

Officer Assessment Report

PA2402968 | Barwon Solar Farm



Officer Assessment Report
Energy Assessment

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Department
of Transport
and Planning

OFFICIAL

Executive Summary



Key Information	Details		
Application No:	PA2402968		
Received:	5 June 2024		
Statutory Days:	93 days (as of 26 February 2025)		
Applicant:	Elgin Energy Pty Ltd c/- Urbis Ltd		
Planning Scheme:	Greater Geelong		
Land Address:	1000, 1050, 1085-1135, 1145-1215, 1150-1190, 1240 and 1320 Little River-Ripley Road, Little River VIC 3211 (see body of report for formal land details)		
Proposal:	To use and develop the land for a 330MW solar farm and 250MW Battery Energy Storage System (BESS), to remove 9.926 hectares of native vegetation and to display a business identification sign.		
Development Value:	\$500M		
Why is the Minister responsible?	In accordance with Clause 72.01-1, the Minister for Planning is the responsible authority for a planning permit application for the use or development of land associated with an energy generation facility with an installed capacity of 1 megawatt or greater, and a utility installation used to transmit or distribute electricity or store electricity if the installed capacity is 1 megawatt or greater.		
Permit triggers	Clause	Control	Trigger
Zone:	Clause 35.07	Farming Zone (FZ)	Clause 37.01-1: <ul style="list-style-type: none"> Use of land for a renewable energy facility (other than a wind energy facility). Use of land for a utility installation. Clause 35.07-4: <ul style="list-style-type: none"> Construct a building or construct or carry out works associated with a Section 2 use of Clause 35.07-1. Construct a building within 20m of a road.
Overlays:	Clause 42.01	Environmental Significance Overlay Schedules 1 and 4 (ESO1 and ESO4)	Clause 42.01-2: <ul style="list-style-type: none"> Construct a building or construct or carry out works (ESO1 and ESO4). Construct a fence greater than 1.2m in height (ESO1). Remove, destroy or lop any vegetation (ESO1 and ESO4).
	Clause 42.03	Significant Landscape Overlay Schedule 1 (SLO1)	Clause 42.03-2: <ul style="list-style-type: none"> Construct a building or construct or carry out works. Remove, destroy or lop any vegetation
Particular Provisions:	Clause 52.05	Signs	Clause 52.05-14 – Display of a business identification sign.
	Clause 52.17	Native Vegetation	Clause 52.17-1 - Remove, destroy or lop native vegetation, including dead native vegetation.
Cultural Heritage:	Cultural Heritage Management Plan (CHMP) 18474 approved on 14 November 2024		
EE Act and EPBC Act:	EPBC Controlled Action – State assessment via accredited Environment Report EE Act – ‘No EES Subject to Conditions’ decision. Requiring Environment Report and EMF.		
Referral Authorities:	AusNet (s55 – determining)		



Secretary to the Department of Environment, Energy and Climate Action (DEECA) (s55 – recommending)

WorkSafe (s55 – determining)

Public Notice:

- Owners and occupiers of land within a 1km of the site
- Greater Geelong Council
- Powercor
- Energy Safe Victoria
- Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC)
- DEECA (Crown Land Manager)
- Country Fire Authority (CFA)
- Head, Transport for Victoria
- Wyndham City Council
- Moorabool Council

Submissions/objections: 48 submissions, including:

- 44 objections
- Submission from CFA
- Submissions from Greater Geelong and Wyndham Council
- Submission from Head, Transport for Victoria

Recommendation: Issue a planning permit subject to conditions.



Application Process

1. The key milestones in the application process were as follows:

Milestone	Date
Lodgement of original planning application (PA2201886)	28 October 2022
Withdrawal of original application (PA2201886)	6 June 2024
Application lodgement	5 June 2024
Further information requested	7 August 2024
Further information received	22 October 2024
Public notice	7- 22 November 2024
Advertised Decision Plans and Documents	<p>Plans prepared by Urbis, titled 'Barwon Solar Farm', Revision O and dated 11 October 2024.</p> <p>Elevation plans prepared by Urbis, titled 'Barwon Solar Farm Specifications and Details', Rev C dated 6 October 2024.</p> <p>Planning Report prepared by Urbis and dated October 2024.</p> <p>Landscape Strategy prepared by Urbis, dated 15 October 2024.</p> <p>Agricultural Assessment prepared by Ag-Challenge Consulting Pty Ltd and dated 4 March 2022.</p> <p>Community and Stakeholder Engagement Outcomes Report prepared by Urbis, dated 10 October 2022.</p> <p>Flora and Fauna assessment prepared by Biosis, version 4 dated 12 September 2024.</p> <p>Victorian Grassland Earless Dragon Habitat Species Assessment prepared by Biosis dated 12 January 2024.</p> <p>Hydrology Assessment and associated memorandum prepared by Ecological Australia and dated 5 April 2023.</p> <p>Preliminary Landscape and Visual Impact Assessment prepared by Urbis and dated 14 October 2024.</p> <p>Noise Assessment prepared by Norman Disney & Young dated 14 October 2024.</p> <p>Transport Impact Assessment prepared by Urbis, dated 14 October 2024.</p> <p>Fire Risk Assessment prepared by Ecological Australia and dated 12 April 2023.</p> <p>Bushfire Report Peer Review prepared by Ecology and Heritage Partners and dated 19 October 2023.</p>

2. Additionally, on 11 November 2024, DEECA requested further information be submitted to support their s55 referral response.
3. As such, on 22 November 2024 the applicant submitted some amended documents to satisfy DEECA's RFI:
 - RFI Cover letter prepared by Urbis and dated 22 November 2024.



- Updated site plans, prepared by Urbis, Rev P dated 22 November 2024.
 - Environmental Management Plan Framework, prepared by Urbis dated 22 October 2024.
 - Quotation for the supply of native vegetation credits dated 25 September 2024.
 - Updated Victorian Grassland Earless Dragon Habitat Species Assessment prepared by Biosis dated 18 November 2024, including:
 - Figure 1 Grassland Earless Dragon habitat within the study area
 - Figure 2 Grassland Earless Dragon habitat distribution model extent within the study area
4. The subject of this report is the advertised plans and documents (as described in the table above), unless those documents have been superseded by the amended documents submitted on 22 November 2024 to respond to the request for further information from DEECA.

Requirements under other legislation



5. The table below provides an overview of the project's key approval and assessment requirements under other Victorian and Commonwealth legislation:

Act	Discussion
<p>Environment Effects Act 1978 (EE Act)</p>	<p>The EE Act requires the preparation of an Environmental Effects Statement (EES) for activities considered to have, or to be capable of having, a significant effect on the environment. <i>The Ministerial Guidelines for Assessment of Environmental Effects under the Environment Effects Act 1978</i> (DTP 2023) outlines the criteria for referring a project to the Victorian Minister for Planning who will determine if an EES is required.</p> <p>On 2 August 2023, the project was referred under the EE Act. It is noted that at the time of the referral, the project was proposing to remove approximately 19ha of native vegetation. The amount of native vegetation proposed for removal has since been reduced through continued avoid and minimise processes.</p> <p>On 26 May 2024, the Minister for Planning decided that an EES is not required for the project, subject to conditions requiring:</p> <ul style="list-style-type: none"> a) An Environment Report to be prepared to the satisfaction of the Minister, in consultation with DTP and DEECA, including an Environmental Management Framework (EMF). b) The Environment Report to be publicly exhibited for 14 days. c) The Environment Report process to be completed to inform the form of the project that is examined through the planning and approval processes, including the P&E Act. <p>At the time of writing this assessment, the proponent has prepared the Environment Report and is in continued discussions with the Impact Assessment Unit (IAU) at DTP, and DEECA about its content. Once the Environment Report is finalised, it will then continue onto public exhibition.</p> <p>Given that the Environment Report has been drafted with feedback provided from DTP and DEECA, it is considered that the form of the project has been adequately progressed enough to continue to a decision under the P&E Act. Conditions of the recommendation will require the endorsement of the final EMF, to ensure that the mitigation measures informed by the Environment Report process are implemented during the construction and operation of the facility.</p> <p>For more information on the project's environmental impacts, refer to the biodiversity section of this report below.</p>
<p>Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)</p>	<p>Under the EPBC Act, an action that has, will have, or is likely to have, a significant impact on matters of national environmental significance, including nationally or internationally important flora, fauna, ecological communities, and heritage places, must be referred to the Commonwealth Minister for Environment and Water.</p> <p>The proponent referred the project under the EPBC Act (ref. 2023/09703) as the project was considered to have impacts on EPBC listed species including the Victorian Grassland Earless Dragon (VGED), Spiny Rice-Flower, Golden Sun Moth and Natural Temperate Grasslands of the Victorian Volcanic Plain (NTGVVP).</p> <p>On 2 February 2024, the Department of Climate Change, Energy and Environment and Water (DCCEE) determined under delegation that the project is a controlled action under s75 of the EPBC Act due to its impact on listed threatened species and communities (section 18 and 18A).</p> <p>The assessment of the project under the EPBC Act is being undertaken by the</p>



	<p>State, via the accredited Environment Report process in Schedule 1 (part 5) of the Bilateral Assessment Agreement between the Commonwealth and Victorian Governments under section 45 of the EPBC Act.</p> <p>As above, the proponent has prepared the Environment Report and is in consultation with DEECA and IAU. Conditions of the permit with require the endorsement of an EMF to ensure that the mitigation measures informed by the State accredited Environment Report process are implemented during the construction and operation of the facility.</p> <p>At the conclusion of the accredited state process, the Minister for Planning will provide an 'Assessment Report' to the Commonwealth Government Minister for the Environment and Water, to inform the Commonwealth's decision on whether the project is approved, approved with conditions, or refused under the EPBC Act. It is noted that if the EPBC decision requires changes to the design of the facility, any planning permit issued and any documents endorsed under a permit may be required to be amended, in line with the requirements of the EPBC decision.</p> <p>For more information on the project's environmental impacts, refer to the biodiversity section of this report below.</p>
Aboriginal Heritage Act 2006 (AH Act)	<p>The AH Act seeks to avoid adverse effects to Aboriginal cultural heritage values as far as reasonably practicable. Where adverse effects cannot be avoided, measures must be implemented to minimise and mitigate adverse effects.</p> <p>As the project is proposed to be located in CHS, CHMP 18474 was prepared and approved on 15 November 2024 by the Wadawurrung Traditional Owners Aboriginal Corporation. The proposal is generally consistent with the works as shown in the CHMP.</p>
Flora and Fauna Guarantee Act 1988 (FFG Act)	<p>Under the FFG Act, a permit is required to take, kill, injure, disturb or collect threatened species or protected flora species. There are permit exemptions under the FFG Act which apply to the non-commercial removal of protected flora from private land, unless there is 'critical habitat' that has been declared on the land.</p> <p>The Flora and Fauna Assessment submitted with the application confirms that as the project is predominately on private land and does not contain and declared 'critical habitat', an FFG permit is not required.</p>
Climate Change Act 2017 (CC Act)	<p>The purpose of the CC Act includes (but is not limited to):</p> <ul style="list-style-type: none">• <i>to facilitate the consideration of climate change issues in specified areas of decision making of the Government of Victoria; and,</i>• <i>to set policy objectives and guiding principles to inform decision-making under this Act and the development of government policy in the State.</i> <p>Section 20 of the CC Act states that:</p> <p><i>The Government of Victoria will endeavour to ensure that any decision made by the Government and any policy, program or process developed or implemented by the Government appropriately takes account of climate change if it is relevant by having regard to the policy objectives and the guiding principles.</i></p> <p>The policy objectives of the CC Act include:</p> <ul style="list-style-type: none">• <i>to reduce the State's greenhouse gas emissions consistently with the long-term emissions reduction target and interim emissions reduction targets;</i>• <i>to build the resilience of the State's infrastructure, built environment and communities through effective adaptation and disaster preparedness action;</i>• <i>to manage the State's natural resources, ecosystems and biodiversity to</i>



promote their resilience;

- *to promote and support the State's regions, industries and communities to adjust to the changes involved in the transition to a net zero greenhouse gas emissions economy, including capturing new opportunities and addressing any impacts arising from the need to reduce greenhouse gas emissions across the economy; and,*
- *to support vulnerable communities and promote social justice and intergenerational equity (emphasis added).*

The guiding principles of the CC Act include:

- *that a decision, policy, program or process should integrate the competing long-term, medium-term and short-term environmental, economic, health and other social considerations relating to climate change to ensure that:*
 - a) *all relevant issues relating to climate change associated with the decision, policy, program or process are taken into consideration during the decision making process; and*
 - b) *there is a proper examination of all the issues which are relevant to climate change; and*
 - c) *any measures adopted as a result of the decision, policy, program or process are cost effective and in proportion to the problems relating to climate change that are relevant to the decision, policy, program or process.*
- *opportunities should be created by the present generation to increase the capacities within that generation and future generations to adapt to climate change*
- *that community involvement in decisions, policies, programs or processes relating to climate change that may affect members of the community or members of the community in future generations, especially members of vulnerable or marginalised communities, should be facilitated and this includes:*
 - a) *providing appropriate information to the community; and*
 - b) *providing opportunities for the community to be involved in the decision, policy, program or process; and*
 - c) *providing for appropriate and adequate public consultation with the community.*

This assessment has considered the policy objectives and the guiding principles of the CC Act. The proposed facility is estimated to generate approximately 330MW of solar energy and store 250MW of electricity, reducing emissions by 318932 tCO₂e per annum which will help achieve the emissions reduction targets in Part 2 of the CC Act. It is noted that the community were invited to be involved in the decision-making process via public notice under s52 of the Act.



6. The application seeks the use and development of the land for a solar energy facility and utility installation, associated buildings and works, the removal of vegetation and to display a business identification sign.
7. Specific details of the application include:
 - 330MW solar array:
 - Total panel area of approximately 505ha
 - Single axis tracking
 - Maximum height of 3.2m above natural ground level (NGL)
 - 250MW / 500MWh BESS:
 - Located on the southern edge of the site
 - Total area of approximately 8379m²
 - 12m (length) x 2.4m (width) x 2.9m (height) BESS housing structures
 - Corton steel/Surf mist finish
 - PV inverters and transformers:
 - Housed in 6m (length) x 2m (width) x 3m (height) structures
 - On concrete base
 - Natural steel finish
 - Acoustic screening around the BESS and select inverters to a height of 3.0m (BESS) and 2.5m (inverters)
 - Substation located in the southeastern corner of the site, adjacent to the existing 220kV transmission line easement
 - Substation control room of 13.2m (length) x 5.8m (width) x 4.6m (height)
 - Overhead transmission line connecting into existing 220kV network
 - Internal road system
 - Seven vehicle access points:
 - 6x Little River-Ripley Road
 - 1x Mt Rothwell Road
 - Laydown areas
 - 2.3m high chain link security fence
 - Security cameras
 - 7x 45,000L water tanks
 - Business identification signs x3:
 - Located at the access gates on Little River-Ripley Road
 - 2.4m x 1.2m (each)
 - Display area of 2.88m²
 - Removal of 9.926ha of native vegetation, comprised of:
 - Heavier-soils Plains Grassland, Plains Grassy Woodland, Plains Grassy Woodland and Hills Herb Rich Woodland
 - 7.061ha of patch removal
 - 50 scattered trees
 - 38 large trees
 - Removal of non-native vegetation in the ESO1 and ESO4.
 - Screen planting along Little River-Ripley Road, Mt Rothwell Road and other sensitive viewpoints
8. The applicant has provided the following plans and elevations of the proposal:

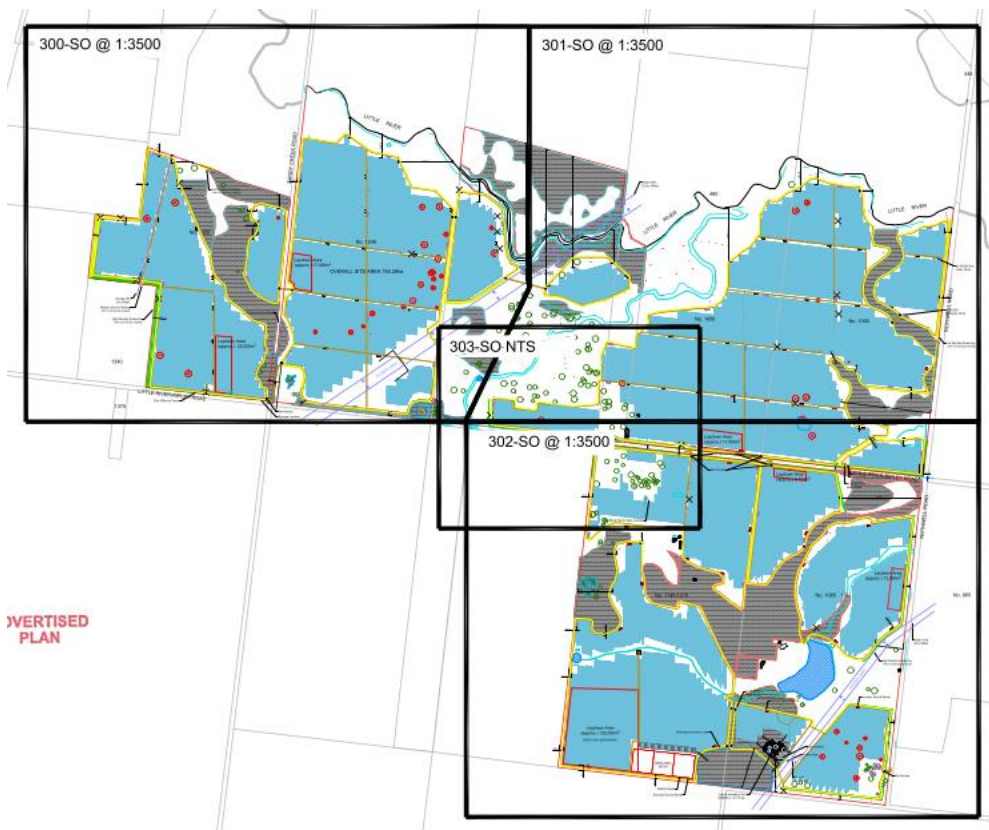


Figure 1: Proposed site plans. Source: Advertised application documents.

SOLAR TRACKER

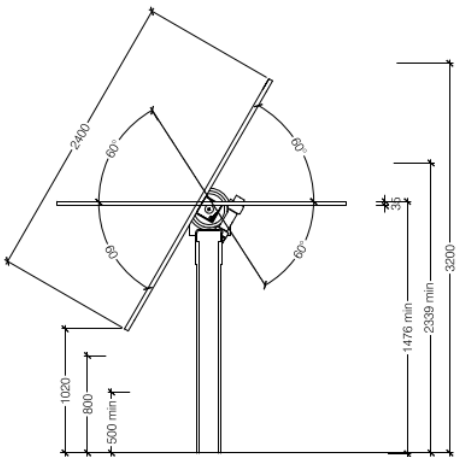


Figure 2: Elevation of proposed solar trackers. Source: Advertised application documents.

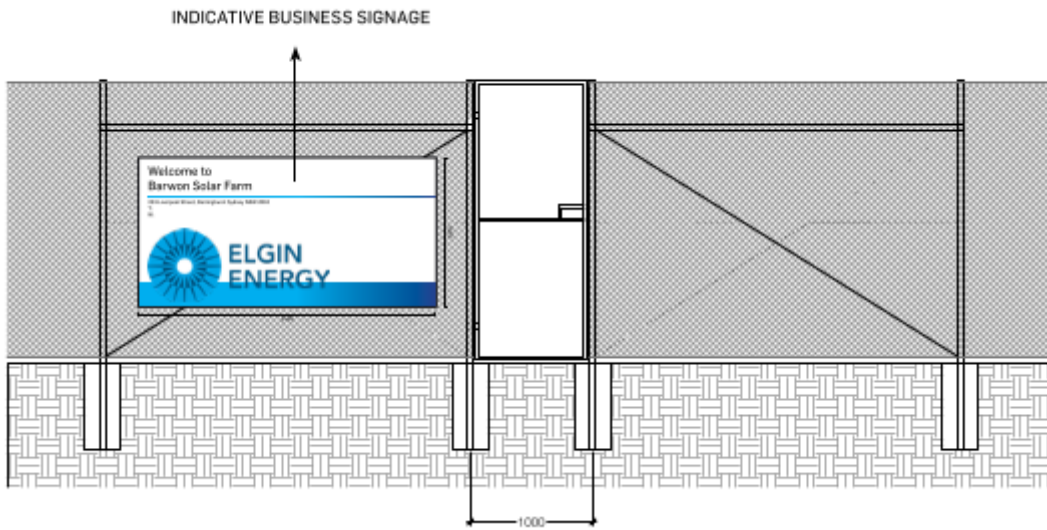


Figure 3: Proposed security fencing and business identification sign. Source: Advertised application documents.

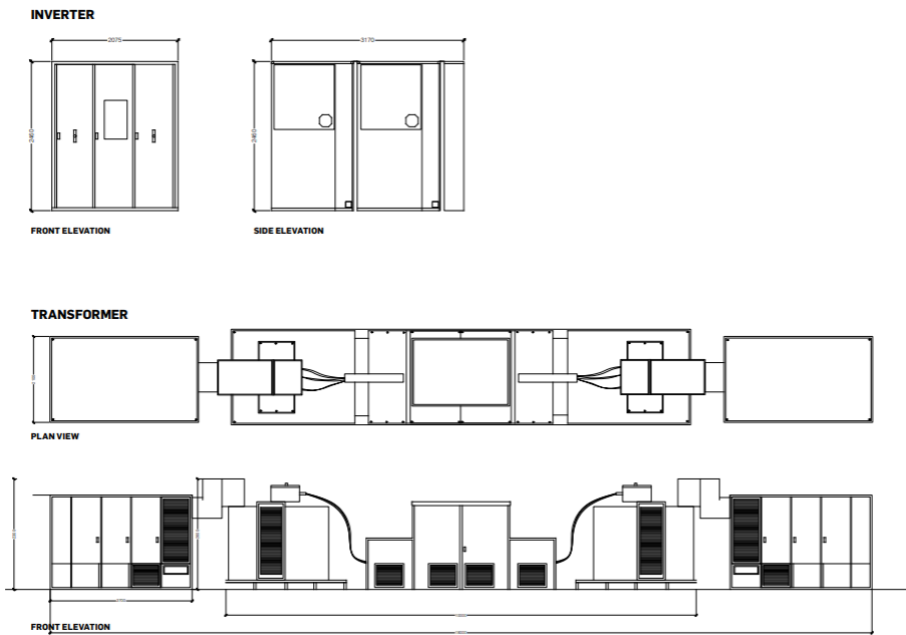


Figure 4: Proposed transformers and inverters. Source: Advertised application documents.

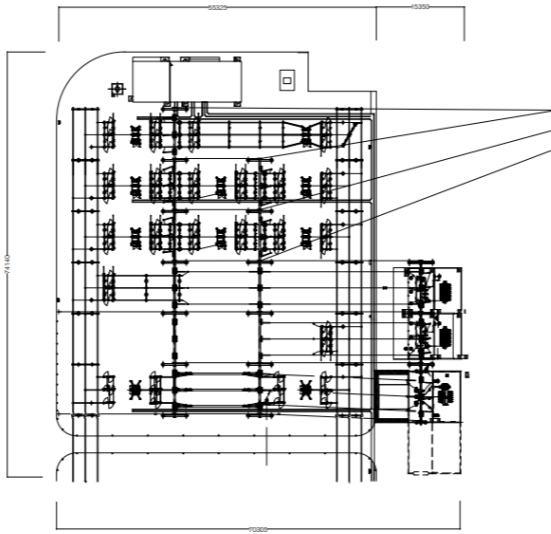
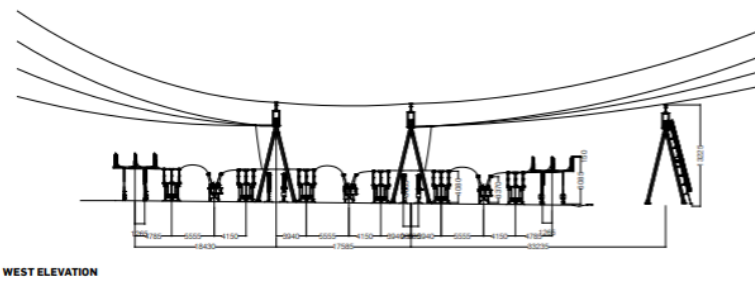


Figure 5: Plan of proposed substation. Source: Advertised application documents.



WEST ELEVATION

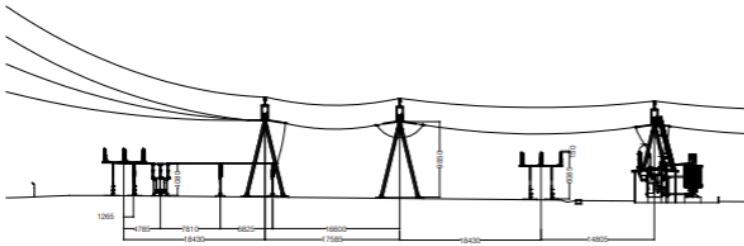


Figure 6: Elevations of proposed substation. Source: Application documents.



Site Description

9. The site is located in the Balliang/Little River region, approximately 30km north of the Geelong CBD.
10. The site spans a width of approximately 4.2km (east-west) and 1.3km (north-south) and has a total area of approximately 7.35 hectares (ha).
11. The site is located at 1000, 1050, 1085-1135, 1145-1215, 1150-1190, 1240 and 1320 Little River-Ripley Road in Little River.
12. The site is formally described as comprising the following land parcels:
 - Lot 2 on PS140470 Vol 09573 Fol 850
 - Lot 1 on PS434520C Vol 10533 Fol 121
 - Lot 1 on TP015944U Vol 10483 Fol 783
 - Lot 2 on TP015944U Vol 10483 Fol 784
 - Portion 17 Parish of Wurdi-Youang Vol 12363 Fol 977
 - Portion 22 Parish of Wurdi-Youang Vol 10483 Fol 781
 - Portion 23 Parish of Wurdi-Youang Vol 10483 Fol 782
 - Portion 24 Parish of Wurdi-Youang Vol 10040 Fol 564
13. There are several easements on the site, for the purpose of:
 - Supply of electricity
 - Transmission of electricity
 - Transmission line
14. Notably, the easements contain:
 - 500kV transmission line across the northwestern side of the site
 - 220kV transmission line in the southeastern corner of the site
 - Powerlines for the supply of electricity in the southern side of the site
15. There are no restrictive covenants, section 173 agreements or other encumbrances on the titles that restrict the proposed use and development.
16. Access to the site is provided from Little-River Ripley Road, Sandy Creek Road and Mt Rothwell Road.
17. The existing site is used for agricultural purposes, including the cropping of wheat, barley and canola and the grazing of sheep.
18. The site contains a residence in its southeastern corner and various outbuildings and agricultural buildings.
19. There are several dams present on site, including a large dam located just northwest of the 220kV powerline.
20. There are a number of waterways in and around the subject site. The northern boundary of the site interfaces with Little River. Sandy Creek traverses across the centre of the site to towards Little River. A small unnamed water extends across the southern proportion of the site.
21. The site is generally flat with some gentle undulation, including a rise in the southeast corner, towards the neighbouring site of Rothwell Estate.
22. The site contains a range of ecological values, including 142 flora species and 63 fauna species, including:
 - Remnant patches of native vegetation:



- EVC 55_63 Plains Grassy Woodland. One patch meets the condition thresholds for the EPBC Act listed community Grey Box (*Eucalyptus macrocarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia.
- EVC 68 Creekline Grassy Woodland
- EVC 71 Hills Herb-rich Woodland
- EVC 125 Plains Grassy Wetland
- EVC 821 Tall Marsh
- EVC 132_61 Heavier-soils Plains Grassland. Most of these patches meet the condition thresholds for the EPBC Community Natural Temperate Grassland of the Victorian Volcanic Plain.
- Potential habitat for:
 - Striped Legless Lizard (SLL). However, targeted surveys for SLL did not find any SLL on the site.
 - Golden Sun Moth (GSM). GSM was recorded in the targeted surveys of the site.
 - Spiny Rice-flower (SRF). However, the targeted surveys within the site did not detect any SRF.
 - Victorian Grassland Earless Dragon (VGED), including four patches of VGED habitat.
 - Eastern Bent Wing Bat.
- Wooded areas containing large trees, canopy cover and fallen timber which can provide habitat for threatened species.
- 187 scattered trees including:
 - River Red-gum
 - Yellow Box
 - Grey Box
 - Mana Gum
 - Melbourne Yellow Gum

These trees provide potential nesting opportunities for various fauna including threatened species such as the Swift Parrot, Grey-headed Flying Fox, Wedge-tailed eagle Collared Sparrowhawk, Brown Falcon, Black-shouldered Kite and Black Falcon.
- Farm dams containing:
 - Spike-sedge
 - EVC 821 Tall Marsh
 - Habitat for various frog species including Striped Marsh Frog, Common Froglet, Southern Brown Tree Frog and Pobblebonk Frog
 - Habitat for waterbirds, as listed in Appendix 2 of the proponents Flora and Fauna assessment

Refer to Figure 13 for a map of the ecological values present in the subject site.

23. The site is located within the Farming Zone (FZ) and is affected by the following overlays:

- Environmental Significance Overlay Schedules 1 (Areas of Flora and Fauna Habitat and of Geological and Natural Interest) and 4 (Grasslands within the Werribee Plains Hinterland)
- Significant Landscape Overlay Schedule 1 (Foothills of the You Yangs)
- Bushfire Management Overlay

See Figures 7 to 10 showing the location of the zones and overlays.

21. The site is also located within a bushfire prone area (BPA) and in an area of Aboriginal Cultural Heritage Sensitivity (CHS). Refer to Figure 11.

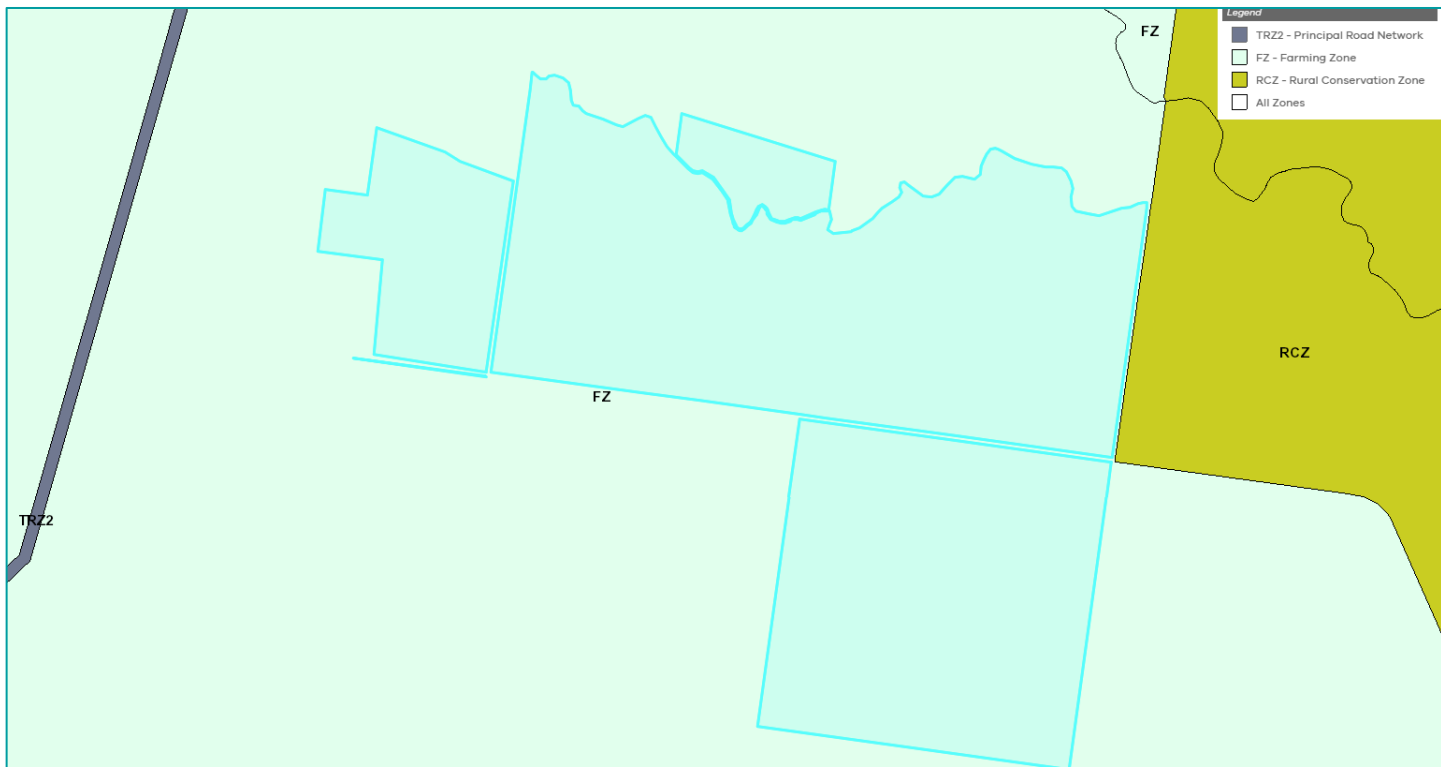


Figure 7: Zoning map of the site and surrounds. Subject site highlighted in blue.

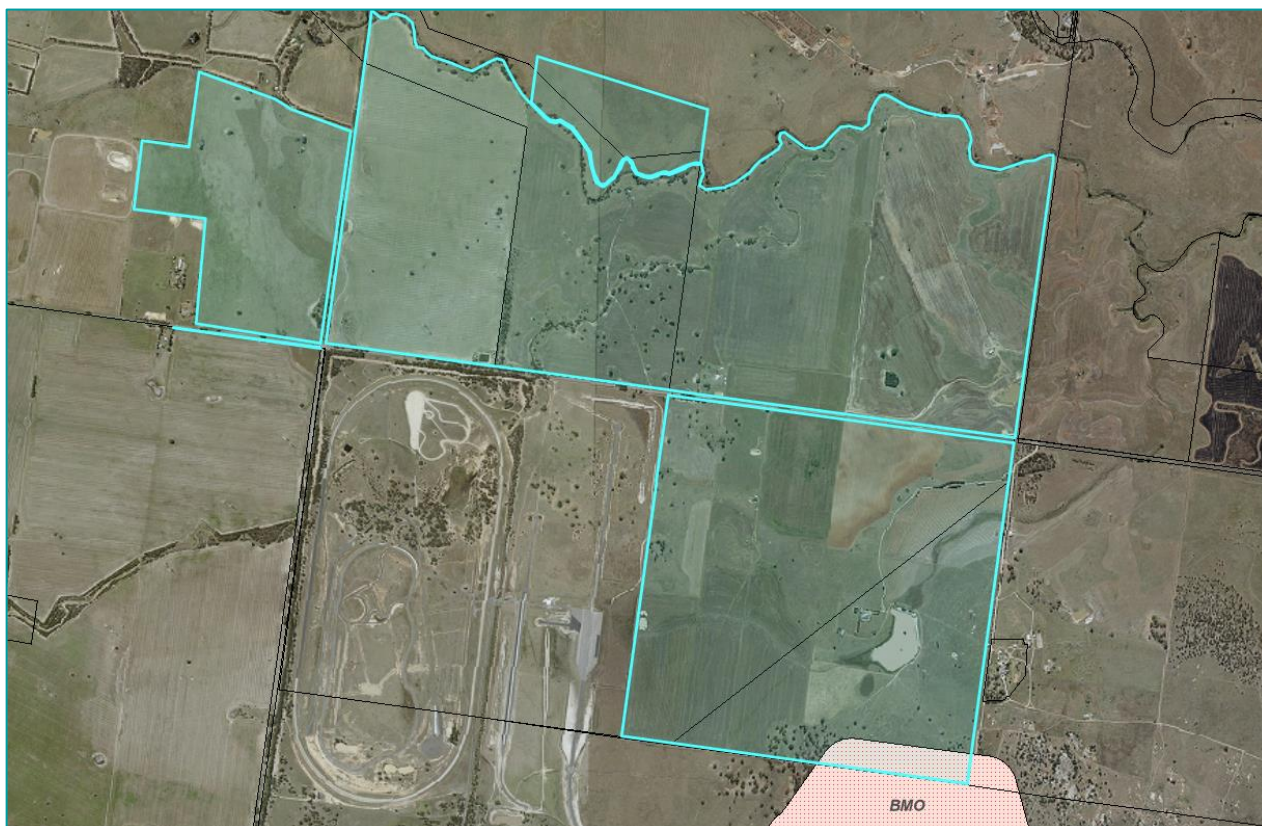


Figure 8: Map showing the location of the Bushfire Management Overlay (BMO). Subject site highlighted in blue.

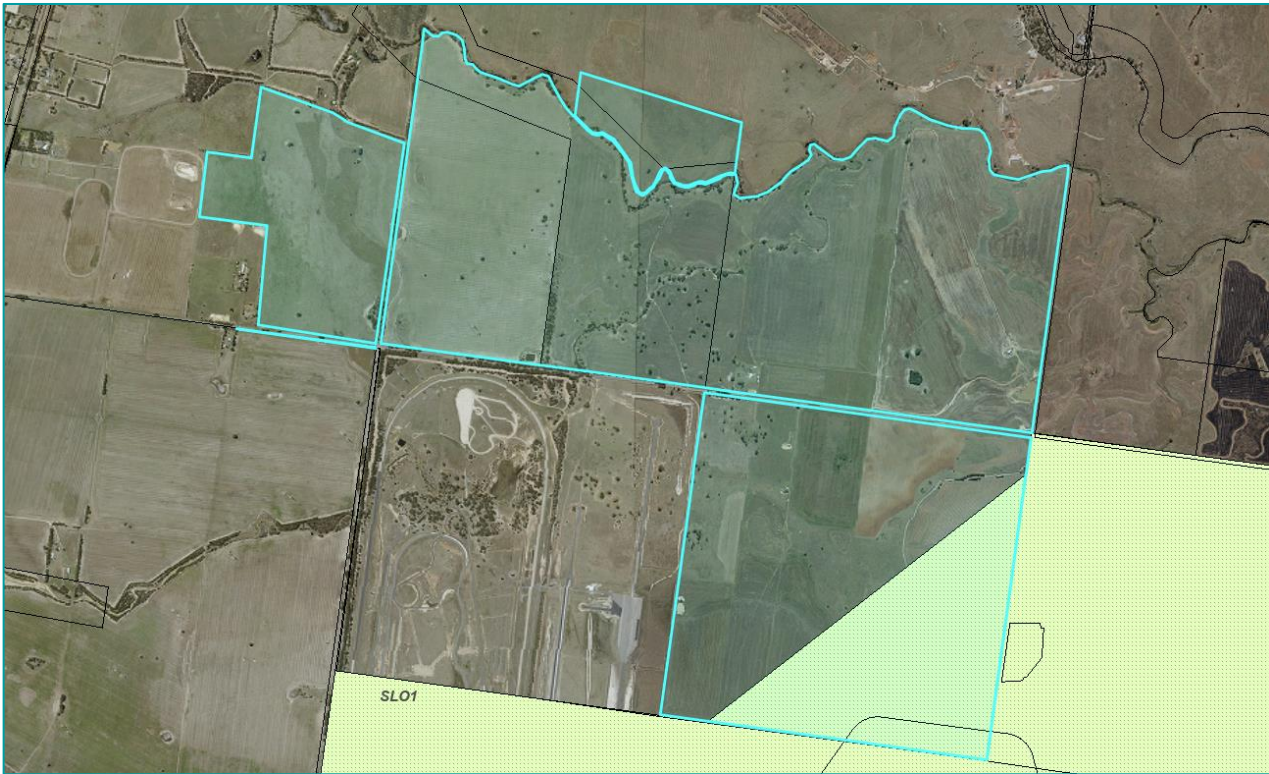


Figure 9: Map showing the location of the Significant Landscape Overlay (SLO). Subject site highlighted in blue.

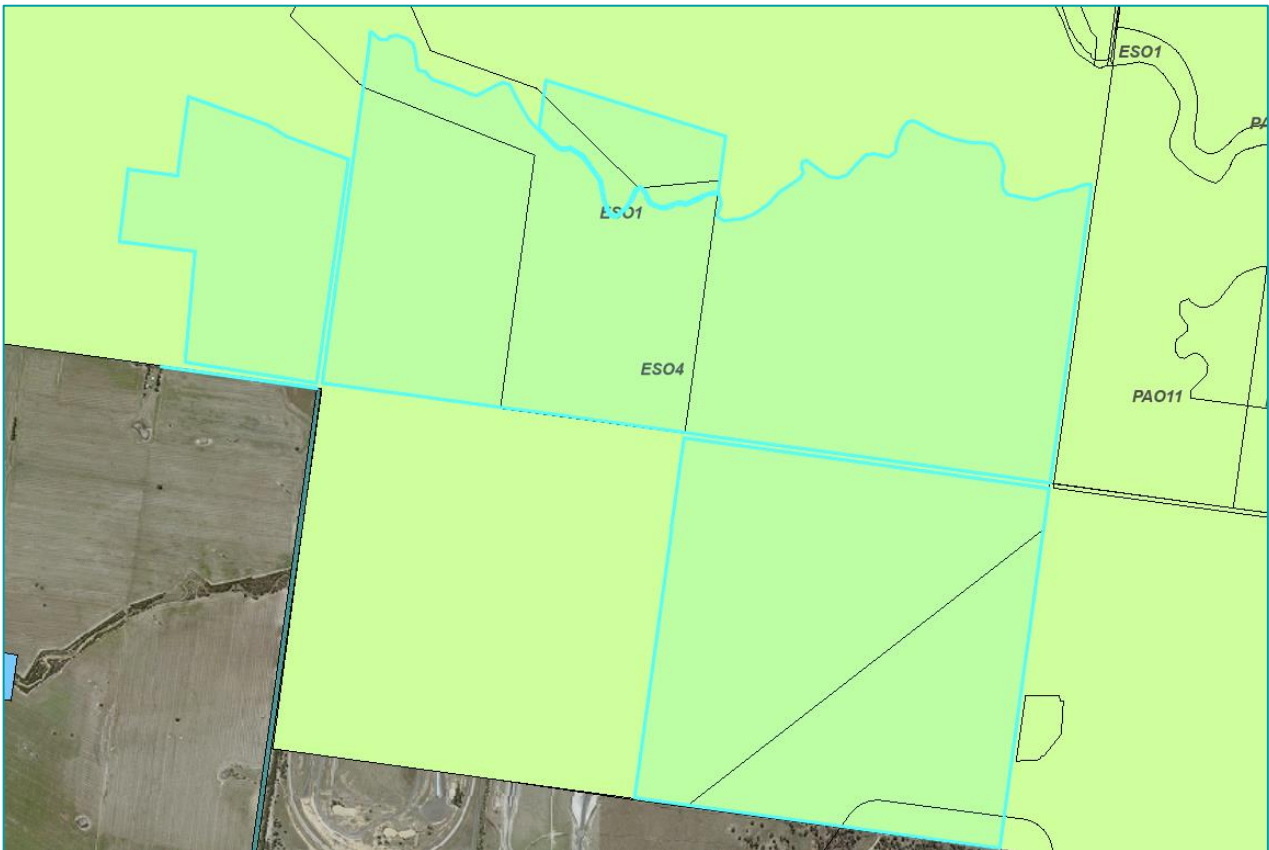


Figure 10: Map showing the location of the Environmental Significance Overlay (ESO). Subject site highlighted in blue.

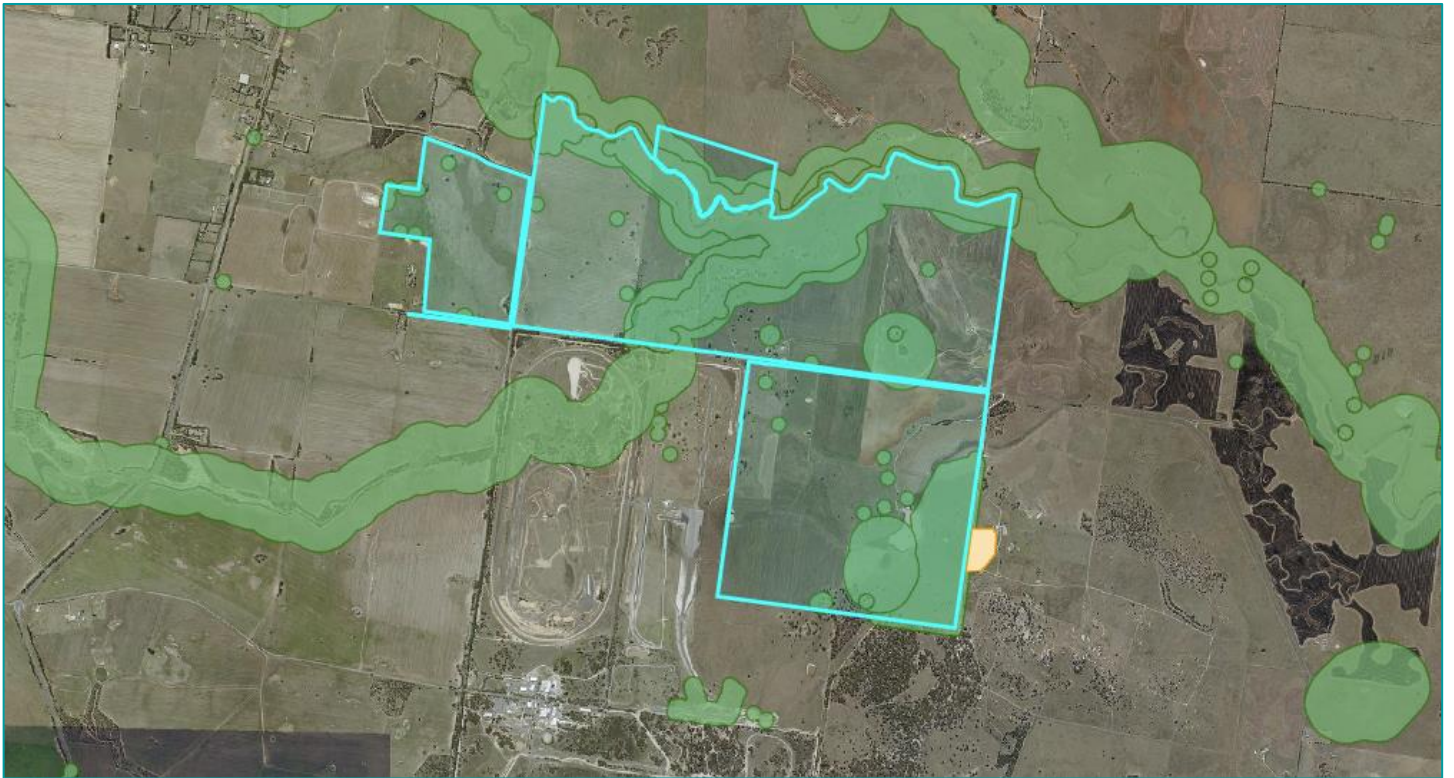


Figure 11: Map showing the location of areas of Aboriginal Cultural Heritage Sensitivity (green) and Victorian Heritage Register (orange) sites. Subject site highlighted in blue.

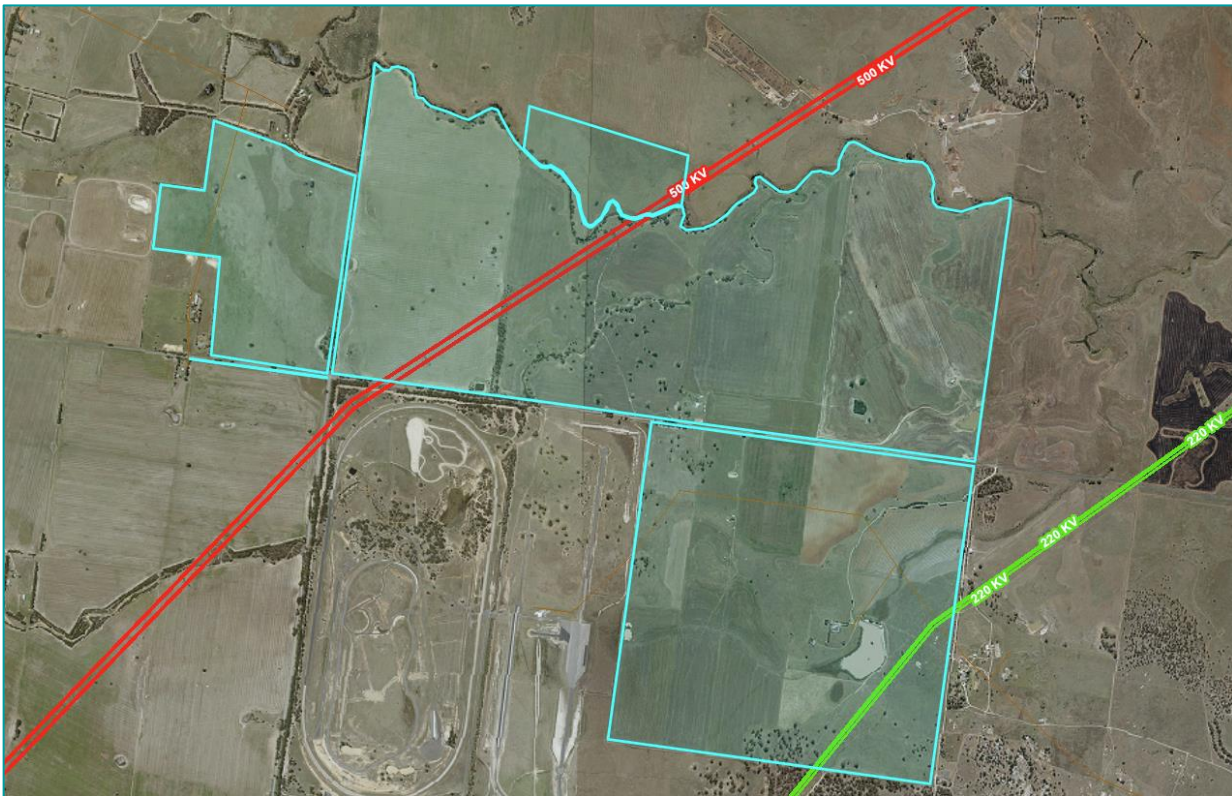


Figure 12: Location of existing 500kV (red) and 220kV (green) transmission lines. Subject site highlighted in blue.

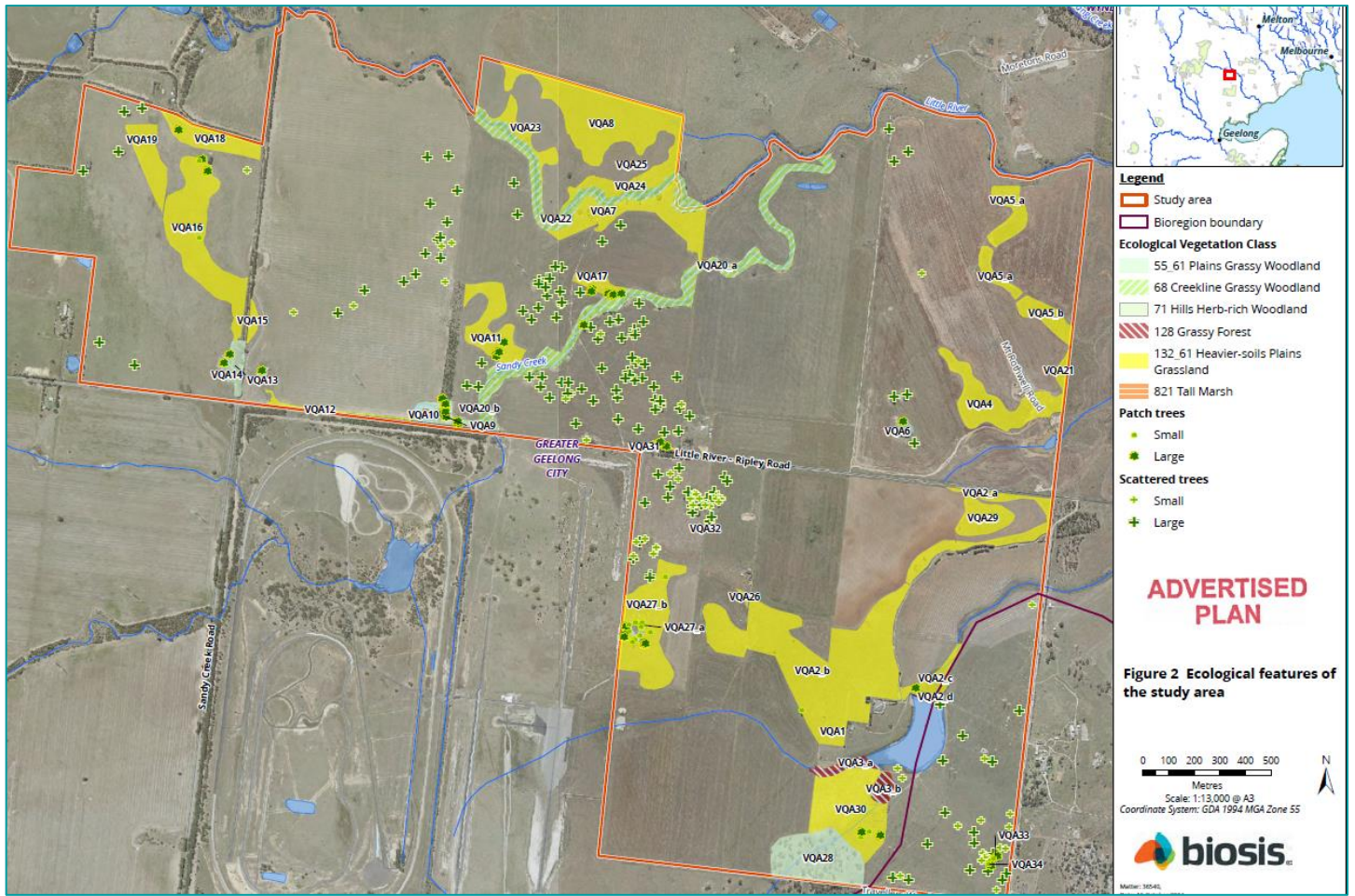


Figure 13: Map of ecological values in the subject site. Source: Flora and fauna assessment (Biosis) submitted with application documents.



Figure 14: View of the site looking west. Photo taken from near the corner of Little River-Ripley Road and Mt Rothwell Road. Date 24.10.24.



Figure 15: View towards the northwestern corner of the site. Photo taken from Little-River Ripley Road. 500kV powerline visible in the background. Date 24.10.24.



Figure 16: View towards the central and northern sections of the site, taken from Little River-Ripley Road. Date 24.10.24.

Site Surrounds

24. The immediate land surrounding the site is primarily used for agricultural purposes for the dryland cropping of cereals, pulse crops and the grazing of sheep. Most land is located within the FZ.
25. To the east of the site is the Mount Rothwell Estate and Homestead, located at 985-995 Little River-Ripley Road. The property contains the Mount Rothwell Homestead, a single-storey bluestone Italianate dwelling built in 1872. The dwelling is listed on the Victorian Heritage Register (ref H1107). The estate contains a distillery, accommodation, farmland, a small solar array and a private airstrip that runs parallel to the 220kV transmission line, north of the transmission line.
26. Also to the east of the site is the Western Grassland Nature Reserve, located in the Rural Conservation Zone (RCZ) and Public Acquisition Overlay (PAO). The Victorian Government is in the process of purchasing all properties in the reserve area with the revenue from MSA levies. The reserve is home to numerous threatened and endangered species, including Matters of National Environmental Significance (MNES) protected under the Environmental Protection and Biodiversity Conservation Act (EPBC Act).
27. To the south of the site is the Mt Rothwell Conservation and Research Reserve, a private conservation reserve managed by Zoo's Victoria.
28. Also to the south of the site is the Ford Proving Ground, used as a vehicle testing range, located in the FZ.
29. Further south of the site is the You Yangs Regional Park and the Heidelberg and Boral Quarries.
30. A site inspection of the subject site and surrounds was undertaken by DTP officers on 24 October 2024. Images of the site and surrounds can be found in Figures 14 – 18.



Figure 17: View south from Little River Ripley Road towards the adjacent Ford Proving Ground. You Yangs visible in the background. Date 24 October 2024.



Figure 18: View towards Mount Rothwell Road, taken from Little-River Ripley Road (Date: 24 October 2024)

Referrals and Notice



Referrals

31. The application was referred to the following groups:

Organisation	Referral Type	Provision/ Clause	Response Date	Response	DTP Officer Assessment
Secretary to the Department of Energy, Environment and Climate Action (DEECA)	Recommending (Clause 66.02-2)	Clause 66.02-2 - To remove, destroy or lop native vegetation in the Detailed Assessment Pathway as defined in the Guidelines for the removal, destruction or lopping of native vegetation.	25 November 2024 (RFI)	No objection subject to conditions No objection, subject to conditions requiring: <ul style="list-style-type: none"> • An Environment Management Plan, requiring: <ul style="list-style-type: none"> ○ Vegetation Management Plan ○ Establishment of No-Go Zones ○ Pre-construction targeted surveys for VGED ○ Sediment and erosion control measures ○ Vehicle and machinery hygiene measures ○ Pre-construction surveys and relocation of hollow dependent fauna • Native vegetation measures during construction • Native vegetation offsets 	DTP officers note the significant amount work that the applicant has gone through (in consultation with DEECA) to date to avoid and minimise the projects impacts to native vegetation. DEECA's conditions have been included in the proposed recommendation.
	Determining (Schedule to Clause 66.04)	Schedule to Clause 66.04 – An application under Schedule 4 to Clause 42.01 (ESO)	19 December 2024 (final referral response)		
The relevant electricity transmission authority (AusNet)	Determining	Clause 66.02-4 – To construct a building or construct or carry out works on land within 60 metres of a major electricity transmission line (220 Kilovolts or more) or an electricity transmission easement.	23 July 2024	No objection, subject to conditions No objection subject to conditions requiring: <ul style="list-style-type: none"> • AusNet approval for all access roads, lighting and services and buildings over AusNet easements. • Solar arrays not allowed in AusNet easements. • Access to easements for AusNet staff to be maintained at all times. • Plants in easements not exceed 3m in mature height. 	These conditions are supported and have been included in the recommendation.
The Victorian WorkCover Authority (WorkSafe)	Determining	Clause 66.02-7 – To use land for an industry, utility installation or warehouse where a fire protection quantity is exceeded under the Dangerous Goods (Storage and Handling) Regulations 2012.	8 August 2024	No objection No objection, no conditions	None

Notice

32. In accordance with Section 52(1) of the *Planning and Environment Act 1987* (the Act), notice of the application was given between 7 and 22 November 2024, by letter and/or email to:

- Section 52(1)(a) of the Act:
 - Owners and occupiers of adjoining land
- Section 52(1)(b) of the Act:
 - Greater Geelong City Council
- Section 52(1)(d) of the Act:
 - Owners and occupiers of land with 1km of the subject site
 - Powercor
 - Country Fire Authority (CFA)
 - Energy Safe Victoria (ESV)
 - Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC)
 - DEECA (as Crown land manager)
 - Head, Transport for Victoria
 - Wyndham City Council (due to the proximity of the site to the Council)
 - Moorabool Council (due to the proximity of the site to the Council)

33. Notice was also given in the Geelong Advertiser newspaper on 7 November 2024.

34. 48 submissions (including 44 objections) have been received at the time of writing this report

35. The following concerns were raised in the objections:

- Loss of agricultural land
- Bushfire risk and emergency access, including CFA access to the BESS, and location within a BMO
- Fire risk from Lithium batteries
- Biodiversity impacts, including on:
 - The Mt Rothwell Biodiversity Sanctuary, located south of the site, including its Eastern Barred Bandicoot and Southern Brush-tailed Rock Wallaby populations
 - The ESO4
 - Indigenous flora and fauna such as:
 - Melbourne Yellow Gums
 - Growling Grass Frog (GGF) and Golden Sun Moth (GSM)
 - Black Falcon
 - Bush stone curlews, who have been tracked and known to feed on vegetation proposed to be removed for the substation
 - Victorian Grassland Earless Dragon (VGED)
 - Natural temperate Grasslands of the Victorian Volcanic Plain
 - Removal of large old trees
- Concern that a decision on the Controlled Action under the EPBC Act has not been issued yet
- Concern with the timing of the biodiversity surveys
- Landscape and visual impacts, including the impacts of the project on:
 - You Yangs Regional Park
 - Mt Rothwell Homestead
 - The SLO
- Adequacy of the Landscape and Visual Impact Assessment (LVIA)
- Impacts on nearby heritage places:
 - Wurdi Youang stone arrangement (HO294)
 - Mount Rothwell Homestead (ref HV1107)
 - Indigenous artefacts
- Pollution from the BESS
- Glint and glare
- Traffic, and the inadequacy of the existing road network
- Impacts on the operations of the private Rothwell Airstrip, located to the southeast of the site, including requests to setback the security fencing further away from the site boundary, and installation of lighting
- Noise from the substation and BESS



- The site is located in a 'Deprioritised' area in the Draft Victorian Transmission Plan Guidelines Renewable Energy Zones (REZ) map
- Flooding and hydrology impacts as a result of the surface area of the arrays and location of substation in a low point of the land
- Planning and environmental considerations of the project have been 'rushed'
- There should be no development south of Little-River Ripley Road
- Withdrawal of original application and relogged under DFP pathway is a deliberate attempt to remove objector appeal rights to VCAT
- Lack of consultation
- Tourism impacts
- Lack of social licence
- Solar panels will increase the presence of snakes
- Emotional toll of living near a solar farm
- Being proposed by a foreign company

36. An officer assessment relating to matters of bushfire risk, heritage, visual impact, glint and glare, hydrology, noise, traffic, and ecology and biodiversity impacts is detailed in the assessment section of this report. A response to some of the other matters raised in the objections is provided in the table below:

Objector Concern	DTP Officer response
Property values	The consideration of property values and land devaluation is not included within the decision guidelines of the Scheme and cannot be considered within the assessment and determination of the project.
Emotional impact of living near a solar farm	<p>The Planning Scheme does not give specific consideration to the emotional impacts of the development of land. Rather, consideration is given to the impacts of the proposed solar farm on affected properties.</p> <p>An assessment of the proposed development in relation to the amenity matters of visual impact, noise and glint and glare is provided in the below sections of this report.</p>
Lack of community consultation	<p>As outlined in this report, public notice of the application was given in a locally circulated newspaper and to all properties within 1km of the site, in accordance with the requirements of s52 of the Act.</p> <p>Additionally, it is understood that Elgin undertook consultation with the community prior to the lodgement of the application, including meetings and phone calls with neighbours and surrounding properties, letterbox drops, information sessions, virtual sessions and community newsletters.</p>
Tourism impacts	Concerns were raised regarding the impact of the project on surrounding tourism land uses, including the homestead/distillery at Mt Rothwell Road. If constructed, the proposed use is unlikely to have a significant impact on the adjoining tourism land use. Noise can comply with the relevant EPA guideline as discussed later on in this report and other amenity impacts can be mitigated, subject to conditions being included on the permit. DTP notes that the purpose of the FZ does not seek to prioritise the use of land for tourism, but rather, seeks to provide for the use of land for agriculture, while allowing the consideration of other land uses provided that they do not adversely affect agricultural land uses.
Withdrawal of original application and re-lodgement of a new application removes opportunities for third party VCAT appeal	<p>On 17 October 2022, the proponent submitted their first planning application for this project (ref. PA2201886). On 6 June 2024, the application was withdrawn at the request of the permit applicant.</p> <p>The applicant submitted a new application for a planning permit on 5 June 2024 (i.e. this application).</p> <p>Planning scheme amendment VC261 which was gazetted on 4 April 2024 had the effect of expanding the Development Facilitation Program to include renewable energy projects and utility installations with the DFP at Clause 53.22 (Significant Economic Development) of the Scheme. Clause 53.22-4 exempts applications under Clause 53.22 from the review</p>



rights at section 82(1) of the Act (i.e. VCAT objector appeals).

As this new application for the project was submitted after the gazettal of VC261, the application is exempt from third party VCAT appeals.

However, as above, it is noted that DTP and the proponent have consulted widely on the project, and all matters raised in the submissions and objections received are being considered within this assessment.

37. Overall, DTP submits that the matters raised in the objections which are relevant to the planning assessment are suitably addressed by the application, subject to the recommended conditions.

38. The matters raised in the submissions are summarised below:

Greater Geelong City Council

39. On 3 December 2024 officers of the Greater Geelong City Council provided a submission on the application raising concerns with:

- The impact of the project on Council street trees and Tree Protection Zones (TPZs) on Mt Rothwell Road and Little-River Ripley Road, which are not currently shown on the development plans;
- The Flora and Fauna assessment not providing a full audit of all trees to be retained across the site (due to their locations in areas that were proposed for retention early on in the design process);
- The impacts of the proposed solar arrays on the TPZs of the retained trees;
- Concerns that the project does not achieve Council's strategic goal to retain canopy trees within the urban environment, as sought by the **Urban Forest Strategy 2015-2025** and the **Tree Management Policy Sept 2020**;
- An arborist report is required to assess the impact of the works on all street trees, private trees and neighbouring trees within 4m of the property boundary;
- A suggestion that the landscape plan should only include species from the sites EVCs;
- Further information is required in relation to:
 - Targeted species survey mapping
 - GSM surveys
 - VGED
 - Assessment of biodiversity in roadside vegetation
 - No nocturnal surveys taken of the 18 hollow baring trees proposed to be removed
 - Land and Environment Management Plan is required by the ESO4
 - VGED habitat assessment not based on current research
- Recommended that the landscaping strategy be amended to remove Moonah, Hakea and Leptospermum species and by amending the buffer planting schedules by cross-referencing the EVC Benchmarks against the flora recorded on site. Also recommended not using *Acacia paradoxa* in the rehabilitation plans.
- Concerned that hydrology results appear preliminary at this stage and does not consider the impact of potential erosion and run off on native vegetation and threatened species.
- Considered that the assessment did not consider the cumulative impact of the project and other nearby developments on the environment (including the Little River Logistics Precinct, Parwan-Balliung Irrigation District and Little River Quarry).



40. DTP officers have considered the concerns raised by the Council in this assessment.
41. Since Council were given notice of the project, the proponent has provided an updated Flora and Fauna assessment (dated 12 September 2024) and an updated VGED Habitat Suitability assessment (dated 18 November 2024).
42. Conditions of the recommendation will ensure that the TPZs of Council's road reserve trees and the retained trees on site are protected during construction.
43. DTP submits that the objectives within the *Urban Forest Strategy 2015-2025* and the *Tree Management Policy Sept 2020* are not relevant to this assessment given this site is not in an urban area.
44. A discussion of the project's impacts to threatened species and hydrological impacts is detailed in the below sections of the report.

Wyndham City Council

45. Wyndham Council did not object to the project but suggested that a Traffic Management Plan (TMP) may be required, and that construction traffic must not connect across into Wyndham as the roads in that area are not capable of accommodating large truck traffic. A condition of the recommendation will require a TMP. It is noted that the Traffic Impact Assessment (TIA) for the project confirms that the construction route for the project is via Bacchus Marsh Road to Little River-Ripley Road and does not propose routes through the local Wyndham roads.

DEECA (as Crown Land Manager)

46. There is an area of Crown land within the project area, a proclaimed government road reserve running north-south. The project seeks to construct an access track through the Crown land.
47. DEECA (on behalf of the Minister for Environment as landowner for Crown land in Victoria) have advised that they do not object to the application subject to the inclusion of a condition on the permit outlining that no structure or works may encroach on the Crown land. This condition will be included on any permit issued.

Head, Transport for Victoria

48. On 26 November 2024, Head, Transport for Victoria advised that they do not object to the grant of a permit for the project. No conditions were recommended.

Country Fire Authority (CFA)

49. On 26 November 2024, the CFA raised concerns with the location of the BESS on the following grounds:
 - It would preclude effective fire risk management;
 - It does not allow for safe and effective response by emergency responders particularly its accessibility in the event of a fire, being over 1.6km from the nearest public road access into the facility;
 - The potential impact of fire to the BESS in its present location may not be satisfactorily mitigated even with strengthened fire risk controls;
 - The consequences of fire from the BESS would have unacceptable impacts on the surrounding landscape; and,
 - An emergency gate from a neighbouring secure private property is not sufficient for primary access to the BESS.
50. At this time the CFA recommended that the BESS be relocated further away from the southern boundary of the site and within 250m of a vehicle access point from a public road.
51. Following discussion with the proponent, including a meeting on 18 December 2024, the CFA determined to provide support to the application, subject to conditions requiring:
 - Risk Management Plan
 - BESS relocated at least 150m from the southern boundary of the site
 - Width of the firebreaks increased to 20m



- Dedicated water supplies, including fire water and a hydrant system for the BESS
- Emergency Plan and Fire Management Plan

52. These conditions have been included in the recommendation. It is noted that the primary access to the BESS is actually from a registered public road (Mt Rothwell Road), however, part of the road has been constructed outside of the road easement and within private property (see Figure 19 below).



Figure 19: intersection of Mt Rothwell Road and Little-River Ripley Road, showing the road misalignment



Permit Triggers

53. A planning permit for the project is triggered by the following clauses of the Greater Geelong Planning Scheme:

Clause	Permit Trigger
Clause 35.07 (FZ)	<p>Clause 35.07-1:</p> <ul style="list-style-type: none"> Use of the land for the purpose of a renewable energy facility (other than a wind energy facility). Use of land for the purpose of a utility installation (other than Minor utility installation and Telecommunications facility). <p>Clause 35.07-4:</p> <ul style="list-style-type: none"> Construct a building or construct or carry out works associated with Section 2 use. Earthworks which change the rate of flow or the discharge point of water across a property boundary. Construction of a building setback less than 20m from a road.
Clause 42.01 (ESO1 and ESO4)	<p>Clause 42.01-2:</p> <ul style="list-style-type: none"> Construct a building or construct or carry out works (ESO1 and ESO4). Construction of a fence greater than 2m in height (ESO1 only). Remove destroy or lop any vegetation (ESO1 and ESO4).
Clause 42.03 (SLO1)	<p>Clause 42.03-2:</p> <ul style="list-style-type: none"> Construct a building or construct or carry out works. Remove, destroy or lop any vegetation.
Clause 52.05 (Signs)	Clause 52.05-14: Display of a business identification sign.
Clause 52.17 (Native Vegetation)	Clause 52.17-1: Remove, destroy or lop native vegetation including dead vegetation.

Key Considerations

54. The planning scheme contains policies and controls that guide the assessment of solar energy facilities and utility installations. These are found in the state and local planning policies, the relevant zone and overlays, and other relevant provisions. The assessment below addresses the relevant sections of the planning scheme while having regard to the matters which must be considered in accordance with Section 60 of the Act.

55. The following are deemed the key considerations in assessing the acceptability of the proposal:

- General policy context and planning controls
- Whether the proposal responds to the vision and strategic directions of the Municipal Planning Strategy (MPS) and the Planning Policy Framework (PPF)
- Suitability of the land use in the FZ, and impacts on agricultural land
- Amenity impacts in terms of noise, light spill and glint and glare
- Visual impact, including impact on views towards the You Yangs Regional Park
- Biodiversity and native vegetation impacts
- Vehicle access, road and traffic considerations
- Acceptability of the proposed business identification signs

- Bushfire risk
- Hydrological impacts

Strategic Direction and Land Use

56. Overall, the MSP and the PPF encourage the facilitation of renewable energy projects, on balance with the protection of the environment and agricultural land.

Municipal Planning Strategy

57. An assessment against the relevant objectives and strategies of the Municipal Strategic Statement of the scheme is provided in the table below:

Clause	Description	Assessment
02.01	Context	<p>The MPS acknowledges Greater Geelong's rich diversity of flora and fauna, including rare and unique species and communities and how the rural areas of municipality play a role in the contribution to the States economy. The Council's vision seeks to support uses and developments that encourage:</p> <ul style="list-style-type: none"> • <i>A prosperous economy that supports jobs and education opportunities</i> • <i>Sustainable development that supports population growth and protects the natural environment</i>
02.02	Vision	
02.03-2	Environment and Landscape Values	
02.03-3	Environmental Risks and Amenity	
02.03-9	Infrastructure	

Additionally, the strategic directions of the MPS seek to:

- *Protect the habitats of indigenous species from the impacts of land use and development.*
- *Protect, maintain and enhance waterways, rivers, wetlands and groundwater.*
- *Discourage discretionary non-agricultural uses in rural areas that could reasonably be located in an urban zone.*
- *Protect areas at risk of bushfire.*

The proposed solar farm will provide for a \$500M project within the municipality, creating approximately 150 jobs during construction and providing between 1-3 jobs during operation. As discussed in the biodiversity section of this report, the proponent has avoided and minimised their impact on the environment. Conditions of the recommendation will require additional protection of the sites retained environmental values during construction.

Consultation with the CFA, including their recommended conditions will ensure that the risk of fire on the site is appropriately managed.

The use is discretionary in the FZ, however, is considered appropriate as a solar array and BESS of this scale could not reasonably be located within an urban zone.

Planning Policy Framework

58. An assessment of the project against the relevant objectives and strategies of the PPF is provided in the table below:

Clause	Description	Assessment
Clause 12	Environment and Landscape Values	
12.01-1S	Protection of biodiversity	Clause 12 focuses on the protection of ecological



12.01-1L	Protection of biodiversity	systems, native vegetation, biodiversity, and identified environments or landscapes. Where possible, the project has avoided impacts to ecological values, including:
12.01-2S	Native vegetation management	<ul style="list-style-type: none">• Avoidance of all potential VGED habitat areas;• Avoidance impacts to the majority of the Plains Grassland within the site;• Avoidance of impacts to the riparian vegetation along Little River and Sandy Creeks; and,• A commitment to implementing a Construction Environment Management Plan (CEMP). Refer to Biodiversity section of the report below for a more detailed discussion of these matters.
Clause 13 Environmental Risks and Amenity		
13.02-1S	Bushfire	The facility has been developed in accordance with the <i>CFA's Guidelines and Model Requirements for Renewable Energy Facilities CFA 2023</i> (the CFA Guidelines) to appropriately respond to bushfire risks. Refer to the bushfire section of the report for additional information.
13.05-1S	Noise management	With the use of acoustic sound barriers around the BESS (3m in height) and some of the inverters (2.5m in height) noise levels are predicted to comply with EPA Publication 1826.4. Refer to Noise section of the report for additional information.
13.07-1S	Land use compatibility	As discussed further on in this assessment, the proposed use is considered acceptable with appropriate mitigations in place, on balance with the generation of renewable energy.
Clause 14 Natural resource management		
14.01-1S	Protection of agricultural land	The agricultural assessment submitted with the application demonstrated that the land is neither highly productive nor highly versatile. The land is not recognised as being high quality productive agricultural land in the scheme or associated strategic policies of Council.
14.01-1L-01	Discretionary uses in rural areas	While it is acknowledged that the development of the facility will make cropping unpracticable and the grazing capacity of the land will be reduced, there will still be opportunities for the land to be use for grazing under the panels. The development will not impact agricultural activities on surrounding land. Additionally, conditions have been included in the recommendation requiring the rehabilitation of the site back to its prior condition after the solar farm ceases operations, to ensure that the land remains suitable for agricultural use into the future. Refer to the agricultural section of the report below for



additional discussion.

Clause 17 Economic Development	
17.01-1S	Diversified economy
17.01-1R	Diversified economy – Geelong G21
Clause 19 Infrastructure	
19.01-1S	Energy supply
19.02-1S	Renewable energy

The proposed solar energy facility and BESS meets the objectives of Clause 17 by creating 150 jobs during the construction and between 1-3 jobs in the operation of the facility.

The proposal is consistent with the relevant PPF which support the renewable energy led transition to a low-carbon economy with reduced greenhouse gas emissions. The proposed facility is estimated to generate approximately 330MW of solar energy and store 250MW of electricity, reducing 318,932tCO2e per year. The proposed BESS will also assist the delivery of power during peak times to the network to meet community demand for energy needs.

59. Overall, the proposed facility is consistent with the relevant planning policies within the MPS and PPF.

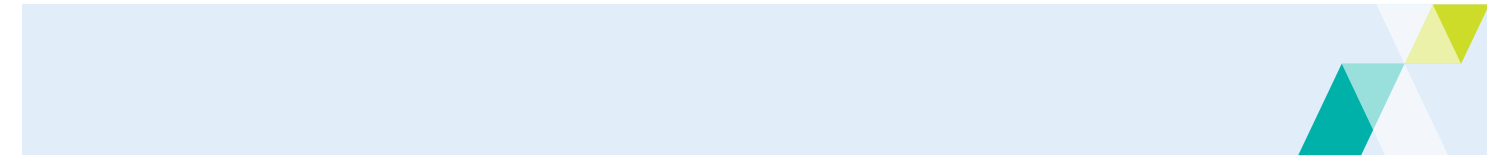
Zoning and Overlays

Farming Zone

60. Clause 35.07 (Farming Zone) seeks to provide for the use of land for agricultural purposes, for non-agricultural uses that do not adversely affect the use of the land for agriculture, encourages the retention of productive agricultural land and promotes the retention of rural employment to support rural communities.

61. Having regard to the relevant decision guidelines at Clause 35.07-6, the proposed use and development is an appropriate outcome in the FZ as follows:

- The site is situated adjacent to a 200kV powerline allowing a direct connection from the site into the existing electricity network. This minimises impacts outside of the site boundary and on existing agricultural uses and makes use of existing infrastructure.
- The proposal has considered agricultural land use in the surrounding area, within the site and in the future. It will not impede agricultural production to surrounding farmers as a solar energy facility is a relatively low-impact use. As discussed further below, there will be no detrimental agricultural impacts of the proposed solar farm on surrounding farms or the wider region.
- The proposed use and development of the site has considered potential fire hazards and incorporates the fire safety design recommendations in accordance with CFA guidelines, including fire breaks, site access and fire water supply.
- The built form of the solar arrays, BESS and ancillary infrastructure are appropriate for the site. The built form will be sufficiently setback from adjoining properties and where possible, will be screened from view by the proposed vegetation screening. Additional discussion of the visual impacts of the project is contained in the further sections of the report. It is noted that the main purpose of the FZ does not seek to protect the amenity of residents from visual impacts, but rather seeks to provide for the use of land for agricultural purposes.
- Once operating, the facility is expected to employ up to three staff, encouraging long-term regional employment opportunities.
- The traffic impacts of the construction and use of the facility are discussed further in the relevant section of this report.



59. It is acknowledged that objectors raised concerns that the site is in a 'Deprioritised' area in the Draft Victorian Transmission Plan Guidelines Renewable Energy Zones (REZ) Study Area map. VicGrid is now commencing the development of the first Victorian Transmission Plan (VTP) through an initial phase of community engagement, with the final publication due in-mid 2025. This document is still in draft form. This Plan will identify transmission investments to support Renewable Energy Zone development. The REZ boundaries have not yet been developed, and a declaration process will follow the publication of the VTP. While REZs are intended to guide development and enable a coordinated approach to planning, new Victorian network access arrangements will provide a process for projects located out of REZ areas, and will not aim to prohibit or deprioritise these areas.

Overlays

Significant Landscape Overlay (SLO1)

62. As shown in Figure 9, the southeastern corner of the site (south of Little-River Ripley Road) is located with the SLO Schedule 1 (Foothills of the You Yangs). As such, a permit is required to remove vegetation and construct buildings and works in the SLO1.

63. The statement of nature and key elements of the landscape for the SLO1 is:

This area is comprised of treeless foothills and plains at the base of the You Yangs. The You Yangs are the most prominent landscape feature in the northern area of the municipality, providing panoramic views of Geelong. The surrounding foothills and plains create an open view path to the You Yangs, visually exposing them when viewed from the surrounding basalt plains.

The key element of the landscape is its open character and contrast with the You Yangs.

64. The relevant landscape character objectives to be achieved in the SLO1 are:

- *To protect and enhance the open character, contrast and scenic quality of the landscape.*
- *To **maintain an open view path to the regionally significant You Yangs.***
- *To **protect the landscape from visual intrusion** by inappropriate buildings and works and their siting, design or materials.*
- *To encourage the siting, design and landscaping of buildings and works to be responsive to the landscape values of the area (emphasis added).*

65. The works proposed to be located with the SLO1 are:

- Solar arrays
- Substation, control room and powerline connection
- BESS and acoustic screening
- Fencing, access tracks and other associated infrastructure
- High density vegetation screening Typology 1 (refer to Landscape Strategy), including species capable of growing up to 30m in height
- Removal of vegetation, including a large patch of Heavier-soils Plains Grassland

66. The majority of the infrastructure proposed within the SLO1 is below 4m in height, with the exception being the proposed powerline connection at 13.3m. Given these relatively low heights, the proposed facility will not unreasonably interrupt views to the You Yangs, particularly from public roads which are generally raised above the NGL of the area. It is noted that the powerline connection is proposed to be located centrally within the site and adjacent to the existing 220kV powerline, which will reduce its impact on views to the You Yangs. Breaks in the expanse of the solar arrays (to protect native species) will further reduce their impact on the broader landscape.

67. DTP submits that the key landscape and visual impact of the proposed facility on the You Yangs will in fact be from the establishment of high-density vegetation screening proposed along Little-River Ripley Road. Once established, this screening will be capable of reaching a height of 30m. It is acknowledged that the established vegetation screening will substantially impact views to the You Yangs from Little-River Ripley Road, however, this is considered



acceptable on balance with its reduction in views towards the solar arrays themselves and the positive benefits of the establishment of new native vegetation within the site. It is noted that rows of trees adjacent to roads and property boundaries (windbreaks, roadside vegetation etc) are commonly found within the FZ and more broadly across the landscape.

68. Conditions of the recommendation will require the final selection of the infrastructure to be non-reflective, to reduce its impact on the landscape.
69. Refer to the below sections of the report for an assessment of the project's visual impacts outside of the SLO1.

Environmental Significance Overlay (ESO1 and ESO4)

70. As shown in Figure 10, the site is partly affected by the:

- ESO1 (Areas of Flora and Fauna Habitat and of Geological and Natural Interest); and,
- ESO4 (Grasslands within the Werribee Plains Hinterland).

71. A permit is required to construct and carry out works, construct a fence greater than 2m in height and remove vegetation in the ESO's.

72. The statement of environmental significance for the ESO's are shown below:

ESO1:

Within Greater Geelong there are a number of significant flora and fauna habitats and areas of geological and natural interest. They include Grassy Point Road, west of Indented Head; Salt Lake environs, St Leonards; Hutchinson's Bush Block, Wallington; Mannerim School Environs, Mannerin; Kingston Estate, Ocean Grove; Little River and nearby stream; Point Wilson; Barwon Heads; Breamlea; Moorabool River, Batesford to Sheoaks and Left Branch of Sutherlands Creek; Moorabool River between Fyansford and Bell Post Hill; Grantic and scoria cones, Granite Road, Anakie; and Dog Rocks, Batesford.

Many of these sites contain remnant vegetation, marsh flats, bird and wildlife habitats and corridors, natural scrub heathland vegetation, and river and streamside corridors.

ESO4:

The areas included within this overlay form part of the Victorian Volcanic Plain Bioregion. The native vegetation of the Victorian Volcanic Plain bioregion is one of the most depleted in the State. Only 4.5 per cent of the State still has a cover of native vegetation, and less than 1.2 per cent is in formal reserves.

The Werribee Plains hinterland consists of undulating volcanic plains, a scoria cone and steep gorges formed by the Little and Werribee Rivers. Many elements of the flora reflect the low rainfall of this area, which formerly supported extensive areas of Plains Grassland. Although the native vegetation has been extensively cleared and altered for agricultural, urban and industrial use, there are some large areas of predominantly native vegetation as well as some high quality wetlands, which are important for many threatened fauna species. There are a number of communities and species in this area that do not occur elsewhere in the bioregion. Important species in this area include, for flora, the Button Wrinklewort, Large-fruit Fireweed, Small Golden Moths, Small Milkwort, Small Scurf-pea, Spiny Rice-flower, and the only remaining wild population of Sunshine Diuris; and, for fauna, the Grassland Earless Dragon, Orange-bellied Parrot, Plains-wanderer, Red-chested Button-quail, Striped Legless Lizard and Swift Parrot.

The landscape consists of undulating volcanic plains with red duplex soils. The Werribee and Little Rivers have incised steep and sometimes spectacular gorges into the basalt plain. The scoria cone of Mount Anakie is a significant landscape feature. A band of Tertiary sediments is located along the western edge of this area.

It has a unique and relatively early history of European settlement due partly to the ease of access of the open grassland plains. Because of this the landscape has been radically altered.



The dry plains of the Werribee plains hinterland formerly supported extensive areas of Plains Grassland. These grasslands integrated with Riverina Plains Grassy Woodland (dominated by Grey Box, Buloke and Drooping Sheoak) to the west and south of Melton, and Plains Grassy Woodland in and around the You Yangs and east of the Brisbane Ranges. Riparian areas supported Floodplain Riparian Woodland and Creekline Grassy Woodland with Escarpment Shrubland on steeper escarpments. A variety of wetland communities formerly occurred throughout including Plains Grassy Wetland, Plains Sedgy Wetland, Canegrass Wetland, Lignum Wetland and Aquatic Herbfeld. Scoria Cone Woodland was associated with Mount Anakie and other volcanoes. Areas of Coastal Saltmarsh were found along the shores of Port Phillip Bay. Many elements of the flora reflect the low rainfall including White Cypress-pine and Fragrant Saltbush found along the steep escarpments of the Werribee River, and Woolly Buttons at Little River. The native vegetation has been extensively cleared and altered for agriculture and (increasingly) for urban and industrial use. However, there are large areas of predominantly native vegetation including woodlands, wetlands and grasslands.

The major issue for biodiversity conservation in the Werribee plains hinterland is loss of native vegetation and habitat through clearing for urban development, cropping and infrastructure. The compounding effects of such clearing are the loss of floristic and habitat diversity and increasing fragmentation of habitats and isolation of remnants. Similarly, changes to management of remnant vegetation and increased urbanisation contribute to the proliferation of weeds and feral animals. Degradation of drainage lines and riparian vegetation through erosion, pollution and uncontrolled grazing, depletion of wetlands and changes to the hydrology of wetlands and streams are also serious threats to biodiversity in the region. However, a range of conservation assets are present and significant opportunities do exist to establish relatively large areas and networks of areas that are managed sympathetically for conservation. Such networks could include a range of vegetation types and land tenures and relatively large and intact areas of open grassland, grassy woodland and wetland communities.

73. Given the overlap between the objections of the ESO's and the PPF, a detailed discussion of the project's biodiversity impacts is found in the below section of the report.
74. Overall, the project is considered to meet the purpose and objectives of both ESOs, subject to the conditions discussed below.

Bushfire Management Overlay (BMO)

75. The site is partially affected by the BMO as per Figure 8 above. A permit is not triggered in the BMO as the buildings and works are not associated with any of the uses at Clause 44.06-2 of the BMO. A discussion of the project's bushfire impacts is discussed in the below sections of this report.

Particular and General Provisions

Provisions that Require, Enable or Exempt a Permit

Clause 52.05 (Signs)

76. The application proposes three business identification signs on Little-River Ripley Road. An elevation of the proposed sign is shown at Figure 3. The signs are proposed to be 1.2m x 2.4m in size, with a display area of 2.88m² each. The total display area of all three signs is 8.64m²
77. The purpose of Clause 52.05 (Signs) is:
 - *To regulate the development of land for signs and associated structures.*
 - *To ensure signs are compatible with the amenity and visual appearance of an area, including the existing or desired future character.*
 - *To ensure signs do not contribute to excessive visual clutter or visual disorder.*
 - *To ensure that signs do not cause loss of amenity or adversely affect the natural or built environment or the safety, appearance or efficiency of a road.*



78. Pursuant to Clause 52.05-14, a permit is required to construct a business identification sign in a Category 4 (Sensitive areas) location.
79. Generally, the location and scale of the signs is considered acceptable in proportion to the size of the facility and the character of the surrounding landscape. The colour and appearance of the signs is generally unobtrusive, and they are not located in positions where they will impact on road safety. As such, the signs are generally considered to meet the objectives and decision guidelines of Clause 52.05.
80. However, as the total display area of the proposed signs exceeds 3m², they do not meet condition in the table to Section 2 – Permit required at Clause 52.05-14 which limits the ‘total display area to each premises must not exceed 3 sqm’. As such, conditions have been included in the recommendation requiring the total display area of all signs to be reduced to be under 3m². This could be achieved by either removing two of the signs or reducing the area of all signs. Either of these options is considered reasonable and acceptable.

Clause 52.06 (Car parking)

81. Clause 52.06 (Car parking) seeks to ensure that an appropriate number of car parking spaces is provided to new uses.
82. Pursuant to Clause 52.06-6, car parking must be provided to the satisfaction of the responsible authority.
83. The site is only expected to be staffed by one employee at a time during the operation of the facility. While no designated carparking area has been provided, the internal access roads will be sufficiently wide enough to enable vehicles to park onsite while still maintaining two-way vehicle movements. This is considered acceptable.

Clause 53.13 (Renewable Energy Facility (other than Wind Energy Facility))

84. Pursuant to Clause 53.13-1, an application under any provision of the planning scheme to use or develop land for a renewable energy facility (other than a wind energy facility), must meet the application requirements and decision guidelines (as appropriate) contained in Clause 53.13.
85. The application is accompanied the relevant application requirements outlined at Clause 53.13-2.
86. As discussed through this assessment, the facility is considered to meet the objectives and decision guidelines of Clause 53.13 by facilitating the construction of a solar energy facility and supporting the renewable energy led transition to a low-carbon economy.

Clause 52.17 (Native vegetation)

87. The application seeks approval for the removal of 9.926ha of native vegetation, comprised of:
- 7.0671ha of patch vegetation, being Heavier-soils Plains Grassland, Plains Grassy Woodland , Plains Grassy Woodland and Hills Herb Rich Woodland
 - 50 scattered trees
88. Pursuant to Clause 52.17-1 of the Greater Geelong Planning Scheme, a permit is required to remove, destroy or lop native vegetation.
89. The purpose of Clause 52.17 is:
- To ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. This is achieved by applying the following three step approach in accordance with the Guidelines for the removal, destruction or lopping of native vegetation (Department of Environment, Land, Water and Planning, 2017) (the Guidelines):*
- 1. Avoid the removal, destruction or lopping of native vegetation.*
 - 2. Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.*



3. Provide an offset to compensate for the biodiversity impact if a permit is granted to remove, destroy or lop native vegetation.

90. As the site is located with Location 3, and the application proposes the removal of 9.926ha of native vegetation, the application falls under the Detailed Assessment Pathway of the Guidelines, requiring a referral to DEECA.
91. The Flora and Fauna Assessment dated 12 September 2024 contains the avoid and minimise statement for the project. The design and development of the facility has avoided and minimised impacts to native vegetation from the originally proposed 19.688ha (as sought by the original planning permit application PA2201886) down to the currently proposed 9.926ha by:
- Locating the project within cropped farmland that is primarily cleared of native patch vegetation.
 - Avoiding waterways.
 - Avoiding the majority of Plains Grassland within the site, and riparian vegetation along Little River and Sandy Creek.
 - Utilising existing entryways for site access, and positioning any new site access points away from identified areas of native vegetation.
 - Amending the solar farm layout to avoid impacts to patch vegetation and scattered trees, where possible, including avoidance of scattered trees near the south-eastern section and north-western sections of the site and in the centre of the site near Sandy Creek.
92. The proponent has engaged with DEECA throughout the assessment process including during the assessment of the original planning application (PA2201886) and the referral of this application under s55 of the Act. Throughout this engagement, DEECA initially outlined concern with the extent of native vegetation impacts proposed to be impacted by the project.
93. As such, the proponent worked with DEECA to reduce their impacts. A summary of the reduction to the project's native vegetation impacts is shown in Figure 20 below:

Proposed NVR	Flora and Fauna Assessment report dated 13 October 2022	Flora and Fauna Assessment report dated 27 February 2023	Flora and Fauna Assessment report dated 12 September 2024.
Native Vegetation Hectares	19.688 ha	18.330 ha	9.926 ha
Large trees	71	54	38
Plains Grassland	15.32 ha	13.321 ha	6.08 ha
Patch vegetation and scattered trees	16.34 ha patch 97 scattered trees	14.294 ha patch 70 scattered trees	7.0671 ha patch 50 scattered trees

Figure 20: Timeline of the project's native vegetation minimisation progress. Source: DEECA referral response December 2024.

94. In their referral response dated 19 December 2024, DEECA outlined that they are satisfied that the requirements of Clause 52.17 have been addressed and a balanced outcome has been achieved, subject to conditions requiring:
- An Environment Management Plan, requiring:
 - Vegetation Management Plan
 - Establishment of No-Go Zones
 - Pre-construction targeted surveys for VGED
 - Sediment and erosion control measures
 - Vehicle and machinery hygiene measures
 - Pre-construction surveys and relocation of hollow dependent fauna
 - Native vegetation measures during construction
 - Native vegetation offsets



95. With these conditions included on the permit, the application is considered to meet the decision guidelines of Clause 52.17 and the Guidelines.

96. Refer to additional discussion of biodiversity matters further on in this assessment.

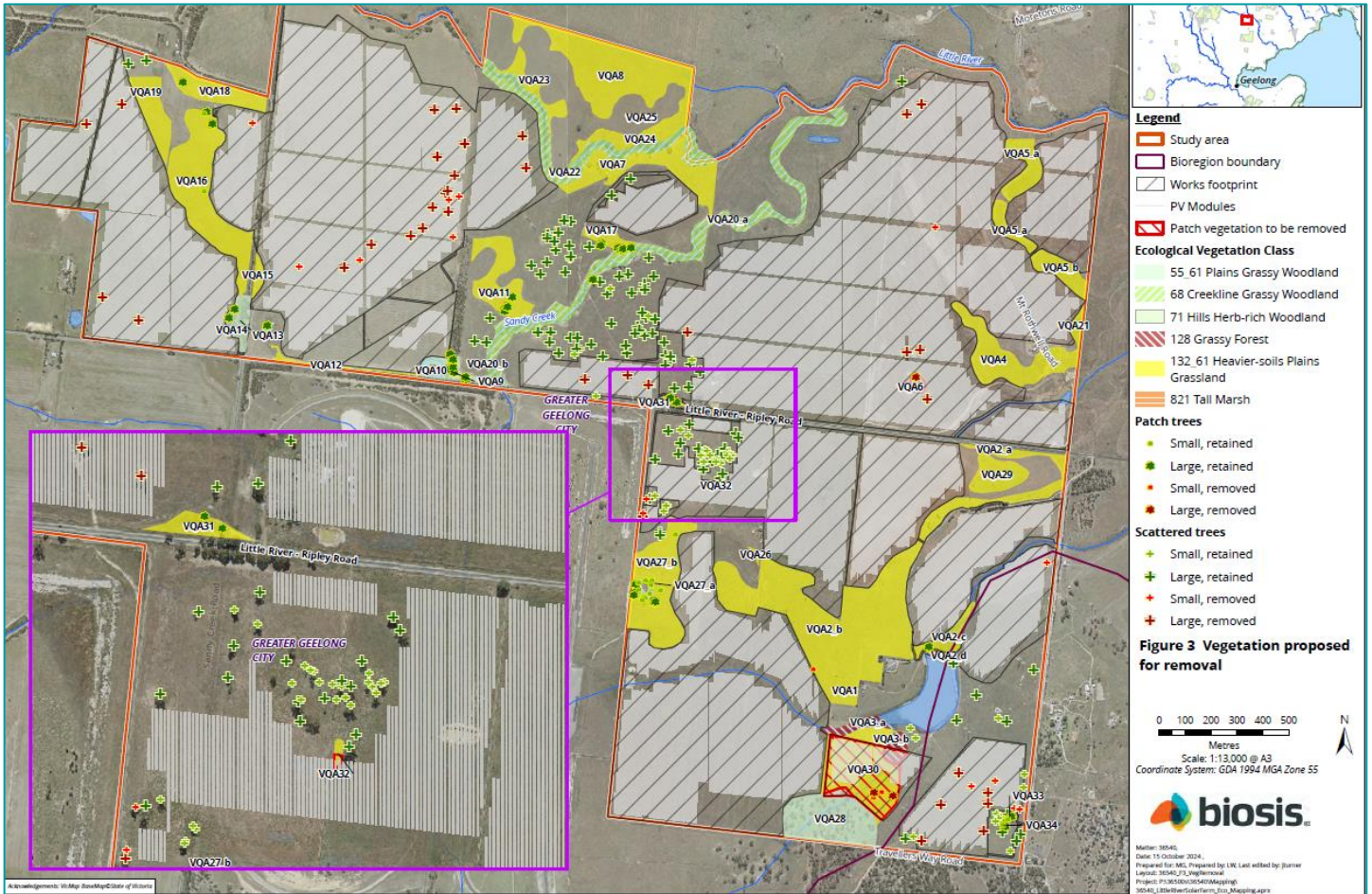


Figure 21: Map showing the location of vegetation proposed for removal. Source: Application documents.

Clause 53.22 (Significant Economic Development)

97. Clause 53.22 seeks:

- To prioritise and facilitate the planning, assessment and delivery of projects that will make a significant contribution to Victoria's economy and provide substantial public benefit, including jobs for Victorians.
- To provide for the efficient and effective use of land and facilitate use and development with high quality urban design, architecture and landscape architecture.

98. This application is a Category 1 application at Clause 53.22-1. As such it is exempt from the decision requirements of sections 64(1), (2) and (3), and the review rights of sections 82(1) of the Act.

Biodiversity

99. The PPF and both ESOs all seek to protect the biodiversity of the site, including:

Clause 12.01 (Biodiversity)

- *The protection of key habitat for rare or threatened species and communities, and strategically valuable biodiversity sites*
- *Conservation of Victoria's important areas of biodiversity*
- *Consider impacts of any change in land use or development that may affect the biodiversity value of national parks and conservation reserves or nationally and internationally significant sites*
- *Assist in the establishment, protection and re-establishment of links between important areas of biodiversity, including through a network of green spaces and large-scale native vegetation corridor projects*
- *To ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation*

ESO1 and ESO4

- *To conserve and protect areas of flora and fauna habitat and geological and natural interest*
- *To ensure that development does not impact on the environmental significance of the land*
- *To ensure that siting and design of any buildings and works maintains the environmental integrity of the land*
- *To prevent a decline in the extent and quality of native vegetation and native fauna habitat of the Victorian Volcanic Plain*
- *To enhance the environmental and landscape values of the area*
- *To avoid the fragmentation of contiguous areas of native vegetation or native fauna habitat*
- *To ensure that any use, development or management of the land is compatible with the long-term conservation, maintenance and enhancement of the grasslands*
- *To avoid the destruction of habitat for native fauna resulting from the modification of land form and disturbance of surface soils and rocks*
- *To enable areas of environmental significance, due to their native vegetation or habitat values, to be identified*

100. The proponent has engaged with DTP and DEECA throughout the assessment process of both the current planning permit application, the withdrawn planning application, the s55 referrals, and the EPBC Controlled Action/'No EES' decision conditions including the Environment Report.

101. Throughout this engagement, DTP and DEECA outlined concern with the native vegetation impacts of the project, including:

- Overall extent of native vegetation and large trees impacted
- Impacts to:
 - Native grassland listed as Critically Endangered (EPBC Act and FFG Act)
 - Buloke (Critically Endangered, FFG Act)
 - Melbourne Yellow Gum (Endangered, FFG Act)
 - Golden Sun Moth (Vulnerable, EPBC Act and FFG Act) habitat
 - Black Falcon (Critically Endangered, FFG Act)
- Lack of Tree Protection Zone (TPZs) information for retained trees
- Removal of Plains Grassland (threatened community under FFG Act) will contribute to decline in habitat for threatened species

102. As described in the Clause 52.17 (Native Vegetation) section of the report above, the proponent has substantially reduced the impacts of the project on ecological values throughout the assessment process. This included a reduction to the amount of native vegetation to be removed from 19.6ha to 9.9ha.

103. The assessment of the project's remaining impacts on key flora and fauna species is detailed below.



Flora

Natural Temperate Grasslands of the Victorian Volcanic Plain (NTGVVP) (also considered Plains Grassland)

104. The site contains 92ha of NTGVVP (EPBC – Critically Endangered), of which the project seeks to remove 6.08ha. The NTGVVP within the site is patchy in distribution and the patches proposed for removal are generally of low quality, due to existing farming practices.
105. It is considered that the assessment of the project's impacts to NTGVVP can continue to be managed via the state accredited assessment of the EPBC Controlled Action and EE Act 'No EES' decision via the Environment Report. The environmental management requirements of the EMF and associated management plans can also be used to mitigate impacts to NTGVVP during construction.
106. If this project is approved by the Minister for Environment and Water under the EPBC Act, offsets would be required for the residual impacts to NTGVVP.

Spiny Rice-Flower

107. Spiny Rice-Flower (SRF) (EPBC Act – Critically Endangered) has been recorded within the broader local area. However, SRF was not detected in the targeted surveys for the site. As such the proponent has outlined that there is a low likelihood of impacts to SRF during the construction of the project.
108. It is considered that any residual risks to SRF can be managed via the environmental management requirements of the EMF and associated management plans, including the DEECA conditions.

On-site Tree Impacts

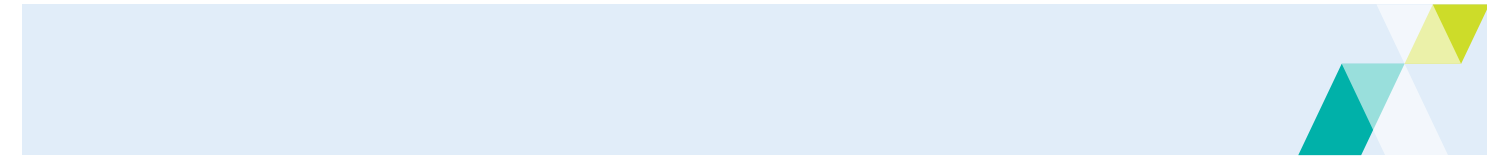
109. The project seeks the removal of 50 scattered trees and 38 large trees, including Buloke (FFG Act – Critically Endangered) and Melbourne Yellow Gum (FFG – Endangered). At least 15 of these trees contain hollows which provide habitat for fauna.
110. It is considered that tree impacts have generally been minimised as far as reasonable possible, including by:
- Locating the majority of the project within cropped farmland that is primarily cleared of trees
 - Avoiding trees around waterways.
 - Avoiding the majority of Plains Grassland within the site
 - Utilising existing entryways for site access, and positioning any new site access points away from trees
 - Amending the solar farm layout to avoid impacts to patch vegetation and scattered trees, where possible, including avoidance of scattered trees near the south-eastern section and north-western sections of the site and in the centre of the site near Sandy Creek.
111. Tree Protect Zones (TPZs) of retained trees will be protected during construction to prevent indirect impacts, via the requirements of the EMF.

Off-site Tree Impacts

112. Council in their submission raised concern with the impacts of the project on Council street trees on Little-River Ripley Road. While there are no works proposed in the Council road reserves, and the proposed project infrastructure has been inset from the site boundaries, it is considered unlikely that the works will impact Council trees.
113. Nevertheless, the environmental management conditions of the permit (including a requirement for an EMF) are considered suitable to ensure that the TPZs of the Council trees are protected during construction.

Fauna

Victorian Grassland Earless Dragon (VGED)

- 
114. A habitat suitability assessment for Victorian Grassland Earless Dragon (VGED) (EPBC – Critically Endangered) habitat was undertaken by the proponent following the rediscovery of VGED west of Melbourne in 2023. The proponent identified four potential VGED habitat areas on the site. There are no works proposed in these areas and No-go zones are proposed to ensure impacts to the VGED habitat is avoided.
115. It is considered that any residual risks to VGED can be managed via the environmental management requirements of the EMF and associated management plans. The state accredited assessment of the EPBC Controlled Action and EE Act 'No EES' decision via the Environment Report will enable additional assessment of the impacts of the project on the VGED.
116. Additionally, DEECA in their s55 referral recommended that pre-construction surveys are undertaken in potential VGED habitat areas (as stated in the proponent's submitted VGED Habitat Suitability Assessment). A condition to this affect has been included in the recommendation.

Striped Legless Lizard

117. Targeted surveys for were undertaken for Striped Legless Lizard (SLL)(EPBC Act – Threatened) and no species were recorded on the site. As above, it is considered that any residual risks to SRF can be managed via the environmental management requirements of the EMF (and associated management plans) and through the Environment Report process.

Golden Sun Moth


118. Golden Sun Moth (GSM) (EPBC – Vulnerable) was detected during targeted surveys in suitable habitat (Plains Grassland). The project will impact approximately 6ha of Plains Grassland (GSM habitat) which is considered to have a significant impact on the species.
119. The proponent's Flora and Fauna Assessment and draft Environmental Management Plan Framework (EMPF) recommends that management of retained GSM habitat be improved and *Themeda*, *Austrostipa* and *Rytidosperma* species should be prioritised for grass species in the landscape plan to enhance the habitat quality and connectivity of the GSM. This is considered suitable and can be further refined and mitigated via the management requirements of the EMF, through the Environment Report process.
120. If approved by the Minister for Environment and Water, offsets would be required for the residual impacts to GSM habitat under the EPBC Act.

Eastern Bent Winged Bat

121. The Eastern Bent-winged Bat (EBWB) (FFG – Critically Endangered) has been recorded in the local area and may forage over the site on occasion. However, no habitat on the site is suitable for roosting or nesting. It is considered that the risk of impacts to EBWB are generally low and can be managed via the environmental management requirements of the EMF and associated management plans.

Aquatic Species

122. The site contains multiple farm dams, containing:
- Spike-sedge
 - EVC 821 Tall Marsh
 - Habitat for various frog species including Striped Marsh Frog, Common Froglet, Southern Brown Tree Frog and Pobblebonk Frog
 - Habitat for waterbirds, as listed in Appendix 2 of the proponents Flora and Fauna assessment
123. Additionally, the aquatic and riparian environments of the Sandy Creek and Little River may provide habitat for the Growling Grass Frog (EPBC – Vulnerable) and Yarra Pygmy Perch (EPBC – Endangered).
124. The project has avoided impacts to waterways as much as practicable. While there are some impacts within 200m of the waterways, these impacted areas are generally used for grazing and cropping and do not support suitable habitat for GGF.



125. It is considered that any residual risks to aquatic species can be managed via the environmental management requirements of the EMF and associated management plans, including erosion and pollutant control measures. The state accredited assessment of the EPBC Controlled Action and EE Act 'No EES' decision subject to conditions requiring an Environment Report will enable additional assessment of the impacts of the project on aquatic species.

Migratory Species

126. A number of migratory species have been recorded or are predicted to potentially occur in the site, including the Grey-headed Flying-fox and the Swift Parrot.
127. While the project seeks the removal of trees, including 50 scattered trees, it does not provide an important habitat for an ecologically significant proportion of any of these species, and it is unlikely to result in a significant impact on these species (given they form a very small component of a much larger network of foraging habitat utilised across the south-eastern part of the country).
128. It is considered that any impacts to migratory species can be managed via the environmental management requirements of the EMF and associated management plans.

Black Falcon

129. There is a known Black Falcon (FFG – Critically Endangered) nest located in the centre of the subject site, south of Little-River Ripley Road which is home to a nested pair from the local area. The design of the project retains the Black Falcon nesting location patch of vegetation. Impacts to Black Falcon can be managed via the environmental management requirements of the EMF and associated management plans.
130. Overall, it is considered that impacts to flora and fauna, including the EPBC threatened species are acceptable, and that further consideration of impacts can occur through the Environment Report process. It is noted that if the EPBC decision requires changes to the design of the facility, any planning permit issued and any documents endorsed under a permit will be required to be amended, in line with the requirements of the EPBC decision.

Bushfire Risk

131. The subject site is located within a Bushfire Prone Area (BPA) and is partially within a BMO.
132. Clause 13.02-1S (Bushfire Planning) requires all applications in a BPA or BMO to have consideration of bushfire risk, to strengthen the resilience of settlements and communities and prioritise the protection of human life.
133. The facility contains various bushfire mitigation features in its design, including primary and emergency access points, firewater tanks, BESS fire suppression systems, vegetation management and fire breaks.
134. The application was also supported by a Fire Risk Assessment prepared by Ecological and a Bushfire Peer Review report prepared by Ecology and Heritage Partners. These assessments outline the possible worst-case bushfire scenarios that could affect the site, being:
- From the south/southwest
 - From the west
 - Inside the study area outwards towards the north or west
 - North-west
135. Notice of the application was given to the CFA who originally CFA raised concerns with the location of the BESS on the following grounds:
- It would preclude effective fire risk management;
 - It does not allow for safe and effective response by emergency responders particularly its accessibility in the event of a fire, being over 1.6km from the nearest public road access into the facility;
 - The potential impact of fire to the BESS in its present location may not be satisfactorily mitigated even with strengthened fire risk controls;



- The consequences of fire from the BESS would have unacceptable impacts on the surrounding landscape; and,
- An emergency gate from a neighbouring secure private property is not sufficient for primary access to the BESS.

136. At this time the CFA recommended that the BESS be relocated further away from the southern boundary of the site and within 250m of a vehicle access point from a public road.

137. After some discussion of the site's bushfire risk and negotiation with the proponent, including a meeting on 18 December 2024, the CFA determined to provide support to the application, subject to conditions requiring:

- Risk Management Plan
- BESS relocated at least 150m from the southern boundary of the site
- Width of the firebreaks increased to 20m
- Dedicated water supplies, including fire water and a hydrant system for the BESS
- Emergency Plan and Fire Management Plan

138. These conditions have been included in the recommendation. With these measures in place, it is considered that the project will be able to manage the risk of bushfire satisfactorily.

139. Planning officers note that the CFA's *Design Guidelines and Model Requirements for Renewable Energy Facilities* was recently updated in January 2025, after the application was received and assessed by CFA. The conditions of the permit will require compliance with the latest version of the guidelines.

Noise

140. The proposed solar energy facility and BESS are not expected to result in any unreasonable noise impacts, subject to the implementation of acoustic mitigation measures.

141. The application is supported by a Noise Assessment prepared by Norman Disney & Young and dated 14 October 2024. The noise impact assessment has been prepared in line with EPA Publication 1826.4: *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues*. The assessment assumes that the BESS units and substation will be operating at all times including the night period.

142. The predictive noise assessment identified three noise sensitive receivers in the vicinity of the site as shown in Figure 22 and below:

- 25 Mt Rothwell Rd (70m from boundary)
- 2430 Bacchus Marsh Rd (840m from boundary)
- 1340 Little River-Ripley Rd (78m from boundary)



Figure 22: Location of noise sensitive receivers. Source: Acoustic Assessment.

143. The predicted noise levels at the sensitive receivers are shown in Figure 23 below.

Receiver	Predicted Noise Level	Criteria	Comment
25 Mt Rothwell Rd	Day/Evening - 45 dBA Night- 43 dBA	Day/Evening – 39 dB(A) Night - 34 dBA	Non-compliant – treatment required
2430 Bacchus Marsh Rd	Day/Evening - 36 dBA Night- 29 dBA	Day/Evening – 39 dB(A) Night - 34 dBA	Compliant
1340 Little River-Ripley Rd	Day Evening- 41 dBA Night- 32 dBA	Day/Evening – 39 dB(A) Night - 34 dBA	Non-compliant – treatment required

Figure 23: Predicted noise levels without mitigation. Source: Noise Assessment.

144. The noise levels at 25 Mt Rothwell Road and 1340 Little River-Ripley Road are both predicted to be non-compliant during the day, evening and night periods. Acoustic treatment will therefore be required.

145. The proposed acoustic treatments are:

- 3m high acoustic wall around the BESS, with BESS units split into groups and acoustic barriers around each group;
- 2.5m high acoustic sound barriers around the inverters that are within:
 - 600m of 1340 Little-River Ripley Road; and,
 - 1200m of 25 Mt Rothwell Road.

146. With these noise treatments in place, the noise levels are predicted to be compliant at all receivers as shown in Figure 24 below:

Receiver	Predicted Noise Levels (with treatment)	Criteria	Comment
25 Mt Rothwell Rd	Day/Evening - 38 dBA Night- 33 dBA	Day/Evening – 39 dBA Night - 34 dBA	Compliant



Receiver	Predicted Noise Levels (with treatment)	Criteria	Comment
2430 Bacchus Marsh Rd	Day/Evening - 35 dBA Night- 23 dBA	Day/Evening – 39 dBA Night - 34 dBA	Compliant
1340 Little River-Ripley Rd	Day Evening- 36 dBA Night- 25 dBA	Day/Evening – 39 dBA Night - 34 dBA	Compliant

Figure 24: Predicted noise levels with mitigation. Source: Noise Assessment.

147. It is noted that operational noise levels are set by the EPA in accordance with EPA Publication 1826, and compliance with the Noise Protocol will be managed by Council. As such, a condition has been included in the recommendation requiring the proponent to complete a final predictive noise assessment demonstrating that the final infrastructure chosen will comply with the protocol. Additionally, a note has been included on the permit explaining that the facility must comply with EPA Publication 1826 at all times.

Hydrology

148. Clause 13 (Environmental Risks and Amenity) and Clause 14 (Natural Resource Management) both seek the consideration of the hydrological impacts of the project. Additionally, a permit is triggered at Clause 35.07-4 for earthworks which change the rate of flow or the discharge point of water across a property boundary.
149. The application is supported by a Hydrology Assessment and memorandum prepared by Ecological which assesses the hydrological conditions associated with the proposed facility under 10%, 5%, 2%, 1%, 0.5%, 0.2% and 0.1% Annual Exceedance Probability (AEP) flood events.
150. The Hydrology Assessment found that the existing conditions flood depths highlights that the flows are generally concentrated to the waterways and defined overland flow paths in the region, with sufficient terrain relief to limit the amount of sheet flow.
151. The main concentrated overland flow paths/waterways within the site are as follows:
- The waterway through the middle (Sandy Creek) is generally away from the proposed solar arrays, with minimal isolated areas that may be close to the 1% AEP flood inundation area (See Figure 25). These areas are to the edge of the solar panel regions and depths are shallow and pose little impact on the site.
 - The overland flow path across the upper east of the site travels under proposed sections of solar panels and are described as shallow (<0.1m). As the overland flow path progresses downstream, these depths increase to around 0.5m.
 - The overflow paths in the south-eastern corner of the site are also considered shallow under the solar arrays in the case of 1% AEP. In the proposed location of the BESS, depths increase up to 0.8m. This will pose minimal impact to overall flood paths due to the close location of the onsite dam immediately downstream of the proposed BESS.
 - Little River is located along the northern border of the site, and solar arrays are clear of the 1% AEP extent, except for one location where the overland path joins Little River in the central north of the site. The existing access roads in this location have been designed and sited appropriately to reduce potential flooding impacts.

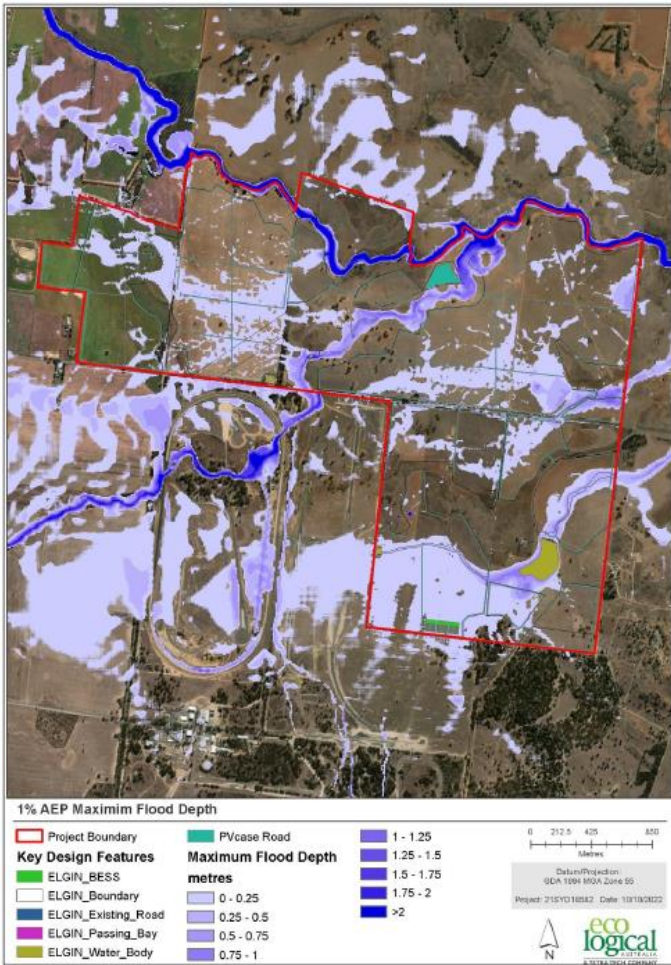


Figure 25: 1% AEP Maximum Flood Depth mapping. Source: Hydrology Assessment.

152. The assessment found that velocities across the site are generally low and below the threshold where rock armouring to protect waterways is required.
153. Overall, the assessment found that as the solar arrays are installed above the NGL, overland flood waters should be able to flow underneath them without altering flow patterns. Other aspects of the facility that cannot have water flow through them (such as the BESS), could impact localised flooding depending on their final placement and design.
154. Flood management will therefore need to be considered in the final design of the facility, including the consideration of runoff from the panels to prevent soil erosion. It is recommended that the EMF/permit include a requirement for an updated hydrological assessment to be undertaken at the final design stage.

Visual Impact to sensitive receptors

155. As assessment of the project's visual impact on the You Yangs (SLO1) is detailed above.
156. The project's Landscape and Visual Impact Assessment also assessed visual impacts to sensitive uses (being dwellings) within the vicinity of the site.
157. The most visible changes to the landscape (before landscape screening mitigation) will be experienced from:
 - VP2 – Mt Rothwell Estate residence – High visual impact
 - VP3 – Residence at 1375 Little River-Ripley Road - Moderate to high visual impact
 - VP4 – Residence at 1340 Little River-Ripley Road - Moderate to high visual impact



Figure 26: Sensitive receivers predicted to be visually impacted

158. With the adoption of high-density tree and shrub planting along the perimeter of the facility where it interacts with these properties, the project is assessed as having a low visual impact to VP3 and VP4 and a moderate visual impact to VP2 (Mount Rothwell Estate). Refer to Figures 27 to 29.
159. Overall, it is considered that the proposal will have an acceptable level of visual impact, on balance with the benefits of the provision of a renewable energy facility and energy storage facility.
160. Conditions of the permit will require the endorsement of a landscaping plan to confirm the proposed screen planting and future maintenance.



Figure 27: Photo simulation of Viewpoint 4 looking east, with proposed landscape planting at 5 years. Source: Application documents.



Figure 28: Photo simulation looking west from Viewpoint 2 (Mt Rothwell Estate), with proposed landscaping at 5 years. Source: Application documents.



Figure 29: Photo simulation locating east from Viewpoint 3, with proposed 5 year landscaping. Source: Application documents.

Glint and Glare

161. The *Solar Energy Facilities Design and Development Guidelines* (DELWP 2022) and the decision guidelines of Clause 53.13 (Renewable Energy Facility other than a Wind Energy Facility) require the assessment of potential glint and glare impacts to dwellings and roads within 1km of a proposed facility and any aviation infrastructure near a facility, including air traffic control towers or runway approaches.
162. The application is supported by a Glare and Glint Assessment (contained within the Visual Impact and Landscape Assessment) which has assessed the glint and glare impacts of the project on:
 - Dwellings and roads within 1km of the site; and,
 - Bacchus Marsh Airport (14km), Avalon Airport (15km) and the neighbouring Mount Rothwell private airstrip (30m east)
163. The assessment demonstrates that if the resting angles of the solar arrays are set between 25–50 degrees from horizontal the glint and glare impacts expected for the facility will be minimal, with no glare impacts expected for all ground level receivers. This range fall just outside of the typical resting angle range for solar farms of around 45-60 degrees.
164. As such, a condition has been included in the recommendation requiring the panels to be configured within the recommended resting angle ranges.
165. When the panels are configured within the recommended ranges, no additional mitigation is required for ground-level receivers. Nonetheless, vegetation screening is proposed around the perimeter of the facility and is expected to further reduce potential ground level glint and glare impacts.
166. In relation to the Mount Rothwell private airstrip, the assessment recommends that the owner/operator of the airstrip be notified of the low potential for green glare on the final approach to the airstrip (refer to Figure 30). The



owner/operator was notified during the public notice of the application and has objected to the proposal on glint and glare grounds (amongst other things).

167. As there are no guidelines set by the Australian Government's Civil Aviation Safety Authority (CASA) to assess glint and glare impacts on aircraft, the guidelines issued by the United States Federal Aviation Administration (FAA) are typically used.
168. Under the FAA's revised final policy (May 2021), only airports with Airport Traffic Control Towers (ATCTs) are now required to have glint and glare assessments, with the focus on potential impacts towards the ATCTs. The final policy no longer states requirements relating to final approach paths, stating that:
Initially, FAA believed that solar energy systems could introduce a novel glint and glare effect to pilots on final approach. FAA has subsequently concluded that in most cases, the glint and glare from solar energy systems to pilots on final approach is similar to glint and glare pilots routinely experience from water bodies, glass facade buildings, parking lots, and similar features.
169. Additionally, there are a number of airports around the world that have installed solar facilities to support their operations, including the recently constructed and operational Melbourne Airport solar farm located about 1km north from its north-south runway.
170. As such, the low potential for green glare impacts to aircraft at the private airstrip is considered acceptable.
171. There are no expected glint and glare impacts to either the Bacchus March or Avalon Airport approaches or ATCTs.

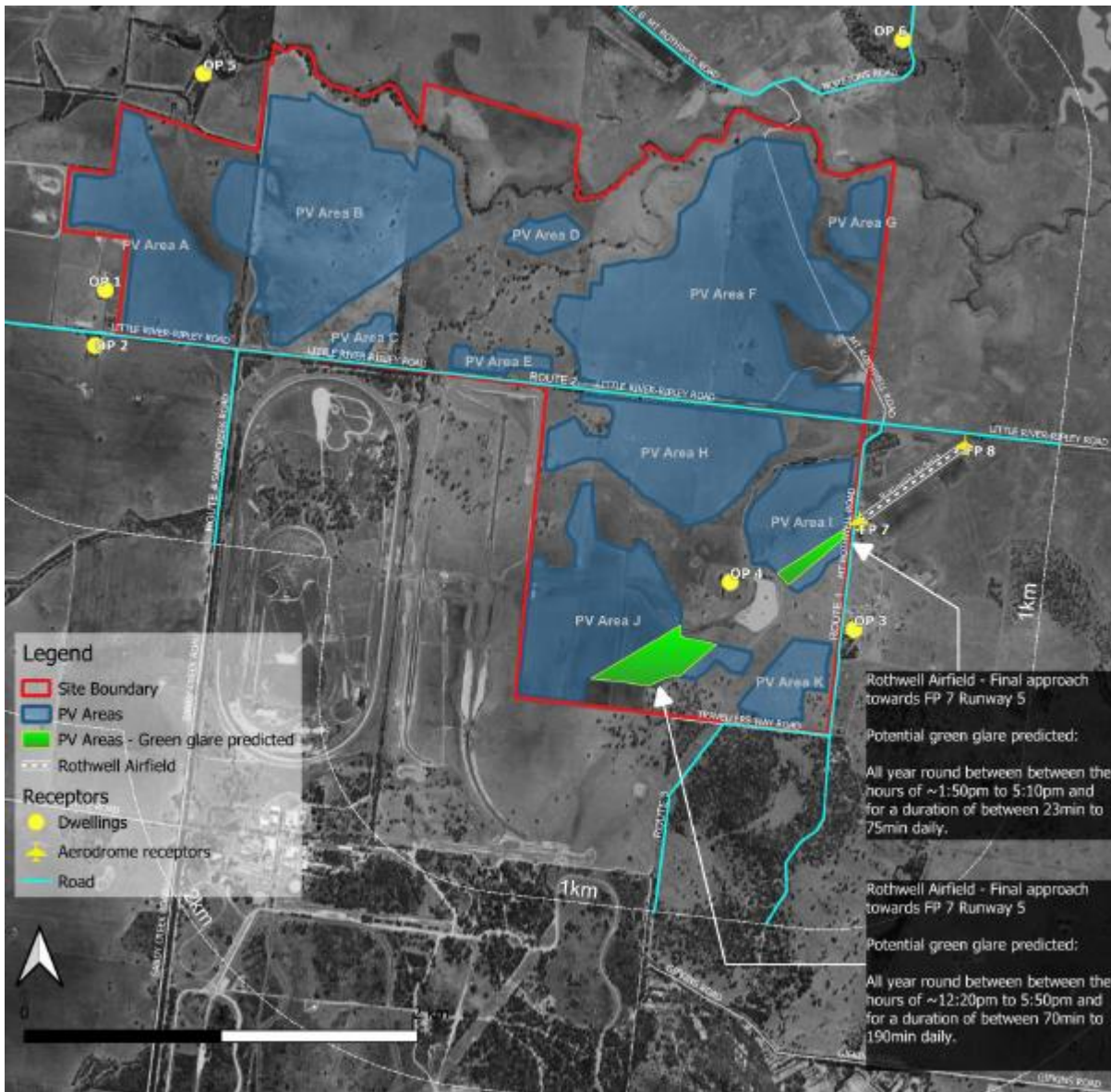
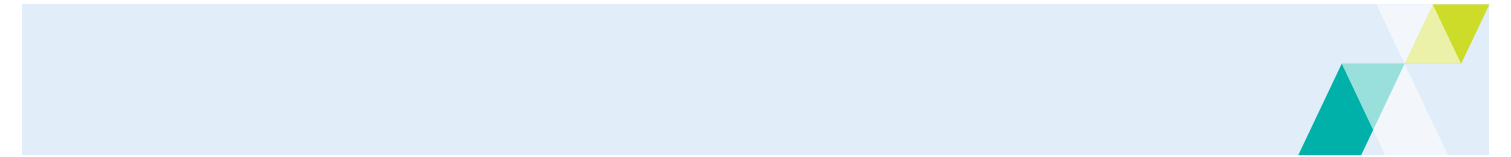


Figure 30: Areas of potential glare to Mt Rothwell private airstrip resting angles 25-50 degrees. Source: Application documents.

Agricultural Impacts

172. The subject site is located on agricultural land that is currently used for dryland cropping (barley, canola, wheat) and the grazing of sheep. The land is neither highly productive nor highly versatile.
173. The Agricultural Assessment submitted with the application outlined that the proposed solar farm will have some impacts on the future agricultural viability of the land, including that cropping will no longer be practical. However, it is noted that sheep would still be able to graze under the panels, with appropriate improvement of stock water availability.
174. The assessment also outlined that consideration should be given to how Serrated Tussock (a regionally controlled weed) will be managed. A condition of the recommendation will require this to be considered within the requirements of the EMF for the project.
175. The Agricultural Assessment concludes that there will no detrimental impacts of the proposed solar farm on surrounding farms in the region. As such, it is considered that the facility will not unreasonably impact the potential of



agricultural land and therefore the objectives and strategies of Clause 14.01-1S (Protection of agricultural land) are appropriately met.

176. Conditions have been included in the recommendation requiring the rehabilitation of the site back to its prior condition after the solar farm ceases operations, to ensure that the land remains suitable for agricultural use into the future.

Traffic and Transport

177. The PPF and the FZ both require the consideration of access and traffic impacts relating to the proposed use and development.
178. The application is supported by a Transport Impact Assessment (TIA) which considers the traffics impacts of the proposed facility on local and state roads during construction and operation.
179. The site is proposed to be accessed by seven vehicle access points; six from Little-River Ripley Road and one from Mount Rothwell Road.
180. The TIA estimates that up to 20 vehicle movements are expected per hour during peak construction activities, to accommodate up to 150 construction workers. The largest vehicle expected to be accessing the site will be a B-Double measuring 26.5m x 2.5m. Vehicles will access the site via Bachus March Road to the laydown area on Little-River Ripley Road.
181. During the operation of the facility, only two vehicle movements are expected each day as the site is only expected to be operated by one employee. Adequate space for the parking of vehicles during the operation of the facility is available in the internal access roads on site. As such, car parking provision is considered satisfactory.
182. Head, Transport for Victoria reviewed the application documents and did not object to the facility.
183. The proposed vehicle access and traffic impacts from the facility are accepted, subject to conditions which will require a Traffic Management Plan to be approved in consultation with Council and Head, Transport for Victoria.

Staging

184. Given the size of the proposed solar farm, the conditions of the permit will allow the development to be staged, if required.



185. The proposal is consistent with the relevant planning policies of the Greater Geelong Planning Scheme and will contribute to the generation of renewable energy within the region.
186. The proposal is generally supported by the various referral agencies, subject to conditions.
187. It is recommended that Planning Permit No. PA2402968 for the use and development of a solar energy facility and utility installation at 1000, 1050, 1085-1135, 1145-1215, 1150-1190, 1240 and 1320 Little River-Ripley Road, Little River VIC 3211 be issued, subject to conditions.
188. It is recommended that the following parties be notified of the above in writing:
- All objectors and submitters
 - Referral authorities: DEECA, AusNet, WorkSafe
 - Greater Geelong City Council and Wyndham Council
 - CFA
 - Head, Transport for Victoria
 - DEECA (as Crown Land Manager)



Prepared by: [REDACTED]

I have considered whether there is a conflict of interest in assessing this application and I have determined that I have:

- No Conflict**
- Conflict and have therefore undertaken the following actions:
 - Completed the **Statutory Planning Services declaration of Conflict/Interest form.**
 - Attached the Statutory Planning Services declaration of Conflict/Interest form on to the hardcopy file.
 - Attached the Statutory Planning Services declaration of Conflict/Interest form into the relevant electronic workspace.

Name: [REDACTED]
Title: [REDACTED]

Signed: [REDACTED]

Phone: [REDACTED]

Dated: 26 February 2025

Reviewed by: [REDACTED]

I have considered whether there is a conflict of interest in assessing this application and I have determined that I have:

- No Conflict**
- Conflict and have therefore undertaken the following actions:
 - Completed the **Statutory Planning Services declaration of Conflict/Interest form.**
 - Attached the Statutory Planning Services declaration of Conflict/Interest form on to the hardcopy file.
 - Attached the Statutory Planning Services declaration of Conflict/Interest form into the relevant electronic workspace.

Name: [REDACTED]
Title: [REDACTED]

Signed: [REDACTED]

Phone: [REDACTED]

Dated: 3 March 2025

Approved by: [REDACTED]

I have considered whether there is a conflict of interest in assessing this application and I have determined that I have:

- No Conflict**
- Conflict and have therefore undertaken the following actions:
 - Completed the **Statutory Planning Services declaration of Conflict/Interest form.**
 - Attached the Statutory Planning Services declaration of Conflict/Interest form on to the hardcopy file.
 - Attached the Statutory Planning Services declaration of Conflict/Interest form into the relevant electronic workspace.

Name: [REDACTED]
Title: [REDACTED]
Phone: [REDACTED]

Signed: [REDACTED]

Dated: 5 March 2025