected Indigenous peoples and communities. • committing to early engagement. • building trust through early and ongoing communication for the duration of the project, including approvals, implementation and future management. • setting appropriate timeframes for consultation; and • demonstrating cultural awareness. Describe any state requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action with regards to Indigenous peoples and communities.
7.4	Projected economic costs and benefits of the project, including the basis for their estimate through cost/benefit analysis or similar studies.
7.5	Employment opportunities expected to be generated by the project (including construction and operational phases).

8. ENVIRONMENTAL RECORD OF THE PERSON PROPOSING TO TAKE THE ACTION

Information required	
Include details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:	
8.1	the person proposing to take the action;
8.2	for an action for which a person has applied for a permit, the person making the application;

8.3	if the person is a body corporate—the history of its executive officers in relation to environmental matters; and
8.4	if the person is a body corporate that is a subsidiary of another body or company (the parent body)—the history in relation to environmental matters of the parent body and its executive officers.

9. CONCLUSION

Please provide an overall conclusion as to the environmental acceptability of the proposal with regards to the objects and requirements of the EPBC Act including the principles of Ecologically Sustainable Development (ESD). You may wish to include a statement as to whether or not the controlled action should be approved and may recommend conditions pertaining to an approval. This should include justification for undertaking the proposed action in the manner proposed.

10. INFORMATION SOURCES

The preliminary documentation must state for the information provided, the following:

- a) The source and currency (date) of the information.
- b) How the reliability of the information was tested.
- c) The uncertainties (if any) in the information.
- d) The guidelines, plans and/or policies considered.

APPENDIX A: Preliminary documentation content, style and formatting requirements

A1. Content requirements	
A1.1	Be a stand-alone document containing sufficient information to avoid the need to search out previous or supplementary reports.
A1.2	Enable interested stakeholders and the Minister to easily understand the consequences of the project on matters of national environmental significance (MNES).
A1.3	Be written so that any conclusions reached can be independently assessed. Include all key claims, findings, proposals and undertakings in the main document.
A1.4	Refer to all relevant standards, policies and other guidance material published by the department. Any instances where published guidance is not followed must be justified. Where no Commonwealth standards exist, state government and industry standards may be useful.
A1.5	Include the names, roles and qualifications (where relevant) of all persons involved in preparing the preliminary documentation.
A1.6	Include a copy of this request for information and a cross-reference table indicating where the information fulfilling this request is included in the preliminary documentation (e.g., Section 4.2.2 and Appendix A, Chapter 2.1).
A1.7	The preliminary documentation must state the following for all information provided: • The source and date of the information. • How the reliability of the information was tested. • The uncertainties (if any) in the information. • The guidelines, plans, and/or policies considered.
A2. Format and style requirements	
A2.1	Be in a suitable format to be published in hardcopy (A4 or A3 size, with maps and diagrams in A4 or A3 size and in colour) and published in electronic format (e.g., MSWord or PDF) on the internet.
A2.2	Include detailed technical information, studies or investigations necessary to support the information in the stand-alone document as appendices.
A2.3	Be objective, clear, succinct, avoid technical jargon and, where appropriate, be supported by maps, plans, diagrams, data or other descriptive detail.

A2.4	Reference all sources using the Harvard standard of referencing. Ensure that other supporting documents (e.g., academic studies, regulatory standards) are publicly accessible, with electronic links provided where possible.
A2.5	Redact the contact details of departmental officers.
A2.6	Not contain any commercial in confidence markings. If the preliminary documentation contains sensitive information, please discuss this with the assessment officer.
A3. Ecological data provision	
A3.1	The preliminary documentation must include an appendix of occurrence records (both sightings and evidence of presence) for all listed threatened and migratory species identified during field surveys for the proposed action. This data may be used by the department to update the relevant species distribution models that underpin the publicly available Protected Matters Search Tool (PMST).
A3.2	The species occurrence records must be provided in accordance with the department's <i><u>Guidelines for biological survey and mapped data (2018)</u></i> using the species observation data template provided with this request for additional information. Sensitive ecological data must be identified and treated in accordance with the department's <i><u>Sensitive Ecological Data – Access and Management Policy V1.0</u></i> (2016) or subsequent revision.

APPENDIX B: Information Requirements for EPBC Act Offset Proposals

B1. Minimum Requirements for a draft Offset Area Management Plan:	
B1.1	Specific, committal and measurable environmental outcomes which detail the nature of the conservation gain to be achieved for relevant MNES, including the creation, restoration and revegetation of habitat in the proposed offset area/s.
B1.2	Details, with supporting evidence, to demonstrate how the environmental offset/s compensate for residual significant impacts of the proposed action on relevant MNES, and/or their habitat, in accordance with the principles of the Offsets Policy and all requirements of the Offsets Assessment Guide including: • time over which loss is averted (max. 20 years). • time until ecological benefit. • risk of loss (%) without offset. • risk of loss (%) with offset; and • confidence in result (%).
B1.3	A description of the offset area/s, including location, size, condition, environmental values present, ongoing threats and surrounding land uses.
B1.4	Baseline data and other supporting evidence that documents the presence of the relevant MNES, and the quality of their habitat within the offset area/s.
B1.5	An assessment of the site habitat quality for the offset area/s
B1.6	Details of how the offset area/s will provide connectivity with other habitats and biodiversity corridors and/or will contribute to a larger strategic offset for the relevant MNES.
B1.7	Maps and shapefiles to clearly define the location and boundaries of the offset area/s, accompanied by the offset attributes (e.g., physical address of the offset area/s, coordinates of the boundary points in decimal degrees, the relevant MNES that the environmental offset/s compensates for, and the size of the environmental offset/s in hectares).
B1.8	Specific offset completion criteria derived from the site habitat quality to demonstrate the improvement in the quality of habitat in the offset area/s over a 20-year period.
B1.9	Details of the management actions, and timeframes for implementation, to be carried out to meet the offset completion criteria.

B1.10	Interim milestones that set targets at 5-yearly intervals for progress towards achieving the offset completion criteria.
B1.11	Details of the nature, timing and frequency of monitoring to inform progress against achieving the 5-yearly interim milestones (the frequency of monitoring must be sufficient to track progress towards each set of milestones, and sufficient to determine whether the offset area/s are likely to achieve those milestones in adequate time to implement all necessary corrective actions).
B1.12	Proposed timing for the submission of monitoring reports which provide evidence demonstrating whether the interim milestones have been achieved.
B1.13	Timing for the implementation of tangible, on-ground corrective actions to be implemented if monitoring activities indicate the interim milestones have not been achieved.
B1.14	Risk analysis and a risk management and mitigation strategy for all risks to the successful implementation of the OAMP and timely achievement of the offset completion criteria, including a rating of all initial and post-mitigation residual risks in accordance with a risk assessment matrix.
B1.15	Evidence of how the management actions and corrective actions take into account relevant approved conservation advice and are consistent with relevant recovery plans and threat abatement plans.
B1.16	Details and execution timing of the mechanism to legally secure the proposed offset area/s, such that legal security remains in force over the offset area/s for at least 20 years to provide enduring protection for the offset area/s against development incompatible with conservation.
B1.17	All proposed management actions, monitoring approach and corrective actions must be written using committed language (e.g., 'will' and 'must').
B1.18	Justification of how the offset/s meet the EPBC Act Environmental Offsets Policy.

APPENDIX C: Definitions to be considered in preparing Preliminary Documentation

Buffer zones

A buffer zone is an area adjacent to a patch of an ecological community or species habitat that is important for protecting the integrity of the ecological community. The purpose of a buffer zone is to minimise the risk of indirect impact by physically separating the patch from direct impacts and by identifying it to land managers. For instance, a buffer zone will help protect the root zone of edge trees and other components of the ecological community from spray drift (fertiliser, pesticide or herbicide sprayed in adjacent land), weed invasion, polluted water runoff and other damage. The best buffer zones are typically comprised of native vegetation. A buffer zone is not part of the ecological community, so while having a buffer zone is strongly recommended, it is not protected as part of the ecological community and is not included in the calculation of the patch size.

The Department may not consider that a retained patch of an ecological community or species habitat has been effectively avoided if the design of a development does not include a buffer zone. In these cases, the Department will generally consider the outer edge of the patch or species habitat (typically up to 30 m) to have been impacted or partially impacted, requiring an appropriate offset.

Defining patches of a community or species habitat

A patch is a discrete and mostly continuous area of an ecological community or species habitat, as defined by the key diagnostics, but can include small-scale variations, gaps and disturbances that do not significantly alter the overall function of the patch. Permanent structures, such as roads and buildings, are typically excluded from a patch, although a patch may be considered continuous across or around them.

When it comes to defining a patch of an ecological community or species habitat allowances are made for 'breaks' between areas that meet the key diagnostics (e.g., a narrow strip of other native vegetation along a watercourse). The size of break that can be included within a patch without altering its overall function varies for different ecological communities and species – further guidance on a specific community may be provided in a conservation advice, policy statement or similar.

Variation in structure, quality or condition of vegetation across a patch of an ecological community or species habitat does not necessarily mean it should be split into multiple patches. For example, woodland communities often incorporate areas of derived native grassland, which should generally be considered as part of the same patch or for aquatic organism's waterbodies, drainage lines or tributaries within a catchment whether ephemeral or permanent that form a connected ecological habitat. Average quality across the largest area that meets the key diagnostics should be used in determining the overall condition of the ecological community. Where the average condition falls below the minimum condition thresholds for a patch as a whole, the largest area or areas that meet minimum condition thresholds should be identified as the patch or patches of the nationally listed ecological community.

Shapefile(s)

Shapefile(s) means locations and attribute information about the Action provided in an Esri shapefile format. Shapefiles must contain '.shp', '.shx', '.dbf' and a '.prj' file that specifies the projection/geographic coordinate system used. Shapefiles must also include an '.xml' metadata file that describes the shapefile for discovery and identification purposes.

Appendix 2: Likelihood of occurrence of listed flora species

Common Name	Scientific name	EPBC	Habitat	Source	Number of records	Date of last record	Likelihood of occurrence
River Swamp Wallaby-grass	<i>Amphibromus fluitans</i>	Vulnerable	River Swamp Wallaby-grass grows mostly in permanent swamps and also lagoons, billabongs, dams and roadside ditches. The species requires moderately fertile soils with some bare ground; conditions that are caused by seasonally-fluctuating water levels (DCCEEW 2023).	VBA & PMST	1	7/12/1989	Study area within natural distribution, however, contains no habitat and there is a lack of recent nearby records - unlikely to occur.
Matted Flax-lily	<i>Dianella amoena</i>	Endangered	Lowland grassland and grassy woodlands on well-drained to seasonally waterlogged fertile sandy loams to heavy cracking soils derived from sedimentary or volcanic geology. It is widely distributed from eastern to south-western Victoria (DCCEEW 2023).	VBA & PMST	45	2/10/2021	Study area with natural distribution, contains habitat and there are numerous nearby records. Targeted surveys undertaken and was not recorded - unlikely to occur.
Sunshine Diuris	<i>Diuris fragrantissima</i>	Endangered	Native grasslands dominated by Kangaroo Grass, on heavy basalt soils, often with embedded basalt boulders; the only remaining natural population at Sunshine occurs in a small (0.1 ha) remnant of Western (Basalt) Plains Grassland (DCCEEW 2023).	PMST	None	N/A	Study area is outside the current known distribution, contains low quality habitat and there are no recent records nearby - unlikely to occur.
Trailing Hop-bush	<i>Dodonaea procumbens</i>	Vulnerable	Grows in low lying, often winter wet areas in woodland, low open-forest heathland and grasslands on sands and clays. Largely confined to SW of Victoria (DCCEEW 2023).	PMST	None	N/A	Study area outside natural distribution and there are no recent nearby records- unlikely to occur.
Clover Glycine	<i>Glycine latrobeana</i>	Vulnerable	Found across south-eastern Australia in native grasslands, dry sclerophyll forests, woodlands and low open woodlands with a grassy ground layer. In Victoria, populations occur in lowland grasslands, grassy woodlands and sometimes in grassy heath (DCCEEW 2023).	PMST	None	N/A	Study area within natural distribution and contains habitat, however, and there are no recent nearby records - unlikely to occur.
Adamson's Blown-grass	<i>Lachnagrostis adamsonii</i>	Endangered	Confined to slow moving creeks, swamps, flats, depressions or drainage lines that are seasonally inundated or waterlogged and usually moderately to highly saline. Appear to favour sites that have some shelter from the wind (DCCEEW 2023).	VBA & PMST	2	1/01/1990	Study area within natural distribution, however, contains no habitat and there is a lack of recent nearby records - unlikely to occur.
Spiny Peppercross	<i>Lepidium aschersonii</i>	Vulnerable	The Spiny Peppercross occurs in periodically wet sites such as gilgai depressions and the margins of freshwater and saline marshes and shallow lakes, usually on heavy clay soil. Almost all sites receive some degree of soil waterlogging or seasonal flooding (Carter 2010).	PMST	None	N/A	Study area outside natural distribution, lacks habitat and there are no recent nearby records- unlikely to occur.
Basalt Peppercross	<i>Lepidium hyssopifolium</i> s.s.	Endangered	Known to establish on open, bare ground with limited competition from other plants. Previously recorded from Eucalypt woodland with a grassy ground cover, low open Casuarina woodland with a grassy ground cover and tussock grassland. Now generally found amongst exotic pasture grasses and beneath exotic trees (DCCEEW 2023).	VBA & PMST	1	30/11/2017	Study area within natural distribution and contains habitat, however, there is only a single nearby record - unlikely to occur.

Notes: grey shading = species likely or with potential to occur in study area; EPBC = status under EPBC Act; FFG = status under FFG Act.

Common Name	Scientific name	EPBC	Habitat	Source	Number of records	Date of last record	Likelihood of occurrence
White Sunray	<i>Leucochrysum albicans subsp. tricolor</i>	Endangered	Occurs in a wide variety of grassland, woodland and forest habitats, generally on relatively heavy soils. Plants can be found in natural or semi-natural vegetation and grazed or ungrazed habitat. Bare ground is required for germination. The unpalatability of this species is likely to protect it in heavily grazed areas where patches of bare ground are likely to develop, favouring recruitment (DCCEEW 2023).	PMST	None	N/A	Study area outside natural distribution and there are no recent nearby records- unlikely to occur.
Spiny Rice-flower	<i>Pimelea spinescens subsp. spinescens</i>	Critically Endangered	Occurs in grassland or open shrubland on basalt derived soils, usually comprising black or grey clays. Plants from more northerly populations occur on red clay complexes, while plants from southern populations occur on heavy grey-black clay loams. Topography is generally flat but populations may occur on slight rises or in slightly wettish depressions (Carter & Walsh 2006)..	PMST	None	N/A	Study area outside natural distribution and there are no recent nearby records- unlikely to occur.
Green-striped Greenhood	<i>Pterostylis chlorogramma</i>	Vulnerable	Occurs in mixed Box-Stringybark forest with a shrubby understorey, often with Pteridium esculentum as a major component on sandy or clay loam soils (Duncan et al. 2009).	PMST	None	N/A	Study area lacks habitat and there are no recent nearby records - unlikely to occur.
Button Wrinklewort	<i>Rutidosis leptorhynchoides</i>	Endangered	In Victoria restricted to open stands of plains grassland and grassy woodlands, on fertile clays to clay loams, usually in areas where the grass cover is more open, either as a result of recurrent fires or grazing by native macropods or stock. It also occurs on low rises with shallow, stony soils at less than 100 m above sea level (NSW OEH 2012).	PMST	None	N/A	Study area outside of known distribution and there are no recent nearby records- unlikely to occur.
Large-headed Fireweed	<i>Senecio macrocarpus</i>	Vulnerable	Victoria, occurs most commonly in grasslands on red-brown earth soils; may also occur in grassy woodlands and open woodlands predominantly in the Western (Basalt) Plains grassland on red brown earth soils found on recent Quaternary (basalt) deposits (DCCEEW 2023).	PMST	None	N/A	Study area outside of known distribution and there are no recent nearby records- unlikely to occur.
Swamp Fireweed	<i>Senecio psilocarpus</i>	Vulnerable	Herb-rich winter-wet swamps on volcanic clays or peaty soils (Walsh 1999). Known from approximately 10 sites between Wallan, about 45 km north of Melbourne, and Honans Scrub in south-eastern South Australia (TSSC 2008).	PMST	None	N/A	Study area within natural distribution, however, lacks habitat and there are no recent nearby records - unlikely to occur.
Swamp Everlasting	<i>Xerochrysum palustre</i>	Vulnerable	Grows in wetlands including sedge-swamps and shallow freshwater marshes, often on heavy black clay soils. Commonly associated genera include Amphibromus, Baumea, Carex, Chorzandra, Craspedia, Eleocharis, Isolepis, Lachnagrostis, Lepidosperma, Myriophyllum, Phragmites australis, Themeda triandra and Villarsia (DCCEEW 2023).	VBA & PMST	1	29/11/2005	Study area within natural distribution, however, lacks habitat and there is a lack of recent nearby records - unlikely to occur.

Notes: grey shading = species likely or with potential to occur in study area; EPBC = status under EPBC Act; FFG = status under FFG Act.

Appendix 3: Likelihood of occurrence of listed fauna species

Common Name	Scientific name	EPBC - T	EPBC - M	Habitat	Source	Number of records	Date of last record	Likelihood of occurrence
Birds								
Australasian Bittern	<i>Botaurus poiciloptilus</i>	Endangered		Terrestrial wetlands, including a range of wetland types but prefers permanent water bodies with tall dense vegetation, particularly those dominated by sedges, rush, reeds or cutting grass (Marchant & Higgins 1990).	PMST	None	N/A	A small area of marginal suitable habitat is present in the study area (Habitat Zone C). However, the lack of historic records in the search region suggests that this species is unlikely to occur.
Australian Painted-snipe	<i>Rostratula australis</i>	Endangered	CAMBA	Generally inhabits shallow terrestrial freshwater wetlands, including temporary and permanent lakes, swamps and claypans. They also use inundated or waterlogged grassland or saltmarsh, dams, rice crops, sewage farms and bore drains. Typical sites include those with rank emergent tussocks of grass, sedges, rushes or reeds, or samphire; often with scattered clumps of <i>Lignum muehlenbeckia</i> or canegrass or sometimes tea-tree (<i>Melaleuca</i>). Sometimes utilises areas that are lined with trees, or that have some scattered fallen or washed-up timber (DCCEEW 2023).	PMST	None	N/A	No suitable habitat in the study area - unlikely to occur.
Blue-winged Parrot	<i>Neophema chrysostoma</i>	Vulnerable		Occupies coastal, subcoastal and inland habitats ranging into semi-arid zones. Throughout much of range inhabits grasslands and grassy woodlands and forest (Higgins 1999).	VBA & PMST	1	5/06/1991	Marginal suitable habitat is present in the study area. However, the paucity of historic records in the search region suggests that this species is unlikely to occur.
Brown Treecreeper	<i>Climacteris picumnus</i>	Vulnerable		Woodlands dominated by eucalypts, especially Stringybarks or other rough-barked eucalypts usually with open grassy understorey (Higgins et al. 2001)	PMST	None	N/A	No suitable habitat in the study area - unlikely to occur.
Diamond Firetail	<i>Stagonopleura guttata</i>	Vulnerable		Commonly found in box-ironbark forests and woodlands and also occurs along watercourses and in farmland areas. Widespread but scattered. Forages on a wide range of seeds, which in some cases a large portion can be derived from weed species (Read 1994). Populations have declined in Victoria since the 1950s (Emison et al. 1987; Tzaros 2005).	VBA & PMST	2	4/03/1990	No suitable habitat in the study area - unlikely to occur.
Double-banded Plover	<i>Charadrius bicinctus</i>		BONN A2H	Inhabits wide range of coastal or inland wetlands with varying levels of salinity; mainly muddy margins or rocky shores of wetlands (Marchant & Higgins 1993).	VBA	1	10/04/2004	No suitable habitat in the study area - unlikely to occur.
Eastern Cattle Egret	<i>Bubulcus coromandus</i>		CAMBA, JAMBA	Wooded lands and terrestrial freshwater wetlands and pasture, in association with cattle (Marchant & Higgins 1990).	VBA	4	28/04/2008	No suitable habitat in the study area - unlikely to occur.
Eastern Great Egret	<i>Ardea alba modesta</i>		CAMBA, JAMBA	wide range of wetland habitats (for example inland and coastal, freshwater and saline, permanent and ephemeral, open and vegetated, large and small, natural and artificial). These include swamps and marshes; margins of rivers and lakes; damp or flooded grasslands, pastures or agricultural lands; reservoirs; sewage treatment ponds; drainage channels; salt pans and salt lakes; salt marshes; estuarine mudflats, tidal streams; mangrove swamps; coastal lagoons; and offshore reefs (DCCEEW 2023).	VBA	1	21/01/2018	Marginal suitable habitat is present in the study area. However, the paucity of historic records in the search region suggests that this species is unlikely to occur.
Fork-tailed Swift	<i>Apus pacificus</i>		CAMBA, ROKAMBA, JAMBA	The species can occur in wet sclerophyll forest but mainly prefers open forest or plains. It is almost exclusively aerial and feeds up to hundreds of metres above the ground, but can feed among open forest canopy. The species breeds internationally and seldom roosts in trees (Higgins 1999).	VBA	1	22/12/2006	May occasionally fly over the study area, although unlikely to make direct use of habitat there - unlikely to occur
Gang-gang Cockatoo	<i>Callocephalon fimbriatum</i>	Endangered		In summer generally in tall mountain forests and woodlands, particularly in heavily timbered, mature wet sclerophyll forests and woodlands. Prefer Eucalyptus dominated assemblages. Also occurs in subalpine snow gum woodlands and occasionally in temperate rainforests and regenerating forests. In winter occur at lower altitudes in drier, more open Eucalyptus woodland (Higgins 1999).	VBA & PMST	1	5/08/2002	No suitable habitat in the study area - unlikely to occur.

Notes: grey shading indicates species that are likely to or have the potential to occur in the study area; **EPBC-T** = threatened species status under EPBC Act; **EPBC-M** = migratory status under the EPBC Act (M = listed migratory taxa; Bonn Convention (A2H) - Convention on the Conservation of Migratory Species of Wild Animals – listed as a member of a family; Bonn Convention (A2S) - Convention on the Conservation of Migratory Species of Wild Animals - species listed explicitly; CAMBA - China-Australia Migratory Birds Agreement; JAMBA - Japan-Australia Migratory Birds Agreement; ROKAMBA - Republic of Korea Australia Migratory Birds Agreement).

Common Name	Scientific name	EPBC - T	EPBC - M	Habitat	Source	Number of records	Date of last record	Likelihood of occurrence
Great Egret	<i>Ardea alba</i>		CAMBA, JAMBA	Occurs in a variety of wetlands including: permanent water bodies on flood plains; shallows of deep permanent lakes, either open or vegetated with shrubs or trees; semi-permanent swamps with tall emergent vegetation (e.g. bulrush) and herb dominated seasonal swamps with abundant aquatic flora (Marchant & Higgins 1990).	VBA	7	9/04/2019	No suitable habitat in the study area - unlikely to occur.
Grey Falcon	<i>Falco hypoleucos</i>	Vulnerable		Inhabits arid and semi-arid zones; mainly on sandy and stony plains of inland drainage systems, lightly timbered with acacia. Hunt far into open areas, over spinifex, tussock grasslands and low shrublands. In Victoria, few records mostly in north and northwestern regions (Marchant & Higgins 1993).	PMST	None	N/A	No suitable habitat in the study area - unlikely to occur.
Hooded Robin	<i>Melanodryas cucullata</i>	Endangered		Occur mostly in open Grey Box, White Box, Yellow Box, Yellow Gum and Ironbark woodlands with pockets of saplings or taller shrubs, an open shrubby understorey, sparse grasses and patches of bare ground and leaf-litter, with scattered fallen timber. The population has declined throughout range, especially since the early 1980s. This species typically occurs north of the great divide in shrubland or woodland dominated by acacias (Higgins & Peter 2002; Tzaros 2005).	PMST	None	N/A	No suitable habitat in the study area - unlikely to occur.
Latham's Snipe	<i>Gallinago hardwickii</i>		BONN A2H, ROKAMBA, JAMBA, CAMBA	Occurs in wide variety of permanent and ephemeral wetlands; it prefers open freshwater wetlands with dense cover nearby, such as the edges of rivers and creeks, bogs, swamps, waterholes. The species is widespread in southeast Australia and most of its population occurs in Victoria, except in the northwest of the state (Naarding 1983; Higgins & Davies 1996).	VBA	8	23/10/2006	No suitable habitat in the study area - unlikely to occur.
Painted Honeyeater	<i>Grantiella picta</i>	Vulnerable		Inhabits box-ironbark forests and woodlands and mainly feeds on the fruits of mistletoe. Strongly associated with mistletoe around the margins of open forests and woodlands. Can also be found in farmland containing remnant treed vegetation. Occurs at few localities. Uncommon breeding migrant from further north, arriving in October and leaving in February (Higgins et al. 2001; Tzaros 2005).	PMST	None	N/A	No suitable habitat in the study area - unlikely to occur.
Plains-wanderer	<i>Pedionomus torquatus</i>	Critically Endangered		This species is highly sensitive to changes in grassland cover and density. Typically inhabits treeless native grasslands with sparse cover, with a preference for grasslands composed of wallaby grass and spear grass (Marchant & Higgins 1993). Habitat becomes unsuitable when grassland becomes dense (CA 2016). Evidence suggests it avoids areas of tree cover, with no records of the species within 300m of trees (>10m high) in their strongholds in New South Wales or Victoria (CA 2016).	VBA & PMST	3	23/09/1991	Marginal suitable habitat present (too dense) and no recent records in search region - unlikely to occur.
Rainbow Bee-eater	<i>Merops ornatus</i>		JAMBA	Usually in open or lightly timbered areas, often near water. Occur in partly cleared land such as farmland and in sand-dunes, both coastal and inland (Higgins 1999). Southern populations are migratory, moving north beyond Victoria for the winter months (Higgins 1999).	VBA	1	4/03/1990	No suitable habitat in the study area - unlikely to occur.
Regent Honeyeater	<i>Anthochaera phrygia</i>	Critically Endangered		Inhabits dry box-ironbark eucalypt forests near rivers and creeks on inland slopes of the Great Dividing Range. Can also occur in small remnant patches or in mature trees in farmland or partly cleared agricultural land (Higgins et al. 2001).	PMST	None	N/A	No suitable habitat in the study area - unlikely to occur.
Southern Whiteface	<i>Aphelocephala leucopsis</i>	Vulnerable		Occurs mainly in woodlands and shrublands dominated by acacias or eucalypts, with an understory of grass and/or low shrubs (commonly mallee, mulga and saltbush) (Higgins & Peter 2002)	PMST	None	N/A	No suitable habitat in the study area - unlikely to occur.

Notes: grey shading indicates species that are likely to or have the potential to occur in the study area; **EPBC-T** = threatened species status under EPBC Act; **EPBC-M** = migratory status under the EPBC Act (M = listed migratory taxa; Bonn Convention (A2H) - Convention on the Conservation of Migratory Species of Wild Animals – listed as a member of a family; Bonn Convention (A2S) - Convention on the Conservation of Migratory Species of Wild Animals - species listed explicitly; CAMBA - China-Australia Migratory Birds Agreement; JAMBA - Japan-Australia Migratory Birds Agreement; ROKAMBA - Republic of Korea Australia Migratory Birds Agreement).

Common Name	Scientific name	EPBC - T	EPBC - M	Habitat	Source	Number of records	Date of last record	Likelihood of occurrence
Swift Parrot	<i>Lathamus discolor</i>	Critically Endangered		Prefers a select range of eucalypts in Victoria, including Yellow Gum, Grey Box, White Box, Red Ironbark and Yellow Box, as well as River Red-gum when this species supports abundant 'lerp' (Saunders & Tzaros 2011). The species is also known to forage within planted stands of Spotted Gum and Sugar Gum (Nature Advisory; unpublished data). Breeds in Tasmania and migrates to the mainland of Australia for the autumn, winter and early spring months. It lives mostly north of the Great Dividing Range, passing through two areas of Victoria on migration: the Port Phillip district and Gippsland (Emison et al. 1987; Higgins 1999; Kennedy & Tzaros 2005). Though it is also not uncommonly sighted in urban areas (Nature Advisory; unpublished data). Occurrence of this species on the mainland can substantially change from year to year depending on food availability, giving potential for this species to occur almost anywhere throughout its range (Emison et al. 1987).	VBA & PMST	1	1/01/1989	No suitable habitat in the study area - unlikely to occur.
White-throated Needletail	<i>Hirundapus caudacutus</i>	Vulnerable	CAMBA, ROKAMBA, JAMBA	Aerial, over all habitats, but probably more over wooded areas, including open forest and rainforest. Often over heathland and less often above treeless areas such as grassland and swamps or farmland (Higgins 1999).	VBA & PMST	1	1/01/1989	No suitable habitat in the study area - unlikely to occur.
Mammals								
Eastern Quoll	<i>Dasyurus viverrinus</i>	Endangered		Probably extinct in mainland Australia. Inhabits a range of of open forest, scrubland and heath (Menkhorst 1995).	VBA	2	1/01/1910	No recent records in search region - unlikely to occur.
New Holland Mouse	<i>Pseudomys novaehollandiae</i>	Vulnerable		Suitable habitat includes coastal heath and scrub, heathy woodland, open forest and vegetated sand-dunes, with dry heath regenerating post-fire appearing to be optimal for the species (Menkhorst 1995). Victorian records are largely restricted to the localities of Anglesea, Westernport and Gippsland lakes (Menkhorst 1995).	PMST	None	N/A	No records in search region - unlikely to occur.
Spot-tailed Quoll	<i>Dasyurus maculatus maculatus</i>	Endangered		Rainforest, wet and dry forest, coastal heath and scrub and River Red-gum woodlands along inland rivers (Menkhorst 1995).	VBA & PMST	2	1/01/1910	No recent records in search region - unlikely to occur.
Yellow-bellied Glider	<i>Petaurus australis</i>	Vulnerable		Forests with a predominance of smooth-barked eucalypts, as well as a mixture of eucalypt species. Uncommon in wet forests dominated by single tree species; a mixture of tree species is preferred (Menkhorst 1995). Inhabits a range of forest types, depending on the location in Victoria - western populations use dry woodland and forest, whereas southern, eastern and northeastern populations use a variety of wet forest types (Menkhorst 1995). Require large hollows in large, old trees. In Mountain Ash forest dependent on extensive stands of old-growth forest - rare in young forest even when scattered old trees are available (Menkhorst 1995). Will persist in corridors as narrow as 200 m (Menkhorst 1995).	PMST	None	N/A	No suitable habitat in the study area - unlikely to occur.
Reptiles								
Striped Legless Lizard	<i>Delma impar</i>	Vulnerable		Grassland specialist. Known to occur in some areas dominated by introduced species such as Harding Grass <i>Phalaris aquatica</i> , Serated Tussock <i>Nasella trichotoma</i> and Flatweed <i>Hypochaeris radicata</i> and at sites with a history of grazing and pasture improvement. shelter in grass tussocks, thick ground cover, soil cracks, under rocks, spider burrows, and under ground debris such as timber. The majority of sites in Victoria and NSW occur on cracking clay soils with some surface rock which provide shelter for the species (DCCEEW 2023).	VBA & PMST	3	4/03/1990	Suitable grassland habitat present in study area - potential to occur
Swamp Skink	<i>Lissolepis coventryi</i>	Endangered		Wetlands including swamp margins, lakes, rivers, creeks and even tidal salt marshes, often associated with tea-tree thickets (Wilson & Swan 2003).	PMST	None	N/A	No records in search region - unlikely to occur.

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Common Name	Scientific name	EPBC - T	EPBC - M	Habitat	Source	Number of records	Date of last record	Likelihood of occurrence
Frogs								
Growling Grass Frog	<i>Litoria raniformis</i>	Vulnerable		Permanent, still or slow flowing water with fringing and emergent vegetation in streams, swamps, lagoons and artificial wetlands such as farm dams and abandoned quarries (Clemann & Gillespie 2004).	VBA & PMST	144	17/02/2022	Suitable wetland habitat present in study area (Habitat Zone C). Targeted surveys undertaken and was not recorded - unlikely to occur.
Fish								
Australian Grayling	<i>Prototroctes maraena</i>	Vulnerable		Large and small coastal streams and rivers with cool, clear waters with a gravel substrate and altering pools and riffles (Cadwallader & Backhouse 1983).	PMST	None	N/A	No suitable habitat in the study area - unlikely to occur.
Dwarf Galaxias	<i>Galaxiella pusilla</i>	Vulnerable		Ranges from the far west of the state through to the Mitchell River basin in central Gippsland. Vegetated margins of still water, ditches, swamps and backwaters of creeks, both ephemeral and permanent (Allen et al. 2002). Some wetlands where it occurs may partially or completely dry up during summer, with such wetlands reliant on seasonal flooding plus linkages to other sites where the species occurs, for habitat and population replenishment (Saddler, Jackson & Hammer 2010). Dwarf Galaxias is also often found in association with burrowing freshwater crayfish (<i>Engaeus</i> spp.), with the crayfish burrows reportedly providing refuge from predators and dry conditions for the species (Saddler, Jackson & Hammer 2010).	PMST	None	N/A	No records in search region - unlikely to occur.
Murray Cod	<i>Maccullochella peelii</i>	Vulnerable		Slow flowing turbid water of rivers and streams of low elevation; also fast flowing clear upland streams (Allen et al. 2002).	PMST	None	N/A	No records in search region - unlikely to occur.
Yarra Pygmy Perch	<i>Nannoperca obscura</i>	Vulnerable		Streams and small lakes, prefers flowing water with abundant aquatic vegetation (Allen et al. 2002).	PMST	None	N/A	No records in search region - unlikely to occur.
Invertebrates								
Golden Sun Moth	<i>Synemon plana</i>	Vulnerable		Areas that are, or have been native grasslands or grassy woodlands. It is known to inhabit degraded grasslands with introduced grasses being dominant, with a preference for the native wallaby grass being present (DEWHA 2009). Also known to be closely associated with exotic grass species, with populations found in grassland almost entirely composed of Chilean needlegrass (Richter et al. 2013).	VBA & PMST	4111	8/01/2021	Suitable grassland habitat present in study area. Targeted surveys undertaken and was not recorded - unlikely to occur.

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Appendix 4: Documentation of Austrak’s contractual agreement and rejection letter of the potential GEWVP offset site in Snake Valley

Call Option Deed

[REDACTED] Snake Valley
Vic 3351

[REDACTED]
and

Austrak OSX Pty Ltd ACN 634 935 489

Put and Call Option Deed

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Details

Date

17th September 2024

Parties

Name



Short form name

Vendor

Notice details



Name

Austrak OSX Pty Ltd ACN 634 935 489 of Level 25, 35 Collins Street, Melbourne
Vic 3000

Short form name

Purchaser

Notice details

Level 25, 35 Collins Street, Melbourne Vic 3000

Background

- A The Vendor is the registered owner of the Property.
- B The Vendor has agreed to grant the Purchaser a Call Option for the Purchaser or the Purchaser's Nominee to buy the Property.

Agreed terms

1. Defined terms and interpretation

1.1 Defined terms

In this Deed:

Term	Definition
Business Day	means a day which is not a Saturday, Sunday or a public holiday in Melbourne, Victoria, nor between the dates 26 - 31 December.
Call Option	means the call option granted under clause 2.
Call Option Expiry Date	means 120 days from the date hereof
Call Option Fee	means \$10.00.
Call Option Notice	means a notice substantially in the form in Schedule 1.
Call Option Period	means the period: (a) beginning on the date of this Deed; and (b) ending at 5pm on the Call Option Expiry Date.
Contract	means an agreement for the sale of the Property in the form attached in Annexure A.
Deposit	means the deposit referred to in the Contract.
Exercise Date	means the date the Call Option or Put Option is exercised.
GST Law	has the meaning given in <i>A New Tax System (Goods and Services Tax) Act 1999</i> (Cth).
Nomination Notice	means the notice given under clause 3.3.
Nominee	means a party or parties nominated by the Purchaser to purchase the Property from the Vendor and which may include the Purchaser.
Property	means the land being Lot 1 on Plan of Subdivision PS21587F being the land comprised in Certificate of Title Volume 9892 Folio 300
Purchase Price	means [REDACTED]
Purchaser's Lawyer	means [REDACTED] Address: [REDACTED]

- 6 -

Phone:

Email:

Ref:

Security Deposit

Stakeholder

means the deposit holder under the Contract.

Vendor's Lawyer

mean

Address:

Phone:

Fax:

Attention:

Email:

1.2 Interpretation

In interpreting this Deed, the following rules apply unless the context requires otherwise:

- (a) Headings are for convenience only and do not affect interpretation;
- (b) Singular includes plural and vice versa;
- (c) A gender includes all genders;
- (d) Where a word or phrase is defined, its other grammatical forms have a corresponding meaning;
- (e) References to a person includes an individual, a body corporate, an unincorporated body or association or a corporation;
- (f) References to any legislation or to any provision of any legislation includes any modification or re-enactment of it, any legislative provisions substituted for it and all regulations and statutory instruments issued under it;
- (g) Any covenant, indemnity or agreement on the part of or for the benefit of two or more persons will be deemed to bind or benefit (as the case may be) any two or more of them jointly and each of them severally;
- (h) A reference to a Part, Annexure, clause or Schedule is a reference to a part of, clause of or schedule to this Deed;
- (i) A reference to any party to this Deed or any other agreement or document includes the party's successors and permitted assigns;
- (j) Mentioning anything after include, includes or including does not limit what else might be included;

- (k) A reference to any agreement or document is to that agreement or document as amended, novated, supplemented, varied or replaced from time to time, except to the extent prohibited by this Deed;
- (l) A reference to conduct includes any omission, statement or undertaking, whether or not in writing;
- (m) Unless stated otherwise, one provision does not limit the effect of another;
- (n) All references to time are to time in the state of Victoria; and
- (o) In the interpretation of this Deed, no rules of construction will apply to the disadvantage of one party on the basis that the party prepared this Deed or any part of it.

1.3 GST Law

Capitalised terms which are not defined in this Deed but which have a defined meaning in the GST Law have the same meaning in this Deed.

1.4 Business Days

If anything is required to be done or condition satisfied on a day that is not a Business Day, it must be done or satisfied instead on the next Business Day unless this Deed specifically provides otherwise.

1.5 Other defined terms

Where a term is defined in the Contract and used in this Deed, but not defined in this Deed, it will have the meaning given in the Contract.

2. Call Option

In consideration of the Purchaser paying the Call Option Fee (receipt of which is acknowledged by the Vendor), the Vendor grants the Purchaser an option to purchase or nominate a Nominee to purchase the Property from the Vendor during the Call Option Period at the Purchase Price and on the terms of the Contract.

3. Exercise of Call Option

3.1 Procedure

The Call Option may be exercised by the Purchaser at any time during the Call Option Period by delivering to the Vendor the Call Option Notice (appropriately completed and signed).

3.2 Signed contract

Within 5 Business Days of the Exercise Date, the Purchaser must provide to the Vendor or the Vendor's Lawyers two copies of the Contract signed by the Purchaser and completed by inserting the Exercise Date as the Contract Date.

3.3 Nomination of third parties

- (a) The Purchaser may nominate other persons or entities as the persons or entities to be the purchasers of the Property under the Contract by completing the nomination section of the Call Option Notice and delivering the notice to the Vendor or the Vendor's Lawyers.

- (b) Within 5 Business Days of the Exercise Date, the Purchaser must provide to the Vendor or the Vendor's Lawyers two copies of the Contract signed by the Nominee/s and completed by inserting the Exercise Date as the Contract Date and the Nominee/s as the purchaser/s under the Contract.

3.4 Contract entered into

On the exercise of the Call Option in accordance with this Deed:

- (a) the Vendor must countersign both copies of the Contract and deliver to the Purchaser one signed copy of the Contract within 5 Business Days after receipt of the documents; and
- (b) the Contract will be taken to have been entered into on the Exercise Date, whether or not the Contract is signed by the Vendor.

4. Security Deposit

4.1 Payment of Security Deposit

The Purchaser must pay the Security Deposit to the Stakeholder within 2 Business Days of the date of this Deed.

4.2 Vendor's right to terminate

The Vendor may terminate this Deed if the Security Deposit is not paid on time.

4.3 If the Call Option or Put Option is exercised

- (a) If the Call Option is exercised without a Nomination Notice, the Security Deposit becomes the Deposit under the Contract.
- (b) If the Call Option is exercised with a Nomination Notice, the Security Deposit is refundable to the Purchaser should the Nominee pay the Deposit under the Contract.
- (c) If the Call Option is not exercised the security deposit is forfeited and is non-refundable.

4.4 Security Deposit not part of consideration

The Purchaser and Vendor acknowledge:

- (a) that the Security Deposit does not constitute consideration for the grant of the Call Option but rather secures the performance of the Purchaser's obligations under this Deed and the Contract.
- (b) That the security deposit is paid to and released to the Vendor upon payment.

5. Dealings with the Property

During the Call Option Period, the Vendor:

- (a) must not sell or otherwise deal with the Property in any manner which is inconsistent with the Purchaser's rights under this Deed without written consent of the Purchaser;
- (b) must not enter into any discussions, negotiations or agreements to sell, transact, permit use of or execute documents which effect the Property without prior written approval from the Purchaser (which approval may be withheld at the Purchaser's absolute discretion).

6. GST

6.1 Recovery of GST

If GST is payable, or notionally payable, on a supply made under or in connection with this Deed, the party providing the consideration for that supply must pay as additional consideration an amount equal to the amount of GST payable, or notionally payable, on that supply (the GST Amount). Subject to the prior receipt of a tax invoice, the GST Amount is payable at the same time that the other consideration for the supply is provided. If a tax invoice is not received prior to the provision of that other consideration, the GST Amount is payable within 10 days of the receipt of a tax invoice. This clause does not apply to the extent that the consideration for the supply is expressly stated to be GST inclusive or the supply is subject to reverse charge.

6.2 Liability net of GST

Where any indemnity, reimbursement or similar payment under this Deed is based on any cost, expense or other liability, it shall be reduced by any input tax credit entitlement, or notional input tax credit entitlement, in relation to the relevant cost, expense or other liability.

6.3 Adjustment events

If an adjustment event occurs in relation to a supply made under or in connection with this Deed, the GST Amount will be recalculated to reflect that adjustment and an appropriate payment will be made between the parties.

7. Confidentiality

7.1 Confidential information

The Vendor acknowledges that the existence of and the terms of this Deed, and the contents of this Deed and any information provided by the Purchaser to the Vendor in relation to this transaction, is sensitive commercial information. The Vendor must not (without the prior written approval of the Purchaser) disclose such information to any person, organisation of the like, except:

- (a) to the Vendor's officers, employees, consultants or advisers where necessary to fulfil the obligations of this Deed and provided that the person who discloses the information takes all steps required to ensure that the recipient keeps it confidential; or
- (b) where disclosure is required by law.

7.2 Public announcements

The Vendor must not make any public announcement, press statement or press release concerning this Deed without the prior written approval of the Purchaser.

8. Notice

8.1 Method of giving notice

A notice, consent or communication under this Deed is only effective if it is:

- (a) in writing in English, signed by or on behalf of the person giving it;
- (b) addressed to the person to whom it is to be given; and
- (c) given as follows:

- (i) delivered by hand to that person's address;
- (ii) sent to that person's address by prepaid mail or by prepaid airmail, if the address is overseas;
- (iii) sent by fax to that person's fax number where the sender receives a transmission confirmation report from the despatching machine indicating the transmission has been made without error and showing the relevant number of pages and the correct destination fax number or name of recipient; or
- (iv) sent by email to that person's email address.

8.2 When is notice given

A notice, consent or communication given under clause 8.1 is given and received on the corresponding day set out in the table below. The time expressed in the table is the local time in the place of receipt.

If a notice is	It is given and received on
Delivered by hand or sent by fax	(a) That day, if delivered by 5.00pm on a Business Day; or (b) The next Business Day, in any other case.
Sent by email	At the time of departure from the sender's mail server unless the sender receives an automated message generated by the recipient's mail server (Failure Message) that the email has not been delivered within two hours. For the avoidance of doubt any response generated by or at the instigation of the recipient (including an 'out of office' message) will not be a Failure Message.
Sent by post	(a) Three Business Days after posting, if sent within Australia; or (b) Seven Business Days after posting, if sent to or from a place outside Australia.

8.3 Address for notices

A person's address, fax number and email address are those set out in this Deed, or as the person otherwise notifies the sender.

9. Costs and Duty

- (a) Each party must bear its own costs arising out of the preparation, negotiation and execution of this Deed;
- (b) The Purchaser must pay all duty on this Deed and any instrument or transaction entered into under this Deed.

10. Governing Law and Jurisdiction

This Deed is governed by the laws of Victoria. In relation to it and related non-contractual matters each party irrevocably submits to the non-exclusive jurisdiction of courts with jurisdiction there, and waives any right to object to the venue on any ground.

11. Further Assurances

Each party must do anything necessary or desirable (including executing agreements and documents) to give full effect to this Deed and the transactions contemplated by it.

12. Entire Agreement

This Deed contains the entire agreement between the parties with respect to its subject matter. It sets out the only conduct, representations, warranties, covenants, conditions, agreements or understandings (collectively Conduct) relied on by the parties and supersedes all earlier Conduct by or between the parties in connection with its subject matter. No party has relied on or is relying on any other Conduct in entering into this Deed and completing the transactions contemplated by it.

13. Amendment

This Deed may be amended only by another deed executed by all the parties.

14. No Waiver

A failure to exercise or a delay in exercising any right, power or remedy under this Deed does not operate as a waiver. A single or partial exercise or waiver of the exercise of any right, power or remedy does not preclude any other or further exercise of that or any other right, power or remedy. A waiver is not valid or binding on the party granting that waiver unless made in writing.

15. Severability of Provisions

Any provision of this Deed that is prohibited or unenforceable in any jurisdiction is ineffective as to that jurisdiction to the extent of the prohibition or unenforceability. That does not invalidate the remaining provisions of this Deed nor affect the validity or enforceability of that provision in any other jurisdiction.

16. Exchange of facsimile or email counterparts

- (a) This deed may be formed by the exchange of duly executed facsimile or email transmission counterparts.
- (b) Following exchange, the parties will circulate and all execute two originals of this Deed, but for convenience only (the exchange of the facsimile or email transmission contract duly executed being intended to make this Deed immediately binding on completion of exchange).

17. Electronic Transaction

In accordance with the *Electronic Transactions (Victoria) Act 2000*, the parties consent to communications being given in relation to this transaction (including but not limited to the giving and receiving of notices or contract documents) via electronic means.

18. Vendor warranties

18.1 Definitions

In this clause 18:

- (a) Trust means the Superannuation Fund;
- (b) Trust Deed means the deed under which the Trust is constituted;

18.2 Property warranties

The Vendor represents and warrants that, as at the date of this Deed and as at the exercise of the Call Option or Put Option (as applicable):

- (a) the Vendor has all necessary power, capacity and authority to enter into and perform its obligations under this Deed and the Contract;
- (b) the Vendor has disclosed to the Purchaser all material information and agreements in relation to the Property known to the Vendor and all information provided by the Vendor is true and correct;
- (c) during the Call Option Period and, if the Call Option is not exercised, the Put Option Period the Vendor will not dispose of its interest in the Property to any party other than the Purchaser or the Purchaser's Nominee in accordance with the terms of this Deed and will not grant any rights to a third party which are likely to be in conflict with the rights of the Purchaser under this Deed.

18.3 Trustee warranties

The Vendor represents and warrants that, as at the date of this Deed and as at the exercise of the Call Option or the Put Option (as applicable):

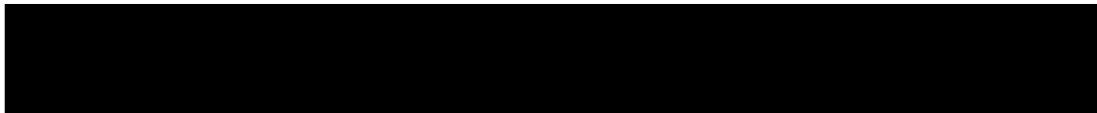
- (a) **(status)** the Trust is duly constituted under relevant laws and no action has been taken or proposed to terminate the Trust;
- (b) **(power)** it has full legal capacity and power under the Trust Deed to enter into and perform its obligations under this Deed;
- (c) **(sole trustee)** it is the sole trustee of the Trust and no action has been taken or proposed to remove it as trustee of the Trust or to appoint an additional trustee;
- (d) **(authorisations)** it has taken all action required and obtained or been granted all consents, approvals, permissions and authorisations necessary to enable it to enter into and perform its obligations under this Deed;
- (e) **(binding obligations)** this Deed constitutes a valid and legally binding obligation of it in accordance with its terms;
- (f) **(indemnity)** subject to any limitations in the Trust Deed it has the right to be fully indemnified out of the assets of the Trust in respect of its obligations under this Deed and that right has not been restricted or limited in any way; and
- (g) **(benefit)** it enters into this Deed as part of the due and proper administration of the Trust and for the benefit of the beneficiaries of the Trust.

19. Access to Property

The Vendor agrees to allow the Purchaser access to the property for the purpose of undertaking ecological surveys and investigations prior to settlement.

Schedule 1 – Call Option Notice

To:



Property:



Snake Valley

Pursuant to the Call Option Deed dated _____ (the **Deed**), Austrak OSX Pty Ltd ACN 634 935 489 (the **Purchaser**) gives the Vendor notice of exercise of the Call Option.

Optional if Nomination is made:

Nomination Notice

The Purchaser nominates

_____ as its Nominee/s under Clause 3.3 of the
Call Option Deed.

Words and phrases which are capitalised in this Call Option Notice have the meanings defined in the Deed.

Purchaser:

Dated: _____/_____/_____

Signed: _____

Schedule 2 – Property

Volume	Folio	
8158	482	Crown Allotment 15 Section 31 Parish of Carngham

Signing page

Vendor:

Executed by the [REDACTED])
[REDACTED] in accordance with section 127 of the)
Corporations Act 2001 (Cth))

Signed by: [REDACTED]
[Signature] [REDACTED]

Signed by: [Signature]
[REDACTED]
Director 29C65DFD89695456...

Purchaser:

Executed by the AUSTRAK OSX PTY LTD)
ACN 634 935 489 in accordance with section 127 of the)
Corporations Act 2001 (Cth))

[Signature]
Sole Director/Sole Secretary
Marco Assetta
3 Cradley Avenue, Kew Vic 3101

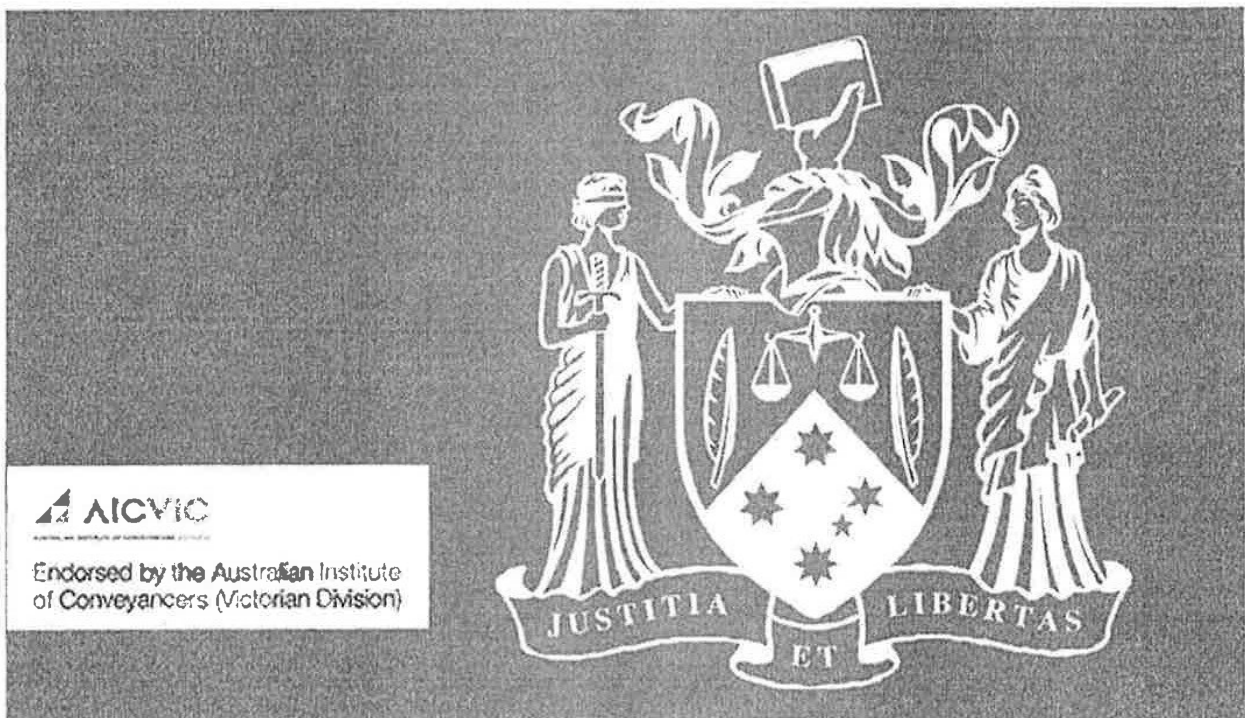
Annexure A- Contract



Contract of sale of land

Property: [REDACTED] Snake Valley 3351

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Our Ref: GPN14740_Off-INT14257 /KT

16/12/2024

Austrak OSX Pty Ltd

Mr S. Martinello
Collins Place, Level 25
35 Collins Street
Melbourne VIC 3000
Via email: s.martinello@austrak.com.au

Dear Sam,

Property: GPN14740-Lot 1, Snake Valley-Mortchup Road-Snake Valley

Thank you for considering Trust for Nature (the Trust) to provide the security mechanism on title as required for your offset agreement under your EPBC Approval 2023/09728.

We have now undertaken a comprehensive assessment of your Offset Site proposal for the Property. This included two site visits and an internal review of the Offset Management Plan, all additional material provided by Austrak (including consultant reports and photographs), and the EPBC listing criteria for the Grassy Eucalypt Woodland of the Victorian Volcanic Plain (**GEWVPP**).

As already discussed with you, the Trust's view is that the proposed Offset Site at Lot 1, Snake Valley-Mortchup Road, Snake Valley **does not** meet the EPBC listing criteria for GEWVPP.

The reasons for the Trust's decision are provided in **Appendix A: Final Assessment Summary**.

This means that the relevant conditions have not been met to complete the services specified in the Fee Proposal and this agreement is now finalised. No remaining fees are required to be paid under the Fee Proposal.

If you wish to progress your offset agreement on another Offset Site a new fee proposal will be required. If you require further assistance in establishing another Offset Site, you can contact our Covenanting Program team for more information at offsets@tfn.org.au.

Yours sincerely,



Karen Tymms
Covenant Manager | 0417 327 514 | offsets@tfn.org.au

Appendix A: Trust for Nature's Final Assessment Summary
GPN14740 Austrak, Lot 1, Snake Valley-Mortchup Road-Snake Valley

The initial site assessment conducted by Trust for Nature (**the Trust**) on 14 October 2024, and subsequent assessment conducted on 3 December 2024 confirms that the site attributes are not consistent with the requirements for Grassy Eucalypt Woodland of the Victorian Volcanic Plain (GEWVVP).

TFN acknowledges that this property is ecotonal, however both the TFN on ground assessments indicates that the majority of the vegetation type does not comply with the requirements for Grassy Eucalypt Woodland of the Victorian Volcanic Plain (**GEWVVP**). There is a small area of VVP in the Northeast of the property ~ 0.64Ha – there are no trees present but some grassland species which indicate this area could be derived native grassland from GEWVVP. Refer to figure 1 below.



Figure 1 – Map showing the extent of the Grassy Eucalypt Woodland of the Victorian Volcanic Plain (GEWVVP) present at this site.

Geology

In particular we note the geology present is not indicative of GEWVVP which is limited to Quaternary basalt soils on low elevation plains and stony rises on the basalt flows. This site is comprised of grey loams in the low-lying areas which is not characteristic of VVP. With the higher areas being all Ordovician Quartzite Clays which is typical of the Goldfields geology indicating Central Victorian Uplands bioregion. Dark, heavy cracking clays were absent from the lower areas of the site, these would be expected if the site was Victorian Volcanic Plains, as would surface basalt rock – which was also absent. The site submitted by email to TFN as having dark heavy cracking clays was confined to one small area measuring approx. 5mx3m which on inspection on 3 December 2024 was found to have a mix of grey and quartzite clay. This type of geology is not indicative of GEWVVP.



Figure 2 – Photo's showing the site of cracking clay, a mix of grey and quartzite clay, not dark heavy cracking clays expected if the site was Victorian Volcanic Plains.

Vegetation

Eucalypts consistent with Heathy Dry Forest (CVU) dominate the site. *Eucalyptus aromaphloia*, *Eucalyptus macrorhyncha* and *Eucalyptus obliqua* with a few, *Eucalyptus goniacalyx* were observed.

Manna Gum, *Eucalyptus viminalis* (ssp. *viminalis*) were not observed onsite. In addition, *E. viminalis* is characteristic of GEWCVU not GEWVVP for this rainfall and EVC. Most of the trees that look like Manna Gum *Eucalyptus viminalis* ssp. *viminalis* were positively identified on 3 December 2024 as either Scentbark *Eucalyptus aromaphloia* or a hybrid *Eucalyptus aromaphloia* x *Eucalyptus* spp. Identification was confirmed using buds, fruit, leaves and bark.

Therefore, the open grassy patches on lower areas of the site, are consistent with Heathy Dry Forest EVC that has been cleared, not GEWVVP.

Bracken also dominated areas in the higher elevations of the property and surrounded the mature Scentbark *Eucalyptus aromaphloia* on the lower elevations, which also indicates degraded Heathy Dry Forest, not GEWVVP.

Red Gums (*Eucalyptus camaldulensis*) which are the characteristic & dominant tree species in GEWVVP in this rainfall were not present on site nor was there any evidence of stumps to support the action of tree clearing.

Swamp Gum (*Eucalyptus ovata*) which are occasionally found in GEWVVP were present on the northern boundary of the site including one large old tree (LOT) and a few young saplings however, most of the Swamp Gums (*Eucalyptus ovata*) are not located on the property but on adjacent roadside. Presence of this species does not confirm the GEWVVP, as it was in an area dominated by Messmate Stringybark *Eucalyptus obliqua*.

Appendix 5: Evidence of Austrak's search effort to identify an alternative GEWVP offset site

Chris Armstrong

From: Julie Groce <jgroce@vegetationlink.com.au>
Sent: Thursday, 5 December 2024 3:21 PM
To: Samuel Martinello
Cc: Sid Larwill
Subject: GEWVVP offsets

Hi Sam,

We understand you're seeking an offset for Grassy Eucalypt Woodland of the Victorian Volcanic Plain (GEWVVP) of approx. 7-12 ha in size. We have been searching for this community on private lands for a while but do not have an option available at this time. We continue to look and will contact you if anything changes.

We're disappointed to hear the site Austrak was looking to purchase was not acceptable to DCCEEW. We'd be keen to learn the reasons why. I'll give a call soon to discuss.

Cheers,

Julie Groce

vegetationlink

PO Box 10 Castlemaine 3450
Mobile: 0431 882 164
Office: 03 8578 4250, **1300 VEG LINK** (1300 834 546)
Web: www.vegetationlink.com.au

Please note my work days are Tuesday to Friday.

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Chris Armstrong

From: Tania Brooker <tania@idecological.com.au>
Sent: Thursday, 5 December 2024 2:22 PM
To: Samuel Martinello
Subject: RE: Grassy Eucalypt Woodland of the Victorian Volcanic Plain

Sam,

Unfortunately we don't have any of that as an offset.

Regards,

Tania Brooker
Consulting Manager



95 Tramway Road, Morwell Vic 3840 P (03) 5134 3159 M 0437 713 030 W www.idecological.com.au E tania@iddesign.com.au

Melbourne | Morwell | Wonthaggi

From: Samuel Martinello <s.martinello@austrak.com.au>
Sent: Thursday, 5 December 2024 1:55 PM
To: Tania Brooker <tania@idecological.com.au>
Subject: Grassy Eucalypt Woodland of the Victorian Volcanic Plain

Hi Tania

I hope all is well,

I am after on offset site of 7-11 Hectares that contains Grassy Eucalypt Woodland of the Victorian Volcanic Plain,

Is this something that you'll be able to help me with?

Kind Regards
Sam

Sam Martinello
Collins Place, Level 25
35 Collins Street,
MELBOURNE VIC 3000

T: +61-3-9525 4333
F: +61-3-9525 4339
M: +61-435 375 567
E: s.martinello@austrak.com.au
W: www.austrak.com.au

Chris Armstrong

From: Environmental Planning <Environmental.Planning@bawbawshire.vic.gov.au>
Sent: Friday, 6 December 2024 10:26 AM
To: Samuel Martinello
Subject: RE: Grassy Eucalypt Woodland of the Victorian Volcanic Plain
Attachments: image001.png

Good Morning,

Thank you for contacting Baw Baw Shire Council regarding our Native Vegetation Offset Scheme.

Unfortunately we do not have an offset that contains Grassy Eucalypt Woodland in the Victorian Volcanic Plain.

Best of luck finding an offset.

Kind Regards,

Gemma

From: Samuel Martinello <s.martinello@austrak.com.au>
Sent: Thursday, December 5, 2024 1:53 PM
To: BawBaw <Baw.Baw@bawbawshire.vic.gov.au>
Subject: Grassy Eucalypt Woodland of the Victorian Volcanic Plain

CAUTION: This email originated from outside of Baw Baw Shire Council. Do not click links or open attachments unless you recognise the sender and know the content is safe.

To Whom It May Concern,

I hope all is well,

I am after on offset site of 7-11 Hectares that contains Grassy Eucalypt Woodland of the Victorian Volcanic Plain,

Is this something that you'll be able to help me with?

Kind Regards
Sam

Sam Martinello
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35 Collins Street,
MELBOURNE VIC 3000

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M: +61-435 375 567
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W: www.austrak.com.au

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Chris Armstrong

From: Biodiversity Offsets Program <BiodiversityOffsets@yarraranges.vic.gov.au>
Sent: Friday, 6 December 2024 11:57 AM
To: Samuel Martinello
Subject: RE: Grassy Eucalypt Woodland of the Victorian Volcanic Plain

Hi Sam,

Thanks for your e-mail. Unfortunately, we can't assist with this offset.

Kind regards

Joanna



Joanna Lebbink

Biodiversity Offsets Officer | Resilient Environment

03 9294 6288

J.Lebbink@yarraranges.vic.gov.au



Yarra Ranges Council acknowledges the Wurundjeri and other Kulin Nations as the Traditional Owners and Custodians of these lands and waterways.

We pay our respects to all Elders, past, present, and emerging, who have been, and always will be, integral to the Country.

We proudly share custodianship to care for Country together.

From: Samuel Martinello <s.martinello@austrak.com.au>
Sent: Thursday, 5 December 2024 1:56 PM
To: Biodiversity Offsets Program <BiodiversityOffsets@yarraranges.vic.gov.au>
Subject: Grassy Eucalypt Woodland of the Victorian Volcanic Plain

To Whom It May Concern,

I hope all is well,

I am after on offset site of 7-11 Hectares that contains Grassy Eucalypt Woodland of the Victorian Volcanic Plain,

Is this something that you'll be able to help me with?

Kind Regards
Sam

Sam Martinello
Collins Place, Level 25
35 Collins Street,
MELBOURNE VIC 3000

Chris Armstrong

From: Samuel Martinello <s.martinello@austrak.com.au>
Sent: Tuesday, 10 December 2024 1:20 PM
To: Chris Armstrong
Subject: FW: Quote for Nat Veg and EPBC Offsets

From: Richard Francis <richardfrancis@abzeco.com.au>
Sent: Tuesday, 10 December 2024 1:19 PM
To: Mara Venn <m.venn@austrak.com.au>
Cc: Samuel Martinello <s.martinello@austrak.com.au>; Louise Rodda <louiserodda@abzeco.com.au>; Kathy Chisholm <offsets@abzeco.com.au>
Subject: RE: Quote for Nat Veg and EPBC Offsets

Mara,

Unfortunately, no. We have been investigating some opportunities but so far nothing has come of it. Very disappointing!

Regards,

Richard Francis
Director/Consultant Ecologist, Botanist, Zoologist
richardfrancis@abzeco.com.au
mobile: 0414 475 654
office: 03 7050 3371
ph: 03 9431 5444
Abzeco Pty Ltd
www.abzeco.com.au

Work Days: Tuesday, Wednesday & Thursday

From: Mara Venn <m.venn@austrak.com.au>
Sent: Thursday, 5 December 2024 3:04 PM
To: Richard Francis <richardfrancis@abzeco.com.au>
Cc: Samuel Martinello <s.martinello@austrak.com.au>
Subject: FW: Quote for Nat Veg and EPBC Offsets

Hi Richard,

Hope this email finds you well.

I was just wondering if there were any possible GEWVVP sites that may have recently become available to meet our offset requirements.

Looking forward to your response, have a great weekend.

Regards,

Mara Venn
Asset Manager



Level 10, 41 Exhibition Street,
MELBOURNE VIC 3000

T: +61-3-9525 4333
F: +61-3-9525 4339
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From: Offsets <offsets@abzeco.com.au>
Sent: Thursday, 21 March 2024 10:46 AM
To: Mara Venn <m.venn@austrak.com.au>
Cc: Samuel Martinello <s.martinello@austrak.com.au>
Subject: RE: Quote for Nat Veg and EPBC Offsets

Hi Mara,

Apologies for the late reply to this – I am behind on my emails. I spoke to Richard and he said we're aware that trades have occurred (one recently) for GEVVVP however these trades are commercial in confidence and very little detail can be made available. He suggested that you might try to speak to Sid Larwill of Vegetation Link Pty Ltd who is on the list of Native Vegetation Credit Register brokers and site assessors.

Kind regards,

Kathy Chisholm
offsets@abzeco.com.au
(working Tues, Wed & Fri)

Abzeco Pty Ltd
Tel: 03 9431 5444
Suite 1/4 Brisbane Street, Eltham Vic 3095
www.abzeco.com.au



From: Mara Venn <m.venn@austrak.com.au>
Sent: Tuesday, March 12, 2024 2:55 PM
To: Offsets <offsets@abzeco.com.au>
Cc: Samuel Martinello <s.martinello@austrak.com.au>
Subject: RE: Quote for Nat Veg and EPBC Offsets

Hi Kathy,

Thanks for the advice below.

Can you please ask Richard if there are any examples of suitable habitat offsets being secured in the last few years or when the last example was transacted, thanks.

Regards,

Mara Venn

Asset Manager



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35 Collins Street,
MELBOURNE VIC 3000

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From: Offsets <offsets@abzeco.com.au>
Sent: Tuesday, March 12, 2024 2:38 PM
To: Mara Venn <m.venn@austrak.com.au>
Cc: Samuel Martinello <s.martinello@austrak.com.au>
Subject: RE: Quote for Nat Veg and EPBC Offsets

Hi Mara,

I have prepared a quotation for the Offset targets in the Native Vegetation Removal report which I will email shortly, however please see below from Richard regarding the EPBC Offsets.

Kathy,

You can quote on the NVR but unfortunately, we are not in a position to offer a solution for the EPBC Offsets. They are looking to find an offset with GI supports Striped Legless Lizard. We don't currently have any available GEWVVP. It is proving very hard to get.

Regards,

Richard Francis
Director/Consultant Ecologist, Botanist, Zoologist
richardfrancis@abzeco.com.au
mobile: 0414 475 654

Kind regards,

Kathy Chisholm
offsets@abzeco.com.au
(working Tues, Wed & Fri)

Abzeco Pty Ltd
Tel: 03 9431 5444
Suite 1/4 Brisbane Street, Eltham Vic 3095
www.abzeco.com.au



From: Mara Venn <m.venn@austrak.com.au>
Sent: Wednesday, February 28, 2024 5:56 PM
To: Offsets <offsets@abzeco.com.au>
Cc: Samuel Martinello <s.martinello@austrak.com.au>
Subject: Quote for Nat Veg and EPBC Offsets

Hi Kathy,

Further to our previous conversation, please find attached the NVRr and MNES report for Lot 6 Somerton Yard (Public Land).

Thank you for assisting with providing an estimate of costs for both offset requirements.

Please let me know if you have any queries on the attached.

Regards,

Mara Venn
Asset Manager



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Chris Armstrong

To: Samuel Martinello
Subject: RE: Grassy Eucalypt Woodland of the Victorian Volcanic Plain

From: Anna O'Brien <info@offsetsvictoria.com.au>
Sent: Friday, December 13, 2024 9:42 pm
To: Samuel Martinello <s.martinello@austrak.com.au>
Subject: RE: Grassy Eucalypt Woodland of the Victorian Volcanic Plain

Hi Samuel

Thank you for your enquiry. Unfortunately, I do not currently have any sites available. I will get back to you if this changes

GEWVVP is extremely difficult to find as most woodland areas have a long history of disturbance and do not tend to support sufficient native understorey (grasses/herbs) to qualify. With this in mind 7-11ha is considered a large area of GEWVVP, therefore avoiding and/or reducing the GEWVVP impacted is critical.

Kind Regards

Anna O'Brien

Biodiversity Offsets Victoria

M 0452 161 013

E info@offsetsvictoria.com.au

W www.offsetsvictoria.com.au



From: Samuel Martinello <s.martinello@austrak.com.au>
Sent: Thursday, 5 December 2024 1:52 PM
To: info@offsetsvictoria.com.au
Subject: Grassy Eucalypt Woodland of the Victorian Volcanic Plain

Hi Anna,

I hope all is well,

I am after on offset site of 7-11 Hectares that contains Grassy Eucalypt Woodland of the Victorian Volcanic Plain,

Is this something that you'll be able to help me with?

Kind Regards

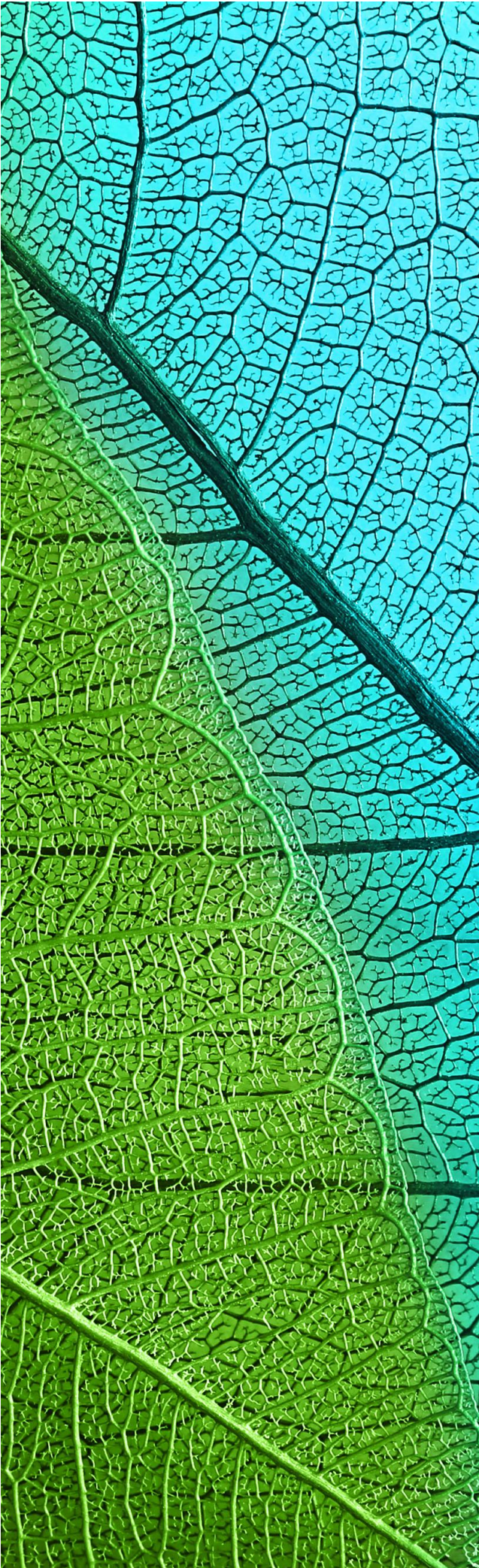
Sam

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Collins Place, Level 25
35 Collins Street,
MELBOURNE VIC 3000

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Appendix 6: Redesdale GEWVP OMP



Somerton Intermodal Terminal

EPBC Act

Grassy Eucalypt
Woodland Offset
Management Plan
(EPBC 2023/09728)

Prepared for Austrak

September 2026

Report No. 23026.14 (1.5)



**Nature
Advisory**

5/61-63 Camberwell Road
Hawthorn East, VIC 3123
PO Box 337, Camberwell VIC 3124
(03) 9815 2111
www.natureadvisory.com.au

Nature Advisory acknowledges the traditional owners and sovereign custodians of the land on which we work from – the Wurundjeri people of the Woi Wurrung language group. We extend our respect to their Ancestors and all First Peoples and Elders past, present, and future.

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1. Introduction

Austrak engaged Nature Advisory to prepare an Offset Management Plan for a site in Redesdale supporting habitat for Grassy Eucalypt Woodland of the Victorian Volcanic Plain (GEWVVP), a Matter of National Environmental Significance (MNES). The proposed offset site will be protected and managed to account for the loss of 2.787 hectares of assumed GEWVVP associated with the proposed Somerton Intermodal Terminal in Somerton, Victoria.

The Somerton Intermodal Terminal has been declared a 'controlled action' by the Department of Climate Change, Energy, Environment and Water (DCCEEW) following a referral of the proposal under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC 2023/09728).

Impacts to assumed GEWVVP associated with the Somerton Intermodal Terminal proposal will occur on five separate properties:

- 70 Cliffords Road Somerton 3062;
- 105 Cliffords Road Somerton 3062;
- The Craigieburn Rail adjacent to 105 Cliffords Road.

In accordance with instructions from DCCEEW, the impacts to GEWVVP are calculated to be 2.787 hectares. This is based on the areas of Habitat Zones 1A and 1H from the rail reserve, and all Plains Grassy Woodland (EVC 55_61) zones in the planning area unit (habitat zones 2A, 2B, 2D, 2E and 2F), noting:

- Only 1H from the rail reserve met the condition thresholds for the community;
- Only zones 1A from the rail reserve and 2A and 2B from the business park met all condition thresholds for the community except the minimum size threshold;
- All other Plains Grassy Woodland zones in the business park (2D, 2E, 2F) had insufficient native grass cover and too high weed cover to allow them to qualify as the community; and
- Zones 2D and 2F from the business park will not be directly removed. DCCEEW are considering them functionally isolated by the proposed project such that they are indirectly impacted.

Consequently, the impacted vegetation is of low quality as most of it does not even qualify as GEWVVP.

There is virtually no connectivity between patches of habitat on site to any other areas of grassy woodland that may support the community. The impact site is immediately bordered by a regional train line and residential areas to the west and encroaching industrial development in all other directions.

Notwithstanding the above, the project will impact 2.787 ha of assumed GEWVVP habitat.

Following discussions with DCCEEW, an offset strategy has been formulated to address impacts to GEWVVP. A suitable offset for GEWVVP has been identified at Redesdale. It meets the soil and floristic key diagnostic characteristics and condition thresholds for GEWVVP and is of a suitable size and quality to satisfy offset requirements.

However, notwithstanding its ecological suitability, it has been deemed that the Redesdale site cannot be classified as a direct offset solely because it falls outside the Victorian Volcanic Plains (VVP) IBRA bioregion boundary. As such, this represents a technical constraint based on geographic delineation, rather than any shortcoming in ecological value of the site itself.

In response to this, the proposed offset strategy adopts a two-part approach:

- An indirect offset through on-title, in perpetuity protection and a management period of a 10.000 ha offset site at a property in Redesdale, which will deliver outcomes consistent with those expected of a direct offset in terms of vegetation quality, condition, and long-term security
- An additional compensatory measure to provide additionality through funding for the enhancement of existing GEWVVP at Mount Ridley Reserve.

This Offset Management Plan (OMP) details how the Redesdale offset site satisfies the Commonwealth offset principles for GEWVVP It contains;

- A summary of the impacts to GEWVVP at the impact site;
- Details of the offset site, including the extent of suitable GEWVVP habitat;
- Details of how the proposed offset addresses the EPBC Act offset policy;
- The proposed means of offset security;
- Management actions required at the offset site; and
- Responsible parties and timeframes for implementing the plan.

2. Offset Site suitability

2.1. Impact site

The impact site, which comprises of the existing rail reserve and an area of private land owned by the proponent termed the Planning Unit Area, supported soils of volcanic origin on a flat to gently undulating landscape. There are no defined drainage lines or natural watercourses within the impact site, however Aitken Creek occurs beyond the northern boundary of the rail reserve and three dams occur in the southern portion of the Planning Unit Area. These dams contained water of varying depth and permanency at the time of the assessment. The Planning Unit Area supported the remains of a large factory, an extensive area of stockpiling in the south and another area of stockpiling in the north. There were several unused train tracks and areas of stockpiling in the southern half of the rail reserve.

Past land use was presumably pastoral, while current use is industrial and transportation. Surrounding land use is residential to the west and industrial in all other directions.

The Craigieburn Grassland Nature Conservation Reserve is the largest area of remnant native vegetation remaining in the region and while it is situated only 500 metres east of the impact site at its closest point, there is no structural connection between the reserve and the site. The impact site is surrounded by industrial and commercial development and the rail reserve, with no habitat connection to any surrounding conservation reserves or parkland.

The impact site lies within the Victorian Volcanic Plain bioregion and falls within the Port Phillip and Westernport catchment and Hume local government area.

At the time of the first flora and fauna survey (Nature Advisory 2023a, 2023b), evidence of recent ground disturbance was identified both within the rail reserve and the Planning Unit Area. There is no existing documentation of the historical ecological condition of this area, therefore potential impacts to MNES within this disturbance area are unknown.

In accordance with instructions from DCCEW, the impacts to GEWVVP are calculated to be 2.787 hectares. This is based on the areas of Habitat Zones 1A and 1H from the rail reserve, and all Plains Grassy Woodland (EVC 55_61) zones in the planning area unit (habitat zones 2A, 2B, 2D, 2E and 2F), noting:

- Only 1H from the rail reserve met the condition thresholds for the community;
- Only zones 1A from the rail reserve and 2A and 2B from the business park met all condition thresholds for the community except the minimum size threshold;
- All other Plains Grassy Woodland zones in the business park (2D, 2E, 2F) had insufficient native grass cover and too high weed cover to allow them to qualify as the community; and
- Zones 2D and 2F from the business park will not be directly removed. DCCEW are considering them functionally isolated by the proposed project such that they are indirectly impacted.

Consequently, the impacted vegetation is variable of low to moderate quality as most of it does not even qualify as GEWVVP.

These areas represent treeless examples of this vegetation type (Plains Grassy Woodland). The ground layer was dominated by indigenous Kangaroo Grass with scatterings of indigenous spear and wallaby grasses, as well as indigenous forbs, such as Grassland Crane's-bill, Sheep's Burr, Variable Raspwort and Common Raspwort. Native shrubs such as Blackwood, Golden Wattle and Black Wattle occurred in dense clusters of several mature individuals surrounded by abundant young recruits.

Introduced species cover was variable and largely consisted of weedy pasture grasses concentrated under pockets of native shrubs. The dominant species were Toowoomba Canary-grass, Cocksfoot and Chilean Needle-grass. The majority of weed cover was attributable to high threat species.

There is virtually no connectivity between patches of habitat on site to any other areas of vegetation that may support the TEC. The impact site is immediately bordered by a regional train line and residential areas to the west and encroaching industrial development in all other directions.

Table 1: Impact site details

Impact site details	
Location and address of clearing sites	70 Cliffords Road Somerton 3062; 105 Cliffords Road Somerton 3062; - The Craigieburn Rail adjacent to 105 Cliffords Road.
Proposed project	Somerton Intermodal Terminal
Quantity of MNES impact	Removal of 2.787 ha of assumed GEWVVP habitat.

2.2. Description of offset site

The proposed offset site occurs at Lot 1, Racecourse Road, Redesdale 3444 (SPL: 1\TP162075), 3 km west of the Redesdale township and 31 km south-east of Bendigo. Mount Lofty Road forms the northern boundary of the offset site, Racecourse Road occurs to the west and similar remnant bushland occurs to the south and the east. The Mount Lofty Bushland Reserve is present 0.62 km to the west of the site.

Descriptions of the environmental values of the proposed offset management zones are provided below.

Management Zone 1A (10.000 hectares)

This zone occupied the entirety of the proposed offset site.

Vegetation within the zone comprised a high-quality occurrence of Plains Grassy Woodland - EVC 55 (DSE 2004a; EVC benchmark provided as Appendix 2). This vegetation also appears contiguous with remnant woodland of comparable quality within the broader land parcel and those occurring immediately south. Management Zone 1A was assessed as having a habitat score of 43 out of 100, in accordance with the VQA scoring methodology (DSE 2004b; appendix 4).

This zone supported a moderately healthy canopy of River Red-gum (*Eucalyptus camaldulensis*) and Grey Box (*Eucalyptus macrocarpa*). The native ground layer in this zone was dominated by Wallaby Grasses (*Rytidosperma* spp.), Spear Grasses (*Austrostipa* spp.), and Rigid Panic (*Walwhalleya proluta*) with native herbs interspersed. Of these herbaceous species, Blue Devil (*Eryngium ovinum*) was the most prominent. Other herbs notably included Lemon Beauty-heads (*Calocephalus citreus*), Sheep's Burr (*Acaena echinata*), Swamp Goodenia (*Goodenia humilis*) and Grassland Wood-sorrel (*Oxalis perennans*). Damp depressions were scattered throughout the zone and concentrated in the central portion. These areas also supported swards of Native Rush (*Juncus* spp.) and a higher cover of Blue Devil and Swamp Goodenia.

Weed cover was low to moderate (15%) and dominated by low-threat annual grasses such as Soft Brome (*Bromus hordeaceus*), Great Brome (*Bromus diandrus*), and Fringed Fescue (*Vulpia ciliata*). High-threat weeds were relatively scarce and primarily consisted of Spear Thistle (*Cirsium vulgare*), Cocksfoot (*Dactylis glomerata*), and Toowoomba Canary-grass (*Phalaris aquatica*).

This management zone meets the majority of the criteria for the EPBC Act-listed community *Grassy Eucalypt Woodland of the Victorian Volcanic Plain* (GEWVVP), listed as critically endangered under that act (refer to Table 2 for detailed assessment), with the exception of the legal bioregion key diagnostic criterion (i.e. the site occurs geographically within the Victorian Midlands IBRA bioregion).

2.3. Site Surveys

A site survey was undertaken by Nature Advisory on the 20th and 21st January 2026.

During Nature Advisory's site survey, Plains Grassy Woodland (EVC 55) vegetation was assessed against the key diagnostic criteria and condition thresholds ('qualifying criteria') from the EPBC Act Policy Statement (TSSC 2009) for the EPBC Act-listed *Grassy Eucalypt Woodland of the Victorian Volcanic Plain* community (GEWVVP). This site assessment was undertaken in mid-summer, following average rainfall for December (Redesdale rainfall records show 34 mm in December, as compared to the mean of 37.4 mm; BOM 2026). Grazing pressures across the site were evident from kangaroos and sheep, with a mob of kangaroos observed immediately adjacent to the study area. A high density of kangaroo and sheep scats were observed throughout. It is also likely that the overall native graminoid and herb cover is lower in summer than in spring.

These factors resulted in low visible cover of some grass species such as wallaby-grass and spear-grass. However, native forb species (such as Sheep's Burr, Lemon Beauty-heads and Blue Devil), and the dominant high-threat weed species (such as Spear Thistle and Briar Rose) were readily identifiable due to their distinctive morphological characteristics and persistence of seed heads. Although the mapping of GEWVVP extent is considered accurate, the scoring should be considered conservative as in spring there may be a higher visible cover of cryptic native herbs and grasses.

Management Zone 1A meets the key diagnostic criteria for GEWVVP, aside from occurring in the legal VVP Bioregion, as the canopy was dominated by River Red-gum, the understory was dominated by native grasses and herbs, the patch is larger than 0.5 hectares, and has less than 70% of the ground layer vegetative cover is perennial weeds. Details provided in Table 2.

Table 2: Assessment against GEWVVP listing advice (TSSC 2009)

Key diagnostic criteria / Condition thresholds	Assessment
Distribution is limited to the Victorian Volcanic Plain Bioregion (Interim Biogeographical Regionalisation of Australia (IBRA) version 6)	The proposed offset site is not within the boundary of the mapped IBRA Victorian Volcanic Plain (VVP). The site falls within the mapped extent of the Victorian Midlands IBRA bioregion (DEECA 2024a). However, the site visit observed that volcanic soils are present. This includes characteristics of quaternary basaltic soils, stony rises, cracking clay soils, and low elevation plains (Flora of Victoria, 2026). Refer to Images 1 – 4 below. As such, this vegetation persists on an outlier of the volcanic plains that was not included within the mapped boundary.



Image 1. Basaltic rock embedded throughout the study area



Image 2. Stony rises observed throughout the study area



Image 3. Cracking clay soils present throughout the study area



Image 4. Low elevation plains

Key diagnostic criteria / Condition thresholds	Assessment
Occurrences are limited to Quaternary basalt soils on low elevation plains and stony rises on the basalt flows.	See description as above. Patches of Goldfields Plains Grassy Woodland (EVC 55) occur on basaltic soils on low elevation plains.
The tree canopy is typically dominated by <i>Eucalyptus camaldulensis</i> (River Red Gum) but may be dominated by other species, as outlined above, in response to variations in rainfall and/or localised landscape features	Patches of Plains Grassy Woodland supported a River Red-gum canopy with occasional Grey Box. The presence of Grey Box, a characteristic species of GEWVVP, is due to the site receiving lower rainfall of less than 600 mm per annum (Redesdale mean annual rainfall is 568; BOM 2026).
The understorey is dominated by a native ground layer with these features: one or more of the following native grass genera typically dominates the perennial ground layer: <i>Themeda</i> , <i>Austrodanthonia</i> , <i>Austrostipa</i> , <i>Poa</i> and/or <i>Microlaena</i> ; and one or more of the following native herb genera are typically present: <i>Acaena</i> , <i>Arthropodium</i> , <i>Calocephalus</i> , <i>Chrysocephalum</i> , <i>Dianella</i> , <i>Dichondra</i> , <i>Geranium</i> , <i>Leptorhynchos</i> or <i>Solenogyne</i> .	The understorey in the Plains Grassy Woodland was dominated by Wallaby-grasses (<i>Rytidosperma</i> spp., syn. <i>Austrodanthonia</i>), Spear-grasses (<i>Austrostipa</i> spp.), with a lesser occurrence of Rigid Panic (<i>Walwhalleya proluta</i>). Both Sheep's Burr (<i>Acaena echinata</i>) and Lemon Beauty-heads (<i>Calocephalus citreus</i>) were present in the ground layer.
The minimum patch size for the listed ecological community is 0.5 hectare.	The patch size is >10.000 hectares
One or more of the following native grass genera accounts for at least 50% of the perennial ground layer cover: <i>Themeda</i> , <i>Austrodanthonia</i> , <i>Austrostipa</i> , <i>Poa</i> and/or <i>Microlaena</i> . OR	The patch met this criteria as Wallaby-grass (<i>Rytidosperma</i> spp.) and Spear-grasses (<i>Austrostipa</i> spp.) made up 60% of the perennial ground layer cover.
If native grasses account for less than 50% of the perennial ground layer cover, then the patch is either:	N/A
a. a valuable wildflower site where at least 50% of the ground layer vegetative cover is represented by native dryland forbs (including geophytes) during spring-summer (i.e. September to February inclusive but noting that the ground layer may be sparse in some situations); OR	N/A
b. not heavily invaded by perennial weeds such that perennial weeds comprise less than 70% of the ground layer vegetative cover; OR	N/A
c. if perennial weeds comprise more than 70% of the ground layer vegetative cover, then the patch must have more than ten native perennial species per 100 m ² AND a density of at least three big trees per hectare. Big trees are defined here as trees with at least 70 centimetres diameter at standard height (dsh) for eucalypts and at least 40 centimetres dsh for non- eucalypt species, in line with Department of Sustainability and Environment (2008).	N/A

2.4. Site quality, characteristics and threats

The quality of the management zone was considered moderate. The site was historically used for grazing. This may account for the low number of logs and understory species diversity observed at the time of assessment (appendix 4).

There was evidence of recruitment of River Red-gum and Grey Box in the understory. The dominant native species in the ground-layer was wallaby-grass and spear grass. The presence of several herbs in the understorey suggests that at a more optimal time of year (i.e. spring) herb diversity would be higher.

The site demonstrated structural connectivity to a moderate area of contiguous habitat. Further information on the characteristics and quantified quality of the offset management zone is provided above in Section 1.1.

The management zone is vulnerable to ongoing weed invasion, due to surrounding farmland and weedy areas within the broader property. Thus, ongoing weed monitoring should inform management actions.

Property boundary fences were in good condition; however, the offset site itself does not have fencing to the east and south. Domestic stock incursion is possible, and fencing must be established to exclude stock (along east and south boundaries), except as allowed under this OMP. The management zone was also subject to kangaroo herbivory at the time of survey.

European Rabbit occurred in management zone 1A, as scats were observed. This species has a high potential to suppress recruitment of both herbaceous and woody native species, as well as eliminate more palatable herbaceous native species.

While evidence of Red Fox was not observed, it is likely to inhabit the area. Red Fox are known to prey on a range of indigenous fauna species.

2.5. Comparison of offset site and impact site

The management zone that has been chosen for this offset plan is of a higher quality than the impact site, notably in terms of the habitat components, understorey structure and species richness and litter cover, as well as landscape context, with the impact site occurring in an urban industrial context, whilst the offset site is in a regional context with good connectivity to core habitat (Appendix 4).

The majority of the impact zones are also treeless.

DCCEEW have identified (Langford pers. comm. 24th June 2024) that impacts to GEWVVP at the impact site should be calculated based on the areas of Habitat Zones 1A and 1H from the rail reserve, and all Plains Grassy Woodland (EVC 55_61) zones in the planning area unit (habitat zones 2A, 2B, 2D, 2E and 2F) as per the table below, noting:

- Only 1H from the rail reserve met the condition thresholds for the community;
- Only zones 1A from the rail reserve and 2A and 2B from the business park met all condition thresholds for the community except the minimum size threshold;
- All other Plains Grassy Woodland zones in the business park (2D, 2E, 2F) had insufficient native grass cover and too high weed cover to allow them to qualify as the community; and
- Zones 2D and 2F from the business park will not be directly removed. DCCEEW are considering them functionally isolated by the proposed project such that they are indirectly impacted.

Consequently, the impacted vegetation is of comparatively low quality as most of it does not even qualify as GEWVVP. In accordance with instructions from DCCEEW, the impacts to GEWVVP are calculated to be 2.787 hectares. The proposed offset site has been confirmed to support 10.000 hectares of GEWVVP. As such, the proposed offset site, which comprises higher quality, intact patches of native vegetation that will be actively managed for conservation purposes will ensure that there is no net loss to the functional ecological community (Appendix 5).

The proposed offset site occurs within a larger expanse of native vegetation, across private tenure. This vegetation contains a suite of native plants, animal species, and ecological functions. This provides resilience to the site from detrimental effects such as weed invasion and disturbance which is much more likely to occur in areas of fragmented, lower quality habitat. Furthermore, the proposed offset adequately minimises the reduction in extent of the ecological community as the offset site will see the protection and enhancement of at least 10.000 ha of the Critically Endangered community in perpetuity.

A quantitative comparison of the quality of the offset sites and impact site is provided in Table 2 below. Site quality is based on scores attributed for site condition, site context and species stocking rates (SSR), as required under the EPBC Act Environmental Offset Policy (DSEWPC 2012). Site condition and site context have been derived directly from the habitat scores of the sites, undertaken during the site surveys and in accordance with DEECA's Habitat Hectares methodology (DSE 2004b). Species Stocking Rate could not be determined on site as there were no threatened species identified. Therefore, Species Stocking Rate has been given a weighting of zero, in accordance with DCCEEW's *How to Use the Offsets Assessment Guide* document (DCCEEW 2024).

Table 3: Quality comparison between the impact

	Impact site							Offset site
Attribute	1A	1H	2A	2B	2D	2E	2F	1A
*Site condition	24	36	19	17	20	14	9	33
^Site context	2	2	2	2	2	4	2	10
#SSR	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	26	36	19	17	20	14	9	43

Table notes: * = Site condition subtotal score, of a possible maximum of 75; ^ = Site landscape context score, of a possible maximum of 25; # = A SSR could not be identified, therefore this component has not been used (i.e. weighting of zero).

An overall quality rating of 2/10 was applied to the impact site. The habitat score of patches at the impact site varied between 9/100 and 36/100 (as detailed above). A weighted average habitat score for impact zones was calculated using the following formula:

$$\text{Habitat score} = \text{Sum} \frac{(\text{Zone area} \times \text{zone condition score})}{\text{Total area of all zones}}$$

This resulted in a weighted average condition score of 19/100, which was rounded up to 2/10. Detailed habitat hectare scoring is provided in Appendix 7.

2.6. Proposed legal protection of offset site

All management zones comprising the offset site will be secured in perpetuity for the sole purpose of habitat conservation, on title, via a formal agreement under the *Victorian Conservation Trust Act 1972*, between the owner of the property in which the offset site is situated and Trust for Nature.

2.7. How the offset proposal meets the EPBC Act Environmental Offsets Policy

The Commonwealth Offset Policy (DSEWPC 2012) was reviewed to determine whether the proposed offset is consistent with the Commonwealth requirements. The proposed offset has been assessed against the overarching principles of the Commonwealth Offset Policy in Table 4.

Further to this, preliminary calculations were undertaken using the Offsets Assessment Guide (calculator) (DSEWPC 2012) to assist in the determination of whether the offsets proposed for the development would satisfy the Commonwealth offset requirements. Calculations are provided in Appendix 1 and justification for the calculator input values is provided in Appendix 5.

Based on the outputs of the Assessment Guide calculator (Appendix 1), it is considered that Commonwealth offset requirements for the proposed development can be achieved within the proposed offset site. However, noting that this is considered an indirect offset as it occurs outside of the VVP IBRA boundary.

Table 4: Meeting the Commonwealth Offset principles

Commonwealth Requirement	Proposed Offset Site
Deliver an overall conservation outcome that improves or maintains the viability of the aspect of the environment that is protected by national environment law and affected by the proposed action.	The offset proposal will improve or maintain the overall viability of the GEWVVP community, as it will provide a gain in the protection and improvement of a significantly larger area of the community than what is proposed to be impacted on.
Be built around direct offsets but may include other compensatory measures.	Although the site cannot be considered a direct offset as it occurs outside of the IBRA boundary, it does secure 100% of the gain target. Additional compensatory measures (as approved by DCCEEW) will be provided to compensate for this.
Be in proportion to the level of statutory protection that applies to the protected matter	The level of statutory protection (a formal agreement on title in perpetuity) is in proportion to the matter being impacted.
Be of a size and scale proportionate to the residual impacts on the protected matter	The area of GEWVVP proposed for the offset is approximately 3.9 times the area being impacted, in addition to being considerably higher quality (Appendix 5).
Effectively account for and manage the risks of the offset not succeeding	In order to account for and manage this risk, a proportionally large offset area is proposed. This was intended to minimise any difficulties in meeting offset outcomes and provide flexibility in management options which would not be available in a smaller offset area. The proposed management actions in this plan, particularly excluding stock (except for strategic grazing) and controlling weeds and pest animals, are tried and proven methods of achieving offset objectives. These management objectives are anticipated to achieve the modest improvement gain of +1 used in the gain calculator. Risks beyond the control of landholders, such as the effects of climate change

Commonwealth Requirement	Proposed Offset Site
	and wildfire, cannot realistically be mitigated, although the large area of the offset should buffer the effects of such.
Be additional to what is already required, determined by law or planning regulations or agreed to under other schemes or programs	The state offset requirements have been secured under a third-party offset agreement. This offset proposal is in addition to the state offset requirements and will deliver a gain for GEWVVP that is otherwise not required under state or local law and policy guidelines.
Be efficient, effective, timely, transparent, scientifically robust and reasonable	This OMP provides management actions, including monitoring and reporting, that meet this requirement.
Have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced.	This OMP provides the means to measuring improvement to the quality of the offset, including auditing. The offset will be enforceable under the EPBC Act.
Be informed by scientifically robust information and incorporate the precautionary principle in the absence of scientific certainty	Information of the clearing site and offset sites has been compiled by experienced ecologists. Where information has been relied upon from other sources, this is clearly noted, and additional surveying to confirm such findings have been undertaken, and will continue to be undertaken, where required
Be conducted in a consistent and transparent manner.	All details of the offset sites including site descriptions and data sheets have been provided to allow for transparency. Documentation has been consistent throughout.

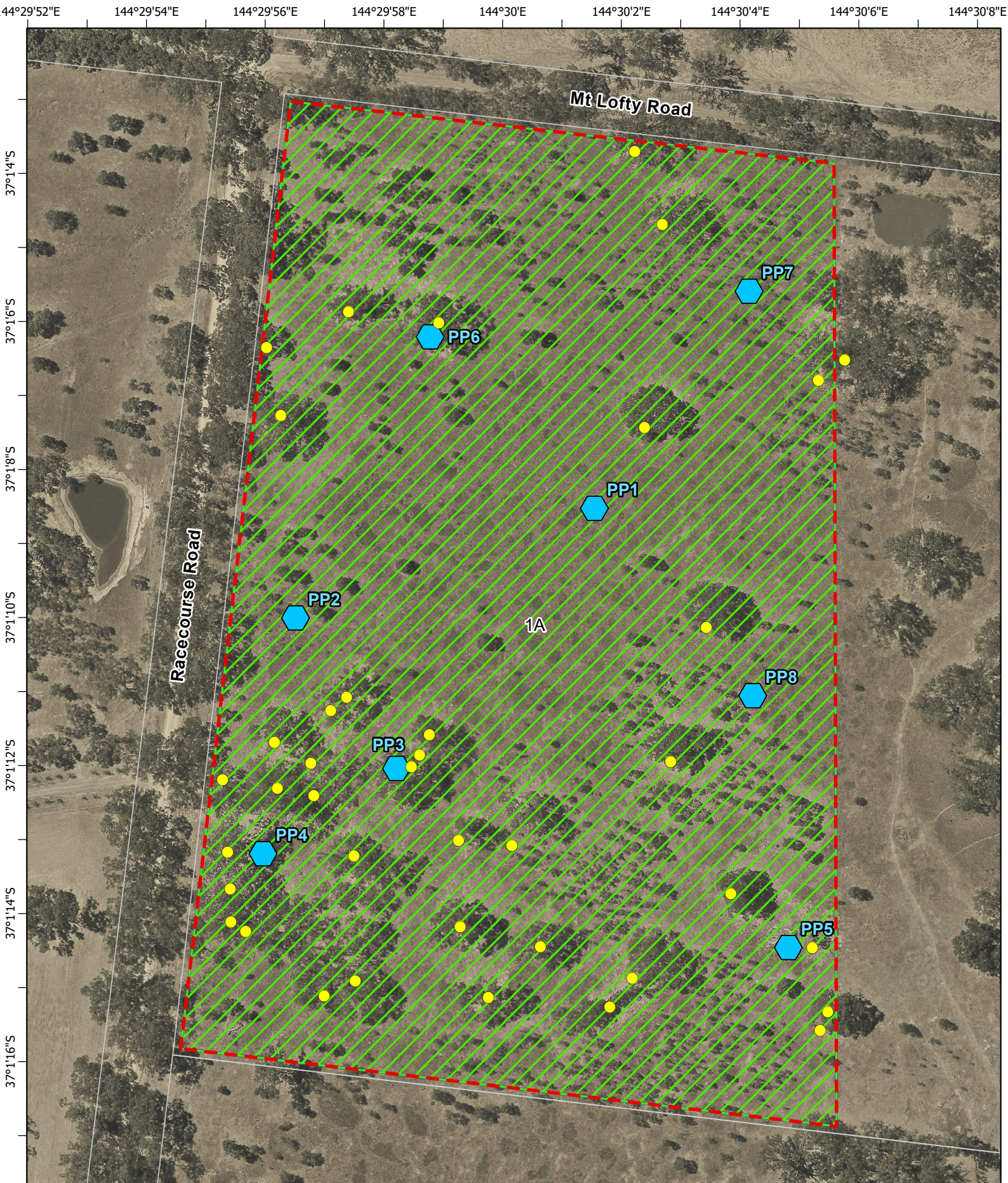


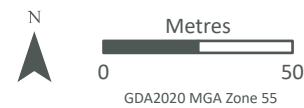
Figure 1. GEVVVP Offset Site

Project No: 23026.14 **Project:** Austrak Somerton Business Park, VIC **Date:** 7/09/2026

- Project area
- Property boundary
- ⬡ Photo point
- Management Zone

Native vegetation

- Large Tree in Patch
- GEVVVP - EPBC Act-listed community



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Sources: Vicmap 2026

3. Offset Management Plan

As compensation for the proposed removal of 2.787 hectares of assumed GEWVVP from the impact site, the protection and improvement of 10.000 hectares of GEWVVP at the offset site is proposed.

This Offset Management Plan (the 'OMP') provides all details of the 10-year management program designed to protect and improve the existing areas of GEWVVP within the proposed offset site.

3.1. Environmental outcomes to be achieved

The specific environmental outcomes to be achieved over the 10-year life of this OMP, and beyond, are listed below.

- Retain and protect all 10.000 hectares of GEWVVP within the offset site, in perpetuity;
- Control all pest animal threats (i.e. rabbits) and herbivory threats to negligible levels;
- Eliminate all identified woody weeds (i.e. no concentrated infestations or mature individuals);
- Eliminate all high threat herbaceous weeds and Spear Thistle to <1%;
- Ensure that the percentage cover of other weeds does not increase beyond the level at baseline weed survey; and,
- Monitor for any new and emerging weeds and eliminate to less than one percent cover.

3.2. Management actions

3.2.1. Fencing

The entire property is currently fenced to exclude stock and unauthorised access. As the offset occurs within a broader fenced area, the offset boundary will be marked appropriately, e.g., with marker pegs or star pickets. The offset site does not cover the entire fenced paddock; therefore only sheep that are part of the strategic grazing program (see section 3.2.2) can enter this paddock. The Landowner has advised that fencing will be installed along the eastern and southern boundary to facilitate strategic grazing.

As part of the Landowner's annual monitoring program, the property boundary will be inspected for fencing integrity and effectiveness in excluding domestic stock and unauthorised access. If any evidence of fencing damage or domestic stock breaches is observed, fencing must be repaired or extended immediately upon identification. This ensures that domestic stock cannot enter any of the management zones, except as allowed for strategic grazing.

Fencing Target: no uncontrolled stock access.

3.2.2. Biomass control

Biomass within the offset site will be monitored as part of vegetation condition monitoring. If biomass of the ground layer becomes too dense such that some native species struggle to flourish and/or are prevented from naturally recruiting, then biomass levels will be managed through low intensity ecological treatments, targeting maintenance of >70% ground cover. Strategic grazing, mosaic burning or mechanical reduction may be used where monitoring identifies a need, site conditions are suitable, and treatments are undertaken in consultation with an appropriately qualified ecologist. Any biomass and/or annual grassy weed control actions must be carefully undertaken to ensure that they do not negatively impact the quality of offset site.

If biomass management is required, low-intensity pulse (or short-term) treatments over a period of up to 2 weeks will be implemented prior to spring, or at alternative times as determined by monitoring and seasonal conditions. Timing will favour native species recruitment and reduce

competitive annual grasses. If biomass of the ground layer becomes too low (<30% cover of graminoids), then biomass management will be reviewed and the need to implement understorey re-establishment will be assessed.

Biomass/annual grass control Target 1: no increase of annual grassy weeds from baseline values.

Biomass/annual grass control Target 2: Minimum 70% ground cover following biomass management.

Strategic grazing

Strategic grazing with sheep will be the primary means of reducing the cover of grassy weeds and low-threat herbaceous weed species. Grazing for this purpose is usually undertaken in spring when introduced annual grasses and clovers are most palatable to stock and have not yet set seed. Conditions vary from year to year; therefore, decisions as to the appropriate timing of strategic grazing will be made by the landowner in consultation with Trust for Nature.

The stocking rate will be determined using an established grazing chart based on rainfall and available grass feed and adapted over time if stocking rates are found to reduce the quality of the offset site.

All grazing will be undertaken with a view to maintaining appropriate vegetation cover, measured as a minimum of 70% ground cover.

Ecological burns

Ecological burns may be implemented periodically for biomass control to promote inter-tussock spacing if this is not being achieved by strategic grazing. The most appropriate time for burning is the end of autumn to early winter or in early spring, outside of the fire danger period, as the weather is cooler and will result in a low intensity burn.

Ecological burns will be undertaken in consultation with Trust for Nature. Only patch burns may be conducted, with no more than one third of the total offset site burnt in any one year so that unburnt areas provide areas of refuge for fauna. Burns will only be undertaken at a moderate frequency - i.e., every 3 to 5 years.

To maintain and improve the condition of the offset site, ecological burns will be followed by targeted spot spraying of weeds as required.

3.2.3. Ecological thinning

It was noted during the site assessment that there was dense understorey recruitment of eucalypts, typically clustered around large mature trees. Currently the covers are higher than the benchmark for Plains Grassy Woodland and thus are detrimental to the quality of the site. With management actions (i.e. reduction of grazing), heavy recruitment of canopy tree species may require ecological thinning to allow the remaining specimens to grow and mature faster, while improving the structure of vegetation communities (DEECA 2025). Thinning targets should aim to match the attributes of the ecological vegetation class (EVC) and bioregion of the area, guided by the benchmark of 15 large trees per hectare, 15% tree canopy cover, and 5% cover of immature canopy trees.

Any ecological thinning activities will be based on management needs identified during vegetation condition and quality assessments and associated biomass monitoring and will focus on dense patches of woody regeneration where shading and competition are constraining canopy development or understorey condition.

Ecological thinning will be undertaken by appropriately qualified and experienced personnel and will be subject to any required exemption or permit approvals prior to works occurring. Where a planning permit is required for the removal of native vegetation, an exemption for conservation works may be applicable but must be supported by written authorisation from the responsible authority before thinning commences, and all works will be implemented in accordance with current ecological thinning standards and guidance.

Ecological Thinning Target: Selective retention of immature canopy trees to maintain ~5% cover.

3.2.4. Weed control

This OMP requires the land managers to ensure that weed cover does not exceed the level recorded at the time of the baseline weed survey. This applies to all species of weeds, regardless of their level of threat. All woody weed species, identified in Table 5, must be eliminated from the offset site. The offset site must be monitored for new and emerging weeds and, if detected, eliminated from the offset site. A weed species is considered to be effectively eliminated when its cover (excluding bare ground) is reduced to less than 1%.

Spot spraying with herbicide in areas of remnant vegetation is an effective method for controlling weeds that occur at low density. Weed control is to be undertaken when plants are actively growing and prior to seed set (DSE 2011), which for the majority of weeds will be in spring to early summer. To ensure only targeted areas are treated and there is no spray drift, marking dye is to be added to the herbicide and spraying is to be carried out on days with little or no wind.

Large areas of grassy weeds can be controlled through strategic grazing (See section 3.2.2).

All weeds recorded within the offset site recorded to date, their control methods and timing is provided below in Table 5. These should be considered minimum targets and the landowner/nominated contractor should have intent to control weeds as much as practical to encourage regeneration of native cover.

Emphasis should be placed on first eliminating all woody weed species to < 1% cover. Emphasis should then be placed on controlling high-threat herbaceous weeds, identified in Table 5, as these species have high invasion potential. The lowest priority weeds are low-threat herbaceous weeds, as identified in Table 5.

Weed control is to be undertaken at least bi-annually (or as required to achieve weed control targets) and must be undertaken by an experienced land manager or contractor.

Targets to be achieved at the end of Year 1:

Weed control Target 1: elimination of woody weeds

Weed control Target 2: reduce cover of high threat herbaceous weeds from baseline values

Weed control Target 3: no increase in cover of other weeds from baseline values

Targets to be achieved at the end of Year 10:

Weed control Target 1: Maintain the elimination of woody weeds by the end of the 10-year management period

Weed control Target 2: reduce cover of high threat herbaceous weeds annually with the intent to eliminate.

Weed control Target 3: no increase in cover of other weeds from baseline values by the end of the 10-year management period.

Table 5: Weed species recorded within the offset site, their control methods and timing

Common name	Scientific name	Current % cover	Objective at the end of 10 year management period	Method	Timing
Woody weeds					
Sweet Briar	<i>Rosa rubiginosa</i>	<1%	Eliminate with no concentrated infestation	Cut and paint with an appropriate herbicide	Summer and spring
High-threat herbaceous weeds					
Artichoke Thistle	<i>Cynara cardunculus</i> subsp. <i>flavescens</i>	<1%	Eliminate with no concentrated infestation	Spot spray with an appropriate herbicide	Autumn and winter
Spear Thistle	<i>Cirsium vulgare</i>	1	Reduce to <1% cover	Spot spray with an appropriate herbicide	Autumn and Spring
Low-threat weeds					
Barley Grass	<i>Hordeum leporinum</i>	<1%	Ensure cover does not increase	Spot spray with an appropriate herbicide, mow/slash before seed set, burn with hand-held gas burner	Spring
Black Nightshade	<i>Solanum nigrum</i>	<1%	Ensure cover does not increase	Spot spray with an appropriate herbicide	Summer
Cocks Foot	<i>Dactylis glomerata</i>	<1%	Ensure cover does not increase	Spot spray with an appropriate herbicide, mow/slash before seed set, burn with hand-held gas burner	Spring
Common Centaury	<i>Centaurea erythraea</i>	<1%	Ensure cover does not increase	Spot spray with an appropriate herbicide	Summer
Flatweed	<i>Hypochoeris radicata</i>	<1%	Ensure cover does not increase	Spot spray with an appropriate herbicide	Autumn and Spring

Common name	Scientific name	Current % cover	Objective at the end of 10 year management period	Method	Timing
Fringed Fescue	<i>Vulpia ciliata</i>	1%	Ensure cover does not increase	Spot spray with an appropriate herbicide, mow/slash before seed set, burn with hand-held gas burner	Spring
Great Brome	<i>Bromus diandrus</i>	2	Ensure that cover does not increase	Spot spray with an appropriate herbicide, mow/slash before seed set, burn with hand-held gas burner	Spring
Hair-grass	<i>Aira caryophyllea</i>	<1%	Ensure cover does not increase	Spot spray with an appropriate herbicide, mow/slash before seed set, burn with hand-held gas burner	Spring
Lesser Quacking-grass	<i>Briza minor</i>	3	Ensure cover does not increase	Spot spray with an appropriate herbicide, mow/slash before seed set, burn with hand-held gas burner	Spring
Onion Grass	<i>Romulea rosea</i>	<1%	Ensure cover does not increase	Spot spray with an appropriate herbicide	Autumn and Spring
Ribwort	<i>Plantago lanceolata</i>	<1%	Ensure cover does not increase	Spot spray with an appropriate herbicide	Autumn and Spring
Soft Brome	<i>Bromus hordeaceus</i>	10	Ensure that cover does not increase	Spot spray with an appropriate herbicide, mow/slash before seed set, burn with hand-held gas burner	Spring
St John's Wort	<i>Hypericum perforatum</i>	<1%	Ensure cover does not increase	Spot spray with an appropriate herbicide when flowering	Summer and autumn
Toowoomba Canary-grass	<i>Phalaris aquatica</i>	<1%	Ensure that cover does not increase	Spot spray with an appropriate herbicide, mow/slash before seed set, burn with hand-held gas burner	Spring

An approximate estimation of weed cover is provided below in Table 6.

A baseline weed cover survey will be undertaken by an ecologist/botanist in the offset site during the first spring within Early Works, which will be used as a benchmark against which management actions are measured. This is particularly important for assessing compliance with the “*ensure that the percentage cover of other weeds does not increase beyond the level it was at the time of implementation of this OMP*” outcome target.

Table 6: Approximate estimate of total cover of weeds recorded

Zone(s)	Total cover of all weeds (%)	Total cover of woody weeds (%)
1A	15	<1

Pest Animal Control

This plan requires a level of pest animal control consistent with the State *Catchment and Land Protection Act 1994* (CaLP Act). All pest animals are to be monitored and controlled within the offset site for the life of the plan. Regular monitoring will be required throughout the year to inform the control methods used to eradicate the animals.

Foxes, rabbits and feral cats are all known to occur within the region. All pest animals are to be monitored within the offset site for the life of the OMP (see Monitoring and reporting). Suitable methods for the control of pest animals include:

- Shooting
- Baiting (rabbits/hares)
- Fumigating and hand collapsing of warrens, and
- Removal of harbour.

Shooting (year-round) is a suitable fox and cat control method and is suitable for rabbit control method where populations are low. Baiting is an effective method for reducing pest rabbit populations and should be undertaken when their food source is low (February through May) (DEE 2016).

Fumigating when combined with hand collapsing of rabbit warrens is an effective control method. Warrens will be destroyed using a shovel, mattock or pick to avoid damage to native vegetation. Ripping of warrens using machinery is not permitted within the offset site.

The removal of harbour such as rubbish and woody weeds will also reduce the habitat for pest animals and assist in their control. All logs, fallen branches, leaf litter and rocks must be retained.

Beyond direct control, predation by cats and foxes can be minimised by managing fire and grazing to maintain a complex ground vegetation layer (to reduce cats’ hunting success) and reducing rabbit populations (DEWHA 2008; DCCEEW 2024a).

Pest animal control target 1: Pest animals monitored and controlled

Pest animal control target 2: Any identified warrens fumigated and collapsed

Pest animal control target 3: Any pest animal harbour removed

3.2.5. Performance targets

Performance targets for all management actions are provided in bold below each management action and within the management action table (Table 7).

Table 7: Management actions schedule for the offset site

Early Works					
Management Action	Timing	Interim target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Baseline surveys: Undertake baseline habitat condition survey of the offset site to determine the percentage cover and abundance of all weeds.	Prior to commencement of works, ideally in early Spring.	Habitat condition assessed and documented.	Ecologist engaged by the Approval Holder		
Establish permanent photo points.	Complete when conducting baseline surveys	Replace existing timber photo point markers with permanent steel posts.	Ecologist engaged by the Approval Holder		
Fencing: Ensure paddock fencing around the site and property boundary is appropriate and any additional fencing to facilitate strategic grazing is in place and effectual. Ongoing monitoring of fencing & gates.	Within 3 months of EPBC Act approval.	Fencing Target: no uncontrolled stock access.	Landowner/fencing contractor		
Pest animal control: Monitor for pest animals and control if required.	Quarterly inspection for burrows/harbour. Annual spotlight transect surveys or other suitable method.	Pest animal control target 1: Pest animals monitored and controlled Pest animal control target 2: Any identified warrens fumigated and collapsed Pest animal control target 3: Any pest animal harbour removed	Monitoring: Landowner Control: landowner or nominated contractor		

Early Works					
Management Action	Timing	Interim target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Weed/Biomass control: Strategic grazing to control of annual grassy weeds/biomass.	In spring (or alternative period in consultation with Trust for Nature).	Biomass Target 1: Biomass management initiated. Biomass Target 2: Minimum 70% ground cover following grazing.	Landowner		
Control of other weeds through herbicide use or manual removal as required.	See Table 5.	Weed control Target 1: commence woody weed control with aim to eliminate Weed control Target 2: commence control of high threat herbaceous weeds. Weed control Target 3: commence control of perennial exotic grasses.	Landowner or landowner nominated contractor		
Landowner reporting: Early works report to be prepared documenting management actions undertaken and monitoring results.	Report due no later than two months prior to the anniversary of EPBC Act approval being granted or at the end of the early works period (when TfN deed of covenant is registered), whichever is earlier.	Report delivered to Trust for Nature at the end of the early works period (when TfN deed of covenant is registered). Early works reports also provided to Austrak.	Landowner; TfN will assess early works reporting		

Year 1					
Management Action	Timing	Interim target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Fencing: Ensure paddock fencing around property boundary is appropriate and any additional fencing to facilitate strategic grazing is in place and effectual. Ongoing monitoring of fencing & gates.	Ongoing.	Fencing Target: no uncontrolled stock access.	Landowner/fencing contractor		
Pest animal control: Monitor for pest animals and control if required.	Quarterly inspection for burrows/harbour. Annual spotlight transect surveys or other suitable method.	Pest animal control target 1: pest animals monitored and controlled Pest animal control target 2: Any identified warrens fumigated and collapsed Pest animal control target 3: Any pest animal harbour removed	Monitoring: Landowner Control: Landowner or nominated contractor		
Weed/Biomass control: Strategic grazing to control of annual grassy weeds/biomass.	In spring (or alternative period in consultation with Trust for Nature).	Biomass Target 1: No increase of annual grassy weeds from baseline values. Biomass Target 2: Minimum 70% groundcover following grazing.	Landowner		
Control of other weeds through herbicide use or manual removal as required.	See Table 4.	Weed control Target 1: elimination of woody weeds Weed control Target 2: reduce cover of high threat herbaceous weeds from baseline values Weed control Target 3: no increase in cover of other weeds from baseline values	Landowner or landowner nominated contractor		

Year 1					
Management Action	Timing	Interim target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Undertake ecological thinning as required	Ongoing.	Ecological Thinning Target: Selective retention of immature canopy trees to maintain ~5% cover.	Landowner or landowner nominated contractor		
Landowner reporting: Annual report to be prepared documenting management actions undertaken and monitoring results.	Report due no later than two months prior to the anniversary of registration of deed of covenant.	Report delivered to Trust for Nature two months prior to the registration of the deed of covenant. Annual reports also provided to Austrak.	Landowner TfN will assess Year 1 reporting		
Monitor photo points	Spring	Photos taken at each of the six photo points.	Landowner		

Years 2 – 10					
Management Action	Timing	Target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Vegetation surveys: Undertake habitat condition survey of the offset site to determine: ▪ The percentage cover and abundance of all weeds; ▪ The condition and extent of the TEC (Habitat Hectares Assessment) ▪ The percentage biomass cover	In Spring of years 2, 4, 7 and 10.	Habitat condition assessed and documented.	Ecologist engaged by the Approval Holder		
Monitor photo points	Annually in spring	Photos taken at each of the six photo points.	▪ Ecologist engaged by the Approval Holder in years 2, 4, 7 and 10. ▪ The Landowner in years 3, 5, 8 and 9.		
Fencing: Monitoring of fencing & gates. Repairs carried out as required.	Ongoing.	No uncontrolled stock access.	Landowner/fencing contractor		
Undertake ecological thinning as required	Ongoing.	Ecological Thinning Target: Selective retention of immature canopy trees to maintain ~5% cover.	Landowner or landowner nominated contractor		
Pest animal control: Monitor for pest animals and control if required	Quarterly inspection for burrows/harbour Annual spotlight transect surveys or other suitable method.	Pest animal control target 1: pest animals monitored and controlled Pest animal control target 2: Any identified warrens fumigated and collapsed	Monitoring: Landowner Control: Landowner or nominated contractor		

Years 2 – 10					
Management Action	Timing	Target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
		Pest animal control target 3: Any pest animal harbour removed			
Weed/Biomass control: Strategic grazing to control of annual grassy weeds/biomass.	During spring (or alternative period in consultation with Trust for Nature).	Biomass Target 1: cover of annual grassy weeds to remain below baseline values. Biomass Target 2: Minimum 70% groundcover following grazing.	Landowner		
Control of other weeds through herbicide use or manual removal as required.	See Table 5	Weed control Target 1: Maintain the elimination of woody weeds by the end of the 10–year management period Weed control Target 2: reduce cover of high threat herbaceous weeds annually with the intent to eliminate. Weed control Target 3: no increase in cover of other weeds from baseline values by the end of the 10–year management period.	Landowner or landowner nominated contractor		

Years 2 – 10					
Management Action	Timing	Target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Landowner Reporting: Annual report to be prepared documenting management actions undertaken and monitoring results.	Report due no later than two months prior to the anniversary of registration of deed of covenant.	Report delivered to Trust for Nature 2 months prior to the anniversary of the registration of the deed of covenant. Annual reports also provided to Austrak.	Landowner		
Ecological reporting:	In Years 2, 4, 7 and 10. Report due within two months of monitoring.	Ecologist to prepare and deliver a report documenting the findings of monitoring, photopoints and TEC assessment. Report must be submitted to the Landowner and Approval holder within two (2) months of monitoring events; the Landowner will forward these reports to Trust for Nature.	Approval Holder nominated Ecologist (report preparation and provision to Landowner and Approval Holder) Landowner (dissemination to TfN)		

3.3. Monitoring and reporting

Monitoring of grassland structure, weed cover and pest animals will be undertaken to ensure the successful implementation of this Plan and to inform adaptive management of the offset site.

3.3.1. Ecological monitoring and reporting

The Approval Holder is responsible for engaging a suitably qualified ecologist to conduct baseline monitoring of habitat condition and weed cover estimates prior to the commencement of Early Works, and in Years 2, 4, 7 and 10 for the 10-year period of this Plan. Monitoring of habitat condition will be undertaken across the entire offset sites to determine the following:

- The percentage cover and abundance of all weeds
- The condition and extent of the TEC (Habitat Hectares Assessment)
- The percentage biomass cover

Six photopoints have been established within the site (Appendix 3). These points highlight Spear Thistle infestations, areas that require ecological thinning, poor canopy health, and pest harbour. These photos provide a benchmark for assessing changes following management actions. Photographic evidence at these points is to be undertaken as part of the monitoring and included in annual reporting.

The Approval holder-nominated ecologist is to prepare a report documenting the findings of monitoring, photopoints and TEC assessment and any resultant recommendations.

The Approval holder will be responsible for forwarding the Ecological monitoring reports to Trust for Nature and the landowner within 2 months of monitoring events.

3.3.2. Landowner monitoring and reporting

Early works

The landowner will submit an 'early works' report to Trust for Nature and Austrak at the end of the early works period or annually (whichever is sooner) from when the TFN offset covenant is registered on title (see appendix 4).

Landowner reporting during the early works period will consist of:

- Fencing checks and any repairs undertaken;
- Pest animal monitoring undertaken and results; and
- Notes on management actions commenced (such as weed control, biomass control and pest animal control).

During 10-year management period

During the 10-year active management period, the Landowner will prepare and submit annual reports documenting management actions undertaken and monitoring results to TfN and the Approval Holder no later than two (2) months after the end of each management year. Monitoring results will respond to the objectives of this plan.

Ecological reports prepared by the Ecologist engaged by the Approval Holder (e.g., documenting vegetation surveys, audits, or other assessments) must be submitted to the Landowner and Approval holder within two (2) months of the relevant monitoring event; the Landowner will then forward these reports to TfN.

3.3.3. Trust for Nature stewardship

Periodic site visits will be undertaken by Trust for Nature (approximately every 3 years during the initial 10 years) to determine whether the management actions are suitable to achieve the outcomes outlined in this Plan and offer technical assistance and advice.

3.3.4. Corrective actions where interim targets are not being met

Should monitoring undertaken by a qualified ecologist, Trust for Nature or the landowner indicate that the targets outlined in Table 7 are not being met, or triggers in Table 11 are met, the corrective actions in Table 11 may need to be implemented. This may involve alteration of the current management approach.

3.4. Review and adaptive management

This Plan provides actions for a period of 10 years. By monitoring the outcomes of actions, management may be reviewed and adapted to ensure the stated commitments in the Plan are upheld. Where it becomes clear that a performance target documented in Table 7 is unlikely to be achieved, the landowner will be obligated to implement appropriate adaptive management measures to ensure these targets are achieved. For example, if native herbivory becomes excessive and negatively impacts on the quality and extent of native vegetation, adaptive measures such as use of deterrents, shooting or upgrading of fencing may be necessary to reduce grazing pressure in the site. Any proposed adaptive management measures must be reviewed and endorsed by both DCCEW and TfN prior to implementation.

3.5. Risk assessment and contingency measures

Events may occur over time that have the potential to compromise the success of management of the offset site. Table 11 lists events that may occur and assigns a risk rating to each event based on the likelihood of the event occurring and the consequence if it does occur using the criteria outlined in Table 8 and Table 9 and the risk matrix included in Table 10.

Table 8: Likelihood criteria

Likelihood	Across the 10-year management period:	
	Description	Approximate probability (%)
Unlikely	Less probable than more probable that impact could occur	<5 to < 30
Possible	Equally probable that impact could or could not occur	30-70
Likely	More probable than not that impact could occur	>70 to 100

Table 9: Consequence criteria

Impact to GEWVVP TEC	Consequence
Short-term; Habitat quality or extent is reduced for <1 year	Minor
Medium-term; Habitat quality or extent is reduced for >1 year but <10 years	Moderate
Long-term; Habitat quality or extent is >10 years	Severe

Table 10: Risk ratings

		Consequence		
		Minor	Moderate	Severe
Likelihood	Unlikely	Low	Low	Medium
	Possible	Low	Medium	High
	Likely	Medium	High	High

Table 11: Risk assessment

Event	Likelihood	Consequence	Risk rating	Trigger	Contingency measures
Uncontrolled access of domestic stock	Possible	Minor	Low	Uncontrolled stock sighted in offset site Signs of recent stock access (soil damage, faeces, fur/wool on fences)	Remove stock Repair fencing
Weed control targets not being met	Possible	Moderate	Medium	Weed targets in 3.2.4 not being met during ecologist or landowner monitoring	Increase frequency of weed control works
Pest animal presence in offset site increases	Likely	Moderate	Medium	Increase in fresh ground disturbance or scats Increase in active rabbit warrens Active fox dens observed Increase in pest animal numbers from baseline survey during monitoring	Increase frequency of pest animal control

Event	Likelihood	Consequence	Risk rating	Trigger	Contingency measures
Loss of structural diversity in vegetation	Possible	Minor	Low	Ecological monitoring detects decline in structural diversity in vegetation	Increase or alter biomass control method
Ground cover falls below 70%	Possible	Moderate	Medium	Ground cover <70% during landowner monitoring Ground cover <70% during ecological monitoring	Decrease or alter biomass control method
Wildfire	Unlikely	Severe	Medium	Loss of TEC	Develop plan with TfN and increase monitoring
	Unlikely	Minor	Low	Loss of fences	Re-instate fences
Decrease in extent of the TEC	Possible	Moderate	Medium	Decline in extent and/or quality of TEC over two consecutive monitoring periods	Liaise with TfN and approval holder appointed ecologist to identify potential causes Develop a plan with TfN to address causes/ mitigate decline

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Appendix 1: Offsets Assessment Guide

Impact calculator				Offset calculator																			
Protected matter attributes	Quantum of impact		Units	Protected matter attributes	Total quantum of impact	Units	Proposed offset	Time horizon (years)	Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?			
Ecological Communities				Ecological Communities																			
Offset Site																							
Area of community (Grassy Eucalypt Woodland of the Victorian Volcanic Plains)	Area	2.787	Hectares	Area of community	0.56	Adjusted hectares	Protect and improve 10.000 ha of Grassy Eucalypt Woodland of the Victorian Volcanic Plains	Risk-related time horizon (max. 20 years)	20	Start area (hectares)	10.000	Risk of loss (%) without offset	0%	Risk of loss (%) with offset	0%	0.00	60%	0.00	0.00	0.62	111.51%	Yes	
	Quality	2	Scale 0-10					Time until ecological benefit	10	Start quality (scale of 0-10)	4	Future area without offset (adjusted hectares)	10.0	Future area with offset (adjusted hectares)	10.0								
	Total quantum of impact	0.56	Adjusted hectares									Future quality without offset (scale of 0-10)	3	Future quality with offset (scale of 0-10)	5	2.00	60%	1.20	0.62				

Appendix 2: EVC Benchmark

Goldfields Bioregion:

Plains Grassy Woodland - EVC 55

EVC/Bioregion Benchmark for Vegetation Quality Assessment

Goldfields bioregion

EVC 55: Plains Grassy Woodland

Description:

An open, eucalypt woodland to 15 m tall occurring on a number of geologies and soil types. Occupies poorly drained, fertile soils on flat or gently undulating plains at low elevations. The understorey consists of a few sparse shrubs over a species-rich grassy and herbaceous ground layer.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha
<i>Allocasuarina luehmannii</i>	40 cm	

Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus microcarpa</i>	Grey Box
	<i>Eucalyptus melliodora</i>	Yellow Box
	<i>Eucalyptus camaldulensis</i>	River Red Gum
	<i>Allocasuarina luehmannii</i>	Buloke

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Medium Shrub	1	5%	MS
Small Shrub	1	1%	SS
Large Herb	3	5%	LH
Medium Herb	10	30%	MH
Small or Prostrate Herb	3	10%	SH
Medium to Small Tufted Graminoid	18	40%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Acacia acinacea</i> s.l.	Gold-dust Wattle
MS	<i>Acacia pycnantha</i>	Golden Wattle
SS	<i>Lissanthe strigosa</i> ssp. <i>subulata</i>	Peach Heath
LH	<i>Wahlenbergia luteola</i>	Bronze Bluebell
LH	<i>Wahlenbergia communis</i> s.l.	Tufted Bluebell
MH	<i>Brachyscome lineariloba</i>	Hard-head Daisy
SH	<i>Drosera whittakeri</i> ssp. <i>aberrans</i>	Scented Sundew
SH	<i>Ptilotus spathulatus</i> f. <i>spathulatus</i>	Pussy Tails
SH	<i>Drosera glanduligera</i>	Scarlet Sundew
SH	<i>Siloxerus multiflorus</i>	Small Wrinklewort
MTG	<i>Austrostipa scabra</i> ssp. <i>falcata</i>	Rough Spear-grass
MTG	<i>Elymus scaber</i> var. <i>scaber</i>	Common Wheat-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass

EVC 55: Plains Grassy Woodland - Goldfields bioregion

Recruitment:

Continuous

Organic Litter:

10 % cover

Logs:

10 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Centaureum tenuiflorum</i>	Slender Centaury	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Galium divaricatum</i>	Slender Bedstraw	high	low
MH	<i>Hypochoeris glabra</i>	Smooth Cat's-ear	high	low
MH	<i>Trifolium campestre</i> var. <i>campestre</i>	Hop Clover	high	low
MH	<i>Cicendia quadrangularis</i>	Square Cicendia	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
LNG	<i>Avena fatua</i>	Wild Oat	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Bromus diandrus</i>	Great Brome	high	low
MTG	<i>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MNG	<i>Aira elegantissima</i>	Delicate Hair-grass	high	low
MNG	<i>Juncus capitatus</i>	Capitate Rush	high	low

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Appendix 3: Photo points of the offset area

All photographs were taken on 20 January 2026



Photo point 1: Spear Thistle in the north section of the offset area



Photo point 2: recruitment monitoring in the west section of the offset area



Photo point 3: Spear Thistle in the south-west section of the offset area



Photo point 4: Canopy health in the south-west section of the offset area



Photo point 5: Spear Thistle in the south-east section of the offset area



Photo point 6: Pest harbour in the north-east section of the offset area



Photo point 7: Representation of the general condition of the north-east corner of the offset site



Photo point 8: Representation of the general condition of the central portion of the offset site

Appendix 4: Early Works Letter

Offset Site Early Works at Racecourse Road, Redesdale VIC 3444

We refer to the Memorandum of Understanding (**MOU**) confirming both parties' intentions to proceed with the purchase of the Environmental Offset and registration of the Offset Site.

It is understood by both parties:

- The proposed offset site will be protected under a Trust for Nature (**TFN**) deed of covenant (**Deed**).
- TFN is the responsible authority ensuring the Deed obligations are adhered to.
- TFN considers 10-year offset management, monitoring and reporting obligations to begin upon registration of the Deed on title.
- TFN will finalise, approve, and register the Deed after Austrak receives project approvals from DCCEEW. TFN's Deed registration process takes at least 6 months. The Landowner does not receive their first management payment until after the Deed is registered.
- Austrak wish to commence works at the project site as soon as they have project approvals.
- DCCEEW's approval conditions for the project are currently unknown. However, it is anticipated one of the conditions will be that project works cannot commence until management of the Offset Site has commenced.

Austrak requests the landowner (Cassinia Landscapes Pty Ltd) to begin management of the offset site after DCCEEW approval of the project and prior to Deed registration (**Early Works**).

Early Works extend the active management period beyond the 10-years agreed in the MOU and thus incur costs in addition to the MOU Purchase Price. Actions described in the OMP that need to occur within the first 6 months of OMP commencement are viewed as Early Works for the purposes of this letter. Under this agreement, early works will continue up until the point that the Deed is registered on title.

Early Works include:

- Fence monitoring and maintenance
- Initiate pest animal monitoring and control (quarterly inspections)
- Weed/biomass control (via strategic grazing and herbicide application)

Austrak is prepared to make payments to the Landowner, separate from and in addition to the MOU Purchase Price, to cover the cost of Early Works. Costs will be as mutually agreed between the parties and paid to the Landowner in advance of undertaking the works.

Austrak will continue to keep the Landowner updated on the progress of EPBC approvals.

Both parties sign and agree to this mutual agreement, as provided below:

Landowner:

Cassinia Landscapes Pty Ltd

Name:

Role:

Date:

Purchaser:

Austrak Pty Ltd

Name:

Role:

Date

Appendix 5: EPBC Act Offset Calculators values tables

* *Grassy Eucalypt Woodland of the Victorian Volcanic Plains Community* has been shortened to 'GEWVVP' throughout these tables

Guide component	Assessed value	Discussion
Impact calculator		
Size (ha)	2.787 ha	The total area value represents the impact to known and assumed GEWVVP at the site of the proposed action. The total area of removal of GEWVVP within the limit of works area is 0.502 ha (Habitat Zone 1A). Additionally, an area of assumed GEWVVP impact was determined through correspondence with DCCEEW (Langford pers. comms. 24th June 2024), equating to an additional 2.285 ha. The assumed area was calculated based on the area of Habitat Zone 1H from the rail reserve, and all Plains Grassy Woodland (EVC 55_61) zones in the business park (Habitat Zones 2A, 2B, 2D, 2E and 2F), irrespective of these zones not meeting the condition thresholds detailed in the listing advice.
Quality	2/10	The quality rating of 2/10 was calculated as per the directions in the DCCEEW 'How to use the offsets assessment guide', where the site quality score was derived from the following three components: <i>site condition</i>, <i>site context</i> and <i>species stocking rate</i>. The value for these components was entirely derived from <i>habitat score</i> obtained for the site, using the DEECA's Habitat Hectares methodology (DSE 2004). The habitat score accounts for <i>site condition</i> (out of 75) and <i>site</i> (landscape) <i>context</i> (out of 25) to give a value out of 100. No <i>Species stocking rate</i> (SSR) is identified for GEWVVP, therefore this component has not been used (i.e. weighting of zero). The <i>habitat score</i> of patches at the impact site varied between 9/100 and 36/100. A weighted average <i>habitat score</i> for impact zones was calculated using the following formula: $Habitat\ score = \frac{Sum\ (Zone\ area \times zone\ condition\ score)}{Total\ area\ of\ all\ zones}$ This resulted in a weighted average condition score of 19/100, which was rounded up to 2/10.
Offset calculator		
Size	10.000 ha proposed	This offset site (management zone) is depicted in Figure 1 of this OMP.
Averted Loss		
Time over which loss is averted	20 years to be secured	As the mechanism for securing this offset is on-title and secured in perpetuity, the maximum value has been applied. This agreement will be secured on title through a Trust for Nature (TfN) Covenant.
Risk of loss without offset: (0 – 100%)	0%	DCCEEW have advised that this value should always be zero, in accordance with their current policy.
Risk of Loss		

Guide component	Assessed value	Discussion
Risk of loss with offset (0 – 100%)	0%	The DCCEEW have advised that this value should always be zero, in accordance with their current policy.
Confidence (Risk related)	60%	While a value of 60% was entered in the Offset Guide, it has no relevance when risk of loss with and without an offset is at 0%.
Quality Improvement Component		
Time until ecological benefit	10 years	This value reflects the duration it will take to achieve the management objectives of the Offset Management Plan. The OMP is generally based on State offset plan standards, which specifies the target for ecological outcomes by the end of 10 years.
Start quality (1 – 10)	4/10	The start quality rating of 4/10 was calculated as per the directions in the DCCEEW 'How to use the offsets assessment guide', where the site quality score was derived from the following three components: <i>site condition</i> , <i>site context</i> and <i>species stocking rate</i> . The value for these components was derived from <i>habitat score</i> obtained for the offset site, using the DEECA's Habitat Hectares methodology (DSE 2004b). The habitat score accounts for <i>site condition</i> (out of 75) and <i>site (landscape) context</i> (out of 25) to give a value out of 100. No <i>Species stocking rate</i> (SSR) is identified for GEWVVP, therefore this component has not been used (i.e. weighting of zero). The <i>habitat score</i> for the management zone is 43, which has been conservatively rounded to a start quality of 4/10.
Future quality without offset (1 – 10)	3/10	This value was derived from the decline in vegetation condition that is predicted to occur over a 10 year period. The predicted decline in condition is based on the combined effect of allowable land uses and threats. The site would deteriorate based on the following factors: - High-threat weed invasion is anticipated to reduce the weed score from 9 to 4 (DSE 2024b). This would be due to weed cover increasing to over 25% and high-threat weed cover to over 50%. - Browsing by stock is anticipated to reduce the understory score from 10 to 5. This would be due to life form diversity decreasing to less than 50% of the benchmark cover. - Browsing is anticipated reduce the recruitment from 3 to 1. This would be due to the proportion of recruiting native woody species decreasing to less than 30%. The predicted future decline in quality over a 10 year period without the offset has been calculated as 31 out of 100, or 3.1 out of 10. This is based on a reduction in condition score of 12 out of 100 as outlined above.

Guide component	Assessed value	Discussion
Future quality with offset (1 – 10)	5/10	This value was derived from the anticipated improvement results from commitments to protect, maintain and improve native vegetation condition. Gain is available at sites where the commitments are higher than the landowner's current legal management responsibilities" (DELWP 2017, page 4). Thus, improvement gain for this offset site has been applied directly as the predicted increase in vegetation condition over a 10 year period, with the offset. The site would improve based on the following factors: ▪ Weed management would improve the weed score from 9 to 11 (DSE 2024b). This would be due to high threat weeds reduced to negligible cover. ▪ Exclusion of stock would improve the understory score from 10 to 15. This would be due to less than 50% of the lifeforms present being modified. ▪ Exclusion of stock would improve the recruitment from 3 to 6. This would be due to the proportion of recruiting native woody increasing to greater than 50% of the benchmark cover. The predicted future increase in quality over a 10 year period with the offset has been calculated as 53 out of 100, or 5.3 out of 10. This is based on an increase in condition score of 10 out of 100 as outlined above.
Confidence (Quality related)	60%	This moderate value in confidence was applied to allow for limitations in predictions on vegetation quality, with and without the offset. However, the modest assumptions, i.e. ± 1 quality value are considered precautionary and realistic outcomes. It is considered highly likely that the vegetation quality will degrade without the offset and management due to high threat weed invasion (Spear Thistle, Sweet Briar, etc) as well as the vulnerability of these values with a lack of security (may be proposed for development by future landowners). Conversely, if the site becomes an offset, the OMP and the associated weed control obligations will eliminate and prevent the spread of high threat weeds, facilitate native species colonisation and result in an improvement in the quality of the offset. Additionally, securing this offset on title will protect these values from any future development of the site leading to its degradation/removal.

Appendix 6: Landowner annual monitoring and reporting form

Landowner of offset site	
Location and address of offset site	
Offset site number	
Offset plan reference number	
Responsible Authority	
Report No.	
Signature	
Date	

Please attach a copy of Management Action Table from the Offset Plan with information on which actions have been completed for year/s of this reporting period.

Describe specific monitoring results from surveys undertaken, fencing work, success of weed and pest animal control work, successful management tools (i.e. techniques used to control weed species, monitoring techniques) and any problems or issues experienced (i.e. new infestation of weed species, storm damage to fencing).

Provide photographs showing evidence of works.

If any agreed management actions or commitments are incomplete or have not been undertaken in the times specified explain the reasons why and what program of action/s will be undertaken to implement the action. If no action is to be undertaken please explain the reason/s and how the targets specified will be met.

Appendix 7: Detailed Habitat Hectare scoring of the impact site

Habitat Zone			1A	1H	2A	2B	2D	2E	2F
Bioregion			VVP	VVP	VVP	VVP	VVP	VVP	VVP
EVC Number			55_61	55_61	55_61	55_61	55_61	55_61	55_61
Total area of Habitat Zone (ha)			0.182	0.502	0.073	0.055	0.047	1.905	0.023
Site Condition	Large Old Trees	/10	0	0	0	0	0	0	0
	Tree Canopy Cover	/5	0	0	0	0	5	0	0
	Lack of Weeds	/15	4	4	7	7	4	0	0
	Understorey	/25	10	15	5	5	5	5	5
	Recruitment	/10	5	10	0	0	5	5	0
	Organic Matter	/5	3	3	5	3	3	3	2
	Logs	/5	2	2	0	0	0	0	0
	Site condition standardising multiplier*		1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Site Condition subtotal		24	34	15	13	18	10	23
Landscape Context	Patch Size	/10	1	1	1	1	1	2	1
	Neighbourhood	/10	0	0	0	0	0	1	0
	Distance to Core	/5	1	1	1	1	1	1	1
Total Condition Score		/100	26	36	19	17	20	14	9

Appendix 7: Funding agreement for GEWVVP enhancement works at Mount Ridley NCR

It is agreed that Austrak will provide up to \$280,075 of funding to Nature Advisory, for works intended to enhance the condition of GEWVVP within Mount Ridley Reserve.

Nature Advisory will utilise these funds to undertake the following works:

- Development of a Kangaroo Management Plan
- GEWVVP enhancement works including the establishment of kangaroo exclusion plots, weed control, revegetation, and biomass management (subcontracted to MCMC)
- Implementation oversight

Parks Victoria will provide the necessary access agreements to enable the implementation of these works.

Signed

On behalf of Austrak

Signature	_____	Name	_____
Position	_____	Date	_____

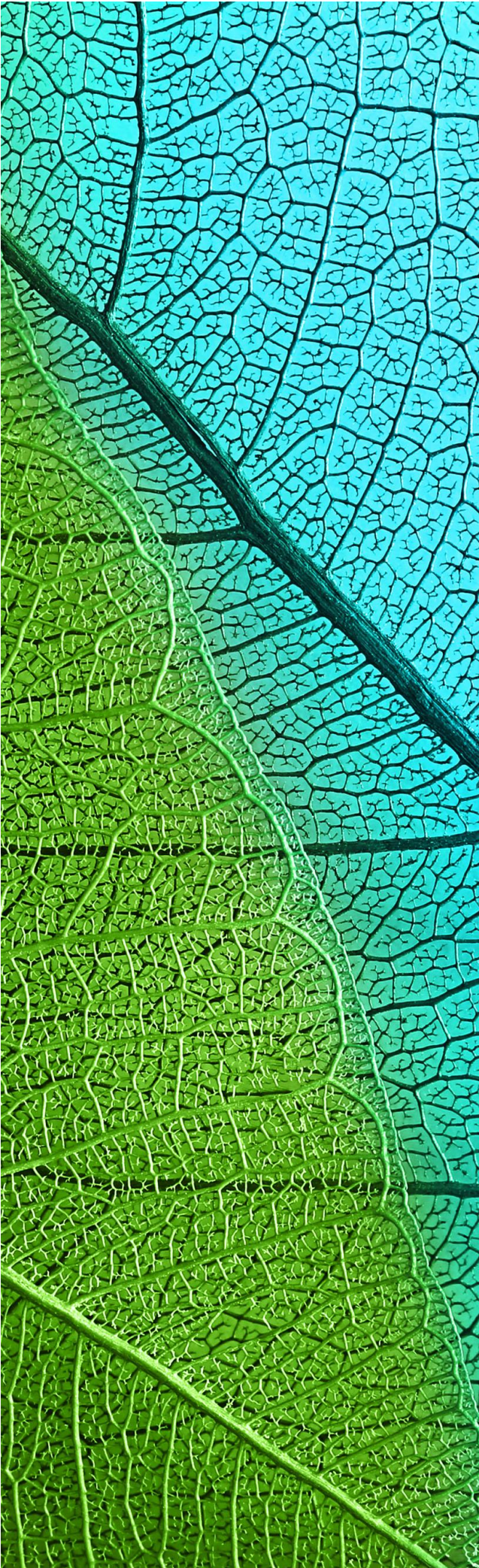
On behalf of Nature Advisory

Signature	_____	Name	_____
Position	_____	Date	_____

On behalf of Parks Victoria

Signature	_____	Name	_____
Position	_____	Date	_____

Appendix 8: SLL OMP



Somerton Intermodal Terminal

EPBC Act

Striped Legless Lizard
Offset Management
Plan

(EPBC 2023/09728)

Prepared for Austrak

May 2026

Report No. 23026.12 (1.4)



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Nature Advisory acknowledges the traditional owners and sovereign custodians of the land on which we work from – the Wurundjeri people of the Woi Wurrung language group. We extend our respect to their Ancestors and all First Peoples and Elders past, present, and future.

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1. Introduction

Austrak engaged Nature Advisory to prepare an Offset Management Plan for a site in Glenhope supporting habitat for Striped Legless Lizard (*Delma impar*), a Matter of National Environmental Significance (MNES). The proposed offset site will be protected and managed to account for the loss of 4.19 hectares of assumed habitat for SLL associated with the proposed Somerton Intermodal Terminal in Somerton, Victoria.

The Somerton Intermodal Terminal has been declared a 'controlled action' by the Department of Climate Change, Energy, Environment and Water (DCCEEW) following a referral of the proposal under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC 2023/09728).

Impacts to assumed Striped Legless Lizard (SLL) habitat associated with the Somerton Intermodal Terminal proposal will occur on five separate properties:

- 70 Cliffords Road Somerton 3062;
- 160 Union Road Somerton 3062;
- 115-135 Hume Highway Somerton 3062;
- 20 Cliffords Road Somerton 3062; and
- The Craigieburn Rail corridor extending from Somerton Road to Aitken Creek.

Potential habitat for SLL was found within Habitat Zones 1A, 1H, 2A, 2B and 2E of the impact site. This habitat was of moderate to low quality. These areas comprised native species including Kangaroo Grass (*Themeda triandra*), tussock grasses (*Poa* spp.) and spear-grass (*Austrostipa* spp.), which were interspersed with non-native species. Grassy ground cover was typically dense with some inter-tussock space. Bare ground was limited but cracks in the soil as well as some large, embedded rocks were found on site. These features are well-known habitat indicators for the species.

There is virtually no connectivity between patches of habitat on site to any other areas of grassland that may support the species. The impact site is immediately bordered by a regional train line and residential areas to the west and encroaching industrial development in all other directions. In addition, the nearest records of the species – approximately 3km from the site – are dated from 1988-1990 and were observed east of the Merri Creek within Craigieburn Grassland Nature Conservation Reserve.

Notwithstanding the above, given the seasonal survey constraints for SLL and the disturbance history of the impact site, its presence has been assumed within the project area. Impacts to assumed SLL habitat have been determined by Nature Advisory (2023a, 2023b). The project will impact 4.19 ha of assumed SLL habitat.

This Offset Management Plan has been prepared to meet the EPBC Act offset requirements for impacts to the SLL. It contains;

- A summary of the impacts to SLL habitat at the impact site;
- Details of the offset site, including the locations of SLL records and the extent of suitable habitat;
- Details of how the proposed offset addresses the EPBC Act offset policy;
- The proposed means of offset security;
- Management actions required at the offset site; and
- Responsible parties and timeframes for implementing the plan.

2. Offset site suitability

2.1. Impact site

The impact site, which comprises of the existing rail reserve and an area of private land owned by the proponent termed the Planning Unit Area, supported soils of volcanic origin on a flat to gently undulating landscape. There are no defined drainage lines or natural watercourses within the impact site, however Aitken Creek occurs beyond the northern boundary of the rail reserve and three dams occur in the southern portion of the Planning Unit Area. These dams contained water of varying depth and permanency at the time of the assessment. The Planning Unit Area supported the remains of a large factory, an extensive area of stockpiling in the south and another area of stockpiling in the north. There were several unused train tracks and areas of stockpiling in the southern half of the rail reserve.

Past land use was presumably pastoral, while current use is industrial and transportation. Surrounding land use is residential to the west and industrial in all other directions.

The Craigieburn Grassland Nature Conservation Reserve is the largest area of remnant native vegetation remaining in the region and while it is situated only 500 metres east of the impact site at its closest point, there is no structural connection between the reserve and the site. The impact site is surrounded by industrial and commercial development and the rail reserve, with no habitat connection to any surrounding conservation reserves or parkland.

The impact site lies within the Victorian Volcanic Plain bioregion and falls within the Port Phillip and Westernport catchment and Hume local government area.

At the time of the first flora and fauna survey (Nature Advisory 2023a, 2023b), evidence of recent ground disturbance was identified both within the rail reserve and the Planning Unit Area. There is no existing documentation of the historical ecological condition of this area, therefore potential impacts to MNES within this disturbance area are unknown.

Potential habitat for SLL was considered to be of moderate to low quality. These areas comprised native species including Kangaroo Grass, tussock grasses and spear-grass, which were interspersed with non-native species. Grassy ground cover was typically dense with some inter-tussock space. Bare ground was limited but cracks in the soil as well as some large, embedded rocks were found on site. These features are well-known habitat indicators for SLL.

There is virtually no connectivity between patches of habitat on site to any other areas of grassland that may support the species. The impact site is immediately bordered by a regional train line and residential areas to the west and encroaching industrial development in all other directions. In addition, the nearest records of the species – approximately 3km from the site – are dated from 1988-1990 and were observed east of the Merri Creek within Craigieburn Grassland Nature Conservation Reserve.

Notwithstanding the above, given the seasonal survey constraints for SLL and the disturbance history of the impact site, its presence has been assumed within the impact site.

Table 1: Impact site details

Impact site details	
Location and address of clearing sites	70 Cliffords Road Somerton 3062; 160 Union Road Somerton 3062; 115-135 Hume Highway Somerton 3062; 20 Cliffords Road Somerton 3062; and - The Craigieburn Rail corridor extending from Somerton Road to Aitken Creek.
Proposed project	Somerton Intermodal Terminal
Quantity of MNES impact	Removal of 4.19 hectares of assumed habitat

2.2. Description of offset site

The EPBC Act offset requirement for impacts to assumed SLL habitat will be achieved at a property located on Boyers Road in Glenhope, Victoria (SPL: 3D~D\PP2675), approximately 45 kilometres south-east of Bendigo. The property is zoned Farming Zone in the Mitchell Shire Planning Scheme, occurs in the Goldfield bioregion and the North Central catchment management area. The offset site occurs on rolling hills, which would have originally (pre-European settlement) supported Heathy Dry Forest (EVC 20) (DEECA 2024). The site now supports a derived grassland of both native and exotic graminoids, with scattered remnant eucalypts. Soils are of sedimentary origin, with outcropping rock occurring on steeper slopes and hill crests.

Table 2: Offset site details

Offset site details	
Landowner	Implexa Property Pty Ltd
Location and address	Boyers Road, Glenhope, VIC 3444
Area	13.96 hectares
Local Government Area	Mitchell Shire Council
Victorian Bioregion	Goldfields

The property is known to support a population of SLL due to historical and more recent records, as well as the widespread presence of derived native grassland and both surface and embedded rock.

The offset site, is 13.96 hectares of suitable habitat for SLL. The area will be managed for conservation, including strategic grazing to promote the control of annual grassy weeds and overall biomass (see Section 4.4).

2.3. Striped Legless Lizard habitat

SLL are a grassland obligate species. However, these grasslands may be natural or derived (i.e., sites which were not historically grassland, but have been cleared for agriculture), and species composition may be native or exotic (Smith & Robertson 1999; TSSC 2016). SLL seek shelter under rocks and in soil cracks, burrows and grass tussocks. SLL have been recorded in many sites dominated by exotic grasses such as Toowoomba Canary-grass (*Phalaris aquatica*), Serrated Tussock (*Nasella trichotoma*) and Flatweed (*Hypochaeris radicata*). The presence of a relatively dense and continuous structure, rather than the floristic composition of the grasslands, are the most important factors in influencing the persistence of SLL (Smith & Robertson 1999). This includes a requirement for relatively tall (30 cm – 60 cm high), dense sward with well-developed ground cover (70-100 % total ground over) (Osborne et al. 1993; Kukolic et al. 1994). The key to their survival in rural areas may be the availability of shelter during disturbance events (such as heavy grazing or perhaps even ploughing), from which they may be able to recolonise disturbed

sites after the cessation of the disturbance (Dorrough & Ash 1995). This shelter may take the form of plant species which are relatively unpalatable to stock, such as Serrated Tussock or *Juncus* sp., road easements, less disturbed neighbouring land or even soil cracks and arthropod burrows in the short-term.

2.4. Biodiversity values of the offset site

The property in which the offset site is located supports sedimentary soils on rolling hills. It has been historically cleared of trees across most of its extent and utilised for stock grazing.

The offset site is situated in areas of derived grassland in which SLL were detected in 2022 and 2024 (Dr Lawrie Conole 2025). The majority of this habitat is dominated by native grasses including Kangaroo Grass, Spear Grasses, Weeping Grass (*Microlaena stipoides* var. *stipoides*) and Wallaby Grasses (*Rytidosperma* spp.), whilst other areas, particularly the gullies, east-facing slopes and peaks where no rocks were present, were dominated by exotic grasses including Brown-top Bent (*Agrostis capillaris*), Toowoomba Canary-grass, Yorkshire Fog (*Holcus lanatus*), Barley (*Hordeum marinum*), Fescue (*Vulpia* spp.), Soft Brome (*Bromus hordeaceus*), Wild oats (*Avena fatua*) and Wimmera Rye Grass (*Lolium rigidum*). Only narrow and discrete areas of exotic grass dominated habitat were included within the offset site, so that the management objectives contained within this offset management plan are achievable. However, in recognition that SLL will utilise the structural diversity within this habitat, these areas were not excised entirely from the offset site. EVC mapping (DEECA 2024a) indicated that these areas would have originally supported the Victorian Ecological Vegetation Class *Heathy Dry Forest* (EVC 20). Embedded surface rock was present throughout the offset site, concentrated on steeper slopes and ridgelines. The site has good connectivity to similar habitat in adjacent areas.

Two unnamed, ephemeral watercourses occur within the offset site.

Targeted surveys for SLL have been undertaken by Vegetation Link within the proposed offset site and the two neighbouring parcels to detect presence of SLL across the broader property.

In the 2021-22 survey season, 10 arrays of 50 tiles were placed across the property with one array occurring within the proposed offset site. Tiles were checked between September 2021 and February 2022, with one SLL being observed within the offset site (Figure 2) and one observed in an array within the parcel to the west.

In the 2024-25 survey season, nine arrays of 50 tiles have been placed across the broader property, with three occurring within the offset site and one just beyond the northern border. Seven surveys have been completed to date, with seven SLL recorded between 10/10/2024 and 16/12/2024 (Dr Lawrie Conole 2025) within the proposed offset site as well as records in the array just north of the offset site.

The detection of SLL within an area of suitable habitat should be used as an indicator that the area supports a population of SLL. Abundance of detection cannot be used as a reliable indicator for the quality or population estimate for SLL, as the survey methodology is reliant upon the species utilising the artificial structure (tiles) as sheltering habitat. If there is an abundance of alternative suitable habitat (i.e. soil cracks, surface rocks or tussocks), individuals may not preferentially utilise tiles for shelter.



Photograph 1: Rolling hills, remnant scattered eucalypts and derived grassy habitat



Photograph 2: Derived grassy vegetation and outcropping rock



Photograph 3: Outcropping rock and a suite of native grasses

2.5. Threat management in the offset site

2.5.1. Pest plants (weeds)

In addition to the introduced annual grasses observed during the habitat assessment undertaken for this Plan, the derived native grassland making up the offset site was also found to include a moderate cover of other herbaceous weed species that pose a threat to the quality of habitat if left untreated. These include Brown-top Bent, Toowoomba Canary-grass, Yorkshire Fog, Capeweed (*Arctotheca calendula*) Gorse (*Ulex europaeus*) and, to a lesser extent, thistles such as Spear Thistle (*Cirsium vulgare*), Artichoke Thistle (*Cynara cardunculus*) and Variegated Thistle (*Silybum marianum*), all of which are currently being controlled by the landowner.

A full list of weed species recorded in the offset site is provided in Table 6.

2.5.2. Pest animals

European Rabbit pose a threat to the survival of indigenous groundcover plants and can exacerbate erosion (DEE 2016), and Red Fox and Cats are likely to predate on SLL (TSSC 2016). None of these species were observed during the assessment; however, given the agricultural context of the offset site, they have a high likelihood of occurring.

2.6. How the offset proposal meets the EPBC Act Environmental Offsets Policy

The Commonwealth Offset Policy (DSEWPC 2012) was reviewed to determine whether the proposed offset is consistent with the Commonwealth requirements. The proposed offset has been assessed against the overarching principles of the Commonwealth Offset Policy in Table 3.

Further to this, preliminary calculations were undertaken using the Offsets Assessment Guide (calculator) (DSEWPC 2012) to assist in the determination of whether the offsets proposed for the

development would satisfy the Commonwealth offset requirements. Calculations are provided in Appendix 1 and justification for the calculator input values is provided in Appendix 2.

Based on the outputs of the Assessment Guide calculator (Appendix 1), it is considered that all Commonwealth offset requirements for the proposed development can be achieved within the proposed offset site.

Table 3: Meeting the Commonwealth Offset principles

Commonwealth Requirement	Proposed Offset Site
Deliver an overall conservation outcome that improves or maintains the viability of the aspect of the environment that is protected by national environment law and affected by the proposed action.	The offset proposal will improve or maintain the overall viability of SLL, as it contains confirmed SLL records and suitable habitat and will provide a gain in the protection and improvement of a significantly larger area of SLL habitat than what is assumed to be impacted. Furthermore, the confirmed SLL habitat within the proposed offset site is contiguous with other areas of suitable habitat, unlike the assumed habitat at the impact site.
Be built around direct offsets but may include other compensatory measures.	The offset proposal is a direct offset involving the security and management of existing areas of known SLL habitat.
Be in proportion to the level of statutory protection that applies to the protected matter	The proposed offset (a formal agreement on title in perpetuity in areas of confirmed habitat, and management of these area) is in proportion to the level of statutory protection for SLL, which is listed as Vulnerable under the EPBC Act.
Be of a size and scale proportionate to the residual impacts on the protected matter	The area of SLL habitat proposed for the offset is approximately 3.3 times the area being impacted, in addition to being considerably higher quality with much better connectivity. The site is situated within a vast landscape that contains similar habitats as well as existing offset sites.
Effectively account for and manage the risks of the offset not succeeding	In order to account for and manage this risk, a proportionally large offset area is proposed. This was intended to minimise any difficulties in meeting offset outcomes and provide flexibility in management options which would not be available in a smaller offset area. The proposed management actions in this plan, particularly strategic grazing, controlling weeds and pest animals, are tried and proven methods of achieving offset objectives. These management objectives are anticipated to achieve a modest improvement in quality of +1 . Risks beyond the control of landholders, such as the effects of climate change and wildfire, cannot realistically be mitigated, although the large area of the offset aims to mitigate the effects of such.
Be additional to what is already required, determined by law or planning regulations or agreed to under other schemes or programs	The state offset requirements have been secured under an alternative third-party offset agreement. This offset proposal is in addition to the state offset requirements and will deliver a gain for SLL that is otherwise not required under state or local law and policy guidelines.

Commonwealth Requirement	Proposed Offset Site
Be efficient, effective, timely, transparent, scientifically robust and reasonable	The design of this offset proposal is consistent with the principles developed by the Victorian Department of Energy, Environment and Climate Action (DEECA) for Landowner [offset] Agreements under Section 69 of the Conservation, Forests and Lands Act 1987, which have been formulated and fine-tuned over the past decade or so, to be efficient, effective, timely, transparent, scientifically robust and reasonable. This plan has also been reviewed by Trust for Nature and the experienced landowner to ensure they are satisfied that the management commitments are realistic and achievable while also ensuring there is an overall improvement in the SLL habitat of the offset site.
Have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced.	This OMP provides the means to measuring improvement to the quality of the offset, including auditing. The offset will be enforceable under the EPBC Act.
Be informed by scientifically robust information and incorporate the precautionary principle in the absence of scientific certainty	Information on the impact site and offset site has been compiled by experienced ecologists. Where information has been relied upon from other sources, this is clearly noted, and additional surveying to confirm such findings have been undertaken, and will continue to be undertaken, where required
Be conducted in a consistent and transparent manner.	All details of the offset sites including site descriptions and photos have been provided to allow for transparency. Documentation has been consistent throughout.

3. Calculating EPBC Act offset requirements

Calculations were undertaken for the impact site, using the calculator from the Offsets Assessment Guide (the 'Calculator') (DSEWPC 2012). These calculations were made to assist in the determination of whether the offsets proposed for the development would satisfy the Commonwealth offset requirements (Appendix 1).

Justification of the input values to the Calculators is provided in Appendix 2. Striped Legless Lizard habitat quality values are based on a methodology devised by Biosis Pty Ltd (Biosis 2020) as described in Appendix 4.

3.1. Intermodal Terminal

SLL habitat at the impact site comprised some native species including Kangaroo Grass, tussock grasses and spear-grass, which were interspersed with non-native species. Grassy ground cover was typically dense with some inter-tussock space. Bare ground was limited but cracks in the soil as well as large, embedded rocks were. These features are well-known habitat indicators for the species. There is virtually no connectivity between patches of habitat on site to any other areas of grassland that may support the species. In light of these features, the impact site was given a site quality of 5 out of 10.

Table 4: Habitat quality at the intermodal terminal impact site

Striped Legless Lizard Habitat Quality Assessment	Maximum available	Impact site quality
Site condition	3	2
Site context	4	2
Species stocking rate	3	1*
Total habitat quality	10	5

*Note that this value has been assumed as no SLL surveys have been undertaken

3.2. Proposed offset site

The proposed offset site is situated in areas of derived grassland in which SLL were detected in 2022 and 2024 (Dr Lawrie Conole 2025). The majority of this grassland are dominated by native grasses, whilst other areas were dominated by exotic grasses including Brown-top Bent, Toowoomba Canary-grass and Yorkshire Fog. Embedded surface rock was present throughout the offset site, concentrated on steeper slopes and ridgelines. The site has good connectivity to similar habitat in adjacent areas.

Table 5: Habitat quality at the Turner property offset site

Striped Legless Lizard Habitat Quality Assessment	Maximum available	Offset site quality	Projected quality without offset	Projected quality with offset
Site condition	3	2	1	3
Site context	4	3	3	3
Species stocking rate	3	2	2	2
Total habitat quality	10	7	6	8

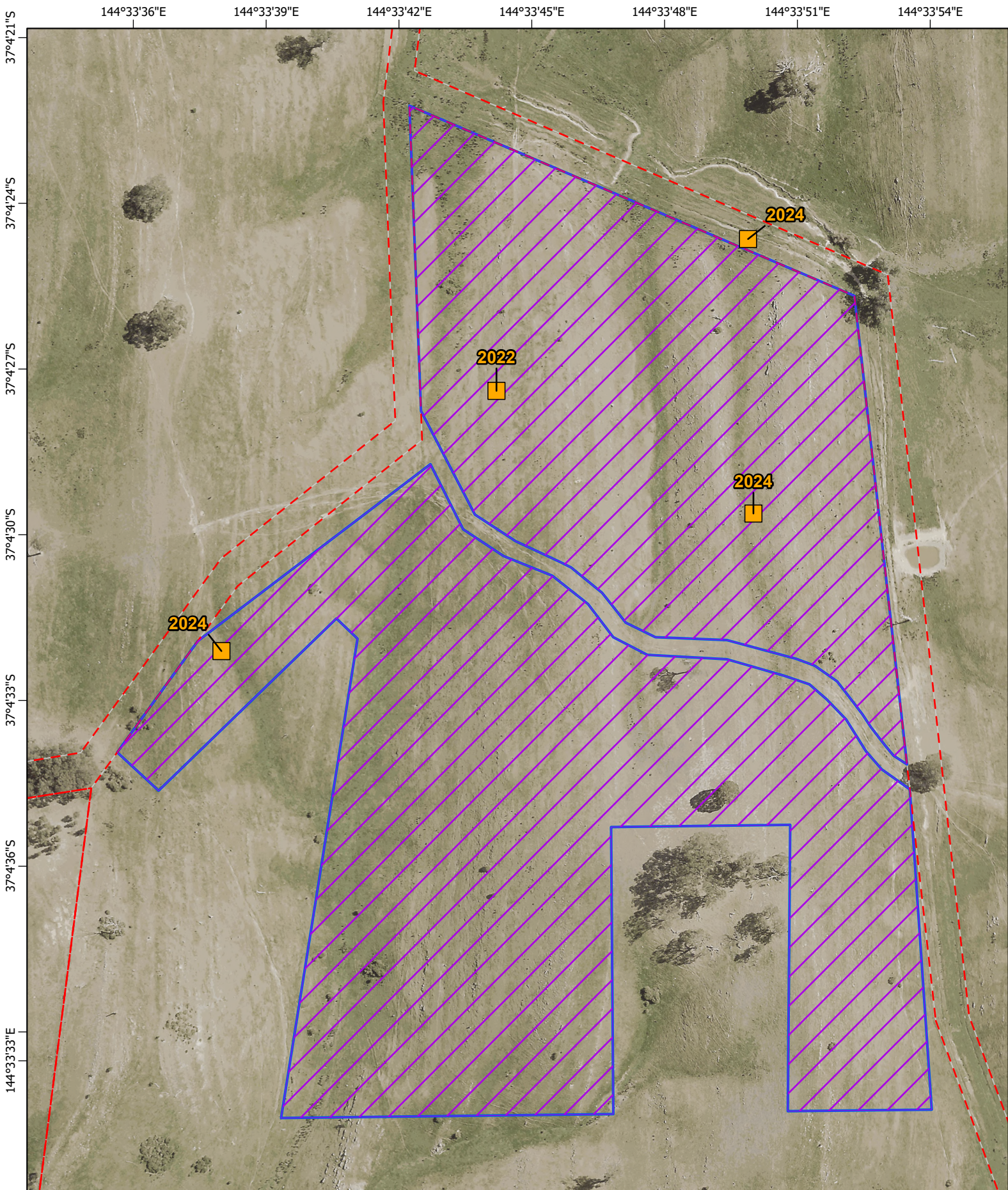
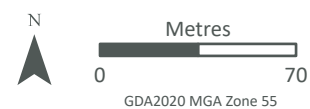


Figure 1. Striped Legless Lizard management area and previous records

Project No: 23026.12 **Project:** Austrak Somerton Business Park, VIC **Date:** 7/09/2026

- Project area
- Property boundary
- SLL suitable habitat
- Striped Legless Lizard record (labelled by year)



Nature Advisory

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Sources: Vicmap 2026

4. Offset management plan

As compensation for the proposed removal of 4.19-ha of assumed SLL habitat from the impact site, the protection and improvement of 13.96-ha of SLL habitat at the offset site is proposed. This Offset Management Plan (OMP) provides all details of the 10-year management program designed to protect and improve the existing areas of SLL habitat within the proposed offset site.

4.1. Strategy for offset site

The offset site is to be secured and managed for the purposes of conservation in perpetuity, to be secured on title by way of a Trust for Nature Covenant under the *Victorian Conservation Trust Act 1972*. This Offset Plan will be implemented for a period of **10 years** from registration of deed of covenant on Title. After the initial ten year offset period, Trust for Nature will prepare a Covenant Management Plan. This will operate in conjunction with the 'in perpetuity' requirements outlined in this OMP (Section 4.2) and with the obligations under the TFN Deed of Covenant.

It is anticipated that Trust for Nature's registration of the deed of Covenant on title will take at least six months. Therefore, to allow for work at the impact site to commence without delay and to instead align with approval under the EPBC Act being granted, it is proposed that management of the offset site commences once EPBC Act approval is granted, under an 'Early Works' mechanism. The management actions in the interim period between EPBC Act approval being granted and registration of the deed of covenant on Title will be by agreement between Austrak and the landowner in terms similar to the Early Works draft letter at Appendix 5.

4.2. Ongoing land-use commitments & management actions

The landowner commits to the following in perpetuity:

- Retain all native vegetation and logs/rocks;
- Implement a biomass management strategy through grazing to promote an improvement in grassland structural complexity;
- Control rabbits and foxes;
- Ensure the cover of high threat weeds does not increase beyond the level it was at the baseline weed cover survey (see below);
- Eliminate any new and emerging woody environmental weeds; and
- Maintain the improvements achieved at completion of this Offset Management Plan.

4.3. Baseline surveys

A baseline weed cover survey will be undertaken by a botanist in the offset site during the first spring within Early Works, which will be used as a benchmark against which management actions are measured.

4.4. Management actions

Management actions with target outcomes to be undertaken are outlined below and displayed in Table 7.

4.4.1. Fencing

The entire property is currently fenced to exclude stock and unauthorised access. As the offset occurs within a broader fenced area, the offset boundary will be marked appropriately, e.g., with marker pegs or star pickets. The offset site does not cover the entire fenced paddock, therefore only sheep that are part of the strategic grazing program (see section 4.4.3) can enter this paddock. If the southern end of the paddock beyond the offset site is required for use of livestock

for purposes other than strategic grazing, a fence must be erected along the southern boundary of the offset site.

As part of the Landowner's annual monitoring program, the property boundary will be inspected for fencing integrity and effectiveness in excluding domestic stock and unauthorised access. If any evidence of fencing damage or domestic stock breaches is observed, fencing must be repaired or extended immediately upon identification to ensure that domestic stock cannot enter any of the management zones.

Fencing Target: no uncontrolled stock access.

4.4.2. Weed control

This OMP requires the land managers to ensure that weed cover does not exceed the level recorded at the time of the baseline weed survey. This applies to all species of weeds, regardless of their level of threat. All woody weed species, identified in Table 4, must be eliminated from the offset site. The offset site must be monitored for new and emerging weeds and, if detected, eliminated from the offset site. A weed species is considered to be effectively eliminated when its cover (excluding bare ground) is reduced to less than 1%.

Spot spraying with herbicide in areas of remnant vegetation is an effective method for controlling weeds which occur at low density. Weed control is to be undertaken when plants are actively growing and prior to seed set (DSE 2011), which for the majority of weeds will be in spring to early summer. To ensure only targeted areas are treated and there is no spray drift, marking dye is to be added to the herbicide and spraying is to be carried out on days with little or no wind.

Large areas of grassy weeds can be controlled through strategic grazing (See section 4.4.3).

All weeds recorded within the offset site to date, their control methods and timing is provided below in Table 6. These should be considered minimum targets and the landowner/nominated contractor should have intent to control weeds as much as practical to encourage regeneration of native cover.

Emphasis should be placed on first eliminating all woody weed species to < 1% cover. Emphasis should then be placed on controlling high-threat herbaceous weeds, identified in Table 6, as these species have high invasion potential. The lowest priority weeds are non-high-threat herbaceous weeds, as identified in Table 6.

Weed control is to be undertaken at least bi-annually (or as required to achieve weed control targets) and must be undertaken by an experienced land manager or contractor.

Targets to be achieved at the end of Year 1:

Weed control Target 1: reduce woody weeds to 90% of baseline values.

Weed control Target 2: reduce cover of perennial exotic grasses (except Brown-top Bent) to 90% of baseline values.

Weed control Target 3: reduce cover of high threat herbaceous weeds to 90% of baseline values.

Targets to be achieved at the end of Year 10:

Weed control Target 1: elimination of woody weeds by the end of the 10-year management period.

Weed control Target 2: reduce cover of perennial exotic grasses (except Brown-top Bent) to 50% of baseline values by the end of the 10-year management period.

Weed control Target 3: reduce cover of high threat herbaceous weeds annually with the intent to eliminate.

Weed control Target 4: no increase in cover of other weeds (including Brown-top Bent) from baseline values by the end of the 10–year management period.

Table 6: Weed species recorded within the offset site, their control methods and timing

Common name	Scientific name	High threat weed	Proposed management	Objective at end of 10 year management period	Timing
Perennial exotic grasses					
Brown-top Bent	<i>Agrostis capillaris</i>	Y	Spot spray with appropriate herbicide & strategic grazing	Ensure cover does not exceed baseline levels	Spring and early Summer
Toowoomba Canary-grass	<i>Phalaris aquatica</i>	Y		Reduce cover to 50% of baseline values	Year-round as appropriate
Yorkshire Fog	<i>Holcus lanatus</i>	Y			Autumn and spring, during active growth
Annual exotic grasses					
Barley	<i>Hordeum marinum</i>	N	Strategic grazing	Ensure cover does not exceed baseline levels	Grazing predominantly August-September
Fescue	<i>Vulpia</i> spp.	N			
Soft Brome	<i>Bromus hordeaceus</i>	N			
Wild oats	<i>Avena fatua</i>	N			
Wimmera Rye Grass	<i>Lolium rigidum</i>	N			
Woody weeds					
Gorse	<i>Ulex europaeus</i>	Y	Spot spray seedlings with an appropriate herbicide, cut and swab mature plants. Manage adjacent areas to stop encroachment into offset zone	Eliminate to less than 1% cover	Year-round
Herbaceous weeds					
Variegated Thistle	<i>Silybum marianum</i>	Y	Spot spray with appropriate herbicide	Reduce covers annually with intent to eliminate	Autumn and Spring.
Spear Thistle	<i>Cirsium vulgare</i>	Y			
Artichoke Thistle	<i>Cynara cardunculus</i>	Y			
Paterson's Curse	<i>Echium plantagineum</i>	Y	Spray with appropriate herbicide at the early rosette growth stage.		Usually in Spring-Summer.
Onion Grass	<i>Romulea rosea</i>	N	Spot spray outbreaks with appropriate herbicide	Ensure cover does not exceed baseline levels	Winter
Bedstraw/Cleavers	<i>Gallium</i> sp.	N	Spot spray outbreaks with		Autumn and Spring

Common name	Scientific name	High threat weed	Proposed management	Objective at end of 10 year management period	Timing
			appropriate herbicide	Ensure cover does not exceed baseline levels	
Big Heron's-bill	<i>Erodium botrys</i>	N	Spot spray outbreaks with appropriate herbicide		Prior to September flowering
Cape Weed	<i>Arctotheca calendula</i>	N	Spot-spray with appropriate herbicide. Apply selective broadleaf herbicide to outbreaks. Strategic grazing.		Autumn and Spring
Clover	<i>Trifolium subteraneum</i>	N	Strategic grazing		Grazing predominantly August-September
Flatweed	<i>Hypochaeris radicata</i>	N	Spot-spray with appropriate herbicide. Apply selective broadleaf herbicide to outbreaks. Strategic grazing.		Year-round
Sheep Sorrel	<i>Acetosella vulgaris</i>	N	Spot spray outbreaks with appropriate herbicide		Autumn and Spring
Hairy Pink	<i>Petrohagia dubia</i>	N	Spot spray outbreaks with appropriate herbicide		Winter to spring

4.4.3. Biomass management/annual grassy weed control

Inter-tussock spaces at the offset site were observed to be largely occupied by introduced annual and perennial grasses and introduced herbs such as clovers (*Trifolium* spp.). Reducing the cover of these introduced annual grasses and herbs will increase the cover of bare ground and leaf litter, therefore promoting the germination of native herbs and grasses, which will maintain and increase the structural diversity of this derived grassland that is important for SLL habitat (TSSC 2016); however, given the known SLL preference for higher (>70%) ground cover (TSSC 2016), any biomass and/or annual grassy weed control actions must be carefully undertaken to ensure that they do not negatively impact the quality of SLL habitat.

Biomass/annual grass control Target 1: no increase of annual grassy weeds from baseline values.

Biomass/annual grass control Target 2: Minimum 70% ground cover following grazing.

Strategic grazing

Strategic grazing with sheep will be the primary means of reducing the cover of grassy weeds and low threat herbaceous weed species. Grazing for this purpose is usually undertaken in spring when

introduced annual grasses and clovers are most palatable to stock and have not yet set seed. Conditions vary from year to year; therefore, decisions as to the appropriate timing of strategic grazing will be made by the landowner in consultation with Trust for Nature.

The stocking rate will be determined using an established grazing chart based on rainfall and available grass feed and adapted over time if stocking rates are found to reduce the quality of SLL habitat.

All grazing will be undertaken with a view to maintaining appropriate vegetation cover for SLL, measured as a minimum of 70% ground cover.

Ecological burns

Ecological burns may be implemented periodically for biomass control to promote inter-tussock spacing if this is not being achieved by strategic grazing. The most appropriate time for burning is the end of autumn to early winter (February through May) or in early spring (September) as the weather is cooler and will result in a low intensity burn.

Ecological burns will be undertaken in consultation with Trust for Nature. Only patch burns may be conducted, with no more than one third of the total offset site burnt in any one year so that unburnt areas provide areas of refuge for fauna. Burns will only be undertaken at a moderate frequency - i.e., every 3 to 5 years.

To maintain and improve the condition of the offset site, ecological burns will be followed by targeted spot spraying of weeds as required.

4.4.4. Pest animal control

All pest animals are to be monitored within the offset site for the life of the OMP (see Monitoring and reporting). Suitable methods for the control of pest animals include:

- Shooting
- Baiting (rabbits/hares)
- Fumigating and hand collapsing of warrens, and
- Removal of harbour.

Shooting (year-round) is a suitable fox and cat control method and is suitable for rabbit control method where populations are low. Baiting is an effective method for reducing pest rabbit populations and should be undertaken when their food source is low (February through May) (DEE 2016).

Fumigating when combined with hand collapsing of warrens is an effective control method. Warrens will be destroyed using a shovel, mattock or pick to avoid damage to native vegetation. Ripping of warrens using machinery is not permitted within the offset site.

The removal of harbour such as rubbish and woody weeds will also reduce the habitat for pest animals and assist in their control. All logs, fallen branches, leaf litter and rocks must be retained.

Beyond direct control, predation by cats and foxes can be minimised by managing fire and grazing to maintain a complex ground vegetation layer (to reduce cats' hunting success) and reducing rabbit populations (DEWHA 2008; DCCEE 2024a).

Pest animal control target: pest animals monitored and controlled

4.5. Monitoring and reporting.

Monitoring of grassland structure, weed cover and pest animals will be undertaken to ensure the successful implementation of this Plan and to inform adaptive management of the offset site.

4.5.1. Ecological monitoring and reporting

The Approval Holder is responsible for engaging a suitably qualified ecologist to conduct baseline monitoring of habitat condition and weed cover estimates in the first spring of Early Works, and annual monitoring thereafter for the 10-year period of this Plan. Monitoring of habitat condition will be undertaken across four 20 x 20 metre quadrats to determine the following:

- The percentage cover and abundance of high-threat weeds;
- The combined percentage cover of annual grassy weeds; and
- Inter-tussock spacing – i.e., the percentage cover of bare ground/litter/native herbs between native grass tussocks.

Photopoints will be established at each of the four quadrats during baseline surveys and photographic evidence of monitoring included in annual reporting.

The Approval Holder is responsible for engaging a suitably qualified ecologist to monitor for SLL populations in Years 2, 4, 7 and 10. Monitoring will be undertaken across five tile grids according to the EPBC Act survey guidelines (DSEWPC 2011) and the results from this monitoring included in the landowner annual report.

The Approval holder-nominated ecologist is to prepare a report documenting the findings of habitat condition, photopoint photos, SLL population (in relevant years) and any resultant recommendations.

The Approval holder will be responsible for forwarding the Ecological monitoring reports to Trust for Nature and the landowner within 2 months of monitoring events.

4.5.2. Landowner monitoring and reporting

Early Works

The landowner will submit an 'early works' report to Trust for Nature and Austrak at the end of the early works period when the TFN offset covenant is registered on title.

Landowner reporting during the early works period will consist of:

- Fencing checks and any repairs undertaken;
- Pest animal monitoring undertaken and results; and
- Notes on management actions commenced (such as weed control, biomass control and pest animal control).

During 10-year management period

Regular monitoring for pest animals by the landowner must include:

- Quarterly inspections for burrows and other harbour; and
- Annual spotlight surveys of established transects, or other appropriate technique (such as camera-trap monitoring).

Ongoing monitoring of any fencing erected to facilitate strategic grazing will be undertaken by the landowner.

The landowner will submit annual reports to Trust for Nature two (2) months prior to each anniversary of registration of the offset covenant, over the 10-year period of this Plan. Annual reports will also be provided to Austrak.

4.5.3. Trust for Nature stewardship

Periodic site visits will be undertaken by Trust for Nature (approximately every 3 years during the initial 10 years) to determine whether the management actions are suitable to achieve the outcomes outlined in this Plan and offer technical assistance and advice.

4.5.4. Corrective actions where interim targets are not being met

Should monitoring undertaken by a qualified ecologist, Trust for Nature or the landowner indicate that the interim targets outlined in Table 7 are not being met, or triggers in Table 11 are met, the corrective actions in Table 11 may need to be implemented. This may involve alteration of the management approach, as described in 4.6.

4.6. Adaptive management

Adaptive management in the form of minor changes in management approach (e.g., grazing strategy or weed control methods) may occur in consultation with Trust for Nature.

Table 7: Management actions schedule for the offset site

Early Works					
Management Action	Timing	Interim target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Baseline surveys: Undertake baseline habitat condition survey of the offset site across four quadrats to determine: ▪ The percentage cover and abundance of high threat weeds ▪ The combined percentage cover of annual grassy weeds, and ▪ Inter-tussock spacing – i.e., the percentage cover of bare ground/litter/native herbs between native grass tussocks.	In the first spring of Early Works. Aim for Spring surveys from October/November when the main flowering season is observed.	Habitat condition assessed and documented.	Ecologist engaged by the Approval Holder		
Establish photo points.	In conjunction with quadrat survey.	Four photo points established – one for each quadrat.	Ecologist engaged by the Approval Holder		
Fencing: Ensure paddock fencing around property boundary is appropriate and any additional fencing to facilitate strategic grazing is in place and effectual. Ongoing monitoring of fencing & gates.	Within 3 months of EPBC Act approval.	Fencing Target: no uncontrolled stock access.	Landowner/fencing contractor		

Early Works					
Management Action	Timing	Interim target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Pest animal control: Monitor for pest animals and control if required.	Quarterly inspection for burrows/harbour. Annual spotlight transect surveys or other suitable method.	Pest Target: Pest animals monitored and control commenced as required.	Monitoring: Landowner Control: landowner or nominated contractor		
Weed/Biomass control: Strategic grazing to control of annual grassy weeds/biomass.	In spring (or alternative period in consultation with Trust for Nature).	Biomass Target 1: Biomass management initiated. Biomass Target 2: Minimum 70% ground cover following grazing.	Landowner		
Control of other weeds through herbicide use or manual removal as required.	See Table 4.	Weed control Target 1: commence woody weed control Weed control Target 2: commence control of perennial exotic grasses. Weed control Target 3: commence control of high threat herbaceous weeds.	Landowner or landowner nominated contractor		
Landowner reporting: Early works report to be prepared documenting management actions undertaken and monitoring results.	Report due no later than two months prior to the anniversary of EPBC Act approval being granted or at the end of the early works period (when TfN deed of covenant is registered), whichever is earlier.	Report delivered to Trust for Nature at the end of the early works period (when TfN deed of covenant is registered). Early works reports also provided to Austrak.	Landowner		

Early Works					
Management Action	Timing	Interim target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Ecological reporting: Baseline survey	Baseline Report due within two months of monitoring.	Ecologist to prepare and deliver a report documenting the findings of habitat monitoring and photopoints. Approval holder to forward the Ecological monitoring reports to Trust for Nature and the landowner within 2 months of monitoring events.	Approval Holder nominated Ecologist (report preparation) Approval holder (dissemination to TfN and landowner)		

Year 1					
Management Action	Timing	Interim target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Vegetation surveys: Undertake habitat condition survey of the offset site across four quadrats to determine: - The percentage cover and abundance of high threat weeds - The combined percentage cover of annual grassy weeds, and - Inter-tussock spacing – i.e., the percentage cover of bare ground/litter/native herbs between native grass tussocks.	Annually in spring.	Habitat condition assessed and documented.	Ecologist engaged by the Approval Holder		
Monitor photo points.	In conjunction with quadrat survey	Photos taken at each of the four photo points established.	Ecologist engaged by the Approval Holder		

Year 1					
Management Action	Timing	Interim target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Fencing: Ensure paddock fencing around property boundary is appropriate and any additional fencing to facilitate strategic grazing is in place and effectual. Ongoing monitoring of fencing & gates.	Ongoing	Fencing Target: no uncontrolled stock access.	Landowner/fencing contractor		
Pest animal control: Monitor for pest animals and control if required.	Quarterly inspection for burrows/harbour. Annual spotlight transect surveys or other suitable method.	Pest Target: Pest animals monitored and controlled as required.	Monitoring: Landowner Control: Landowner or nominated contractor		
Weed/Biomass control: Strategic grazing to control of annual grassy weeds/biomass.	In spring (or alternative period in consultation with Trust for Nature).	Biomass Target 1: No increase of annual grassy weeds from baseline values. Biomass Target 2: Minimum 70% groundcover following grazing.	Landowner		
Control of other weeds through herbicide use or manual removal as required.	See Table 4.	Weed control Target 1: reduce woody weeds to 90% of baseline values. Weed control Target 2: reduce cover of perennial exotic grasses (except Brown-top Bent) to 90% of baseline values. Weed control Target 3: reduce cover of high threat	Landowner or landowner nominated contractor		

Year 1					
Management Action	Timing	Interim target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
		herbaceous weeds to 90% of baseline values.			
Landowner reporting: Annual report to be prepared documenting management actions undertaken and monitoring results.	Report due no later than two months prior to the anniversary of registration of deed of covenant.	Report delivered to Trust for Nature two months prior to the registration of the deed of covenant. Annual reports also provided to Austrak.	Landowner		
Ecological reporting	Report due within two months of monitoring.	Ecologist to prepare and deliver a report documenting the findings of habitat monitoring and photopoints. Approval holder to forward the Ecological monitoring reports to Trust for Nature and the landowner within 2 months of monitoring events.	Approval Holder nominated Ecologist (report preparation) Approval holder (dissemination to TfN and landowner)		

Years 2 – 10					
Management Action	Timing	Target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Vegetation surveys: Undertake habitat condition survey of the offset site across four quadrats to determine: ▪ The percentage cover and abundance of high threat weeds ▪ The combined percentage cover of annual grassy weeds, and ▪ Inter-tussock spacing – i.e., the percentage cover of bare ground/litter/native herbs between native grass tussocks.	Annually in spring.	Habitat condition assessed and documented.	Ecologist engaged by the Approval Holder		
Monitor photo points.	In conjunction with quadrat survey	Photos taken at each of the four photo points established.	Ecologist engaged by the Approval Holder		
Fencing: Monitoring of fencing & gates. Repairs carried out as required.	Ongoing.	No uncontrolled stock access.	Landowner/fencing contractor		
Monitoring: Undertake Striped Legless Lizard tile grid population monitoring over five tile grids representative of habitat variability.	Years 2, 4, 7 & 10. Tile grids established in June. Tiles checked weekly September to December (or March for the presence of sloughed skin).	Striped Legless Lizard population monitored according to the EPBC Act survey guidelines (DSEWPC 2011) and the results documented.	Ecologist engaged by the Approval Holder		
Pest animal control: Monitor for pest animals and control if required	Quarterly inspection for burrows/harbour Annual spotlight transect surveys or other suitable method.	Pest animals monitored and controlled as required.	Monitoring: Landowner Control: Landowner or nominated contractor		

Years 2 – 10					
Management Action	Timing	Target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Weed/Biomass control: Strategic grazing to control of annual grassy weeds/biomass.	During spring (or alternative period in consultation with Trust for Nature).	Biomass Target 1: cover of annual grassy weeds to remain below baseline values. Biomass Target 2: Minimum 70% groundcover following grazing.	Landowner		
Control of other weeds through herbicide use or manual removal as required.	See Table 6: Weed species recorded within the offset site, their control methods and timing.	Weed control Target 1: elimination of woody weeds by the end of the 10-year management period. Weed control Target 2: reduce cover of perennial exotic grasses (except Brown-top Bent) to 50% of baseline values by the end of the 10-year management period. Weed control Target 3: reduce cover of high threat herbaceous weeds annually with the intent to eliminate. Weed control Target 4: no increase in cover of all other weeds (including Brown-top Bent) from baseline values.	Landowner or landowner nominated contractor		

Years 2 – 10					
Management Action	Timing	Target to be achieved	Responsible person	Completed (Yes/No)	Month & Year Completed
Landowner Reporting: Annual report to be prepared documenting management actions undertaken and monitoring results.	Report due no later than two months prior to the anniversary of registration of deed of covenant.	Report delivered to Trust for Nature 2 months prior to the anniversary of the registration of the deed of covenant. Annual reports also provided to Austrak.	Landowner		
Ecological reporting:	Report due within two months of monitoring.	Ecologist to prepare and deliver a report documenting the findings of habitat monitoring, photopoints and SLL surveys. Approval holder to forward the Ecological monitoring reports to Trust for Nature and the landowner within 2 months of monitoring events.	Approval Holder nominated Ecologist (report preparation) Approval holder (dissemination to TfN and landowner)		

4.7. Risk assessment and contingency measures

Events may occur over time that have the potential to compromise the success of management of the offset site. Table 11 lists events that may occur, and assigns a risk rating to each event based on the likelihood of the event occurring and the consequence if it does occur using the criteria outlined in Table 8 and Table 9 and the risk matrix included in Table 10.

Table 8: Likelihood criteria

Likelihood	Across the 10-year management period:	
	Description	Approximate probability (%)
Unlikely	Less probable than more probable that impact could occur	<5 to < 30
Possible	Equally probable that impact could or could not occur	30-70
Likely	More probable than not that impact could occur	>70 to 100

Table 9: Consequence criteria

Impact to SLL population	Consequence
Short-term; no loss of individuals; habitat quality or availability is reduced for <1 year	Minor
Medium-term; loss of some individuals and/or habitat quality or availability is reduced for >1 year but <10 years	Moderate
Long-term; loss of an ecologically significant proportion of the population and/or habitat quality or availability is reduced >10 years	Severe

Table 10: Risk ratings

		Consequence		
		Minor	Moderate	Severe
Likelihood	Unlikely	Low	Low	Medium
	Possible	Low	Medium	High
	Likely	Medium	High	High

Table 11: Risk assessment

Event	Likelihood	Consequence	Risk rating	Trigger	Contingency measures
Uncontrolled access of domestic stock	Possible	Minor	Low	Uncontrolled stock sighted in offset site Signs of recent stock access (soil damage, faeces, fur/wool on fences)	Remove stock Repair fencing
Weed control targets not being met	Possible	Moderate	Medium	Weed targets in Table 6 not being met during ecologist or landowner monitoring	Increase weed control works
Pest animal presence in offset site increases	Likely	Moderate	Medium	Increase in fresh ground disturbance or scats Increase in active rabbit warrens Active fox dens observed Increase in pest animal numbers from baseline survey during monitoring	Increase pest animal control
Loss of structural diversity in vegetation	Possible	Minor	Low	Ecological monitoring detects decline in structural diversity in vegetation	Increase or alter biomass control
Ground cover falls below 70%	Possible	Moderate	Medium	Ground cover <70% during	Decrease or alter biomass control

Event	Likelihood	Consequence	Risk rating	Trigger	Contingency measures
				landowner monitoring Ground cover <70% during ecological monitoring	
Wildfire	Unlikely	Severe	Medium	Loss of SLL individuals	Increase population monitoring
	Unlikely	Minor	Low	Loss of fences	Re-instate fences
	Unlikely	Moderate	Low	Loss of SLL habitat	Develop plan with TfN that may include provision of artificial shelter
Decrease in SLL population	Possible	Moderate	Medium	Decline in SLL numbers over two population monitoring periods	Liaise with TfN and approval holder appointed ecologist to identify potential causes Develop a plan with TfN to address causes/ mitigate decline

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Appendix 1: EPBC Act Offset Calculator

Impact calculator				Offset calculator																		
Protected matter attributes	Quantum of impact		Units	Protected matter attributes	Total quantum of impact	Units	Proposed offset	Time horizon (years)	Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?		
Ecological Communities				Ecological Communities																		
Offset Site																						
Area of community (Grassy Eucalypt Woodland of the Victorian Volcanic Plains)	Area	4.19	Hectares	Area of community	2.09	Adjusted hectares	Protect and improve 13.96 ha of SLL habitat in Glenhope	Risk-related time horizon (max. 20 years)	20	Start area (hectares)	13.96	Risk of loss (%) without offset	0%	Risk of loss (%) with offset	0%	0.00	60%	0.00	0.00	2.19	104.53%	Yes
	Quality	5	Scale 0-10							Future area without offset (adjusted hectares)	14.0	Future area with offset (adjusted hectares)	14.0									
	Total quantum of impact	2.09	Adjusted hectares								Time until ecological benefit	10	Start quality (scale of 0-10)	7	Future quality without offset (scale of 0-10)	6	Future quality with offset (scale of 0-10)	8	2.00			

Appendix 2: EPBC Act Offset Calculators values tables

Offset guide attribute	Value applied	Justification			
	4.19 hectares	Based on the area determined by Nature Advisory (2023a, 2023b) and determination of assumed SLL habitat extent through correspondence with DCCEEW (Langford pers. comms. 24th June 2024)			
5		Striped Legless Lizard Habitat Quality Assessment		Impact site quality	Justification
			max.		
		Site condition	3	2	Satisfactory site quality: supports a moderately diverse ground flora; dominated by an average diversity of native tussock forming grasses and average diversity of native forbs
		Site context	4	2	> 0.5 hectares contiguous habitat; subject to 5 or more threats impacting MNES
		Species stocking rate	3	1*	A maximum of one individual encountered under a tile grid during any one of seven monitoring events*
		Habitat quality	10	5	

*Stocking rate has been assumed as no surveys have been undertaken in the impact site.

Turner property offset site

Guide component	Assessed value	Discussion
Size	13.96 ha proposed	This offset site is depicted in Figure 1 of this Offset Management Plan.
Averted Loss		
Time over which loss is averted	20 years to be secured	As the mechanism for securing these offset sites are on-title, in perpetuity, agreements, the maximum value has been applied.
Risk of loss without offset: (0 – 100%)	0%	The DCCEE have advised that this value should always be zero, in accordance with their current policy.
Risk of Loss		
Risk of loss with offset (0 – 100%)	0%	The DCCEE have advised that this value should always be zero, in accordance with their current policy.

Guide component	Assessed value	Discussion			
Confidence (Risk related)	80%	While a value of 80% was entered in the Offset Guide, it has no relevance when risk of loss with and without an offset is at 0%.			
Quality Improvement Component					
Time until ecological benefit	10 years	It is expected that within ten years management actions such as strategic grazing and weed control would have resulted in a measurable improvement to habitat quality			
Start quality (1 – 10)	7/10	The start quality rating of 7/10 was calculated as per the directions in the DCCEEW ‘How to use the offsets assessment guide’, where the site quality score was derived from the following three components: <i>site condition</i> , <i>site context</i> and <i>species stocking rate</i> . The value for these components was derived using the SLL habitat assessment in Biosis 2020.			
		Striped Legless Lizard Habitat Quality Assessment		Offset site quality	Justification
			max.		
		Site condition	3	2	Satisfactory site quality: supports a moderately diverse ground flora; dominated by an average diversity of native tussock forming grasses and average diversity of native forbs
		Site context	4	3	> 0.5 hectares; habitat subject to only 1 threat impacting MNES (not currently subject to an appropriate biomass reduction)
		Species stocking rate	3	2	A maximum of two individuals or sloughs encountered under the tile grid during any one of seven monitoring events.
		Habitat quality	10	7	
Future quality without offset (1 – 10)	6/10	Projected quality without offset: An intensive set-stocked grazing regime in the absence of the offset would be likely to reduce the condition to <i>poor</i> – with low structural complexity with no or very few native forbs, thus decreasing the site condition score and the overall quality score by 1			

Guide component	Assessed value	Discussion
Future quality with offset (1 – 10)	8/10	Projected quality with offset: The introduction of strategic grazing is expected to increase structural complexity of the habitat through the reduction of competition from annual introduced grasses, increasing the condition to <i>good</i> – supporting a species-rich and structurally complex ground flora dominated by an above average diversity of native tussock-forming grasses and above average native forbs, thus increasing the site condition score and the overall quality score by 1
Confidence (Quality related)	80%	The proposed management actions (strategic grazing and weed control) are proven interventions for managing this type of habitat.

Appendix 3: Landowner annual monitoring and reporting form

Year	
Landowner of offset site	
Location and address of offset site	
Offset site number	
Offset plan reference number	
Responsible Authority	
Report No.	
Signature	
Date	

Please attach a copy of Management Action Table from the Offset Plan with information on which actions have been completed for year/s of this reporting period.

Describe specific monitoring results from surveys undertaken, fencing work, success of weed and pest animal control work, successful management tools (i.e. techniques used to control weed species, monitoring techniques) and any problems or issues experienced (i.e. new infestation of weed species, storm damage to fencing).

Provide photographs showing evidence of works.

If any agreed management actions or commitments are incomplete or have not been undertaken in the times specified explain the reasons why and what program of action/s will be undertaken to implement the action. If no action is to be undertaken, please explain the reason/s and how the targets specified will be met.

Appendix 4: Striped Legless Lizard Habitat Quality Assessment Method (Biosis 2020)

Site Condition – out of 3	
An assessment of the condition of the threatened species habitat within the project in relation to the ecological requirements of the threatened species. Based on vegetation structure, native plant cover, species richness and presence of habitat resources.	
3 = Good - Site (on average) supports a species-rich and structurally complex ground flora (reflecting appropriate biomass management). Dominated by an above average diversity of native tussock-forming grasses and above average native forbs, together with embedded and/or surface rock.	
2 = Satisfactory - Site (on average) supports a moderately diverse ground flora with good structural complexity (reflecting some biomass management). Dominated by an average diversity of native tussock forming grasses and average diversity of native forbs with or without embedded and/or surface rock.	
1 = Poor - Site (on average) supports a species-poor ground flora with low structural complexity (reflecting inadequate biomass management). Dominated by a few native or predominantly introduced tussock-forming grasses with no or very few native forbs with or without embedded and/or surface rock.	
Site Context – out of 4	
An assessment of the relative importance of the patches of the threatened species habitat in terms of its position in the landscape based on patch size, connectivity and proximity to threats.	
Threats Score out of 2	Connectivity Score out of 2
Threats that may impact upon Striped Legless Lizards: Site currently subject to continuous, intensive grazing by livestock or kangaroos, thereby reducing the floristic and structural complexity of the habitat Site subject to frequent, widespread and intense fires, including deliberate burns that are not sympathetic to the maintenance of Striped Legless Lizard habitat Site subject to historical or ongoing ploughing, pasture improvement and agricultural intensification Site subject to historical or ongoing removal of surface and/or embedded or rock Site subject to frequent slashing thereby reducing the structural complexity of the habitat Site dominated by exotic grasses to the extent that the majority of the site is no longer defined as native vegetation Site currently not subject to any form of appropriate biomass reduction (e.g. low-moderate intensity grazing or sympathetic ecological burns to maintain structural and floristic diversity of the habitat)	1 = Site is < 0.5 ha 2 = Site is equal to > 0.5 ha
2 = Site subject to none of the above threats 1 = Site subject to between one and four of the above threats 0 = Site subject to five or more of the above threats	

Species Stocking Rate – out of 3

An assessment of the density of the species across the area of suitable habitat. The method proposed by Biosis (2020b) uses the maximum number of Striped Legless Lizards detected at a tile grid during any one site survey as a surrogate for density. This includes counts of sloughs as well as actual lizards.

3 = Three or more individuals or sloughs encountered under the tile grid during any one of seven monitoring events.

2 = A maximum of two individuals or sloughs encountered under the tile grid during any one of seven monitoring events.

1 = A maximum of one individual, or slough encountered under the tile grid during any one of seven monitoring events.

Appendix 5: Early Works letter

Offset Site Early Works at Boyers Road, Glenhope VIC 3444

We refer to the Memorandum of Understanding dated 2 October 2024 (**MOU**) confirming both parties' intentions to proceed with the purchase of the Environmental Offset and registration of the Offset Site.

It is understood by both parties:

- The proposed offset site will be protected under a Trust for Nature (**TFN**) deed of covenant (**Deed**).
- TFN is the responsible authority ensuring the Deed obligations are adhered to.
- TFN considers 10-year offset management, monitoring and reporting obligations to begin upon registration of the Deed on title.
- TFN will finalise, approve, and register the Deed after Austrak receives project approvals from DCCEEW. TFN's Deed registration process takes at least 6 months. The Landowner does not receive their first management payment until after the Deed is registered.
- Austrak wish to commence works at the project site as soon as they have project approvals.
- DCCEEW's approval conditions for the project are currently unknown. However, it is anticipated one of the conditions will be that project works cannot commence until management of the Offset Site has commenced.

Austrak requests the landowner (Implexa Property Pty Ltd) to begin management of the offset site after DCCEEW approval of the project and prior to Deed registration (**Early Works**).

Early Works extend the active management period beyond the 10-years agreed in the MOU and thus incur costs in addition to the MOU Purchase Price. Actions described in the OMP that need to occur within the first 6 months of OMP commencement are viewed as Early Works for the purposes of this letter. Under this agreement, early works will continue up until the point that the Deed is registered on title.

Early Works include:

- Baseline survey (at suitable time of year) and establish photo points
- Fence monitoring and maintenance
- Initiate pest animal monitoring and control (quarterly inspections)
- Weed/biomass control (via strategic grazing and herbicide application)

Austrak is prepared to make payments to the Landowner, separate from and in addition to the MOU Purchase Price, to cover the cost of Early Works. Costs will be as mutually agreed between the parties and paid to the Landowner in advance of undertaking the works.

Austrak will continue to keep the Landowner updated on the progress of EPBC approvals.

Both parties sign and agree to this mutual agreement, as provided below:

Landowner:

Implexa Property Pty Ltd

Name:

Role:

Date:

Purchaser:

Austrak Pty Ltd

Name:

Role:

Date

Appendix 9: Port of Somerton Sustainability Management Plan

Port of Somerton Australia

5-161 Hume Hwy, Somerton

Sustainability Management Plan

Issued: 01 May 2023

Status: Final

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1 Introduction

2 ESD Design Responses

1 Introduction

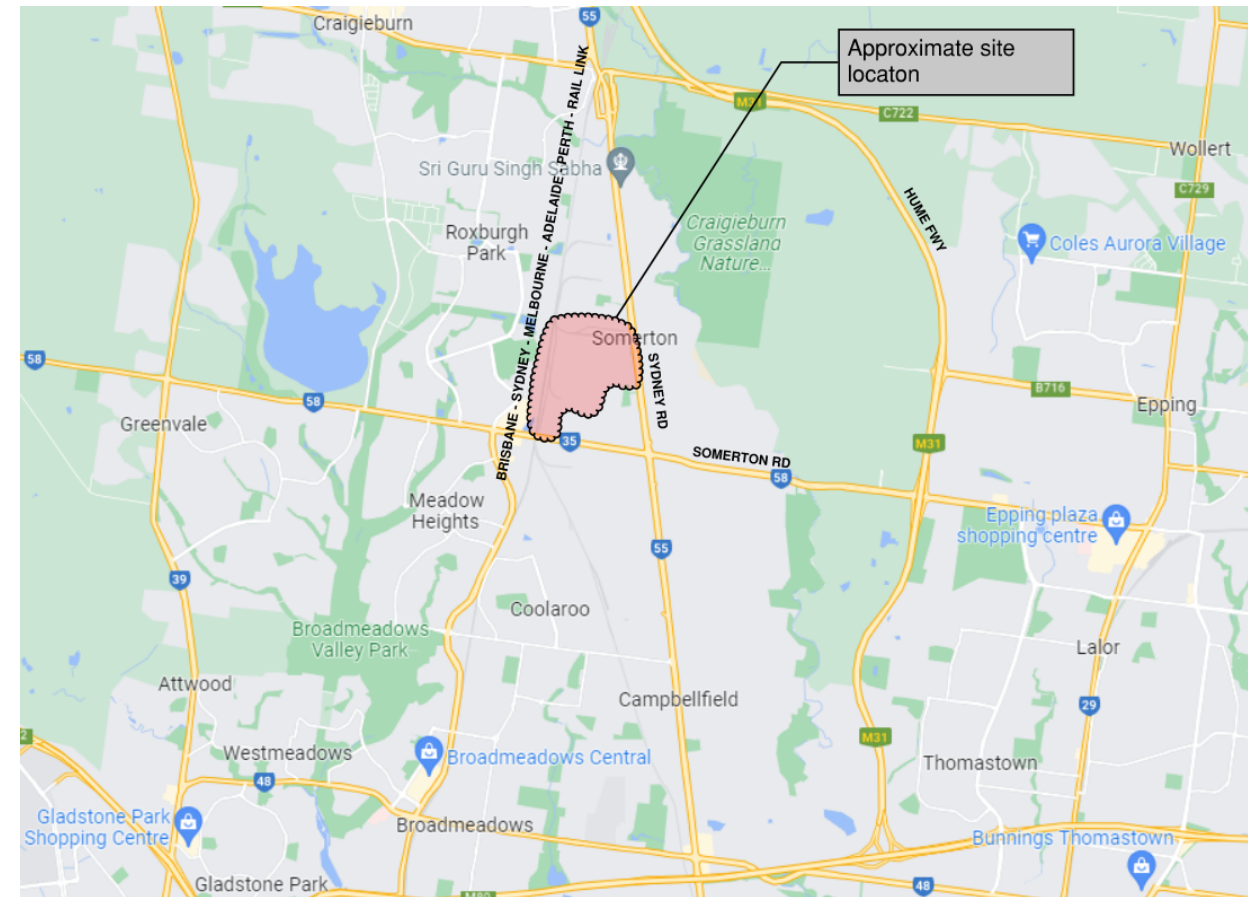
1.1 Sustainability Management Plan

This Sustainability Management Plan (SMP) provides a detailed sustainability assessment of the project at the planning stage. It addresses 4 key sustainable development categories and demonstrates that a detailed and holistic ESD (environmentally or ecologically sustainable development) review has been undertaken. This SMP relates to works within the existing transport terminal and for a portion of the site only.

The ESD project responses are provided in Section 2, these are grouped in the following 4 categories.

- Governance
- Economic
- Environment
- Social

This document defines the ESD aspirations of the development and shows that these extend well beyond the minimum regulatory requirements.



1.2 Key ESD attributes of the development

Quotes attributable to Federal Minister for Transport and Infrastructure Catherine King

“The Port Rail Shuttle Network will not only enhance the strategic importance of local freight and logistics operators – it will also deliver efficiencies and cost-savings for businesses.
“The shuttle network will also deliver a huge safety boost for motorists by moving freight off the roads and onto rail. I’m thrilled to see this private sector backing for the landmark, project.”

Quotes attributable to Victorian Minister for Ports and Freight Melissa Horne

“The Somerton Intermodal Terminal is a city-shaping project – this private investment will supercharge job creation and support our commitment to move more freight by rail to port.
“These direct rail connections will get trucks off roads, increase safety, reduce emissions and cut the cost of doing business for producers, farmers, exporters and operators.”

Quote attributable to Federal Member for Calwell Maria Vamvakinou

“This investment will create opportunities for the people of Melbourne’s North and will also help ease congested roads with the benefit that people can get home from their work quicker and safer.”

Quote attributable to State Member for Greenvale Iwan Walters

“This is a fantastic announcement for our freight and logistics precinct and will create new jobs right here in Melbourne’s northern suburbs.”

- When at capacity, the Port of Somerton Australia project is conservatively estimated to take 500,000 truck trips off Melbourne's roads each year. This reduction is equivalent to 454 million truck kilometres and 451 million litres of fuel saved, resulting in a significant decrease in carbon emissions and a positive impact on the environment.
- All-electric gantry and reach stacker equipment and all-electric buildings. This facilitates buildings to become net-zero carbon in the future.
- Reinforcement mesh and bar with a high degree of post-consumer recycled content and procured under the Steel Sustainability Australia (SSA) program; meaning reduced carbon emissions and reduced environmental impact of steel production.
- CTCR (cementitious treated crushed rock) to reduce the draw on natural resources and to reduce the volume of resources sent to landfill.
- Water efficient fixtures, fittings and tapware. Rainwater collection and reuse and water sensitive urban design (WSUD) features provide an integrated water management outcome.
- A target minimum recycling rate of 80% of demolition and construction waste means less construction waste to landfill.
- The existing warehouse located to the northwest of the site will be relocated and repurposed as part of the proposed BSF4 facility.
- Recycling of existing concrete slabs which will be repurposed as sub-base during construction. This reduces landfill and the consumption of virgin resources for the sub-base.

1.3 Council Planning Scheme

Following is a summary of the relevant Hume Planning Scheme objectives and the project response in relation to ESD aspects of these objectives.

The Hume Planning Scheme recommends consideration of the the following ESD rating tools under Section 22.21 Environmentally Sustainable Development.

- Sustainable Design Assessment in the Planning Process (IMAP, 2015)
- BESS (Built Environment Sustainability Scorecard).
- Green Star
- Other methods

None of the above ESD rating tools specifically nominated is appropriate for an industrial project of this type and scale. Specifically, none of the tools are intended to assess large hardstand and freight handling areas; whereas these areas constitute the majority of the Port of Somerton Australia project. The project has therefore chosen the "other methods" route. The ESD assessment uses a bespoke approach that is generally in line with best practice ESD for industrial projects and involves following the intent of the tools nominated in the Planning Scheme plus broader ESD knowledge to form the ESD response around four main categories that are identified in Section 1.4.

Following is a summary of clause 22.21 Environmentally Sustainable Development and the related project response.

- Objective
 - To achieve best practice in environmentally sustainable development from the design stage through to construction and operation.
- Strategies
 - In summary, this Planning Scheme clause identifies strategies that facilitate developments that minimise environmental impacts through: energy performance, integrated water management, indoor environment quality, transport, waste management and urban ecology strategies.
- Project response
 - The Port of Somerton Australia project relates to additional works to the existing transport terminal. Energy performance is improved on the site via the use of an efficient all-electric design for buildings and for Port gantry and reach stacker equipment (refer to Sections 2.1 and 2.3 in the ESD Design Responses Section). Moreover, there are major greenhouse emission reductions in a broad economic sense with the project conservatively estimated to reduce annual carbon emissions from truck movements by 189,000 tonnes per year (refer to the Premier of Victoria Media Release <https://tinyurl.com/34wvzts8>). Integrated water management is achieved by efficient on-site use, on-site rainwater harvesting where possible, and meeting Authority requirements for the various discharge points from the site. Indoor environment quality is addressed through daylighting and low VOCs (refer to Section 2.4). The project itself is a huge boost to sustainable transport within Melbourne. The project involves the relocation and repurposing of an existing warehouse and a demolition and recycling waste target of 80%. The site is industrial in nature and involves large buildings, large areas of roadway and vehicle parking, large hardstand areas for container storage and rail corridors; these necessary site facilities are interspersed with landscaping elements - refer to separate information on the related concepts.

1.4 Sustainability themes

The ESD assessment uses a bespoke approach that is generally in line with best practice ESD for industrial projects and involves following the intent of the tools nominated in the Planning Scheme plus broader ESD knowledge to form the ESD response around the following four main categories.

Governance

This category aims to create sustainable infrastructure that is aligned with local context and community needs. It requires a collaborative and interdisciplinary approach, integrating sustainability thinking and practices into project governance structures and performance objectives. Infrastructure assets have a significant impact on towns, cities, and regions, so managing sustainability risks and opportunities in the supply chain is crucial. Resilience to climate and natural hazards is important. Innovative approaches that enhance sustainability outcomes and society's prosperity should be encouraged.

Economic

This category seeks to encourage the thorough evaluation of project alternatives, taking into account financial and economic feasibility, risk measurement, as well as social, economic, and environmental factors. It is important to consider all possible options when identifying solutions for a problem or opportunity, beyond just financial analysis, to ensure that associated impacts on external parties are considered in the decision-making process.

Environment

The Environment category aims to promote decisions, behaviors, and outcomes that prioritize reducing energy demand and greenhouse gas emissions throughout the lifecycle of infrastructure, moving towards net zero carbon. It assesses the effectiveness of management practices in preventing and mitigating discharges to air, water, and land, including receiving water quality, noise, vibration, air quality, and light pollution. Additionally, it seeks to encourage the restoration and enhancement of natural capital. The Resource Efficiency and Management category focuses on minimizing waste to landfill by improving materials management, resource minimization and recovery, waste avoidance, contamination remediation and management, smart design, and material selection. The Water category aims to facilitate the development of infrastructure that reduces water use, promotes the substitution of potable water with appropriate alternative sources, minimizes the environmental impacts of local water extraction or harvesting, and encourages the collection and sharing of water use data for industry benchmarking. It promotes the water management hierarchy of eliminate, reduce, re-use, recycle, and manage disposal, and encourages fit-for-purpose water use.

Social

Sustainable infrastructure has social dimensions that should be considered. It involves establishing and implementing effective stakeholder engagement processes that enable key stakeholders to contribute and influence project outcomes. This results in sustainable benefits that meet the needs and aspirations of communities. During the planning, design, construction, and operation phases of infrastructure development, it is important to focus on additional benefits that the project can bring to the community and the environment. This is important because infrastructure projects can leave lasting legacies that impact the environment and communities for generations to come. Furthermore, social aspects of sustainable infrastructure ensuring access to employment, promoting diversity and inclusion, matching resources to current and future needs, and addressing concerns about workforce culture, wellbeing and community values and commitment.

2 ESD Design Responses

2.1 Governance

1.

Key to the project's sustainability objective is to ensure that its commitment to sustainability is integrated into the governance processes. This will be accomplished by embedding sustainability principles and objectives into the project management framework, ensuring that sustainability is a core consideration throughout the project's lifespan. This Sustainability Management Plan has been developed as a key sustainability governance element.
2.

The project governance framework will consider sustainability risks and opportunities in the supply chain, specifically in the design and construction phases. This promotes sustainability considerations in the procurement process, and that all suppliers and contractors are aware of the sustainability expectations. Ultimately, this will help to minimize sustainability risks and maximize sustainability opportunities throughout the supply chain, contributing to the project's overall sustainability objectives.
3.

The project's commitment to all-electric gantry and reach stacker equipment is a significant step towards achieving sustainable outcomes. This innovative approach aids market transformation by reducing the dependence on fossil fuel-powered machinery and creating demand for electric equipment.

The electric loading facilities provide a new way of achieving sustainable outcomes, where the focus is on minimizing the environmental impact while maintaining efficiency and productivity. The electric gantry and reach stacker equipment are capable of operating via renewable energy sources as part of a net-zero – fully electric, fossil fuel free future as the greening of the grid advances. This initiative ensures a cleaner operation and reduces the carbon emissions associated with the transportation process. This approach not only meets the sustainability objectives but can also improve the bottom line of the project by reducing energy costs and minimizing maintenance costs.

2.2 Economic

1.

The project has a significant and beneficial external impact for regional sustainability and the regional economy. When at capacity, the "Port of Somerton" project is conservatively estimated to take 500,000 truck trips off Melbourne's roads each year. This reduction is equivalent to 454 million truck kilometres and 451 million litres of fuel saved, resulting in a significant decrease in carbon emissions and a positive impact on the environment.

As infrastructure development continues to play a vital role in economic growth, valuing and considering externalities is a top priority. Projects like the "Port of Somerton" demonstrate the potential for infrastructure to promote sustainable development while also positively contributing to the region.

2.3 Environment

1. Minimising energy consumption and carbon emissions throughout the infrastructure life cycle, facilitates the ultimate goal of achieving net zero carbon emissions. Efforts will be made to identify and evaluate energy and carbon emissions reduction opportunities. These opportunities will be incorporated into design and construction planning to ensure that the infrastructure is built with energy efficiency and carbon reduction in mind. The objective is to achieve a significant reduction in energy consumption and carbon emissions across the infrastructure life cycle, thereby contributing to the overall goal of achieving net zero carbon emissions.
2. The imperative to reduce carbon emissions across the infrastructure life cycle and achieve net zero carbon has become a pressing global priority. To address this challenge, the Port of Somerton Australia project will look to form partnerships with suppliers, designers, and/or contractors to reduce carbon emissions from concrete mixes and to optimise designs to save carbon emissions.

The success of this initiative will depend on the availability of replacement materials, structural requirements, and project management constraints. By working collaboratively, significant progress can be made towards reducing energy use and carbon emissions, driving us closer towards a sustainable future.

3. Given the extent of concrete hardstand areas in the project:
 - Reinforcement mesh and bar will include a high degree of post-consumer recycled content. In addition, procurement of reinforcement mesh under the Steel Sustainability Australia (SSA) program will be investigated. The SSA program is a steel industry initiative for carbon emissions reductions and improved sustainability generally.
 - The use of "green concrete" will be investigated. This involves consideration of innovative low carbon concrete mixtures (for example, the use of waste products and reduce the embodied energy). This commitment is subject to availability of material, structural and fit for purpose requirements and project management constraints.
4. Sub-metering is proposed as a technical solution for managing and troubleshooting energy and water consumption. The following commitments are suggested for sub-metering:
 - Electrical: Air conditioning, general site lighting, building lighting and appliance power.
 - Water: Harvested rainwater quantity utilised by end uses

By measuring consumption in these areas, it will be possible to identify inefficiencies and reduce waste, leading to cost savings and more sustainable resource usage.
5. For buildings, the NCC maximum illumination power density requirements will be complied with and reduced by a further 20% in at least 90% of the building area. This will be through the correct design of lighting levels and the selection of energy efficient lamps such as: LED lighting (predominantly).
6. Building airconditioning systems are to be within one star of the best available, or coefficient of performance (COP) & energy efficiency ratios (EER) at least 15% higher (better) than the most efficient equivalent unit/capacity. Refrigerative type air conditioning systems should incorporate variable speed fans and compressors.

7. Buildings are to be "all-electric", with no gas. This facilitates buildings to become net-zero carbon – fully electric, fossil fuel free and 100% powered by renewables in the future.
8. The energy related aspects of the project facilitate a move to net zero carbon operations in the future. The project's commitment to an "all-electric" approach is a critical component in achieving this objective. By removing dependence on fossil fuels for key components of the site, the project can facilitate a move towards net zero carbon operations. As part of the move toward zero carbon operations, the project will ensure the significant roof areas on the site are capable of accommodating photovoltaic panels for operator implementation (pending tenant requirements), as well as encouraging power purchase agreements for renewable energy.
9. A combination of development lot-specific and site wide water-sensitive urban design (WSUD) strategies are employed across the site.
10. The project is committed to using all-electric gantry and reach stacker equipment, which significantly reduces the release of contaminants to the local environment and significantly reduces impacts on local air quality.

One of the most significant benefits of the project is the conservatively estimated reduction of 500,000 truck movements in Melbourne. This reduction in transportation-related emissions will have a direct impact on the air quality in the region.

11. The Port of Somerton Australia project will minimize light spill by the careful selection and arrangement of lighting on site, notwithstanding the industrial setting. The objective is to reduce the negative impact of lighting on the environment while still maintaining an appropriate level of lighting for operational, safety and security purposes.
 12. To promote a circular economy, the project will utilise CTCR (cementitious treated crushed rock) to reduce the draw on natural resources and to reduce the volume of resources sent to landfill. The CTCR technology substrates will use crushed concrete and other recycled materials such as ground granulated blast furnace slag (GGBFS), fly ash, and alkali activated slag for all hardstand substrates, roadways, and hard landscaped paths. By utilizing these recycled materials, the project is not only reducing its environmental impact but also minimizing its carbon footprint.
- As part of the BSF4 proposed facility, the existing BSF1 warehouse to the northwest of the site will be relocated and repurposed. The existing concrete slab will be crushed and used as sub-base. This repurposing is in line with the project's commitment to sustainability and will contribute to a more sustainable future by: enabling the repurposing of valuable resources; reducing the volume of resources sent to landfill; and, reducing embodied energy due to new construction.

2.3 Environment (continued)

- | | |
|---|---|
| <p>13 Specifications will include a target minimum recycling rate of 80% of demolition and construction waste.</p> <p>Operational waste collection will occur within the buildings generally with manual transfer to the waste collection areas conveniently located. Recycling facilities shall be designed so that they have the same level of convenience for occupants as facilities for landfill waste.</p> <p>14 The project team intends to implement the principles of disassembly and repurposing in new warehouse construction.</p> <p>As a demonstration of the project's commitment to this objective, the existing BSF1 warehouse located to the northwest of the site will be relocated and repurposed as part of the proposed BSF4 facility. This repurposing aligns with the project's sustainability objectives.</p> <p>15 Specify sustainably certified (recycled and plantation) timber only. All timber should be certified through an accredited certification scheme such as the Forest Stewardship Council (FSC) or the Programme for the Endorsement of Forest Certification (PEFC).</p> <p>Preference should be given to products that enable higher recycling rates and reduced environmental risk through certified participation in product stewardship programs. Examples include: Government programs (e.g. lamps containing mercury); industry programs (e.g. vinyl flooring); manufacturer/supplier specific stewardship programs.</p> <p>Preference should be given to products that reduce environmental risk through ISO 14001 certification. Certification can be confirmed direct via manufacturer statements or from third party certification sites such as http://www.globalgreentag.com. Many product types include options from manufacturers with ISO 14001 certification, such as: flooring; ceilings; concrete; furniture; internal and external wall panels; plasterboard; and steel.</p> | <p>16 Reduced water demand in buildings achieved by installing water efficient fixtures and appliances.</p> <p>Pumped fire systems (if required) should reduce typical pump testing potable water consumption to meet Authority water saving objectives by reclaiming / recycling pump test water rather than a typical single pass arrangement.</p> <p>Water used in concrete mixes is to be at least 50% reclaimed (provided the mixes achieve the required engineering standards).</p> <p>17 Mains potable water consumption will be reduced by utilizing onsite rainwater harvesting for reuse as test water for the rain bay sprinkler building (as part of BSF70).</p> <p>The overall site is under a mandate from Melbourne Water that requires that all roof water is directly piped to Merri Creek; where Melbourne Water allow, new buildings will incorporate rainwater harvesting for toilet flushing and landscape watering. Rainwater harvesting systems will collect and filter rainwater from the building's roof. The harvested water will then be stored in a dedicated tank ready for reuse.</p> |
|---|---|

2.4 Social

1. The "Port of Somerton Australia" project will contribute pronounced and long-lasting beneficial societal or environmental outcomes outside of the project scope. The "Port of Somerton Australia" expects to eliminate conservatively or upwards of 500,000 truck trips from Melbourne's roads, which is equivalent to 454 million truck kilometres. This move will result in significant environmental benefits, including a reduction of 189,000 tonnes of carbon emissions annually and a savings of 451 million litres of fuel.

Additionally, the switch to rail transportation is expected to enhance safety levels, as rail freight is up to 9 times safer than road freight. The societal and environmental impacts of these actions are profound and far-reaching, well beyond the immediate project scope. By delivering these initiatives, the Port of Somerton Australia is demonstrating a strong commitment to sustainability and its role as a responsible corporate citizen.

2. The Builder is to implement policies on-site that mitigate physical and mental health risks for construction workers. This will be through training on-site with regard to, for example: discrimination, racism and bullying.

The Builder's construction practices will include policies and practices that promote diversity including: gender inclusive toilet/shower/change facilities with a high degree of privacy; and, encouragement and support for workers to be properly provisioned with diverse gender-specific personal protective equipment (PPE).

3. The daylighting target for regularly occupied spaces with medium to high density occupancy, such as office spaces, equates to a minimum of 30% of the floor area to achieves a daylight factor of at least 2%. This is as per the BESS minimum requirement.
4. Building internal spaces are to meet the Total Volatile Organic Compound (TVOC) content limits outlined in the Green Star Technical Manual for internal painted surfaces, adhesives, sealants, floor/wall/ceiling coatings, floor coverings and engineered wood products.

Appendix 10: Construction Site Environmental Management Plan

RISK ASSESSMENT CHECKLIST		
🔊 Noise		
Issues: - Nature of Noise Generating Works: Plant and vehicle movement - Potential Noise Receptors: Neighbouring commercial/industrial properties - Proximity of Works to Noise Receptors: 20 m	Likelihood	High
	Consequence	Low
	Overall Risk	Medium
☁ Dust		
Issues: - Dust Sources: Vehicle movement, soil disturbance/movement, haul road establishment - Potential Dust Receptors: On-site workers and neighbouring commercial/industrial properties - Proximity of Works to Dust Receptors: On-site workers within the work zone and approximately 30 m for off-site receptors are the northern hardstand area and southern stockpiling area. - Extent of Exposed Earth and Duration of Time Exposed: Mobilisation works are anticipated to be completed within 1 month (August 2024) with Earthworks completion by November, 2024. - Wind Conditions: Prevailing wind direction is anticipated to be southeast. Therefore, windrows are positioned to protect neighbours to the north of the Site.	Likelihood	High
	Consequence	Low
	Overall Risk	Medium
🌊 Erosion and Sediment		
Issues: - Erosion and Sediment Sources: Disturbed exposed soil and stockpiled soil - Potential Erosion and Sediment Receptors: Open stormwater pits. Merri Creek is approx 1.8km east of the Site and therefore it is considered unlikely the works would pose a risk to the closest surface water receptor. - Proximity of Works to Erosion and Sediment Receptors: the works would be undertaken adjacent to the receptors. - Extent of Exposed Earth and Duration of Time Exposed: The majority of the Site is anticipated to be exposed earth during the works. The duration of time with exposed earth is scheduled to November, 2024. - Soil Type and Erosivity: The natural geology of the site is Newer Volcanics (i.e. basalt), which weathers to a silty clay. Due to the physical properties of the natural soil type, the erosivity is considered to be relatively low. - Slope: The Site is relatively flat, with minimal slope that would increase erosion rates and sediment flow. - Site Drainage Regime: The site drainage is managed by a network of stormwater pits, primarily located with the central and southern portions of the Site. As the majority of the Site will be unsealed during the mobilisation phase of works, a significant portion of surface water would be managed via surface infiltration. Therefore, limiting potential for erosion and sediment flow. - Rainfall: 70-90 mm of rainfall is anticipated during the works based on previous rainfall data. - Vehicle Movements On and Off Site: Vehicle movements on to and off-site is via Union Road which is paved. On-site vehicle movement during the works will be on established haul roads.	Likelihood	Medium
	Consequence	Low
	Overall Risk	Low
🗑 Waste		
Issues: - Nature of Waste to be Generated: Combination of: - Soil - Construction waste - General waste - Presence of Waste On Site Prior to Work Commencement: Soil is in-situ/undisturbed, other waste not present. - Quantity of Waste Anticipated: Soil to be stockpiled and kept on-site for reuse. - Potential Waste Receptors: Neighbours and stormwater receptors. - Proximity to Potential Waste Receptors: 20 m to adjacent property boundaries. Stormwater pits adjacent to site shed compounds where waste bins are to be located.	Likelihood	Medium
	Consequence	Low
	Overall Risk	Low
⚠ Dangerous Goods and Hazardous Substances		
Issues: - Types of Chemicals and Fuels Used and/or Stored On Site: Limited chemicals or fuels to be stored on-site due the nature of the works required for the works. The refuelling of plant is to be undertaken via mobile refuelling tankers. - Quantities of Chemicals and Fuels Used and/or Stored On Site: Quantities to be stored on-site will be minimal (if any). The quantity of fuel to be used on-site will be contingent on the number of plant (i.e. excavators, trucks) operating on-site. However, 10,000 L tankers are commonly utilised for on-site refuelling and it is estimated that refuelling maybe required every 1-2 days. - Potential Chemical Receptors: Surface water receptors (i.e. stormwater pits) and exposed soil. - Proximity to Potential Chemical Receptors: Refuelling is to be undertaken no closer than 20 m from stormwater pits.	Likelihood	Low
	Consequence	Medium
	Overall Risk	Medium
🌿 Significant Flora/ Fauna		
Issues: - Types of Flora/ Fauna: None identified - Vulnerability of Flora/ Fauna: None identified - Proximity of Flora/Fauna to Works: NA - Work Activities Which May Threaten Flora/ Fauna: NA - Potential Impacts on Flora/ Fauna: NA	Likelihood	Low
	Consequence	Low
	Overall Risk	Low
🏛 Archaeological/ Heritage		
Issues: - Traditional Land Owners Consulted? Yes - Survey or Assessment Conducted? Yes, nothing of significance noted. - Probability of Encountering Archaeological/ Heritage Items During Works: NA - Types of Archaeological/ Heritage Items On Site: NA - Proximity of Archaeological/ Heritage Items to Works On Site: NA - Work Activities Which May Threaten Archaeological/ Heritage Items: NA - Potential Impacts on Archaeological/ Heritage Items: NA	Likelihood	Low
	Consequence	Low
	Overall Risk	Low

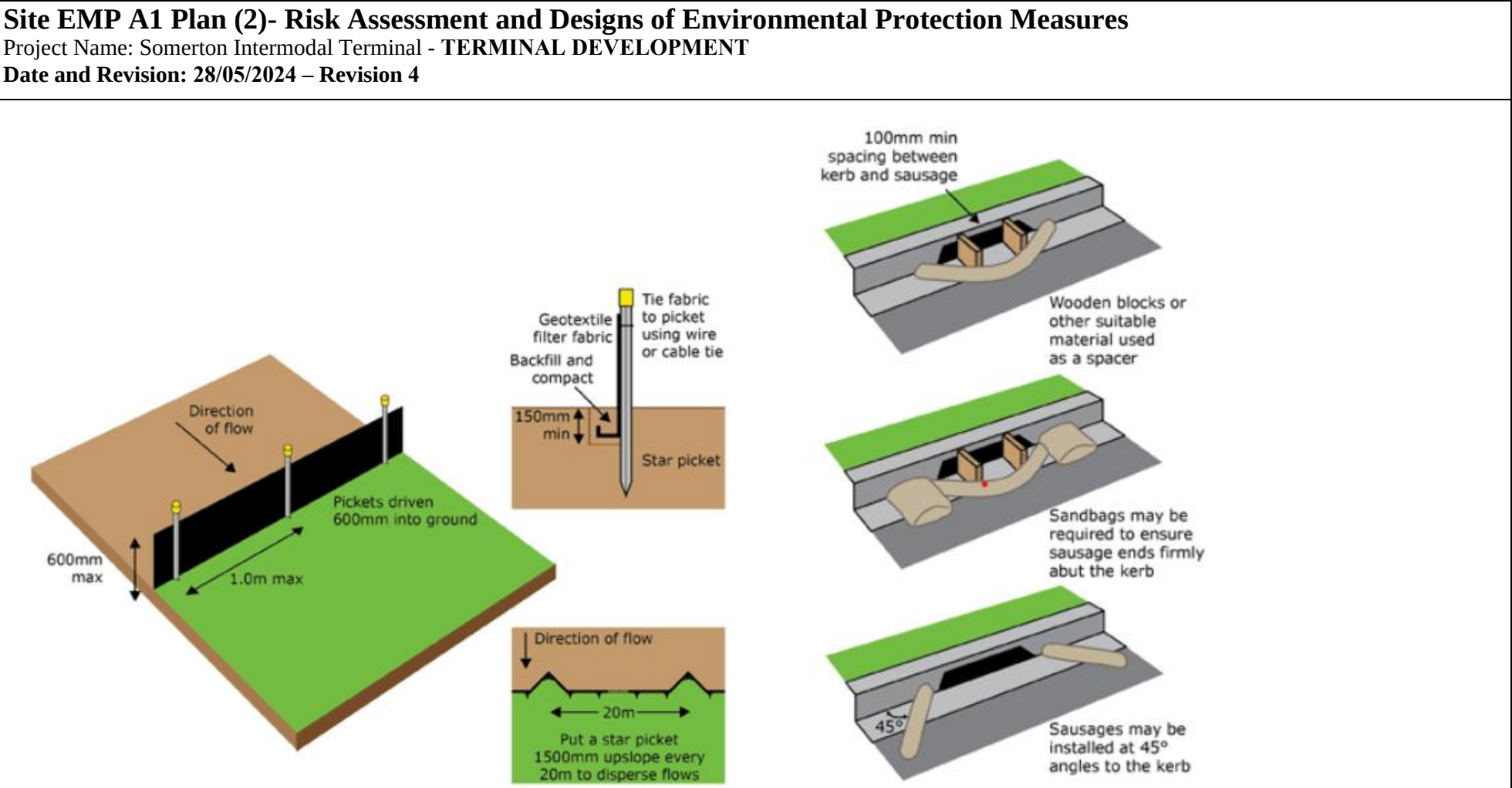


Figure 1. Sediment trap design

Figure 2. Rock log design for stormwater pits

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Appendix 11: Earthworks Environmental Management Plan

The following have been identified as significant environmental aspects for the site:

- Dust and odour
- Noise
- Erosion and sediment
- Waste
- Dangerous goods and hazardous substances

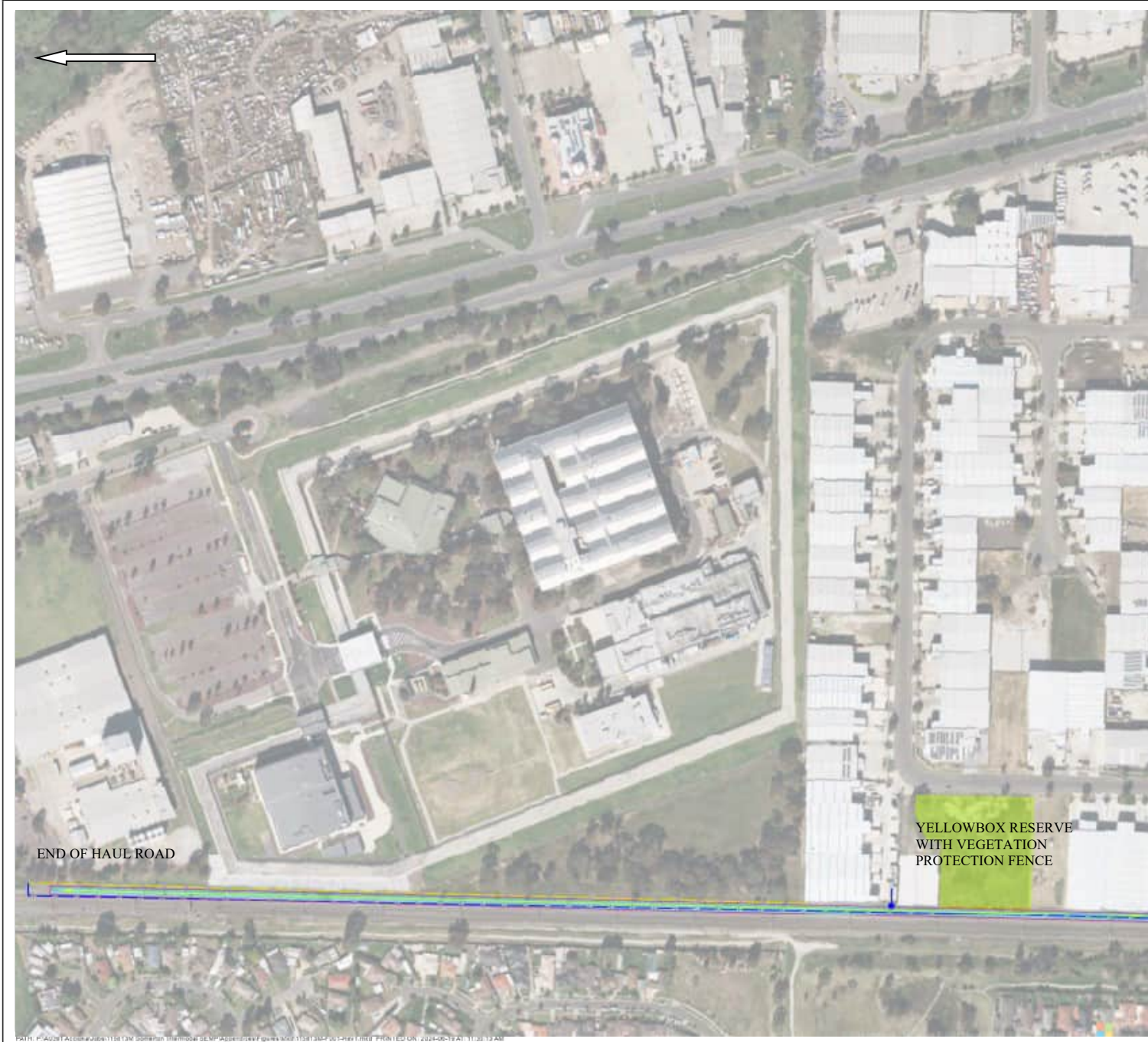
These aspects shall be managed with the environmental protection measures outlined on this plan.

Management		
1. Responsibilities: Name: Jason Hunter Position: Acciona Site Superintendent Number: 0419 838 399	Name: Paul Godfrey Position: Acciona Site Supervisor Number: 0427 606 136	4. Staging of Works: • Earthworks
2. Communication of EMP Requirements: • All site contractors, subcontractors and other employees are to be provided with and inducted into the SEMP prior to commencement of works; • SEMP is to be displayed in visible location within the site compound/office; and • Requirements of SEMP to be discussed during toolbox meeting	5. Informing Residents: • Neighbouring residents will be informed before the commencement of the works.	
3. Inspections and Maintenance: • Site management to monitor implementation of SEMP on a weekly basis including daily inspection of protection measures; • All environmental protection devices will be installed prior to any works commencing; • Rectification of environmental protection devices will occur in no more than 24 hours after issue is identified; and • SEMP to be reviewed and adapted as required.	6. Associated Documents: • Induction checklist; • Incident report forms; • Site-specific assessments; and • Inspection checklist.	
NoiseRisk: Medium		
Requirement: EPA Victoria and Council requirements must be adhered to in relation to the level of noise and working hours, to ensure that residents and other applicable neighbours to the site are not disturbed unreasonably. The generation of noise must be minimised.		
7. Working Hours: • Monday to Friday 7:00 am to 6:00 pm • Saturday 7:00 am to 3:00 pm	8. Noise Minimisation Methods: • Regular maintenance and inspection of machinery; • All machinery and vehicles used on site to be fitted with standard noise management equipment; • Locate works that may generate noise as far away from neighbours as possible; and • Schedule noisy activities for least sensitive times of the day.	9. Other: • Noise monitoring will be undertaken on specific higher risk tasks.
DustRisk: Medium		
Requirement: Dust generation must be minimised to ensure there is no health risk or loss of amenity.		
10. Minimising Dust Generation: • Avoid stripping large areas of soil at once, strip in stages when possible; • Employ permanent dust suppression barriers, such as crushed rock and paving, as soon as possible; • Slow traffic speeds on unpaved roads – 20 km/hr; • Restrict activities involving handling and moving soils on windy days; and • Long-term stockpiles will be allowed to revegetate.	12. Contingencies: • In the event that the implemented controls are not deemed effective at suppressing dust-generation, ambient airborne dust monitoring at the boundary of the Site may be conducted to determine risk to human health; and • If dust generation can't be controlled then dust generating works must cease.	
11. Dust Suppression: • Water truck/water cart to be available on-site; • Apply water spray to earthworks; • Apply water spray to haul roads when required; • Do not over fill excavator buckets when moving soil; • Do not drop soil from a height into trucks, excavator buckets to be tipped within truck; • Soil loads in trucks to be covered.	13. Other: • Dust monitoring will be undertaken to demonstrate the effectiveness of implemented controls. • Monitor weather to determine likelihood of high winds during tasks with high potential for dust generation.	
Erosion and SedimentRisk: Medium		
Requirement: Erosion and sediment must be managed in accordance with current best practice environmental management practices, to prevent sediment-laden water from entering any drainage system or natural waterway.		
14. Drainage Management: • Sediment fence at drains that receive stormwater from the Site; • Stormwater flow generated onsite diverted to a sediment fence; and • All equipment washed in designated wash-down area.	17. Sediment Fence: • Sediment fence (geotextile/ permeable gravel) used to protect down-gradient stormwater drains; • Quantity/positioning to be confirmed upon commencing of works to ensure control measures are proportional to risk; • Inspection and repair prior to expected heavy rainfall and post-storm; • All sediment controls will be designed as per EPA requirements and best practice; and • The ends of sediment controls will be bowed upslope.	
15. Soil Stabilisation: During Construction: • All earthworks to be undertaken in a manner that will minimise soil erosion and adhere to EPA Victoria publication 1834, Civil Construction Building and Demolition Guideline (2020); • Excavation, grading and construction will be avoided in periods of heavy rainfall; • Catch drains will be stabilised within 14 days of installation (grassing/ stabilisation matting /retaining); and • Re-grass or revegetate areas immediately after works finish. Post Works: • Re-vegetate areas as soon as practicable after works.	18. Dewatering: • Roads to be graded to prevent pooling; • Water will be reused on site as a preference to discharging; and • All water leaving or discharged from the works zone must meet EPA water quality requirements for salinity, DO, pH, Turbidity, Temperature and Other pollutants. 19. Vehicle and Road Management: Site Access: • Current site access is via Union Road. Cleaning Vehicles: • On site parking areas to be gravelled to prevent mud formation in wet weather; • All equipment to be washed in designated wash down area; • Mud removal devices will be located at all site exit points; • The location of mud removal devices will be updated as required to align with the progression of works; Street Cleaning: • Prevention of mud/dirt on roads through cleaning vehicles; • Vehicles and machinery will be cleaned of excessive mud prior to accessing sealed roads; • Street sweepers used when required; and • Streets and gutters will be cleaned before rain 20. Other:	
WasteRisk: Medium		
Requirement: Litter and waste must be contained on site, before disposal in a responsible manner. Waste generation must be minimised.		
21. Movement of Soil: • Off-site disposal may be required, volume to be confirmed upon commencement of works; and • Soil to be stockpiled in designated areas until disposed from site (detailed in Plan (1)). Contaminant Status: Not assessed • Waste or fill disposed of off-site must be taken to a legal site of disposal.	23. Waste Storage and Disposal : • Litter and hard waste to be stored in designated area; and • Lidded non-construction waste and recycling bins available in lunchrooms and site offices.	
22. Waste Minimisation Methods: • Proposed recycling of construction and demolition waste; • Recyclable material to be separated from general waste; and • Reduce usage of material and reuse materials where possible.	24. Other:	
Dangerous Goods & Hazardous SubstancesRisk: Medium		
Requirement: Storage and spill management practices must be implemented to ensure that no environmental damage can result from the escape or spillage of chemicals or fuels.		
25. Storage • Chemicals to be stored/used on site to be identified and listed on a register; • All chemicals stored to be stored in a designated area, adequately labelled with secondary containment (bundling); • Regular compliance inspections; and • Hazardous materials will be stored undercover and on impervious surface.	27. Refuelling Procedure: • Designated refueling point to be established; • Refuelling area to be appropriately bunded; • No refuelling to occur within 20 m of drainage inlet; and • Stormwater/rain protection measures to be installed for bunded areas.	
26. Spill Management: • Chemical spill response plan to be established with key staff inducted and trained to undertake clean up works; • Spill kits to be stored within 10 m of chemical storage/refuelling areas; • Spills to be contained and cleaned up immediately; and • Emergency contacts and procedures to be listed within site office and lunchrooms.	28. Other:	

Earthwork EMP A1 Plan (1)- Types and Locations of Environmental Protection Measures

Project Name: Somerton Intermodal Terminal – STAGE 4: Terminal

Date and Revision: 21/06/2024-Rev07_ACCIONA UPDATED



prensa

FIGURE NAME - SITE FEATURES

JOB NO - 115813M

PROJECT - SOMERTON INTERMODAL SEMP

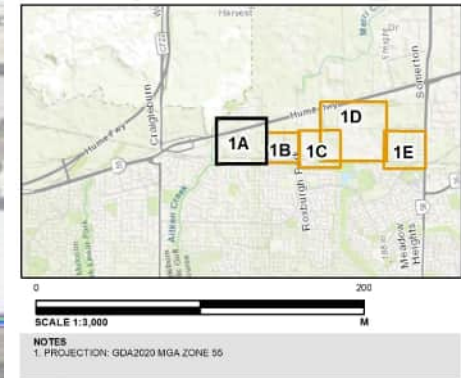
CLIENT / CLIENT NO - ACCIONA / A0391

LEGEND

- Two Way
- Stormwater Discharge with Sediment Fence
- Yellowbox Drive Native Conservation Reserve protected with vegetation protection fences
- Earthworks

Fence

- 1.8m Temporary Delineation
- Corridor 1.8m Chainmesh Temporary Fence
- Existing 1 m farm fence with environmental no go signage
- Existing 2.4m Chainmesh Fence



Other Site Specific Issues			
Significant Flora/ FaunaRisk: Medium		Archaeological/ HeritageRisk: Low	
Requirement: All significant flora and fauna on and adjacent to the site must be protected. Unless noted for removal on endorsed Planning Permit.		Requirement: Places, sites and objects of archaeological or heritage significance must be protected.	
29. Please refer to completed MNES Assessment Report prepared by Austrak dated February 2024 includes the following: • On-site: grass cover and patches of native Flora and Fauna including ◦ Grassy Eucalypt Woodland of the Victorian Volcanic Plain (Critically endangered); and ◦ Striped Legless Lizard (vulnerable) • Off-site: not assessed; • Other items: • Noxious weeds and serious threat environmental weeds will be controlled; • No Environmental Significance Overlay in surrounding area; • No removal of any vegetation is to occur outside of permitted areas; • There is a noted presence of Eastern Grey Kangaroos within the Site; and • Wildlife Victoria – (03) 8400 7300; and • A suitably qualified wildlife handler or zoologist is to be present when felling trees/removing native vegetation, to ensure affected wildlife is not harmed. If displaced wildlife that cannot be relocated on site to an appropriate location away from the construction footprint, or injured wildlife is captured, please contact DEECA on 136 186 for further advice (as per Condition 8 of the Council Planning Permit)	30. Council Planning Permit, No: P25812, dated 05/03/2024, Condition 10 details the following must be complied with: • Compliance with all other permit conditions; • Prior to removal of suitable habitat for threatened flora identified in the Port of Somerton Craigieburn Corridor Flora and Fauna Assessment Report 23026.2(2.1) (Nature Advisory 2023): ◦ Appropriate pre-clearance surveys are undertaken to confirm present or absence of threatened flora: - Austral Crane's-bill; - Basalt Podolepis; - Glaucous Flax-lily; - Large-flower Crane's-bill; - Matted Flax-lily; - Pale Swamp Everlasting; - Pale-flower Crane's bill; - Plains Yarn-daisy; - Purple Diuris; - Small Milkwort.	◦ Salvage and translocation plans, or any other conservation requirements for threatened flora are developed in accordance with any conditions of the permit and/or any conditions specified under any Flora and Fauna Guarantee Act 1988 and Environment Protection and Biodiversity Conservation Act 1999 approvals; ◦ Management of weed spread due to the construction and operational activities; • Ensure water flows from any excavation and newly created impervious area are directed to the legal point of discharge and not on the any adjacent Crown land without consent of the relevant land manager; • Control dust; • Ensure any soil or equipment is free from noxious weed seeds and other vegetative material that can grow prior to transporting any soil and equipment to or from site; and • Manage weed spread within the site during construction activities; and • Before works start, the permit holder must advise all persons undertaking the vegetation removal or works on site of all relevant permit conditions and associated statutory requirements or approvals (as per as per Condition 2 of the Council Planning Permit).	31. No. Details: • No Heritage Significance Overlay in surrounding area; and • Cultural heritage report completed. No adverse findings.

I have read this Environmental Management Plan and agree to undertake works and ensure sub-contractors undertake works in accordance with this plan.

Developer

Consultant

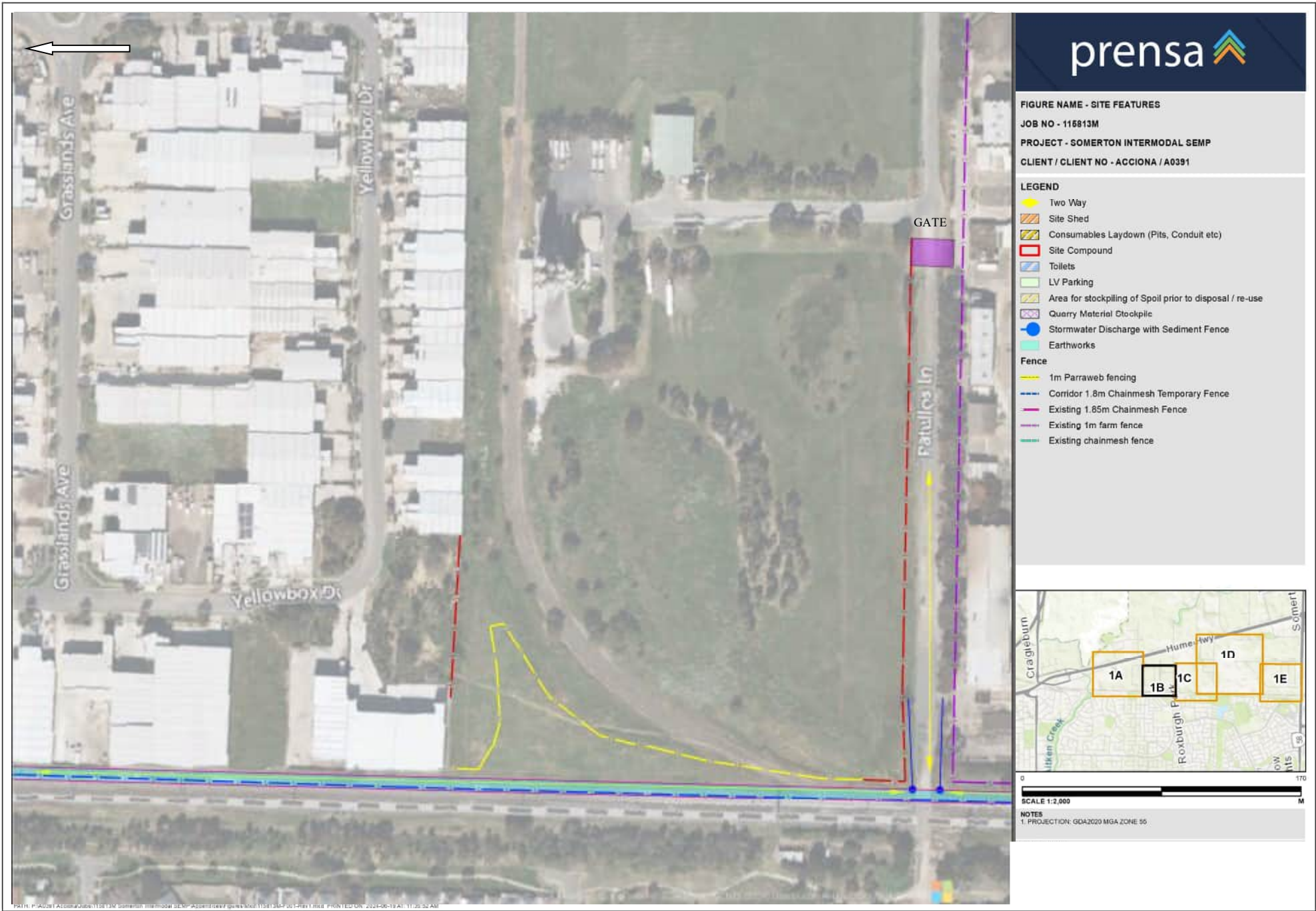
Contractor

The following have been identified as significant environmental aspects for the site: - Dust and odour - Noise - Erosion and sediment - Waste - Dangerous goods and hazardous substances These aspects shall be managed with the environmental protection measures outlined on this plan.		
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15. Soil Stabilisation: During Construction: All earthworks to be undertaken in a manner that will minimise soil erosion and adhere to EPA Victoria publication 1834, Civil Construction Building and Demolition Guideline (2020);		18. Dewatering: - Roads to be graded to prevent pooling; - Water will be reused on site as a preference to discharging; and - All water leaving or discharged from the works zone must meet EPA water quality requirements for salinity, DO, pH, Turbidity, Temperature and Other pollutants.
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16. Stockpile Protection: - Cover stockpiles with geotextile or other suitable materials where necessary; - Install sediment fence downstream of stockpiles where necessary; - Stockpiles to be located at least 10 m from drains; - Stockpiles to be secure behind fencing to prevent illegal dumping; - Stockpiles will be located >35m away from buildings; and - Stockpiles will have a 3m height limit.		20. Other:
Waste Risk: Medium		
Requirement: Litter and waste must be contained on site, before disposal in a responsible manner. Waste generation must be minimised.		
21. Movement of Soil: - Off-site disposal may be required, volume to be confirmed upon commencement of works; and - Soil to be stockpiled in designated areas until disposed from site (detailed in Plan (1)). Contaminant Status: Not assessed - Waste or fill disposed of off-site must be taken to a legal site of disposal.		23. Waste Storage and Disposal : - Litter and hard waste to be stored in designated area; and - Lidded non-construction waste and recycling bins available in lunchrooms and site offices.
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Earthwork EMP A1 Plan (1)- Types and Locations of Environmental Protection Measures

Project Name: Somerton Intermodal Terminal – STAGE 4: Terminal

Date and Revision: 21/06/2024-Rev07_ACCIONA UPDATED



Other Site Specific Issues			
Significant Flora/ Fauna		Archaeological/ Heritage	Risk: Low
Requirement: All significant flora and fauna on and adjacent to the site must be protected. Unless noted for removal on endorsed Planning Permit.		Requirement: Places, sites and objects of archaeological or heritage significance must be protected.	
29. Please refer to completed MNES Assessment Report prepared by Austrak dated February 2024 includes the following: - On-site: grass cover and patches of native Flora and Fauna including - Grassy Eucalypt Woodland of the Victorian Volcanic Plain (Critically endangered); and - Striped Legless Lizard (vulnerable) - Off-site: not assessed; Other items: - Noxious weeds and serious threat environmental weeds will be controlled; - No Environmental Significance Overlay in surrounding area; - No removal of any vegetation is to occur outside of permitted areas; - There is a noted presence of Eastern Grey Kangaroos within the Site; and - Wildlife Victoria – (03) 8400 7300; and - A suitably qualified wildlife handler or zoologist is to be present when felling trees/removing native vegetation, to ensure affected wildlife is not harmed. If displaced wildlife that cannot be relocated on site to an appropriate location away from the construction footprint, or injured wildlife is captured, please contact DEECA on 136 186 for further advice (as per Condition 8 of the Council Planning Permit)	30. Council Planning Permit, No: P25812, dated 05/03/2024, Condition 10 details the following must be complied with: - Compliance with all other permit conditions; - Prior to removal of suitable habitat for threatened flora identified in the Port of Somerton Cragieburn Corridor Flora and Fauna Assessment Report 23026.2(2.1) (Nature Advisory 2023); - Appropriate pre-clearance surveys are undertaken to confirm present or absence of threatened flora: - Austral Crane's-bill; - Basalt Podolepis; - Glaucous Flax-lily; - Large-flower Crane's-bill; - Matted Flax-lily; - Pale Swamp Everlasting; - Pale-flower Crane's bill; - Plains Yam-daisy; - Purple Diuris; - Small Milkwot.	- Salvage and translocation plans, or any other conservation requirements for threatened flora are developed in accordance with any conditions of the permit and/or any conditions specified under any Flora and Fauna Guarantee Act 1988 and Environment Protection and Biodiversity Conservation Act 1999 approvals; - Management of weed spread due to the construction and operational activities; - Ensure water flows from any excavation and newly created impervious area are directed to the legal point of discharge and not on the any adjacent Crown land without consent of the relevant land manager; - Control dust; - Ensure any soil or equipment is free from noxious weed seeds and other vegetative material that can grow prior to transporting any soil and equipment to or from site; and - Manage weed spread within the site during construction activities; and - Before works start, the permit holder must advise all persons undertaking the vegetation removal or works on site of all relevant permit conditions and associated statutory requirements or approvals (as per per Condition 2 of the Council Planning Permit).	31. No. Details: - No Heritage Significance Overlay in surrounding area; and - Cultural heritage report completed. No adverse findings.

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Developer

Consultant

Contractor

The following have been identified as significant environmental aspects for the site:

- Dust and odour
- Noise
- Erosion and sediment
- Waste
- Dangerous goods and hazardous substances

These aspects shall be managed with the environmental protection measures outlined on this plan.

Management		
1. Responsibilities: Name: Jason Hunter Position: Acciona Site Superintendent Number: 0419 838 399	Name: Paul Godfrey Position: Acciona Site Supervisor Number: 0427 606 136	4. Staging of Works: • Earthworks
2. Communication of EMP Requirements: • All site contractors, subcontractors and other employees are to be provided with and inducted into the SEMP prior to commencement of works; • SEMP is to be displayed in visible location within the site compound/office; and • Requirements of SEMP to be discussed during toolbox meeting	5. Informing Residents: • Neighbouring residents will be informed before the commencement of the works.	
3. Inspections and Maintenance: • Site management to monitor implementation of SEMP on a weekly basis including daily inspection of protection measures; • All environmental protection devices will be installed prior to any works commencing; • Rectification of environmental protection devices will occur in no more than 24 hours after issue is identified; and • SEMP to be reviewed and adapted as required.	6. Associated Documents: • Induction checklist; • Incident report forms; • Site-specific assessments; and • Inspection checklist.	
NoiseRisk: Medium		
Requirement: EPA Victoria and Council requirements must be adhered to in relation to the level of noise and working hours, to ensure that residents and other applicable neighbours to the site are not disturbed unreasonably. The generation of noise must be minimised.		
7. Working Hours: • Monday to Friday 7:00 am to 6:00 pm • Saturday 7:00 am to 3:00 pm	8. Noise Minimisation Methods: • Regular maintenance and inspection of machinery; • All machinery and vehicles used on site to be fitted with standard noise management equipment; • Locate works that may generate noise as far away from neighbours as possible; and • Schedule noisy activities for least sensitive times of the day.	9. Other: • Noise monitoring will be undertaken on specific higher risk tasks.
DustRisk: Medium		
Requirement: Dust generation must be minimised to ensure there is no health risk or loss of amenity.		
10. Minimising Dust Generation: • Avoid stripping large areas of soil at once, strip in stages when possible; • Employ permanent dust suppression barriers, such as crushed rock and paving, as soon as possible; • Slow traffic speeds on unpaved roads – 20 km/hr; • Restrict activities involving handling and moving soils on windy days; and • Long-term stockpiles will be allowed to revegetate.	12. Contingencies: • In the event that the implemented controls are not deemed effective at suppressing dust-generation, ambient airborne dust monitoring at the boundary of the Site may be conducted to determine risk to human health; and • If dust generation can't be controlled then dust generating works must cease.	
11. Dust Suppression: • Water truck/water cart to be available on-site; • Apply water spray to earthworks; • Apply water spray to haul roads when required; • Do not over fill excavator buckets when moving soil; • Do not drop soil from a height into trucks, excavator buckets to be tipped within truck; • Soil loads in trucks to be covered.	13. Other: • Dust monitoring will be undertaken to demonstrate the effectiveness of implemented controls. • Monitor weather to determine likelihood of high winds during tasks with high potential for dust generation.	
Erosion and SedimentRisk: Medium		
Requirement: Erosion and sediment must be managed in accordance with current best practice environmental management practices, to prevent sediment-laden water from entering any drainage system or natural waterway.		
14. Drainage Management: • Sediment fence at drains that receive stormwater from the Site; • Stormwater flow generated onsite diverted to a sediment fence; and • All equipment washed in designated wash-down area.	17. Sediment Fence: • Sediment fence (geotextile/ permeable gravel) used to protect down-gradient stormwater drains; • Quantity/positioning to be confirmed upon commencing of works to ensure control measures are proportional to risk; • Inspection and repair prior to expected heavy rainfall and post-storm; • All sediment controls will be designed as per EPA requirements and best practice; and • The ends of sediment controls will be bowed upslope.	
15. Soil Stabilisation: During Construction: • All earthworks to be undertaken in a manner that will minimise soil erosion and adhere to EPA Victoria publication 1834, Civil Construction Building and Demolition Guideline (2020); • Excavation, grading and construction will be avoided in periods of heavy rainfall; • Catch drains will be stabilised within 14 days of installation (grassing/ stabilisation matting /retaining); and • Re-grass or revegetate areas immediately after works finish. Post Works: • Re-vegetate areas as soon as practicable after works.	18. Dewatering: • Roads to be graded to prevent pooling; • Water will be reused on site as a preference to discharging; and • All water leaving or discharged from the works zone must meet EPA water quality requirements for salinity, DO, pH, Turbidity, Temperature and Other pollutants. 19. Vehicle and Road Management: Site Access: • Current site access is via Union Road. Cleaning Vehicles: • On site parking areas to be gravelled to prevent mud formation in wet weather; • All equipment to be washed in designated wash down area; • Mud removal devices will be located at all site exit points; • The location of mud removal devices will be updated as required to align with the progression of works; Street Cleaning: • Prevention of mud/dirt on roads through cleaning vehicles; • Vehicles and machinery will be cleaned of excessive mud prior to accessing sealed roads; • Street sweepers used when required; and • Streets and gutters will be cleaned before rain 20. Other:	
WasteRisk: Medium		
Requirement: Litter and waste must be contained on site, before disposal in a responsible manner. Waste generation must be minimised.		
21. Movement of Soil: • Off-site disposal may be required, volume to be confirmed upon commencement of works; and • Soil to be stockpiled in designated areas until disposed from site (detailed in Plan (1)). Contaminant Status: Not assessed • Waste or fill disposed of off-site must be taken to a legal site of disposal.	23. Waste Storage and Disposal : • Litter and hard waste to be stored in designated area; and • Lidded non-construction waste and recycling bins available in lunchrooms and site offices.	
22. Waste Minimisation Methods: • Proposed recycling of construction and demolition waste; • Recyclable material to be separated from general waste; and • Reduce usage of material and reuse materials where possible.	24. Other:	
Dangerous Goods & Hazardous SubstancesRisk: Medium		
Requirement: Storage and spill management practices must be implemented to ensure that no environmental damage can result from the escape or spillage of chemicals or fuels.		
25. Storage • Chemicals to be stored/used on site to be identified and listed on a register; • All chemicals stored to be stored in a designated area, adequately labelled with secondary containment (bundling); • Regular compliance inspections; and • Hazardous materials will be stored undercover and on impervious surface.	27. Refuelling Procedure: • Designated refueling point to be established; • Refuelling area to be appropriately banded; • No refuelling to occur within 20 m of drainage inlet; and • Stormwater/rain protection measures to be installed for banded areas.	
26. Spill Management: • Chemical spill response plan to be established with key staff inducted and trained to undertake clean up works; • Spill kits to be stored within 10 m of chemical storage/refuelling areas; • Spills to be contained and cleaned up immediately; and • Emergency contacts and procedures to be listed within site office and lunchrooms.	28. Other:	

Earthwork EMP A1 Plan (1)- Types and Locations of Environmental Protection Measures

Project Name: Somerton Intermodal Terminal – STAGE 4: Terminal

Date and Revision: 21/06/2024-Rev07_ACCIONA UPDATED

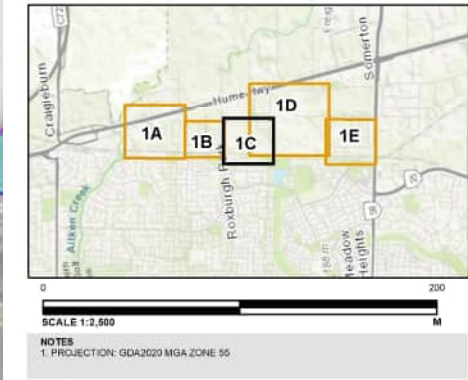


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FIGURE NAME - SITE FEATURES
JOB NO - 115813M
PROJECT - SOMERTON INTERMODAL SEMP
CLIENT / CLIENT NO - ACCIONA / A0391

- LEGEND**
- Two Way
 - Stormwater Discharge with Sediment Fence
 - Earthworks
- Fence**
- Corridor 1.8m Chainmesh Temporary Fence
 - Existing 1.85m Chainmesh Fence



Other Site Specific Issues

Significant Flora/ FaunaRisk: Medium			Archaeological/ HeritageRisk: Low
Requirement: All significant flora and fauna on and adjacent to the site must be protected. Unless noted for removal on endorsed Planning Permit.			Requirement: Places, sites and objects of archaeological or heritage significance must be protected.
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- Waste
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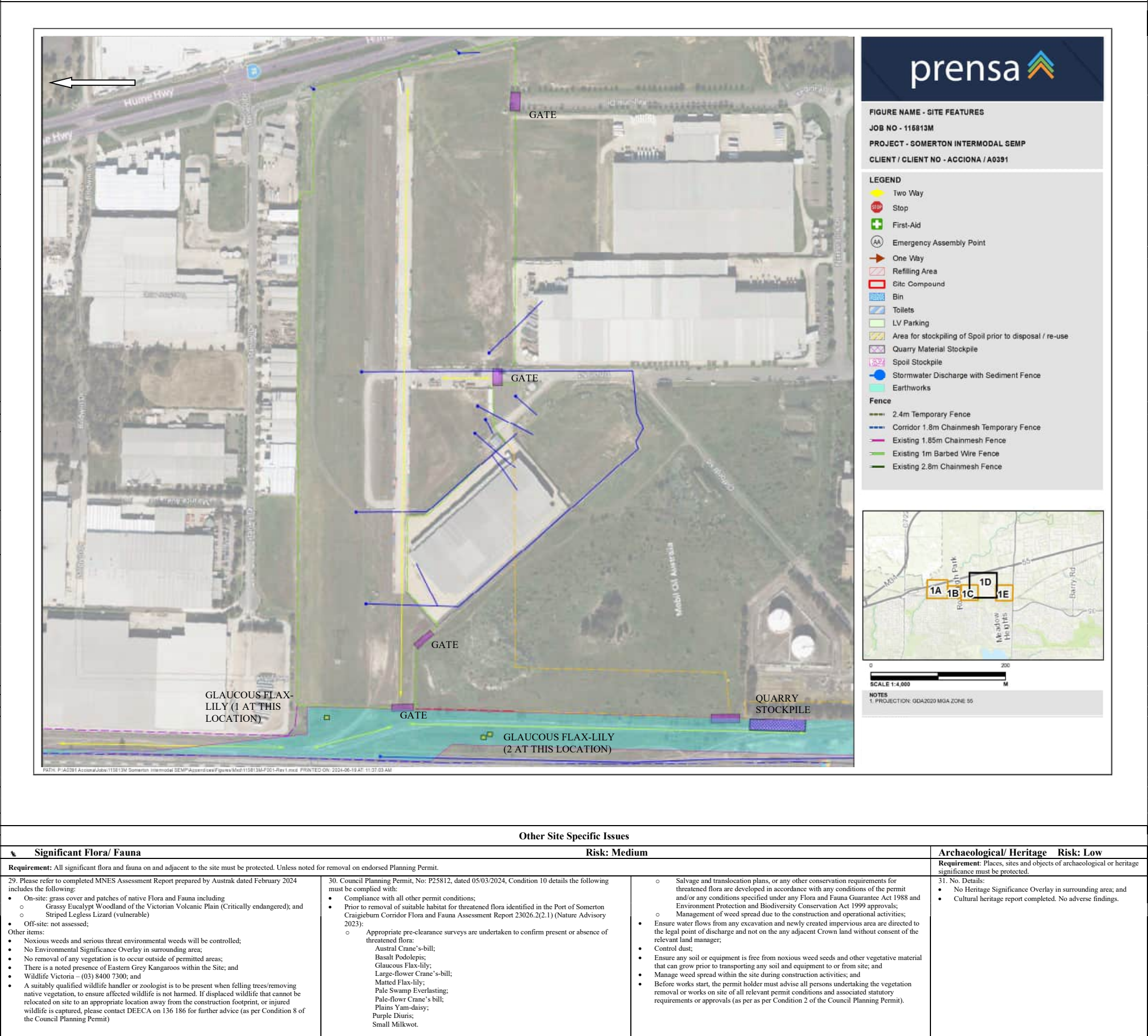
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Management		
1. Responsibilities: Name: Jason Hunter Position: Acciona Site Superintendent Number: 0419 838 399		Name: Paul Godfrey Position: Acciona Site Supervisor Number: 0427 606 136
2. Communication of EMP Requirements: • All site contractors, subcontractors and other employees are to be provided with and inducted into the SEMP prior to commencement of works; • SEMP is to be displayed in visible location within the site compound/office; and • Requirements of SEMP to be discussed during toolbox meeting		4. Staging of Works: • Earthworks
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4. Noise		6. Associated Documents: • Induction checklist; • Incident report forms; • Site-specific assessments; and • Inspection checklist.
Risk: Medium		
Requirement: EPA Victoria and Council requirements must be adhered to in relation to the level of noise and working hours, to ensure that residents and other applicable neighbours to the site are not disturbed unreasonably. The generation of noise must be minimised.		
7. Working Hours: • Monday to Friday 7:00 am to 6:00 pm • Saturday 7:00 am to 3:00 pm	8. Noise Minimisation Methods: • Regular maintenance and inspection of machinery; • All machinery and vehicles used on site to be fitted with standard noise management equipment; • Locate works that may generate noise as far away from neighbours as possible; and • Schedule noisy activities for least sensitive times of the day.	9. Other: • Noise monitoring will be undertaken on specific higher risk tasks.
Risk: Medium		
Requirement: Dust generation must be minimised to ensure there is no health risk or loss of amenity.		
10. Minimising Dust Generation: • Avoid stripping large areas of soil at once, strip in stages when possible; • Employ permanent dust suppression barriers, such as crushed rock and paving, as soon as possible; • Slow traffic speeds on unpaved roads – 20 km/hr; • Restrict activities involving handling and moving soils on windy days; and • Long-term stockpiles will be allowed to revegetate.	12. Contingencies: • In the event that the implemented controls are not deemed effective at suppressing dust-generation, ambient airborne dust monitoring at the boundary of the Site may be conducted to determine risk to human health; and • If dust generation can't be controlled then dust generating works must cease.	
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Earthwork EMP A1 Plan (1)- Types and Locations of Environmental Protection Measures

Project Name: Somerton Intermodal Terminal – STAGE 4: Terminal

Date and Revision: 21/06/2024-Rev07_ACCIONA UPDATED



Other Site Specific Issues

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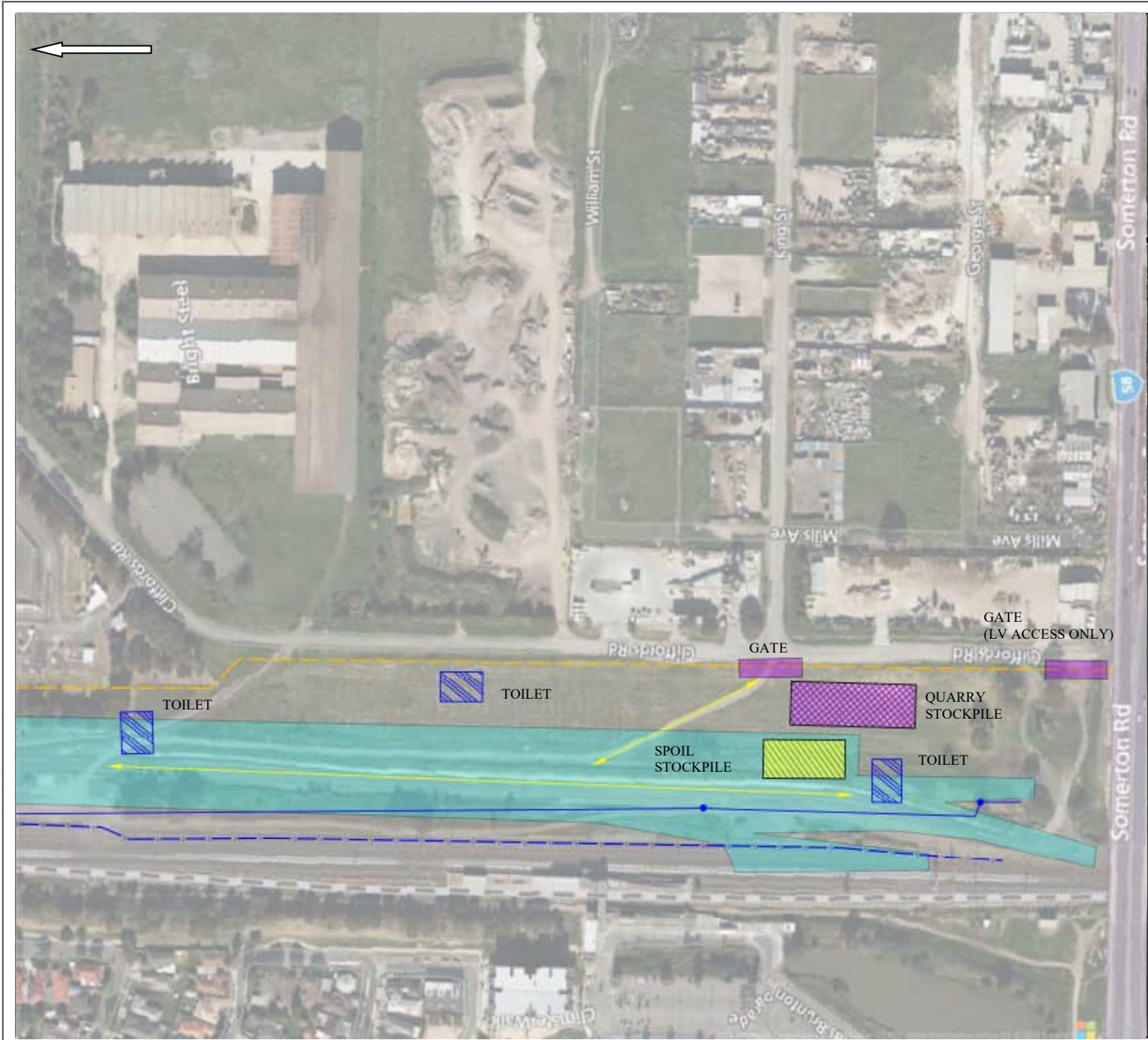
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Requirement: Storage and spill management practices must be implemented to ensure that no environmental damage can result from the escape or spillage of chemicals or fuels.	

25. Storage • Chemicals to be stored/used on site to be identified and listed on a register; • All chemicals stored to be stored in a designated area, adequately labelled with secondary containment (bundling); • Regular compliance inspections; and • Hazardous materials will be stored undercover and on impervious surface.	27. Refuelling Procedure: • Designated refueling point to be established; • Refuelling area to be appropriately banded; • No refuelling to occur within 20 m of drainage inlet; and • Stormwater/rain protection measures to be installed for banded areas.
26. Spill Management: • Chemical spill response plan to be established with key staff inducted and trained to undertake clean up works; • Spill kits to be stored within 10 m of chemical storage/refuelling areas; • Spills to be contained and cleaned up immediately; and • Emergency contacts and procedures to be listed within site office and lunchrooms.	28. Other:

Earthwork EMP A1 Plan (1)- Types and Locations of Environmental Protection Measures

Project Name: Somerton Intermodal Terminal – STAGE 4: Terminal

Date and Revision: 21/06/2024-Rev07_ACCIONA UPDATED



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FIGURE NAME - SITE FEATURES

JOB NO - 115813M

PROJECT - SOMERTON INTERMODAL SEMP

CLIENT / CLIENT NO - ACCIONA / A0391

LEGEND

- Two Way
- Toilets
- Area for stockpiling of Spoil prior to disposal / re-use
- Quarry Material Stockpile
- Stormwater Discharge with Sediment Fence
- Earthworks

Fence

- 2.4m Temporary Fence
- Corridor 1.8m Chainmesh Temporary Fence
- Existing 2.8m Chainmesh Fence



SCALE 1:2,500

NOTES

1. PROJECTION: GDA2020 MGA ZONE 96

Other Site Specific Issues			
Significant Flora/ Fauna		Risk: Medium	
Requirement: All significant flora and fauna on and adjacent to the site must be protected. Unless noted for removal on endorsed Planning Permit.		Archaeological/ Heritage Risk: Low	
29. Please refer to completed MNES Assessment Report prepared by Austrak dated February 2024 includes the following: • On-site: grass cover and patches of native Flora and Fauna including ◦ Grassy Eucalypt Woodland of the Victorian Volcanic Plain (Critically endangered); and ◦ Striped Legless Lizard (vulnerable) • Off-site: not assessed; Other items: • Noxious weeds and serious threat environmental weeds will be controlled; • No Environmental Significance Overlay in surrounding area; • No removal of any vegetation is to occur outside of permitted areas; • There is a noted presence of Eastern Grey Kangaroos within the Site; and • Wildlife Victoria – (03) 8400 7300; and • A suitably qualified wildlife handler or zoologist is to be present when felling trees/removing native vegetation, to ensure affected wildlife is not harmed. If displaced wildlife that cannot be relocated on site to an appropriate location away from the construction footprint, or injured wildlife is captured, please contact DEECA on 136 186 for further advice (as per Condition 8 of the Council Planning Permit)	30. Council Planning Permit, No: P25812, dated 05/03/2024, Condition 10 details the following must be complied with: • Compliance with all other permit conditions; • Prior to removal of suitable habitat for threatened flora identified in the Port of Somerton Craigieburn Corridor Flora and Fauna Assessment Report 23026.2(2.1) (Nature Advisory 2023): ◦ Appropriate pre-clearance surveys are undertaken to confirm present or absence of threatened flora: - Austral Crane's-bill; - Basalt Podolepis; - Glaucous Flax-lily; - Large-flower Crane's-bill; - Matted Flax-lily; - Pale Swamp Everlasting; - Pale-flower Crane's bill; - Plains Yam-daisy; - Purple Diuris; - Small Milkwort.	◦ Salvage and translocation plans, or any other conservation requirements for threatened flora are developed in accordance with any conditions of the permit and/or any conditions specified under any Flora and Fauna Guarantee Act 1988 and Environment Protection and Biodiversity Conservation Act 1999 approvals; ◦ Management of weed spread due to the construction and operational activities; • Ensure water flows from any excavation and newly created impervious area are directed to the legal point of discharge and not on the any adjacent Crown land without consent of the relevant land manager; • Control dust; • Ensure any soil or equipment is free from noxious weed seeds and other vegetative material that can grow prior to transporting any soil and equipment to or from site; and • Manage weed spread within the site during construction activities; and • Before works start, the permit holder must advise all persons undertaking the vegetation removal or works on site of all relevant permit conditions and associated statutory requirements or approvals (as per as per Condition 2 of the Council Planning Permit).	31. No. Details: • No Heritage Significance Overlay in surrounding area; and • Cultural heritage report completed. No adverse findings.

have read this Environmental Management Plan and agree to undertake works and ensure sub-contractors undertake works in accordance with this plan.

Developer

Consultant

Contractor

RISK ASSESSMENT CHECKLIST		
🔊 Noise		
Issues: - Nature of Noise Generating Works: Plant and vehicle movement - Potential Noise Receptors: Neighbouring residential and commercial/industrial properties - Proximity of Works to Noise Receptors: 20 m (commercial/industrial), 30 m (residential)	Likelihood	High
	Consequence	Low
	Overall Risk	Medium
☁️ Dust		
Issues: - Dust Sources: Vehicle movement, soil disturbance/movement - Potential Dust Receptors: On-site workers and neighbouring residential and commercial/industrial properties - Proximity of Works to Dust Receptors: On-site workers and neighbouring residential and commercial/industrial properties - Extent of Exposed Earth and Duration of Time Exposed: Earthworks works are anticipated to be completed within 17 month months (June 2023 - November 2024). - Wind Conditions: Prevailing wind direction is anticipated to be southeast. Therefore, windrows are positioned to protect neighbours to the north of the Site.	Likelihood	High
	Consequence	Low
	Overall Risk	Medium
🌊 Erosion and Sediment		
Issues: - Erosion and Sediment Sources: Disturbed exposed soil and stockpiled soil - Potential Erosion and Sediment Receptors: Open stormwater pits, Merri Creek is located over 700 m to the east and therefore it is considered unlikely earthworks would pose a risk to the closest surface water receptor. - Proximity of Works to Erosion and Sediment Receptors: Earthworks would be undertaken adjacent to the receptors. - Extent of Exposed Earth and Duration of Time Exposed: Extent of exposed earth to occur across the majority of the site. The direction of time with exposed earth is scheduled from June 2023 to November 2024. - Soil Type and Erosivity: The natural geology of the site is Newer Volcanics (i.e. basalt), which weathers to a silty clay. Due to the physical properties of the natural soil type, the erosivity is considered to be relatively low. - Slope: The Site is relatively flat, with minimal slope that would increase erosion rates and sediment flow. - Site Drainage Regime: The site drainage is managed by a network of stormwater pits, primarily located with the central and southern portions of the Site, and along the railway. As the majority of the Site will be unsealed during the earthworks phase of works, a significant portion of surface water would be managed via surface infiltration. Therefore, limiting potential for erosion and sediment flow. - Rainfall: The mean annual rainfall in Somerton is 650 mm. - Vehicle Movements On and Off Site: Vehicle movements onto and off-site is via Union Road which is paved. On-site vehicle movement during earthworks will be on the established haul roads.	Likelihood	Medium
	Consequence	Medium
	Overall Risk	Medium
🗑️ Waste		
Issues: - Nature of Waste to be Generated: Combination of: - Soil - Construction waste - General waste - Presence of Waste On Site Prior to Work Commencement: Soil is in-situ/undisturbed, other waste not present. - Quantity of Waste Anticipated: Soil to be stockpiled and kept on-site for reuse. - Potential Waste Receptors: Neighbours and stormwater receptors. - Proximity to Potential Waste Receptors: 20 m to adjacent property boundaries. Stormwater pits adjacent designated stockpiling areas are outlined in Plan (1).	Likelihood	Low
	Consequence	Medium
	Overall Risk	Medium
☠️ Dangerous Goods & Hazardous Substances		
Issues: - Types of Chemicals and Fuels Used and/or Stored On Site: Limited chemicals or fuels to be stored on-site during earthworks. The refuelling of plants is to be undertaken via mobile refuelling tankers. - Quantities of Chemicals and Fuels Used and/or Stored On Site: Quantities to be stored on-site will be minimal (if any). The quantity of fuel to be used on-site will be contingent on the number of plant (i.e. excavators, trucks) operating on-site. However, 10,000 L tankers are commonly utilised for on-site refuelling and it is estimated that refuelling may be required every 1-2 days. - Potential Chemical Receptors: Surface water receptors (i.e. stormwater pits) and exposed soil. - Proximity to Potential Chemical Receptors: Refuelling is to be undertaken no closer than 20 m from stormwater pits.	Likelihood	Low
	Consequence	Medium
	Overall Risk	Medium
🐾 Significant Flora/ Fauna		
Issues: - Types of Flora/ Fauna: Grassy Eucalypt Woodland of the Victorian Volcanic Plain (Critically endangered) and Striped Legless Lizard (vulnerable) - Vulnerability of Flora/ Fauna: Critically endangered and/or Vulnerable - Proximity of Flora/Fauna to Works: Patches across the site - Work Activities Which May Threaten Flora/ Fauna: Construction/earthworks - Potential Impacts on Flora/ Fauna: Significant outside of approved Permit area	Likelihood	Medium
	Consequence	Medium
	Overall Risk	Medium
🏛️ Archaeological/ Heritage		
Issues: - Traditional Land Owners Consulted? No - Survey or Assessment Conducted? Not Required - Probability of Encountering Archaeological/ Heritage Items During Works: NA - Types of Archaeological/ Heritage Items On Site: NA - Proximity of Archaeological/ Heritage Items to Works On Site: NA - Work Activities Which May Threaten Archaeological/ Heritage Items: NA Potential Impacts on Archaeological/ Heritage Items: NA	Likelihood	Low
	Consequence	Low
	Overall Risk	Low

Earthwork EMP A1 Plan (2)- Risk Assessment and Designs of Environmental Protection Measures

Project Name: Somerton Intermodal Terminal – STAGE 4: Terminal

Date and Revision: 21/06/2024-Rev07

Environmental protection measures shall be constructed in accordance with the following designs.

Figure 1. Sediment fence design

Figure 2. Rock log design for stormwater pits

Issues:	Likelihood	Issues:	Likelihood
	Consequence		Consequence
	Overall Risk		Overall Risk