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Planning Application Report

Manthos Investments Pty Ltd c/o Robert Luxmoore Pty Ltd

Hazelwood North Solar Farm

27 November 2023

Document Details

Hazelwood North Solar Farm

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Document history

Revision	Date	Description	Author	Approved
1	13/07/2023	First Draft Planning Application Report	DM	RW
2	21/07/2023	Final Planning Application Report	DM	RW
3	27/11/2023	Updated Planning Application Report	DM	RW

Executive Summary

Manthos Investments (the Proponent) have engaged Robert Luxmoore Pty Ltd (Robert Luxmoore), a project management firm that specialises in large-scale renewable energy assets connected to the Australian National Electricity Market, and Cogency Australia Pty Ltd (Cogency), a planning and engagement firm, to prepare the Planning Application to be lodged with the Minister for Planning (the Responsible Authority) through the Department of Transport and Planning (DTP) for approval.

This planning report supports the application for a planning permit for use and development of land for a 450 MW solar farm, associated infrastructure, and a 450 MW / 1800 MWh Battery Energy Storage System (BESS), known as the Hazelwood North Solar Farm (and hereby referred to in this report as the 'Proposal') at Firmins Lane, Hazelwood North. The purpose of this planning report is to provide the Responsible Authority, referral authorities and relevant stakeholders with comprehensive detail of the Proposal. This includes detail on the Proponent and project team, proposed development, potential impacts and benefits, and compliance with relevant legislation, policies, plans, and guidelines, primarily through the Latrobe Planning Scheme.

The Proposal is to be located on a 1,100 hectare piece of land, comprised of 20 parcels (Table **1**). It primarily comprises solar panels, a centrally located 450 MW / 1800 MWh BESS, substation, access tracks, fencing, native vegetation screening, temporary construction compound, agrisolar activities, and waterway revegetation.

The Proposal is located within the Farming Zone and is also affected by an Environmental Significance Overlay, six Design and Development Overlays (DDO1, 3, 5, 6, 10, and 11), a Land Subject to Inundation Overlay, a Bushfire Management Overlay, a State Resource Overlay, and a Public Acquisition Overlay. The following permit triggers apply to the Proposal:

- Clause 35.07 – Farming Zone:
  - Use of the land for a 'Renewable energy facility (other than Wind energy facility)'
  - Use of the land for a 'Utility installation (other than Minor utility installation and Telecommunications facility)' (for the purposes of the BESS).
  - Use of the land for a 'Utility installation (other than Minor unitality installation and Telecommunications facility)' (for the purposes of the Substation)
  - Construct or carry our works for:
    - Buildings and works associated with a Section 2 use.
    - Buildings and works within 100 metres of a Transport Zone 2 or PAO, within 20 metres of any other road, and within 100 metres of a dwelling not in the same ownership.
    - Earthworks which change the rate of flow or the discharge point of water across a property boundary.
- Clause 42.01 – Environmental Significance Overlay:
  - Construct a building or construct or carry out works.
  - Remove, destroy or lop any vegetation (including dead vegetation).
- Clause 43.02 Design and Development Overlay:
  - Schedule 1: Construct a building or construct or carry out works, and to construct a fence within 3 metres of any pipeline.
  - Schedule 3: Construct or carry out works.
  - Schedule 6: Construct a building or carry out works with the height of more than 68.4 metres above the AHD.
  - Schedule 10: Construct a building or construct or carry out works which exceeds 96.5 metres AHD.
- Clause 52.05 – Signs:
  - Business identification sign less than 3 sqm.
- Clause 52.17 – Native Vegetation:

- Remove, destroy or lop native vegetation, including dead native vegetation.

- Clause 52.29 – Land adjacent to the principal road network:
  - Create or alter access to a road in a Transport Zone 2.

Based on the findings of the technical impact assessments accompanying this application, the Proposal is not expected to generate any unreasonable or significant environmental or community impacts. The Proposal supports significant economic development for the region and contributes to Victoria's legislated renewable energy generation and storage targets. This site is ideally suited to a solar farm and associated infrastructure development, benefits from existing infrastructure in the region, and provides for adequate screening and buffers from sensitive receptors. Native vegetation removal has primarily been avoided and impacts to natural values minimised. Aboriginal cultural heritage protection has been provided, and agricultural activities ('Agrisolar' sheep grazing) are proposed to continue.

Table 1 - Title Details

Standard Parcel Identifier	Owner
4\TP839333	Manthos Investments Pty. Ltd.
3\TP839333	Manthos Investments Pty. Ltd.
2\TP839333	Manthos Investments Pty. Ltd.
1\TP839333	Manthos Investments Pty. Ltd.
4A~A\PP3647	Manthos Investments Pty. Ltd.
8A~A\PP3647	Manthos Investments Pty. Ltd.
8~A\PP3647	Manthos Investments Pty. Ltd.
3A~A\PP3647	Manthos Investments Pty. Ltd.
63~A\PP3647	Manthos Investments Pty. Ltd.
68~A\PP3647	Manthos Investments Pty. Ltd.
68A~A\PP3647	Manthos Investments Pty. Ltd.
68B\PP3647	Latrobe City Council (Crown Lot)
67A~A\PP3647	Manthos Investments Pty. Ltd.
55\PP3647	Manthos Investments Pty. Ltd.
56~A\PP3647	Manthos Investments Pty. Ltd.
57\PP3647	Manthos Investments Pty. Ltd.
57A\PP3647	Manthos Investments Pty. Ltd.
3B~A\PP3647	Manthos Investments Pty. Ltd.
4B~A\PP3647	Manthos Investments Pty. Ltd.
1\TP741402	Manthos Investments Pty. Ltd.

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1. Introduction

1.1 Project Summary

Cogency Australia Pty Ltd (Cogency), on behalf of Manthos Investments Pty Ltd (the Proponent), has prepared this planning application report in relation to the proposed development of a large-scale solar farm and Battery Energy Storage System (BESS) known as the Hazelwood North Solar Farm (the Proposal). With a generation capacity of 450MW, the solar farm would be considered the largest in the State, helping to transition the Latrobe Valley to a renewable economy and delivering a clean source of energy to Victorian homes and businesses.

The Proposal is expected to have a number of positive impacts to the local and state economy, including generating approximately $1.89 billion in total economic output, supporting approximately 500 jobs during the construction phase and producing more than 700,000 MWh of clean electricity per year.

As part of the application and engagement process, regular discussions have been held with the Department of Transport and Planning (DTP), Department of Energy, Environment and Climate Action (DEECA), Latrobe City Council, Latrobe Valley Authority, Latrobe Regional Airport Board, Gippsland Climate Change Network, Energy Safe Victoria, CFA, AusNet Services, Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC), community members and other key stakeholders.

This report will outline the Proposal as well as provide a detailed planning assessment against the Latrobe Planning Scheme and relevant Victorian and Federal policy. The Proposal is considered to adhere to all applicable planning policy, as well as align with the strategic vision of Latrobe City and wider Gippsland.

Figure 1 - Solar Grazing ('Agrisolar')

1.2 The Proponent

Manthos Investments, a family-owned company operating Manny's Market in Morwell, represents a longstanding member of the Latrobe Valley community. Manthos Investments are both the Proponent of the Hazelwood North Solar Farm and the landowner. Landowner led developments are unique in the renewable energy industry, allowing for an additional level of care for the land and community. Manthos Investments are committed to open and meaningful stakeholder engagement, as demonstrated by the engagement activities undertaken to date.

2. Site & Context Analysis

2.1 Site Analysis

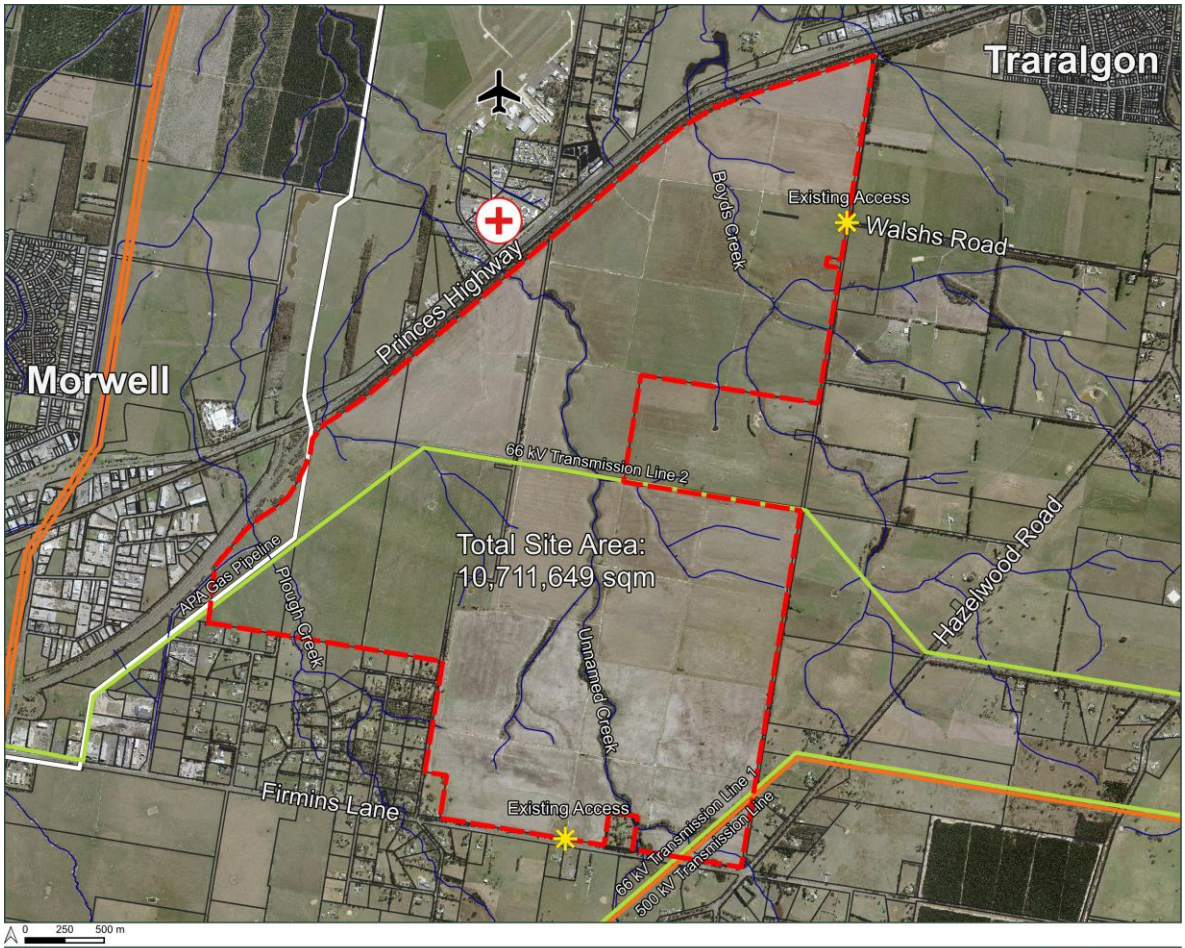
The Proponent is seeking to develop the solar farm on its 1,100-hectare property in Firmins Lane, Hazelwood North, Victoria, 3480, which is currently used as a combination of grazing with sheep, grazing with cattle, fodder production and dryland cropping., and was formerly a forestry plantation. The site is comprised of 20 separate lots, the details of which can be found in Appendix B.

The site is conveniently located between Morwell and Traralgon, in the heart of the Latrobe Valley and the wider Gippsland region. The site benefits from access to major transport infrastructure, being adjacent to the Princes Highway, Firmins Lane, and Hazelwood Road. Refer to Figure 2 - Site Plan.

There are three (3) creeks that traverse the site running south to north - Plough Creek in the south-west, Boyd's Creek in the north-east, and a third unnamed creek through the centre of the site. These creeks are of a degraded quality and feature some remnant native vegetation. The land is generally flat with the exception of the creek courses. To the north-east of the site, the land is more undulating and therefore some areas are unsuitable for solar development.

Currently, the site has a network of access tracks allowing movement around the property in most weather conditions. Built form on the site is minimal with one centrally located set of stockyards that are suitable for both sheep and cattle and another derelict set of stockyards are located near the access gate from Walshs Road. There are no buildings, and all on-farm storage is either in portable structures or open to the elements.

The site is currently accessed via Firmins Lane and Walshs Road.



Site Plan - Hazelwood Solar Farm 2201

Figure 2 - Site Plan

2.2 Traditional Owners

The land on which the proposed Hazelwood North Solar Farm is planned be located was originally occupied by the Braiakaulung People of the Kurnai Tribe. The Braiakaulung People occupied the Latrobe, Thompson, Avon and Macalister River Valleys. This group is further divided into smaller groups or clans.

The site is within the jurisdiction of the Gunaikurnai Aboriginal Land and Waters Corporation (Figure 3), which is the Registered Aboriginal Party as per the Victorian Aboriginal Heritage Council. The Gunaikurnai people are recognised by the Federal Court and the State of Victoria as the Traditional Owners of a large area of Gippsland spanning from Warragul in the west to the Snowy River in the east, and from the Great Divide in the north to the coast in the south.

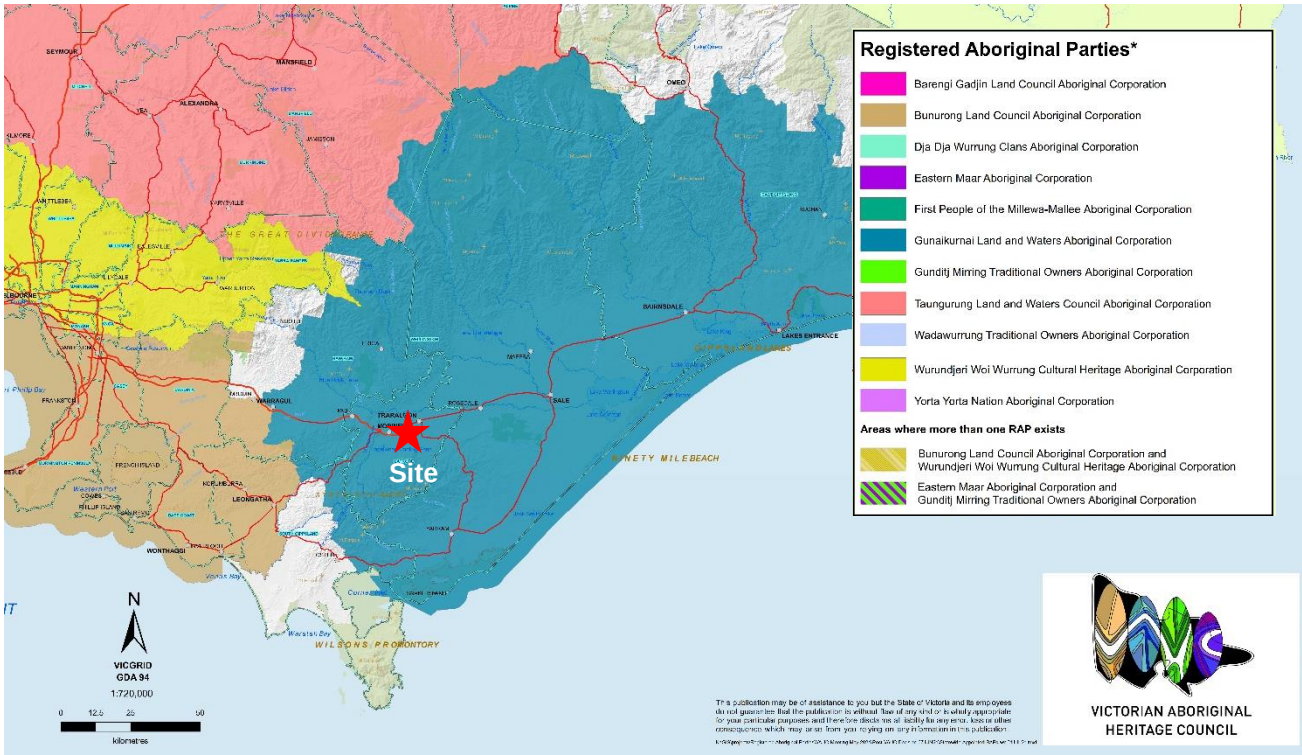


Figure 3 - Registered Aboriginal Parties in Victoria

2.3 Topographical features

The site is generally flat with a gentle slope across the length of the site. Within the site, elevations range from approximately 58 AHD to 100 AHD with higher elevations towards the south and east and lower towards the north and west. This reflects the pattern of water flow across the site with the three creeks flowing towards the north of the site.

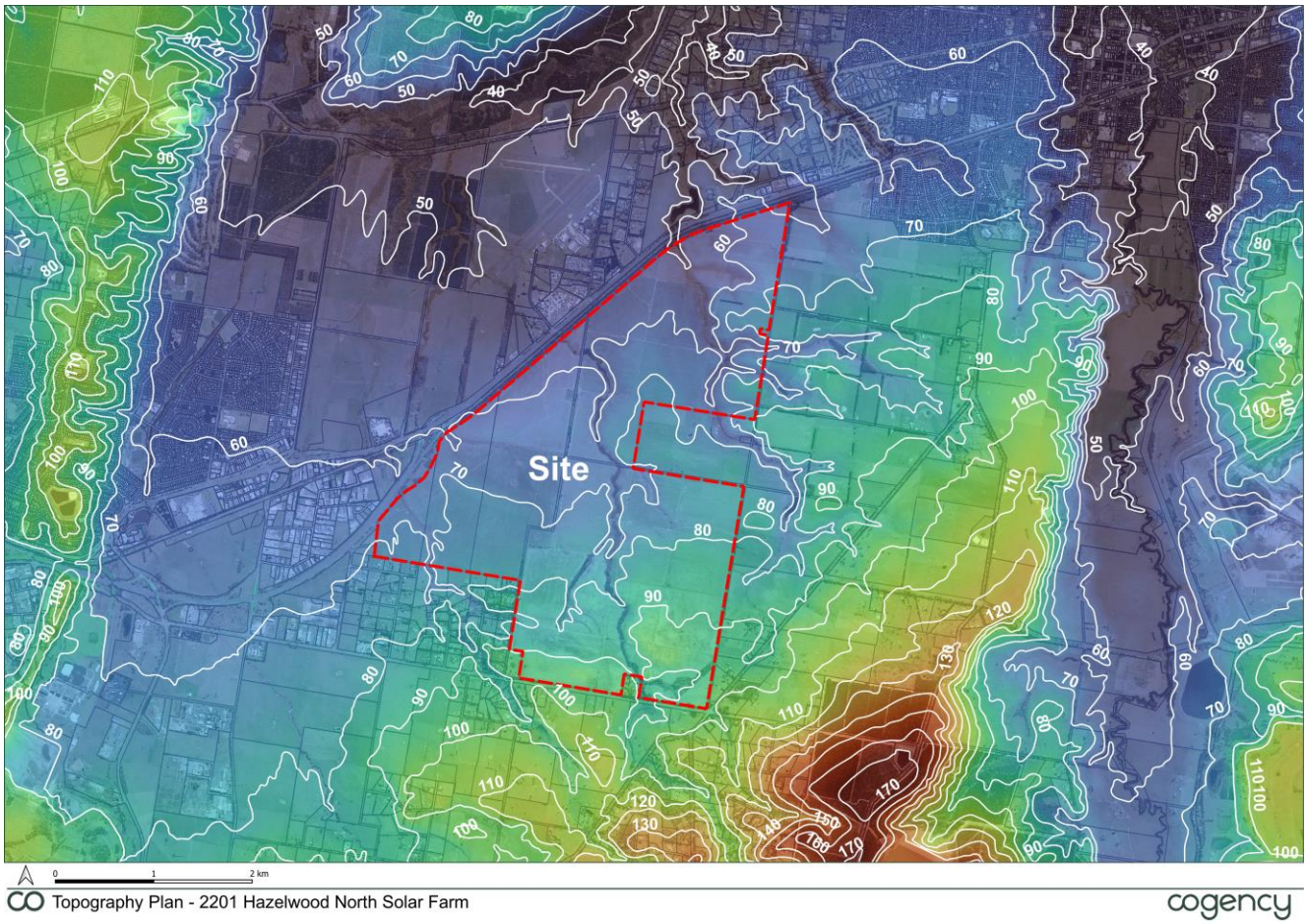


Figure 4 - Topography Plan

2.4 Existing electrical easements

There are several electricity easements associated with the three existing transmission lines passing through the site along with several local distribution lines (Figure 5). These include an existing double-circuit 66kV line running from the south-west to the east via the centre of the site, and another double-circuit 66kV line and a single-circuit 500kV line at the south-eastern corner of the site. The electricity easement widths vary across the site dependant on the capacity of the line and the location. More details on the electricity easements can be found in the title plans.

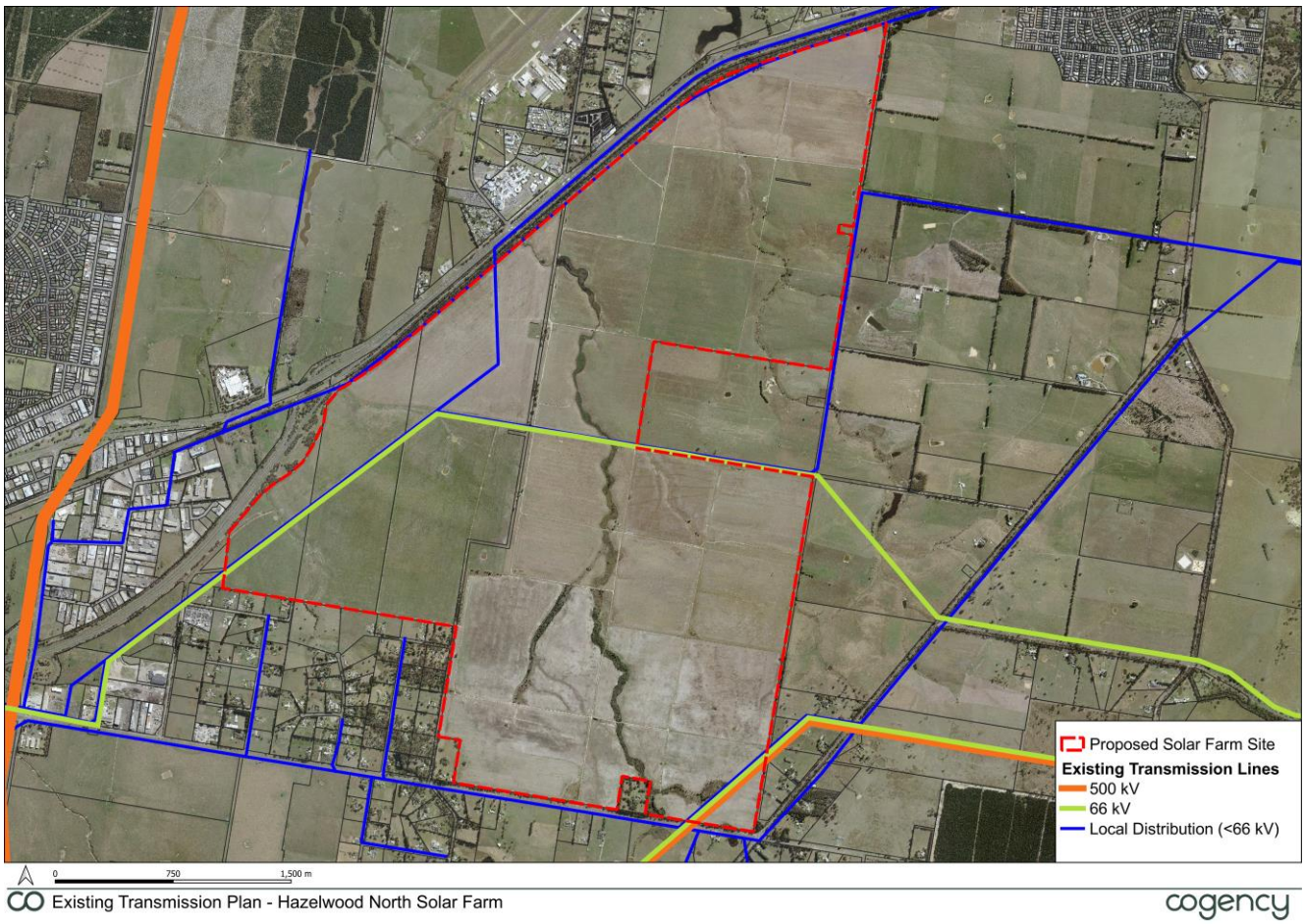


Figure 5 - Existing Electricity Easements Plan

2.5 Gas pipeline easement

There is a 20-metre-wide easement associated with an APA gas pipeline affecting the south-west corner of the site Figure 6). More details on this gas pipeline easement can be found in the title plans.

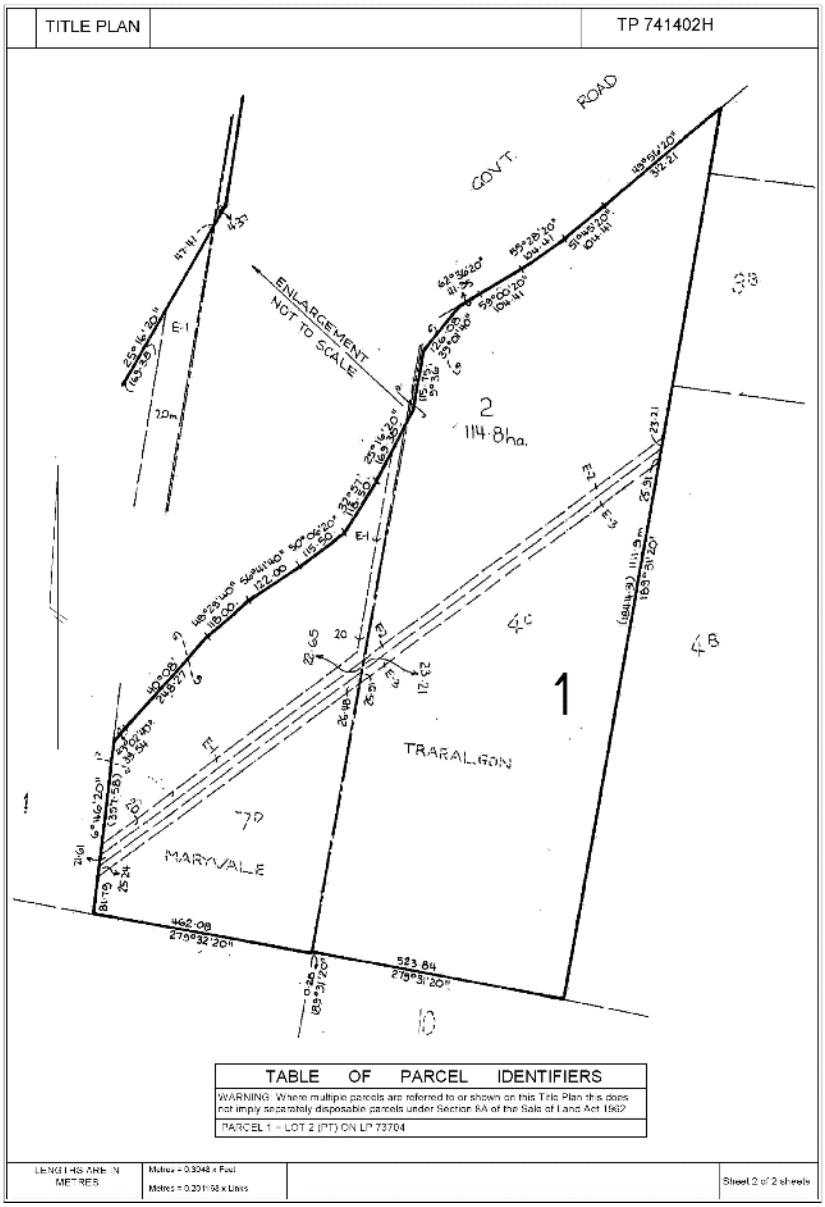


Figure 6 - Gas Pipeline Easement (shown as E1)

2.6 Context analysis

The site is located within the rural locality of Hazelwood North, as shown on Figure 7. The locality is close to the towns of Traralgon, Morwell, and Churchill, and has as a population of 1,552 (ABS, 2021). It mainly comprises rural residential properties, along with a number of community facilities such as the public hall, primary school, and CFA brigade.

The wider Latrobe Valley region is the economic centre of Gippsland, with a population of 75,211 (ABS, 2021), and is known for its history in brown coal mining and power generation. It is comprised of four main towns (Traralgon, Moe-Newborough, Morwell, and Churchill) and rural areas that feature a strong forestry, mining and agricultural economy. The region is experiencing a period of economic restructuring associated with the move away from coal fired power generation and related industries.

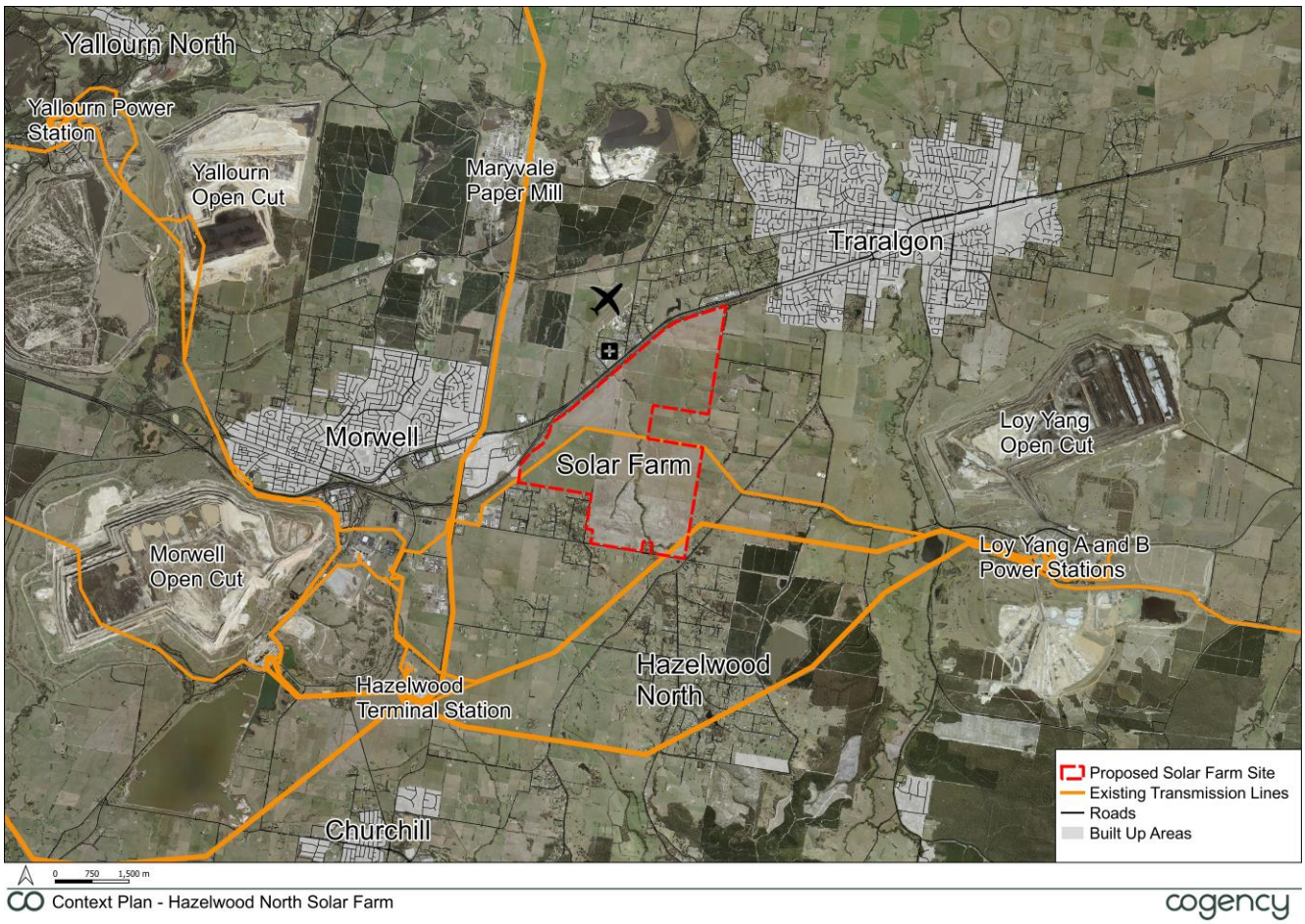


Figure 7 - Context Map

2.7 Surrounding land uses

Surrounding the site are a variety of land uses. To the north is the four-lane Princes Highway and the Melbourne-Traralgon Railway. Fronting the Princes Highway to the north are a mix of industrial, farming, residential, tourist accommodation, and healthcare uses, including the Latrobe Regional Hospital. Further north of the hospital is the Latrobe Regional Airport.

The urban areas of Morwell and Traralgon are located approximately 4km west and 3km north-east of the site, respectively. Land immediately to the east comprises farmland and semi-rural properties, and further east are the Loy Yang Power Stations and Loy Yang open cut mine (approximately 7 km away).

To the south there are a mix of farming and subdivided rural residential living properties. A heavy-industrial precinct lies between the site and the heart of Morwell.

The land uses are shown on Figure 8 - Surrounding Uses Plan.

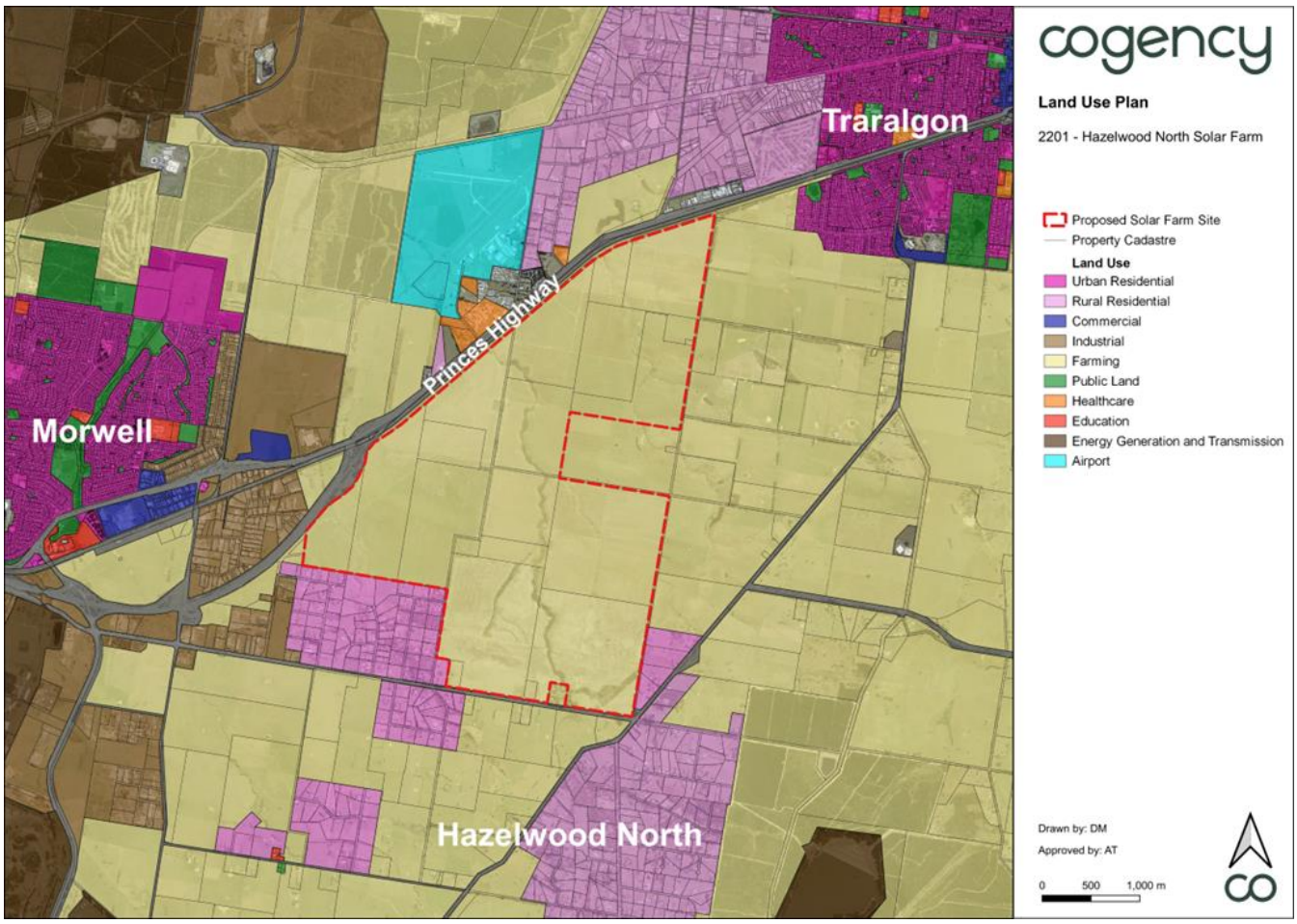


Figure 8 - Surrounding Uses Plan

2.8 Site access

Access to the site is primarily from the southern boundary at Firmins Lane. The road is used for travel to the Morwell East industrial precinct as well as to the Loy Yang A and B power stations from the Princes Highway. Via Firmins Lane, the site is considered well connected to the road network, such as the Princes Highway.

Secondary access to the site is provided through Walshs Road to the northeast. Walshs Road is unpaved, provides one way access, and is primarily used by surrounding farms and dwellings.

3. The Proposal

3.1 Overview and Masterplan

The Hazelwood North Solar Farm includes the following key components:

- The solar panels and associated infrastructure, with a potential capacity of approximately 450MW,
- A BESS of approximately 1800 MWh of storage capacity,
- A centrally located Substation,
- Revegetation of existing waterways,
- 'Agrisolar', whereby the current sheep grazing activities are proposed to continue in conjunction with the solar farm, and
- Vegetation screening along certain sections of the site boundary.

Grid connection to the National Electricity Market will be the subject of a separate planning application and is therefore not considered within this planning report.

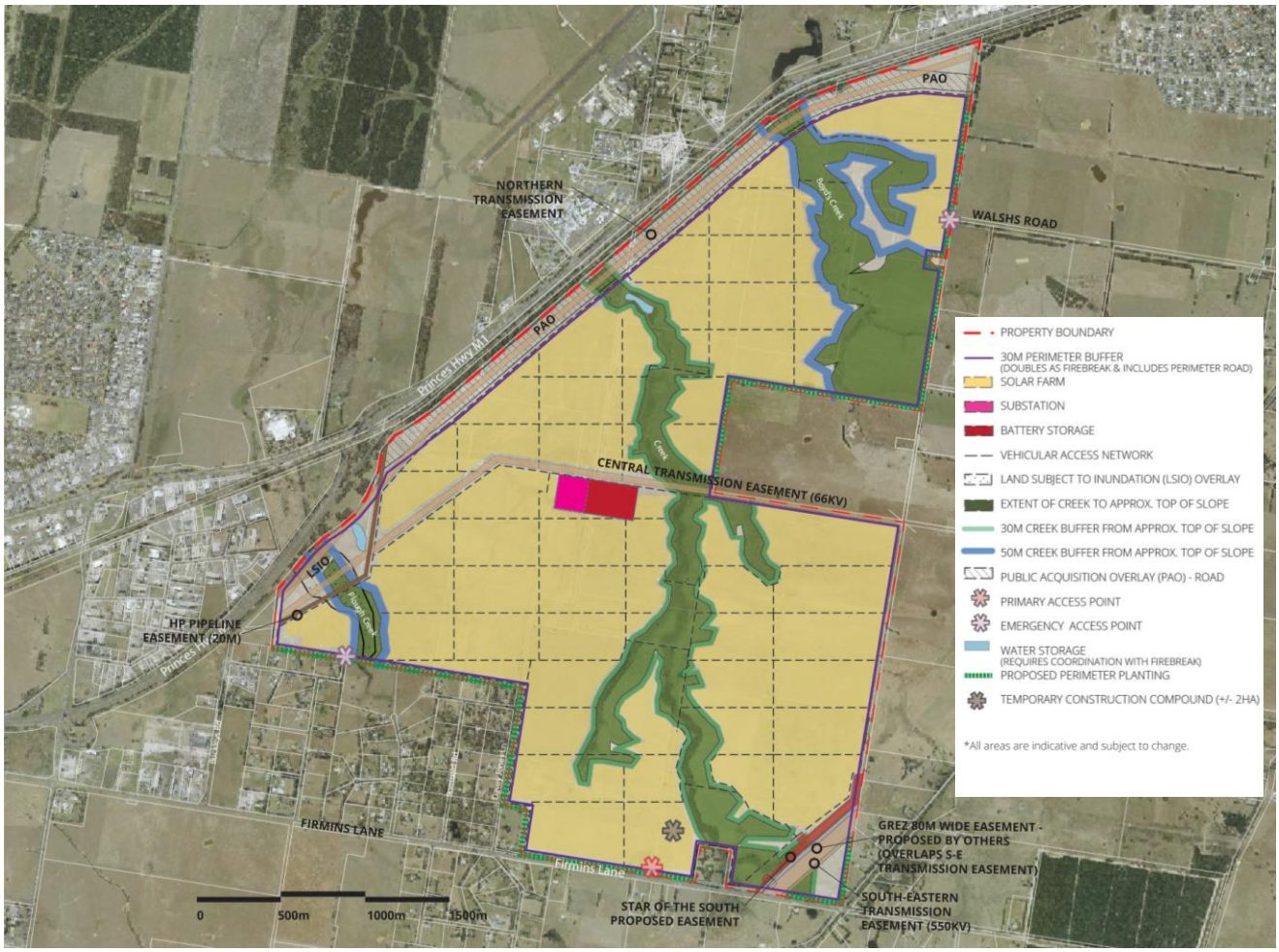


Figure 9 - Preliminary Design Concept (UrbanFold)

Please refer to the accompanying Masterplan at Appendix C for detailed plans and areas of all components.

3.2 Solar Panels and Associated Infrastructure

3.2.1 Solar panels

The solar farm is expected to have a capacity of 450 MWp AC (560 MWp DC), covering approximately 638 ha of land. The concept design is predicated upon panels being single-axis tracking in 2P format, with a concept string size of 28 modules (see Figure 10). Typical dimensions are shown in Figure 11.

Figure 10 - Indicative concept design of solar PV array

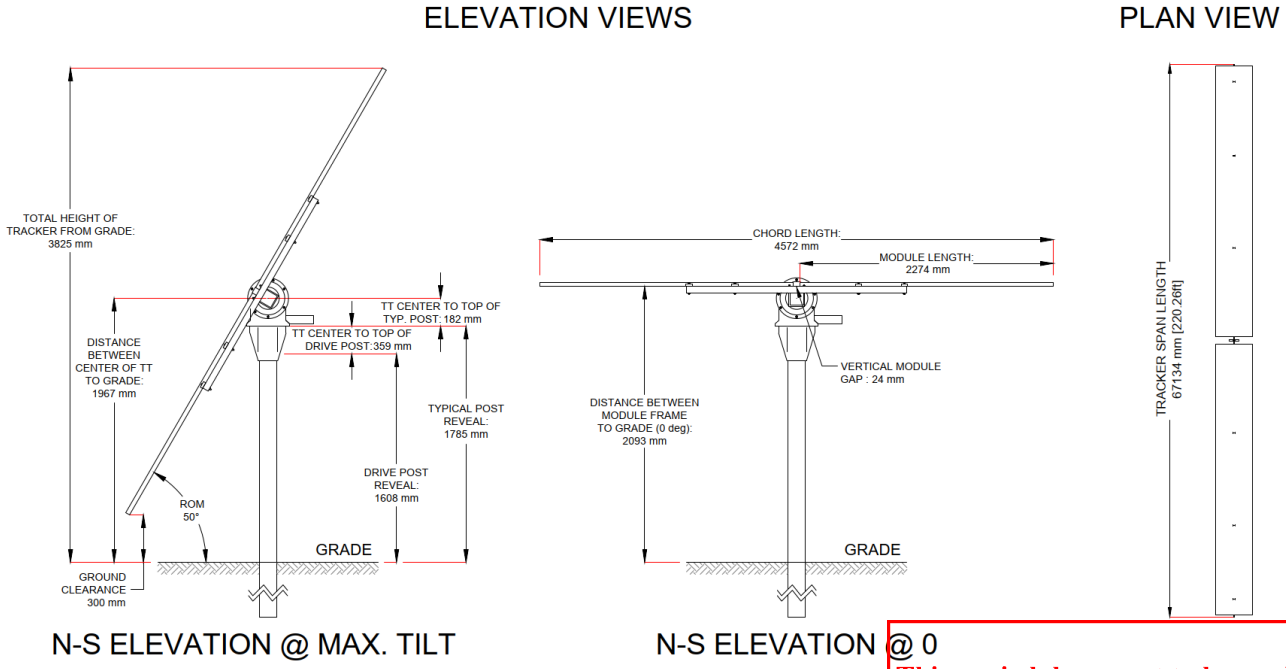


Figure 11 - Concept solar panel tracker details (FTC Solar)

The solar components from the intended supplier in detail are as follows:

- PV Modules:
  - Materials: Aluminum frame, Glass, Mono-crystalline cells, Copper insulated cable
  - Average Sizes = 2256mm x 1133mm x 35mm

- Tracker
  - Materials: Galvanised steel, small battery system used to power tracker movement
  - Average Sizes = 67.134m long x 4.572m wide is a single tracker row
  - Covered/uncovered = covered by PV Modules
  - Height: approximately 4.5 metres at full tilt to 2 metres at zero tilt
- Combiner Boxes
  - Materials: Thermoplastic housing, Electrical fuses, Isolation switch
  - Walls – yes, fully enclosed box
  - Average Sizes = 840mm wide x 1058mm high x 360mm deep
  - Covered/uncovered = can be covered by sunshade to keep direct sunlight off combiner box.

3.2.2 Access points and tracks

Primary access is proposed to be through an existing entrance at Firmins Lane, to the south of the site. Traffix Group in their Traffic Engineering Assessment (Chapter 6.3) of the Proposal recommended the upgrading of the Firmins Lane access to accommodate the anticipated construction traffic demand. The details of the proposed intersection upgrade are detailed within the Traffic Engineering Assessment.

Secondary/emergency access is proposed at two locations, Walshs Road to the east of the site, and Groppi Road to the south-west of the site. Both secondary/emergency access points feature existing access facilities and will not require upgrades for the anticipated minor traffic demand.

The internal access tracks are proposed to be 4m wide to comfortably allow for large trucks, including extra allowance for construction vehicles that may be needed during the construction stage. The 4m also allows for bends/curves in the road where trucks need an extra width compared to when travelling straight. It is also noted that a 4m width also allows for fire trucks to turn around at road junctions as per CFA guidelines.

The internal access track network mostly follows the existing internal track network on the site, particularly at creek crossings. Where the proposed access tracks deviate from the existing tracks, or where the existing tracks are widened, it is to allow for the safe and efficient operation of the solar farm. The solar farm and access tracks have been laid out to minimise the removal of native vegetation wherever possible.

3.2.3 Earthworks

Minor earthworks will be required for the internal access track network and for some solar panels. These earthworks will be limited to areas of the site which feature high gradients and are not proposed within the land affected by the LSIO. More details of the extent of earthworks will be determined within the detailed design phase.

3.2.4 Site fencing

The perimeter of the solar array areas will be fenced with an approximately 2.1 m tall security fence (barbed wire on top), to protect from intrusion. Fencing will also separate the creek corridors from the solar areas, allowing for uninterrupted wildlife movements through the creek corridors.

Regular spacing of gates will allow multiple controlled access/egress points.

The BESS compound will have an additional security fence, minimum 2.5 m tall (chain wire to a minimum height of 1.8 m plus a three-strand barbed wire top). The concept design and engineering plans show these in greater detail, which are provided in the appendices.

The security fence is necessary for the integrity of the system. The fence design aims to provide security to the facility and control grazing sheep and other wildlife.

3.2.5 Native vegetation screening

Along sensitive boundaries, i.e., the southern and eastern boundaries, native vegetation screening will be provided to reduce the visual impact of the Proposal on surrounding properties (Figure 12). The screening will be located at the edge of the subject site within the 30-metre setback from the edge of the solar farm, as has been coordinated with the requirements from the Country Fire Authority (CFA) (Figure 13).

Screening vegetation will include native vegetation species as detailed within the Landscape and Visual Impact Assessment (Appendix I).

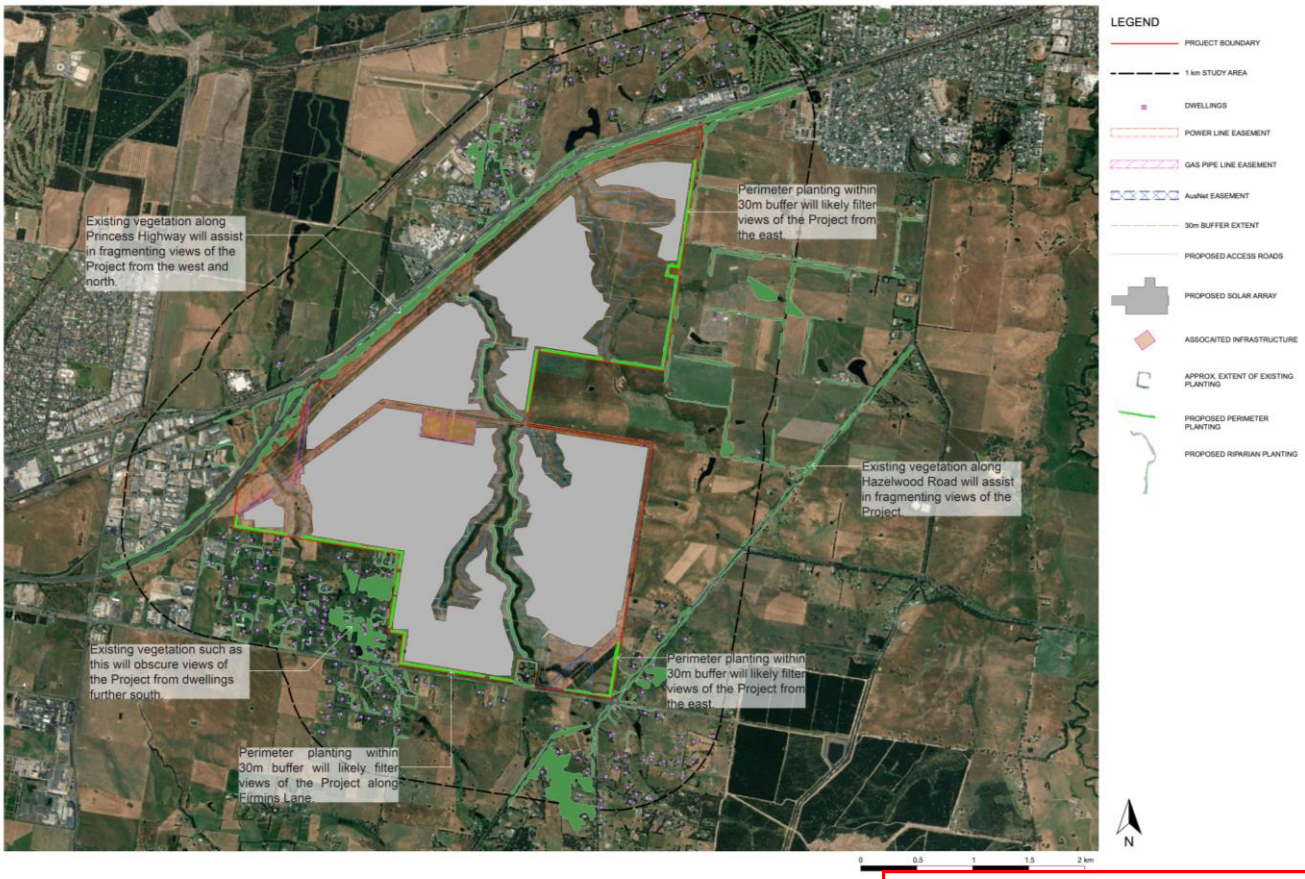


Figure 12 - Landscape Plan (Moir Landscape Architecture)

Figure 13 - Typical Native Vegetation Screening Section (Moir Landscape Architecture)

3.2.6 Business signage

Small business identification signs are proposed to be placed at the two key entrances to the site. This includes the main entrance at Firmins Lane, as well as the emergency entrance at Walshs Road. In total the signs will be no more than 3 sqm and will provide for appropriate identification of the facility and direction for workers and

visitors. More details regarding the exact location and design of the signs will be determined in the detailed design phase post-permit.

3.2.7 Temporary construction facilities

A temporary construction facility of approximately 3 Ha will be located close to the entrance of the site along Firmins Lane. This construction facility will facilitate the delivery, assembly and construction of the various solar and infrastructure components. The construction facility will also house temporary facilities for the construction workers on site.

After the construction phase of the Proposal has completed the construction facility area will be converted into additional space for solar panels.

3.2.8 Hours of construction

Hours of construction will comply with the EPA regulations of 7.00 am to 6.00 pm. Works outside those hours will be limited.

3.3 Battery Energy Storage System

A BESS with a maximum capacity of approximately 450 MW (aligned with the capacity of the solar farm) and a storage capacity of 1800 MWh (4 hours of storage at maximum output) is proposed to be built at the centre of the site directly to the east of the substation. The BESS occupies approximately 6 ha of land, which includes all battery units, inverters, switchgear buildings, access roads and fire breaks (Figure 14).

The BESS is an essential element of this Proposal as it allows for consistent electricity supply to the grid while the solar panels are not producing power. The BESS has been located far away from sensitive uses, in order to minimise or mitigate any potential noise impacts on surrounding properties.

Refer to Appendix D for more detailed BESS plans and elevations.

Figure 14 - Preliminary BESS Concept Design

3.4 Substation

The proposed substation will be located at centre of the site and will occupy an area of approximately 4.8 ha in size occupying land adjacent to the proposed BESS (Figure 9). The substation facility has been strategically located at the centre of the site, away from sensitive receptors, to minimise the visual and acoustic impacts on

neighbouring properties. Siting the substation next to the proposed BESS also allows for greater efficiency in connecting the two pieces of infrastructure. The substation will be connected to the National Energy Market, with options currently being explored. The electricity infrastructure required to connect to the grid will be subject to a separate planning application and is not covered in this report.

3.5 'Agrisolar'

'Agrisolar' is the concept of concurrent sheep grazing (or other agricultural activities, such as vegetable growing) and solar electricity generation. Across Australia and internationally, there is growing research on the benefits of Agrisolar. The benefits can be derived from:

- Diversification of income due to the addition of renewable electricity production over grazing land.
- Natural grass management under solar panels (instead of relying upon slashing or spraying).
- Extra shading of sheep and pastures.
- In drier climates, additional moisture through condensation on panels.

Considering the lower agriculture capability of the solar development areas, this diversification and concurrent Agrisolar use can provide strong agricultural benefits for the Proponent.

The Clean Energy Council released their *Australian Guide to Agrisolar for Large-Scale Solar: For proponents and farmers* (March 2021), which contains further information on Agrisolar.

3.6 Decommissioning

Typical lease programs for these types of renewable energy projects have options to extend or decommission after a set period of time (usually 30-40 years). The decommissioning requirements, that typically require the developer to fully return the development to pre-development condition (subject to agreement), would be subject to a condition on the planning permit.

3.7 Waterway Revegetation

The design has considered the natural geography of the site and allowed for generous setbacks to watercourses. The waterways are presently not restricted from grazing activities. A Waterway Revegetation Plan is included in this Proposal (Appendix S), focusing on restoring the vegetation immediately around the three creeks that run through the site, all of which are in current states of degradation. The area set aside for revegetation totals 180 ha, with an additional 86 ha set aside for buffers from the top of slope. Of the 180 ha set aside a total of 13.43 ha will be planted, with the rest required for bushfire buffers and access tracks (Figure 15).

The Waterway Revegetation Plan has been prepared by Nature Advisory for the management of the three creeks which run through the site. The revegetation of the creek corridors will include re-planting native vegetation traditionally found in the Latrobe Valley. The creek corridors will allow for improved wildlife corridors in the area whilst representing minimal bushfire risk to the proposed solar farm and BESS. Details of the proposed revegetation will be determined post-permit approval in coordination with the Gippsland Climate Change Network, Nature Advisory, the Gunaikurnai Land and Waters Aboriginal Corporation Registered Aboriginal Party, West Gippsland Catchment Management Authority, and other stakeholders.

In addition, the proposed solar panels represent light impact on the land, with little need for groundwork for construction and decommissioning. The design and development of the Proposal has minimised impacts to the extent possible on the natural environment.

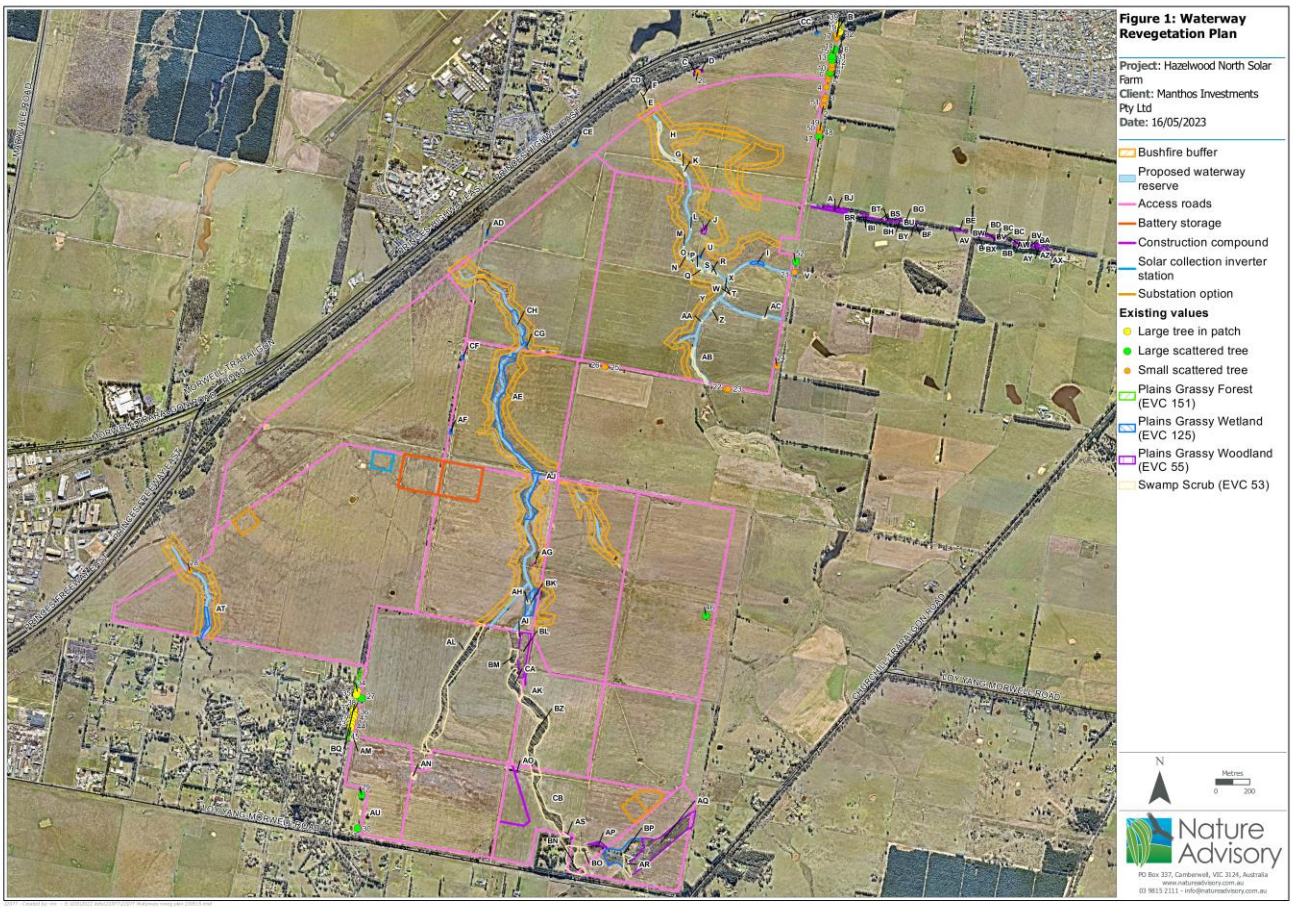


Figure 15 - Waterway Revegetation Plan (Nature Advisory)

3.8 Employment Opportunities

The development of the solar farm and associated infrastructure is expected to create up to 500 direct jobs for the construction stage. Beyond construction, there are expected to be 11 ongoing operations and maintenance employees based at the site for the lifetime of the Hazelwood North Solar Farm. More information regarding the employment and economic impacts of the Proposal can be found in the Socioeconomic Assessment (Appendix N, summarised in Chapter 6.10).

As outlined in the Community and Stakeholder Engagement Summary Report (see Chapter 4 and Appendix R) local procurement and employment will be prioritised for the construction and operation of the solar farm. The direct and indirect jobs associated with this Proposal would contribute to the Latrobe City economy and further develop local skills in construction and management of renewable energy, assisting in the region's transition to a renewable economy.

3.9 Proposal Justification

3.9.1 Site suitability

The site is appropriately zoned for a solar farm and BESS, and benefits from a location within the Victorian State Government's designated 'Gippsland Renewable Energy Zone' (GREZ). The site is deemed as suitable for the use and development of the Proposal, for the following reasons:

- Large landholding.
- Relatively flat topographical conditions.
- Located outside the urban settlement areas of Morwell and Traralgon.

- Close to the electricity grid with three AusNet transmission lines through the site.
- Ready access to main roads and transport.
- Not located within a declared irrigation district or State significant watercourse.
- Not characterised as having State significant landscape values or State significant agricultural land.
- Land has already experienced significant ground disturbance and clearing, with majority of native vegetation found along site boundaries.
- Existing grazing activities can continue and coexist with the operation of the solar farm.
- Size and shape of the site minimises direct abuttals to sensitive receptors.
- Existing industrial precinct to the south/west is a non-sensitive receptor, with potential to be powered by renewable energy generated on site.

3.9.2 Why solar energy?

Solar photovoltaic technology is continually improving, with large scale solar facilities becoming more economically viable across Australia. In addition, solar energy is fast becoming the cheapest form of electricity generation with capital costs of large-scale solar farms dropping by 25% from 2015 to 2020[1]. Given this, Australia is uniquely positioned to harness our abundant solar energy potential.

The capability of harnessing solar energy extends to the proposed site within the Latrobe Valley, with good solar capacity factors and an extensive transmission network. The solar photovoltaic capacity factor is approximately 18% for the Latrobe region[2]. Capacity factor is a measure of how much energy an energy facility would normally produce compared to its maximum output.

The proposed solar farm would produce approximately 700,000 MWh of clean electricity annually to the national grid. This amount of electricity is equivalent to powering approximately 150,000 Victorian homes[3]. In addition, this Proposal would prevent approximately 700,000 tonnes of CO_2 equivalent emissions per year compared to current energy emissions in Victoria[4]. Replacing this amount of GHG emissions is equivalent to taking around 190,000 petrol cars off the road or planting over 7 million trees.

The benefits of replacing brown coal power with solar extend to the reduction of hazardous air pollution. Brown coal power stations produce dangerous heavy metals and toxic chemicals including sulphur dioxide, mercury, particulate matter and nitrogen oxides. These pollutants are dangerous to the local community and has led to an increase of $831 Million in annual health costs in the Latrobe Valley[5] (Environment Victoria, 2015). The Hazelwood North Solar Farm would reduce the reliance on brown coal in the region, contributing to improving air quality and health outcomes for the community.

In addition, mining activities are also a significant cost of brown coal power generation. In the Latrobe Valley, mining activity has disturbed approximately 7,200 ha of land. The natural environment within these areas has been destroyed, with mines as deep as 200 metres[6]. Mining is set to continue over the next two decades in association with the still operating Yallourn and Loy Yang power stations, meaning the existing mines are set to expand by more than 1,500 ha. The Hazelwood North Solar Farm would support to the transition away from brown coal power, and in doing so help to protect both the local community and the natural environment from further degradation.

The Proposal represents a significant project for the region and State of Victoria, with solar power proving to be the future of affordable and clean power. Solar energy assists in replacing fossil fuel power generation in

[1] ARENA 2022 - https://arena.gov.au/renewable-energy/large-scale-solar/

[2] Geoscience Australia 2021 - https://services.ga.gov.au/gis/rest/services/RenewableEnergyCapacityFactorMaps/MapServer/0

[3] Australian Energy Regulator 2020 - https://www.aer.gov.au/system/files/Residential%20energy%20consumption%20benchmarks%20-%209%20December%202020_0.pdf

[4] Clean Energy Regulator 2021 - https://www.cleanenergyregulator.gov.au/NGER/Legislation/Measurement-Determination#Amendments-for-202022

[5] Environment Victoria 2015 - https://environmentvictoria.org.au/2015/04/20/brown-coal-imposes-800m-health-cost-annually-on-victorians-2/

[6] Mine Land Rehabilitation Authority 2022 - https://www.mineland.vic.gov.au/publication/declared-mines/

Gippsland and wider Victoria, reducing the impact of brown coal on local communities and the natural environment.

3.9.3 Why in the Latrobe Valley?

Developing solar power generation in the Latrobe Valley is an important step to transitioning the national grid to renewable energy. The region has historically been the centre of Victoria's power generation system and there has been significant investment in electricity infrastructure in the Latrobe Valley. This presents opportunities to fill Victoria's power needs with renewable energy, utilising the existing infrastructure in the Latrobe Valley.

Developing renewable energy and associated industries will also support Latrobe City in their goal of transitioning to a cleaner economy:

- "The region's extensive electricity infrastructure and transmission network are significant assets which provide opportunities for utility scale renewable energy generation." (Latrobe Valley Authority)
- "Latrobe City already has an emerging circular economy and has potential to build on this by harnessing renewable energy." (Latrobe City Council).

The site is one of the largest parcels of undeveloped land in the Latrobe Valley, representing a significant opportunity for a large-scale solar and BESS development. In addition, the site features minimal remnant vegetation meaning the proposed development would have minimal impact on the natural environment.

4. Community and Stakeholder Engagement

At the outset, Cogency, on behalf of the Proponent, prepared a Community and Stakeholder Engagement Strategy containing the objectives, principles, methodology and action plan that guided the engagement program for the Hazelwood North Solar Farm. The engagement strategy was prepared for the Proposal in accordance with the DTP (formerly DELWP) *Community Engagement and Benefit Sharing in Renewable Energy Development*: *A Guide for Renewable Energy Developers* (updated 2021) and *Solar Energy Facilities Design and Development Guideline* (2022), and the International Association for Public Participation's (IAP2) *Public Participation Spectrum* (2018).

Cogency has prepared a Community and Stakeholder Engagement Summary Report which accompanies this planning application. Please refer to Appendix R. Below is a summary of the engagement carried out to date.

4.1 Stakeholder Briefings and Meetings

As a part of the community and stakeholder engagement activities, the project team engaged with a wide range of stakeholders (see Figure 16). Engagement with key stakeholders has occurred at all stages of the planning and design process: Feasibility Stage, Early Engagement and, Pre-Application Engagement. The engagement process will continue with the Community and key stakeholders post lodgement (see the Engagement Summary Report for details). This served to provide insight into the requirements and approval processes, allow for ongoing involvement in the design and planning process, as well as to ensure key concerns could be addressed with ample time before lodgement of this application.

Stakeholder engagement activities included face-to-face meetings, direct landowner and indigenous engagement, online meetings and presentations, fact sheets and letters, posters, an interactive website, phone calls, email exchanges, an information day, and site visits. Further engagement, such as new rounds of fact sheets, letters, and a second community information day, will take place post-lodgement of this application.

Engaging with stakeholders and listening to feedback has been key in acting to minimise potential impacts to neighbouring properties, the community, and local environment. It prompted changes to the design and siting of the Proposal, as well as the undertaking of additional technical studies to resolve any issues raised.

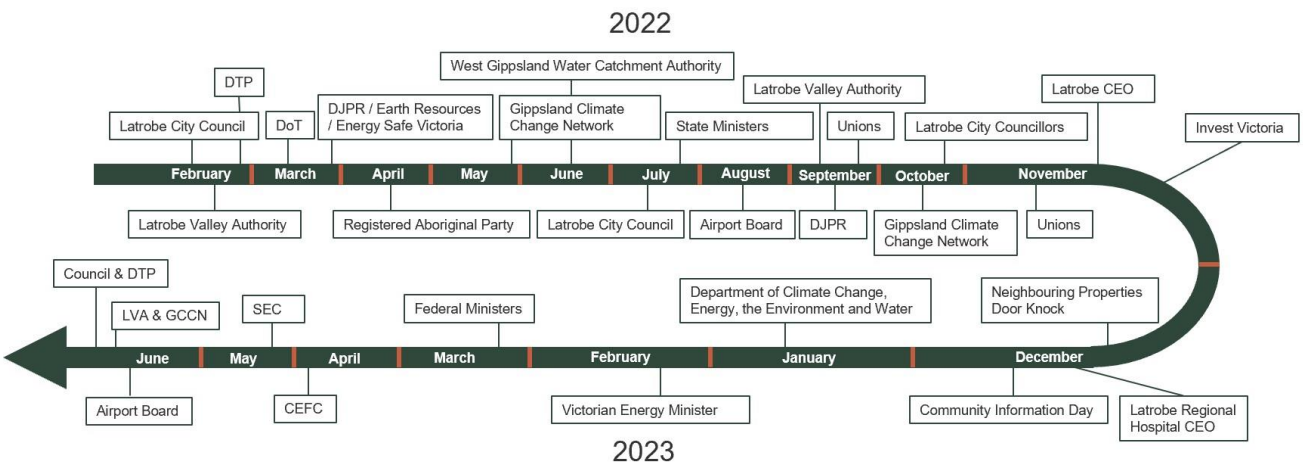


Figure 16 - Stakeholder Briefings and Meetings

4.2 Community Briefings and Presentations

4.2.1 Neighbouring Properties Door Knock

A door knock of neighbouring properties was undertaken by members of the project team on December 1st, 2022. In November 2022, a letter in advance was posted out to the residents to inform them of the door knock. The purpose of the door knock was to provide a direct point of contact to the community, to provide information about the Proposal, listen to and discuss any initial concerns, and encourage engagement and attendance at the upcoming community information day. There were approximately 57 houses door knocked, of these 23 residents were home. For residents who were not present at that time, an introduction letter along with a handwritten apology note and fact sheet detailing the upcoming community information session were left at the property.

4.2.2 Community Information Day

The purpose of the community information day was to provide information about the Proposal to the community, provide an opportunity for community members to ask questions and voice their opinions, encourage engagement in the planning process, as well as establish a point of contact for the Proposal.

It was held on Saturday, December 17th, 2022, at the Hazelwood North Public Hall from 10am till 2pm. 11 members of the project team were in attendance and a total of 36 members of the community attended. The project team were present to greet the community and to provide technical insight into the Proposal.

The responses from the attendees of the Hazelwood North Solar Farm community information day were generally positive about the Proposal and many people were interested in further education regarding renewable energy and large-scale solar farms (such as teachers and students from schools and local community groups). Groups of local businesses and people were curious about potential job opportunities, while farmers expressed concerns surrounding agricultural land uses and potential impacts on farming activities. A neighbouring resident raised concerns about the potential for land value depreciation, while others provided valuable input into community benefit sharing ideas and the proposed landscape design.

All community feedback was recorded, and pertinent issues were addressed by the Proposal team during the session and afterwards during the next round of design. Contact details for all attendees were recorded and the Proponent is committed to providing updates about the Proposal and planning process.

4.3 Newsletters, Factsheets, Media, and Website

Communication materials such as factsheets, letters, and the dedicated Proposal website, in accompaniment with media releases, were published and distributed to provide information and encourage involvement in the Proposal. The latest technical information, such as the technical reports supporting this application, has been added to the various modes of communication (including the Proposal's website) to ensure the stakeholders are kept up to date with the latest information.

Factsheets were developed based on the relevant themes and concerns that had been raised by key stakeholders in earlier meetings and served the purpose of providing information about the Proposal while encouraging community input and involvement. The factsheets were included in landowner information packs, distributed to residents during the door knocks and provided to the attendees of the HNSF Community Information Day. They are also available on the website. Please refer to Appendix R.

The website was designed and created by Cogency Australia to provide up-to-date information about the Proposal. The website provides essential information about the proposed Hazelwood North Solar farm and responds to frequently asked questions, provides an interactive Proposal map which the public can comment on, details upcoming events for the community and serves as a point of contact whereby individuals can submit questions or comments regarding the Proposal. These questions or comments are answered by the project

team to ensure clear communication. Factsheets and important technical information have been uploaded to the website as the Proposal has progressed.

On Wednesday, 14th December 2022, ahead of the Community Information Day, an advertisement was published in the Latrobe Valley Express to give the local community and the people in the surrounding areas further notification of the Community Information Day. In the same publication, a column titled *"Solar Farm Proposed in Hazelwood North"* was printed that detailed the Proponent, location, size, and benefits of the Solar Farm, as well as further notifying the community of the upcoming Information Day and informing them that there would be a second information day post-lodgement of the planning application.

4.4 Issues Raised

While there were some concerns raised by local community members about the potential loss of agricultural activities on the site, amenity impacts, and bushfire management, there were other groups of local residents and business owners curious about the job opportunities and ongoing employment prospects. Immediate agricultural land use concerns and potential amenity impacts (particularly visual) were discussed between community members and the project team at the Community Information Day, highlighting the proposed 'Agrisolar' method as well as the impact mitigation measures such as screening and Firmins Lane road upgrades. Questions surround grid connection possibilities were also raised; however, the community was informed that this would be explored in due course as part of a separate planning application and that the community would be informed and involved in that application process once the information is available.

See the Engagement Summary Report at Appendix R for further details.

4.5 Community Benefit Sharing Scheme Options

Cogency, on behalf of the Proponent, is in the process of developing a series of Community Benefit Sharing Scheme options. This scheme will be shaped by the key principles to community benefit sharing that have been developed by the *Community Engagement and Benefit Sharing in Renewable Energy Development*: *A Guide for Renewable Energy Developers* (DELWP 2021) and the *Guide to Benefit Sharing Options for Renewable Energy Projects* (Clean Energy Council, 2019). The options will also be informed by the community and other key stakeholders through issues raised at the Community Information Day, enquiries and submissions.

The Benefit Sharing Scheme will aim to add value to the locality over the lifecycle of the Proposal, and the Proponent has considered how it will benefit the local community and other stakeholders. Community participation will be key to inform the options and the Proponent plans to involve the local community in decisions around the specific nature and delivery of the scheme. The options will be further explored post-lodgement of the planning application, in cooperation with community members, Latrobe City Council, DTP, the Latrobe Valley Authority, GLaWAC, and the Gippsland Climate Change Network.

5. Planning Assessment

This section of the report includes a response to relevant federal, state, and local policy, primarily through the Latrobe Planning Scheme.

5.1 Land use definitions

A renewable energy facility is defined at Clause 73.03 of the Planning Scheme as:

- *Land used to generate energy using resources that can be rapidly replaced by an ongoing natural process. Renewable energy resources include the sun, wind, the ocean, water flows, organic matter and the earth's heat.*
- *It includes any building or other structure or thing used in or in connection with the generation of energy by a renewable resource.*

The definition of renewable energy facility includes a Solar energy facility which is defined at Clause 73.03 as:

- *Land used to generate electricity from solar energy using ground-mounted photovoltaic and thermal technology, where the primary role is to export power to the electricity network.*
- *It does not include the generation of electricity principally used for an existing use of land.*

The BESS is defined as Utility installation, which is defined as:

- Land used:
  - *For telecommunications.*
  - *To transmit or distribute gas or oil.*
  - *To transmit distribute or store power.*
  - *To collect, treat, transmit, store or distribute water; or*
  - *To collect, treat, or dispose of storm or flood water, sewage, or sullage.*

It includes any associated flow measurement device or a structure to gauge waterway flow.

5.2 Planning permit requirements

Having regard to the Latrobe Planning Scheme, the following permit triggers apply to the proposal:

Table 2 - Permit triggers for the Proposal	
Planning Control Zone	**Permit Triggers**
Clause 35.07 – Farming Zone (FZ1)	Use of the land for a 'Renewable energy facility (other than Wind energy facility)' Use of the land for a 'Utility installation (other than Minor utility installation and Telecommunications facility)' (for the purposes of the BESS) Use of the land for a 'Utility installation (other than Minor utility installation and Telecommunications facility)' (for the purposes of the Substation) Construct or carry our works where: The buildings and works are associated with a Section 2 use. For earthworks which change the rate of flow or the discharge point of water across a property boundary.
Overlays	
Clause 42.01 – Environmental Significance Overlay (ESO1)	Construct a building or construct or carry out works. Remove, destroy or lop any vegetation (including dead vegetation).
Clause 43.02 Design and Development Overlay – Schedule 1 (DDO1 - Major pipeline infrastructure)	Construct a building or construct or carry out works, and to construct a fence within 3 metres of any pipeline.
Clause 43.02 Design and Development Overlay – Schedule 3 (DDO3 - Noise attenuation)	Construct or carry out works.
Clause 43.02 Design and Development Overlay – Schedule 6 (DDO6 - Flight path)	Construct a building or carry out works with the height of more than 68.4 metres above the AHD.
Clause 43.02 Design and Development Overlay – Schedule 10 (DDO10 - Obstacle height area no 3)	Construct a building or construct or carry out works which exceeds 96.5 metres Australian Height Datum (AHD).
Particular provisions	
Clause 52.05 - Signs	Business identification sign less than 3 sqm.
Clause 52.17 – Native Vegetation	Remove, destroy or lop native vegetation, including dead native vegetation.
Clause 52.29 – Land adjacent to the principal road network	Create or alter access to a road in a Transport Zone 2.

The zones, overlays and particular provisions are examined in chapters 5.8 and 5.9 and an assessment against the permit triggers is provided at chapter 5.11.

5.3 Commonwealth Legislation and Policy

5.3.1 Paris Climate Agreement 2016

Australia is a party to the Paris Agreement, which came into force in 2016 and aims to strengthen the global response to the threat of climate change by "holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit temperature increase to 1.5°C".

Under the Paris Agreement, Australia must submit emissions reduction commitments known as Nationally Determined Contributions (NDCs). In 2021, Australia's NDCs were updated as follows: "committed to net zero emissions by 2050, inscribed low emissions technology stretch goals, affirmed the 2030 target, and reported 2021 projections results showing Australia is on track to exceed this target by up to 9 percentage points." Australia will submit its second NDC to the UNFCCC in 2025.

Assessment

The Proposal contributes to Australia's commitment to the Paris Climate Agreement and is in line with recent Federal announcements regarding a long-term emissions reduction strategy.

5.3.2 Australian Renewable Energy Target Scheme

The Renewable Energy Target (RET) is an Australian Government scheme "designed to reduce emissions of greenhouse gases in the electricity sector and encourage the additional generation of electricity from sustainable and renewable sources". It is administered through the *Renewable Energy (Electricity) Act* 2000, the *Renewable Energy (Electricity) (Small-scale Technology Shortfall Charge) Act* 2010, the *Renewable Energy (Electricity) (Large-scale Generation Shortfall Charge) Act* 2000, and the Renewable Energy (Electricity) Regulations 2001.

The Large-scale Renewable Energy Target (LRET) creates a financial incentive for the establishment or expansion of renewable energy facilities, such as solar and wind farms, by establishing demand for Large-scale Generation Certificates (LGCs). One LGC can be created for each megawatt-hour of eligible renewable electricity produced by an accredited renewable power station.

The LRET includes annual targets which require investment in new renewable energy projects until the target of 33,000 gigawatt-hours of renewable electricity generation is met and sustained until 2030.

Assessment

The Proposal contributes to the LRET target of sustaining 33,000 gigawatt hours of renewable electricity generation until 2030. The scheme offers policy support for the Proposal and provides backing for its commercial feasibility.

5.3.3 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is Australia's federal environmental law that provides environmental protection in relation to Matters of National Environmental Significance (MNES). The EPBC Act ensures "that 'nationally significant' animals, plants, habitats and places are identified, and any potential negative impacts on them are carefully considered before changes in land use or new developments are approved".

There are nine matters of national significance that are covered by the EPBC Act:

1. World heritage properties

2. National heritage places

3. Wetlands of international importance (listed under the Ramsar Convention)

4. Listed threatened species and ecological communities

5. Migratory species protected under international agreements

6. Commonwealth marine areas

7. Great Barrier Reef Marine Park

8. Nuclear Actions (including uranium mines)

9. A water resource, in relation to coal seam gas development and large coal mining development

Assessment

Accompanying this planning application is a Flora and Fauna Assessment completed by Nature Advisory (refer to Chapter 6.1), which addresses MNES and EPBC listed species.

Wastewater and other operational waste will be treated in accordance with the Environment Protection Regulations under the Environmental Protection Act 2017. More details regarding the management of waste and wastewater will be determined in the detailed design phase and can be conditioned on permit.

5.4 State Legislation

5.4.1 Planning and Environment Act 1987

The purpose of the *Planning and Environment Act 1987* (PE Act) is “To establish a framework for planning the use, development and protection of land in Victoria”.

The PE Act sets out procedures for preparing and amending the Victoria Planning Provisions and planning schemes, as well as the process for obtaining permits under schemes, enforcing compliance with planning schemes and permits, and other administrative procedures.

The Act is the 'enabling' legislation that provides legal weight to instruments under the Act, including the Victoria Planning Provisions, planning schemes (such as the Latrobe Planning Scheme), regulations and Ministerial directions.

Assessment

The Proposal is consistent with the key objectives of the PE Act, as it seeks to:

- Provide for the fair, orderly, economic and sustainable use, and development of land.
- Protect public utilities and other assets and enable the orderly provision and co-ordination of public utilities and other facilities for the benefit of the community; and
- Balance the present and future interests of all Victorians.

Planning approval is required for the Proposal under the Latrobe Planning Scheme (Planning Scheme) (see Chapter 5.2). Notably, in accordance with Clause 72.01, the Minister for Planning is the responsible authority for this application.

5.4.2 Environment Effects Act 1978

The potential environmental effects of a proposed development may need to be assessed under the Environment Effects Act 1978 (EE Act).

Not all projects need to be assessed under the EE Act. The Proponent needs to determine initially whether the project is likely to have a ‘significant effect on the environment’ and whether it needs to be referred to the

Minister for Planning. Once a project has been referred, the Minister for Planning determines whether an environmental assessment is required under the EE Act.

The Ministerial Guidelines for Assessment of Environmental Effects (Seventh edition, 2006) (Ministerial Guidelines) supplement the EE Act by provide detail about the administration of the environmental assessment process. The Ministerial Guidelines include a referral criteria and state that a 'significant effect on the environment' will reflect the following factors:

- significance of the environmental assets affected, in relation to:
  - character of the potentially affected environmental assets.
  - geographic occurrence of the environmental assets
  - values or importance of the environmental assets, based on expert knowledge, relevant policy, and evidence of social values.
- potential magnitude, extent, and duration of adverse effects on environmental assets in the short, medium, and longer term, as a result of the development, operation and where relevant, decommissioning of a project
- potential for more extended adverse effects in space and time, as a result of interactions of different effects and environmental processes affecting environmental assets.

Assessment

The Proponent has completed a self-assessment against the referral criteria in the Minister Guidelines (Appendix Q).

Based on the findings of the self-assessment, the Flora and Fauna Assessment (Chapter 6.1) and discussions with DTP during the planning process, the Proposal does not warrant an EES referral. This means that no EES referral under the EE Act to the Minister is necessary.

5.4.3 Renewable Energy (Jobs and Investment) Act 2017 and the Victorian Renewable Energy Target (VRET)

The *Renewable Energy (Jobs and Investment) Act 2017* legislates Victoria's renewable energy targets and supports schemes to achieve these targets and encourages investment and employment in Victoria.

Victoria's current renewable energy targets legislated in the *Renewable Energy (Jobs and Investment) Act 2017 (Vic)* are:

- 25% by 2020 (achieved)
- 40% by 2025
- 50% by 2030.

However, the Victorian State Government recently announced an intention to legislate updated targets of:

- 65% by 2030
- 95% by 2035.

Meeting these targets will create investment in new renewable energy projects in Victoria, support the reliability of Victoria's electricity supply, create thousands of jobs, put downward pressure on electricity prices, and reduce emissions from electricity generation.

In addition, the Victorian Government has announced the intention to legislate energy storage targets of at least 2.6 GW of energy storage capacity by 2030 and at least 6.3 GW by 2035. The energy storage targets will include short, medium and deep duration energy storage systems, allowing energy to be moved around during the day and also to be supplied through longer duration imbalances.

Assessment

The Proposal provides a key contribution to meeting the increased renewable energy targets and supports the Victorian Government's transition to a net zero economy. The targets provide useful policy that highlights the Victorian Government's strong support for renewable energy generation such as the proposed Hazelwood North Solar Farm.

In addition, the proposed BESS will be key to achieving Victoria's ambitious energy storage targets of at least 2.6 GW by 2030.

5.4.4 Climate Change Act 2017

The Climate Change Act 2017 establishes the legislative foundation to manage climate change risks, maximise the opportunities from decisive action and drive Victoria's transition to a climate resilient community and economy. The Act establishes the long-term emissions reduction target of net-zero by 2050. It requires the government to develop a Climate Change Strategy which sets out how the State will meet its 5 yearly targets. The Act sits alongside other key climate change initiatives including Victoria's Climate Change Framework and Victoria's Renewable Energy Action Plan.

The current interim target for the period 2021-2025 is for emissions to reduce 28-33% below 2005 levels by the end of 2025. This will be followed by the interim target for the period of 2026-2030 for emissions to reduce 45-50% below 2005 levels.

Assessment

The Proposal contributes to Victoria's net-zero by 2050 long term emissions reduction target. In addition, as the proposed solar farm would be operational by 2025, it would contribute to the interim emissions reduction target of 28-33% by 2025.

5.4.5 Aboriginal Heritage Act 2006

The *Aboriginal Heritage Act 2006* (AH Act) and associated regulations provides protection of Aboriginal cultural heritage and links the protection of Aboriginal cultural heritage more directly with planning and land development processes. It is an offence under the AH Act to harm Aboriginal cultural heritage, and any proposed development that has the potential to harm Aboriginal cultural heritage may require a Cultural Heritage Management Plan (CHMP).

The *Aboriginal Heritage Regulations 2018* set out circumstances that trigger the requirement for a CHMP. A CHMP is required for a proposed activity, if:

- all or part of the activity area for the activity is an area of cultural heritage sensitivity; and,
- all or part of the activity is a high impact activity.

Assessment

[redacted]

Pursuant to regulation 26 of the *Aboriginal Heritage Regulations* 2018, part of the site is located within an area of cultural heritage sensitivity, being a waterway or land within 200 metres of a waterway.

Pursuant to regulation 46 of the *Aboriginal Heritage Regulations* 2018, the use of land to generate electricity that results in significant ground disturbance is a 'high impact activity'.

Accordingly, the Proposal requires the preparation of a CHMP under Section 46 of the AH Act 2006. The CHMP is currently being prepared in coordination with Gunaikurnai Land and Waters Aboriginal Corporation Registered Aboriginal Party (RAP) and will be submitted to the responsible authority for approval.

5.4.6 Flora and Fauna Guarantee Act 1988

The *Flora and Fauna Guarantee Act 1988* (FFG Act) is a key piece of legislation for the conservation of threatened species and communities and for the management of potentially threatening processes. The FFG Act places an emphasis on prevention to ensure that more species do not become threatened in the future.

The FFG Act was amended in 2020 to introduce a national approach to the assessment and listing of threatened species, the Common Assessment Method (CAM).

Assessment

The Proposal is unlikely to require a permit under the FFG Act as it is located on private land. However, the listing of species under the FFG Act has implications for the assessment of the Proposal's potential impacts. The Proposal is consistent with the purposes of the FFG Act in that it does not impact on threatened species or communities, as confirmed in the Flora and Fauna Assessment (Chapter 6.1)

5.4.7 Environment Protection Act 2017

Key aims of the *Environmental Protection Act 2017* (EP Act) include: Ecologically sustainable development for the benefit of all human beings; Integration of economic, social, and environmental considerations; Avoiding serious or irreversible damage to the environment; Conservation of biological diversity and ecological integrity; and Shared responsibility of environmental protection by all levels of Government, industry, business, and communities.

The EP Act came into effect on 1 July 2021. It includes environmental obligations and protections for the environment and human health using a prevention-based approach, and the General Environmental Duty (GED).

The Act gives the EPA powers and tools to prevent and minimise the risks of harm to human health and the environment from pollution and waste. It also provides the EPA with the ability to pursue stronger sanctions and penalties to hold environmental polluters to account.

Assessment

The Proposal is consistent with the purposes of the EP Act. The design and development of the Proposal actively sought to avoid or minimise impacts on amenity and the natural environment. The solar farm, substation and BESS will present minimal risk or harm to human health and the natural environment from pollution or waste. Wastewater and other operational waste will be treated in accordance with the Environment Protection Regulations under the EP Act. More details regarding the management of waste and wastewater will be determined in the detailed design phase and can be conditioned on permit.

The noise of the both the construction and operation of the Proposal is compliant with the relevant Noise Protocol, this has been determined through the Noise Impact Assessment (Chapter 6.6).

Provisions for the protection of the natural environment and health of the surrounding community have been described in the Flora and Fauna Assessment (Chapter 6.1) as well as in the Landscape, Visual and Cumulative Impact Assessment (Chapter 6.5).

5.4.8 Heritage Act 2017

The *Heritage Act 2017* re-enacts with amendments to the *Heritage Act 1995*, including the provisions to protect and conserve the cultural heritage of the state, to establish a Victorian Heritage Register, a Heritage Inventory, a Heritage Council, and a Heritage Fund, to provide for the management of World heritage Listed places, and to create offences and other enforcement measures to protect and conserve cultural heritage.

Section 3 of the act defines cultural heritage as *places and objects of* –

- cultural heritage significance; or
- State-level cultural heritage significance.

Assessment

The Proposal is not expected to disturb any defined places of cultural heritage significance. Furthermore, the significance of the creek corridors running through the site is proposed to be protected through the implementation of the creek buffers. This is confirmed in the Aboriginal Cultural Heritage Impact Assessment (Chapter 6.2).

5.4.9 Water Act 1989

The *Water Act 1989* aims to provide for the integrated management of all elements of the terrestrial phase of the water cycle. The Act includes the following relevant provisions;

- To promote the orderly, equitable and efficient use of water resources,
- To make sure that water resources are conserved and properly managed for sustainable use,
- To ensure that waterways are managed in a way that considers Aboriginal cultural values and recreational uses,
- To provide for the protection and enhancement of the environmental qualities of waterways, and
- To provide protection of catchment conditions.

Assessment

The site is bisected by three creeks running from the south to the north. As a part of this application a Flooding Assessment of the Proposal has been undertaken (Chapter 6.4). Included in this assessment are the mitigation techniques that will be implemented in alignment with the *Water Act 1989.*

5.4.10 Road Management Act 2004

The *Road Management Act 2004* establishes a statutory framework for the management of the road network which facilitates the coordination of various road users. The Act establishes the principles of road management, provides the functions and powers of a road authority, and sets out the road management functions of the road authority.

The Act defines *arterial roads* under section 14. Firmins Lane, which will be used as the primary access road for the Proposal, is a declared arterial road. In addition, the Princes Highway, which is adjacent the site to the north, is a declared arterial road.

Assessment

The planning application is accompanied by a Transport Assessment (Chapter 6.3), which outlines the proposed strategies for road management. The Proposal is consistent with the road management principles outlined in the *Road Management Act 2004*.

5.4.11 Dangerous Goods Act 1985

The purpose of the *Dangerous Goods Act 1985* is to promote the safety of people and property in relation to the manufacture and storage of dangerous goods.

Given battery storage units contain dangerous goods, the units may need to comply with the Act and associated *Dangerous Goods (Storage and Handling) Regulations 2012*.

Assessment

The Proposal includes a batter storage unit (referred to as a BESS). The BESS would be required to meet the requirements under the Act, to be confirmed at the detailed design stage. At this stage of the Proposal the exact

amount of lithium proposed to be housed within the BESS cannot be determined, it is likely that the Proposal will trigger a referral to the Victorian Workcover Authority under Clause 66.02 (Chapter 5.10.2).

Written advice and approval may need to be sought from the CFA. Importantly, the proposed BESS meets the design and siting requirements in the *Design guidelines and model requirements for renewable energy facilities* (CFA, 2022).

5.5 State policy and guidance

5.5.1 Victoria's Climate Change Strategy

Victoria's Climate Change Strategy has been stablished in accordance with the *Climate Change Act 2017.* The strategy is a roadmap to net-zero emissions and a climate resilient Victoria by 2050.

The Government has set ambitious but achievable targets to reduce the State's greenhouse gas emissions from 2005 levels by 28–33% by 2025 and 45–50% by 2030.

To achieve these emissions reduction targets, *Victoria's Climate Change Strategy* includes actions to:

- transition our state to a clean energy future that will create jobs, cut costs for households and businesses, and strengthen our energy system.
- invest in innovative technologies, such as zero emissions vehicles and hydrogen, and partner with businesses and communities to set Victoria up for their adoption.
- recognise and safeguard the role of our natural environment in reducing emissions, and ensure our farmers are well placed to embrace new technologies and practices that reduce emissions.
- support Victorian businesses and communities to cut emissions and thrive in a net-zero emissions future.

Part 4 of the strategy describes how the Victorian Government will work to transition the electricity sector, away from coal-fired electricity generation.

Assessment

The Proposal strongly aligns with Victoria's Climate Change Strategy, particularly in the reduction of greenhouse gas emissions and assisting in transitioning the energy sector away from fossil fuels. It aligns with the Victorian Government's work to transition the Latrobe Valley economy away from coal-fired power generation and create jobs and grow the local economy, while generating clean power for all Victorians.

5.5.2 Renewable Energy Action Plan

Victoria's *Renewable Energy Action Plan 2017* outlines the steps the Victorian Government will take to transition the energy sector away from fossil fuel generation.

The action plan outlines three ways in which the Victorian Government will promote renewable energy. They will empower and engage households, businesses and communities, support sector growth through creating new jobs and investing in renewable energy, and modernise the energy system through advanced energy storage, smart grids and microgrids.

Assessment

The Hazelwood North Solar Farm is supported by the *Renewable Energy Action Plan 2017*. The Proposal contributes to achieving Victoria's renewable energy target of 40% by 2025, and the anticipated 450 MW solar energy capability will align with the action plan's consideration of large-scale solar power. Furthermore, the batter storage facilities will align with the action plan's aim of modernising the power grid through advanced energy storage.

5.5.3 Strong, Innovative, Sustainable: A new strategy for Agriculture in Victoria 2020

Strong, Innovative, Sustainable: A new strategy for Agriculture in Victoria 2020 sets out the vision for Victorian agriculture including the themes, commitments and enablers the Victorian Government will implement in relation to agriculture. The themes outlined in this strategy are; recover, grow, modernise, protect, and promote.

Within the theme *protect*, the strategy outlines commitment 10, which positions Victoria as a leader in low-emission agriculture. This commitment includes the provision that the Victorian Government will ensure that farmers are well-placed to take up advanced and proven technologies such as renewable energy.

Assessment

The Proposal allows for agricultural grazing to continue on the site and as the solar panels are proposed to sit light on the land, it minimises future impacts to agriculture. In addition, the emission reductions that will come from the development of renewable energy align with commitment 10 of the strategy.

5.5.4 Statement on the Future Uses of Brown Coal 2017

The *Statement on the Future Uses of Brown Coal* was released in 2017 as an acknowledgement of the changes that are affecting the way brown coal will be used. The statement includes a consideration of the Victorian Government's commitments to the Paris Agreement, as well as the *Climate Change Act 2017*. The statement makes it clear that decisions regarding new uses of brown coal will be made against the backdrop of these commitments.

The statement sets out the government's intention to set an emissions standard for brown coal uses which would be set in regulations. One of the standards flagged in the statement is to ensure that new brown coal projects source their coal from existing mines and that any new licence would be granted where proponents have been unable to agree reasonable terms to access coal from existing mines.

Assessment

The site is encumbered by a State Resource Overlay (SRO) indicating that brown coal reserves are located underneath the site. The site is located over 4 km from the nearest brown coal mine, making new mining activities at the site unlikely. However, in the unlikely event that brown coal mining is expanded, the proposed solar farm structures are inherently removable and would not prevent the future exploration and extraction of the brown coal resource.

It is considered that the proposed use and development of the site for a solar farm, utility installation and associated infrastructure is broadly in line with the purpose and provisions of the *Statement on the Future Uses of Brown Coal 2017*.

5.6 Renewable Energy Guidelines

5.6.1 Solar Energy Facilities Design and Development Guideline (DTP, 2022)

The *Solar Energy Facilities Design and Development Guidelines* (the Guidelines) provides an overview of the policy, legislative and statutory planning arrangements for solar energy facility projects in Victoria. The Guidelines are referenced in the Victoria Planning Provisions, including at Clause 19.01-2S (Renewable energy) and Clause 53.13 (Renewable energy facility (other than wind energy facility)).

The Guidelines include an overview of best-practice relating to each stage of the site selection, design, construction, operation, and decommissioning stages of the Proposal.

Below is an assessment of the Proposal against the guidelines:

Table 3 - Solar Energy Facilities Design and Development Guidelines Assessment	
Identifying Suitable Locations	
Guidelines	**Assessment**
Ideal siting conditions	The site is considered a prime location for the development of a large scale solar and BESS. The Proposal was initiated by a feasibility study, which determined the appropriateness of this site for this type of development. More information regarding the site's suitability can be found in Chapter 3.9.
Connecting to the electricity transmission network ▪ Electricity transmission network connections. ▪ Managing cumulative effects in an area	The proposed solar energy facility is proposed to be connected to the National Energy Market. AEMO states in their 2021 Victorian Annual Report: "The Gippsland REZ remains a low risk REZ for proposed connections, with existing spare hosting capacity, high system strength and a reasonably strong average marginal loss factor." Connection studies are ongoing and will be determined in subsequent stages of the Proposal.
Protecting environmental values ▪ Crown land ▪ Flora and fauna ▪ Native vegetation and biodiversity	**Flora and Fauna** The impact on flora and fauna as well as mitigation measures has been considered through the Flora and Fauna Assessment in Chapter 6.1. The design and development of the proposal has sought to avoid or minimise impacts to flora and fauna and biodiversity where possible, as well as to strengthen it through the proposed waterway revegetation plan (Chapter 3.7). **Native vegetation and biodiversity** The proposed impact mitigation measures to protect native vegetation and biodiversity are outlined in the Flora and Fauna Assessment (Chapter 6.1).
Protecting cultural heritage	This application is accompanied by an Aboriginal Cultural Heritage Impact Assessment (Chapter 6.2), which outlines the mitigation measures to protect areas of cultural sensitivity.
Protecting sustainability of agricultural production ▪ Avoiding strategically important agricultural land ▪ Avoiding land serviced by irrigation infrastructure	The site is located within a Farming Zone Schedule 1, which is considered important agricultural land as described in the Latrobe City Planning Scheme. However, within the Latrobe Rural Land Use Strategy and the Victorian Planning Provisions, the site is identified as having agricultural land of 'fair' or 'poor' quality. The land has already been significantly disturbed due to previous forestry uses, degrading the soil quality. The Proposal would not cause an unreasonable loss of agricultural land as due to the proposed implementation of 'agrisolar' where livestock grazing will co-exist with the solar facilities.
Minimising impacts on landscape values	The Proposal is not expected to unreasonably affect the landscape values of the area. The Proposal includes provisions for vegetation on all boundaries to provide screening.

Table 3 - Solar Energy Facilities Design and Development Guidelines Assessment	
Natural hazard management ▪ Bushfire management ▪ Flood management	The application is accompanied by a Fire and Bushfire Report (Chapter 6.11) and a Flooding Assessment (Chapter 6.4), which outlines the measures taken to reduce the risk of natural hazards. The design and development of the Proposal was informed by the findings of these studies in order to reduce any impacts.
Best practice for proponents	
Guidelines	**Assessment**
Engaging the community ▪ Early community consultation is important ▪ Engaging Traditional Owners ▪ Developing well-planned consultation ▪ Benefit-sharing ▪ Ongoing engagement	The engagement program for the Proposal has been informed by the Community and Stakeholder Engagement Strategy, summarised in Chapter 4. Proactive and meaningful engagement took place with key stakeholders from the very early stages of planning and design. In accordance with the comprehensive Engagement Strategy, best-practice tools and methods were utilised to engage with a wide range of stakeholders. Engagement is proposed to continue post-lodgement of the application, and the Proponent is committed to developing a Community Benefit Sharing Scheme in cooperation with community representatives, Latrobe City Council, DTP, Latrobe Valley Authority, GLaWAC, and the Gippsland Climate Change Network. For further details, please refer to the Community & Stakeholder Engagement Summary Report at Appendix R.
Design stage ▪ Siting facility components ▪ Landscape screening ▪ Glint and glare management ▪ Designing security measures ▪ Traffic impacts ▪ Traffic impacts ▪ Natural hazard risk management ▪ Other matters	The Proposal is sited to provide adequate setbacks for sensitive receptors and environmental assets. A detailed description of the design response can be found in Chapter 3. Landscaping has been incorporated along certain sections of the site boundary to manage visual impacts, as well as revegetation of the creek corridors. The proposed landscaping incorporates Indigenous species that will be of sufficient height. Glint and glare, traffic, and noise impact assessments have been prepared by qualified sub-consultants. Detailed assessment and impact mitigation measures can be found in Chapter 6.
Construction and operation stage ▪ Environmental management plan ▪ Risk and emergency management planning ▪ Site access and traffic management ▪ Construction noise and dust management	The construction and operation of the Proposal will be accompanied by an environmental management plan and a risk and emergency management plan. In addition, traffic, noise, and dust impacts will be appropriately mitigated.
Decommissioning	Once the operation of the solar energy facility has concluded, decommissioning will return the land to the original condition, in accordance with the planning permit.

5.6.2 Design Guidelines and Model Requirements for Renewable Energy Facilities (Country Fire Authority, 2022)

The *Design Guidelines and Model Requirements for Renewable Energy Facilities* (CFA 2022) provide standard considerations and measures in relation to fire safety, risk and emergency management to be considered when designing and operating new renewable energy facilities and upgrading existing facilities.

The guidelines apply to both solar energy facilities and battery energy storage facilities in bushfire prone areas.

The guidelines are informed by 11 principles, that when the guidelines cannot be specifically applied, the principles are still required to be met:

1. Effective identification and management of hazards and risks specific to the siting, infrastructure, layout, and operations at the facility.
2. Siting of renewable energy infrastructure so as to eliminate or reduce hazards to emergency responders.
3. Safe access for emergency responders in and around the facility, including to renewable energy and firefighting infrastructure.
4. Provision of adequate water supply and firefighting infrastructure to allow safe and effective emergency response.
5. Vegetation sited and managed so as to avoid increased bushfire and grassfire risk.
6. Prevention of fire ignition on-site.
7. Prevention of fire spread between site infrastructure (solar panel banks, wind turbines, battery containers/enclosures).
8. Prevention of external fire impacting and igniting site infrastructure.
9. Provision of accurate and current information for emergency responders during emergencies.
10. Effective emergency planning and management, specific to the site, infrastructure and operations.
11. Effective bushfire emergency planning and response, that prioritises absence of personnel on days of Severe and above Fire Danger Rating.

Assessment

For a full assessment against the *Design Guidelines and Model Requirements for Renewable Energy Facilities* and how the Proposal responds to them, refer to the Fire and Bushfire Report (Chapter 6.11).

5.6.3 Guidelines for the removal, destruction or lopping of native vegetation (DTP, 2017)

The *Guidelines for the removal, destruction or lopping of native vegetation* is an incorporated document within all planning schemes in Victoria and sets out the assessment of impacts from removing vegetation and how offsets are calculated for the loss of biodiversity value from native vegetation removal.

The Proposal includes the removal of approximately 2.342 hectares of native vegetation meaning the Guidelines and offset requirements apply to this Proposal. A full assessment of the Guidelines is included within the accompanying Flora and Fauna Assessment by Nature Advisory (see Chapter 6.1).

5.7 Planning Policy Framework

This chapter assesses the Proposal against the Latrobe City Planning Policy.

Table 4 - Planning Policy Framework

Clause 02 Municipal Planning Strategy	
Relevant Provisions	**Assessment**
02.03-2 Environmental and landscape values Planning for the environment and landscape values seeks to: ▪ Enhance Latrobe's native vegetation, biodiversity, habitats and natural ecosystems. ▪ Balance development with the protection of the natural environment.	The Proposal aligns with the Municipal Planning Strategy, including the vision of Latrobe City. The Proposal seeks to contribute to the protection and enhancement of the natural environment, prepare the Latrobe Valley for the impacts of climate change, and grow the municipality's economy through renewable energy. The Proposal also prevents the loss of prime agricultural land through the integration of 'agrisolar', employ bushfire
02.03-3 Environmental risks and amenity **Climate change** Built form and urban infrastructure can contribute substantially to the demand for energy, which needs to be reduced to meet the challenges of the changing climate. Planning for climate change seeks to:	

▪ Support use and development that can adapt to the impacts of climate change and seeks to minimise its negative impacts. **Bushfire** Most of the municipality is within a bushfire prone area. The highest risk areas are subject to the Bushfire Management Overlay and include rural residential areas in the foothills of the Strzelecki Ranges and the southern fall of the Alpine Ranges. Planning for bushfire seeks to: ▪ Reduce bushfire risk through various bushfire protection measures.	protection methods, and avoid impacts on the function and operation of existing infrastructure such as the APA gas pipeline that crosses the site. The Proposal would not detrimentally impact industry as it sited outside of industrially-zoned land and the Morwell – Maryvale Industry Growth Corridor. Its proximity to these industrial areas provides opportunities for future clean energy supply to industrial operations.
02.03-4 Natural resource management **Agriculture** Planning for agriculture seeks to: ▪ Enhance the viability of agricultural activity. ▪ Retain large lots and discourage the establishment of sensitive or non-agricultural related land uses on high quality agricultural land.	
02.03-7 Economic Development **Economic growth** Planning for economic growth seeks to: ▪ Encourage alternative energy industries, including renewable energy and clean coal in locations with convenient access to existing energy distribution infrastructure. **Industry** Planning for industry seeks to: ▪ Develop the Morwell – Maryvale Industry Growth Corridor as the main industry growth area of Latrobe.	
02.03-9 Infrastructure **Infrastructure assets** Several high-pressure gas pipelines licensed under the Pipelines Act 2005 also run through Latrobe. Planning for infrastructure assets seeks to: ▪ Manage land use and development in the vicinity of the pipelines to minimise risks to human life and the functional operation of the pipelines.	
02.04 Strategic Framework Plans ▪ **Strategic framework plan:** the site is located outside the key built-up and growth areas, with Morwell immediately to the west, Traralgon to the east, and the designated Morwell-Traralgon Employment Corridor and Airport to the north/west. A small segment of the site sits within 'flood affected land'. ▪ **Settlement plan**: the site is located outside the settlements and designated growth areas. ▪ **Economic strategy plan**: the site sits outside the built-up areas, is adjacent to the 'heavy industry precinct', and is partially within the 'intensive agriculture precinct'. A transport corridor (the proposed bypass) runs through the site. To the north/west of the site is the Morwell-Traralgon Employment Corridor. ▪ **Rural framework plan:** the site sits within the Farming Zone – Schedule 1 and part of the site is designated as 'Support Intensive Agriculture Area (within the State Resource Overlay)'. ▪ **Industrial framework plan:** the site sits outside of the industrial zones and designated employment corridor, and within the ESO and SRO. ▪ **Extractive industries framework plan:** the site is located outside of the designated extractive industries interest areas. ▪ **Morwell – Traralgon Growth Framework Plan**: the site is located outside the key settlement areas of Morwell and Traralgon, and adjacent to the Heavy Industry Precinct. To the west of the Princes Highway is proposed future public open space, a business park, the Latrobe Airport environs, the 'health precinct' of the Latrobe Regional Hospital, and a future train station.	Across all strategic framework plans, the site is identified as outside of any proposed residential, commercial or industrial growth areas. The Proposal is considered to be compatible with the intensive agricultural area as the solar farm would not compromise the agricultural capability of the area.

Clause 11 Settlement	
Relevant Provisions	**Assessment**
11.01 Victoria ▪ Provides the context, objectives, and strategies for settlements within State of Victoria (Clause 11.01-1S), Gippsland (Clause 11.01-1R) and Latrobe (Clause 11.01-1L). ▪ In the Gippsland Regional Growth Plan, the site sits outside of the 'promote growth' areas and outside of 'key agriculture and forestry land'. It is located within the brown coal reserves, and 'areas containing high value terrestrial habitat'. ▪ In the Morwell Town Structure Plan, the site is located within the ESO1 coal buffer, and a high-pressure pipeline and proposed bypass run through the site.	It is considered that the Proposal supports the settlement objectives and strategies at Clause 11 of the Planning Scheme. It is sited outside of any existing or future urban land, particularly the expanded future industrial land to the south-east of Morwell. The Proposal would not prevent the future expansion of Morwell or the Latrobe City economy.
11.03 Planning for Places ▪ Provides the context, objectives and strategies for activity centres and growth areas. ▪ In the Morwell to Traralgon Corridor Investment Masterplan (see Chapter 5.12.2) the site is dissected by the proposed bypass and partially covered by the ESO1 coal buffer over its western section.	

Clause 12 Environment and Landscape Values	
Relevant Provisions	**Assessment**
12.01-1s Protection of Biodiversity Take into account the impacts of land use and development on Victoria's biodiversity, including consideration of: ▪ Cumulative impacts. ▪ Fragmentation of habitat. ▪ The spread of pest plants, animals and pathogens into natural ecosystems.	**Biodiversity** The design and siting of the proposed solar farm, utility installation (BESS) and associated uses and works has avoided to the extent possible impacts on the environmental features of the site, such as vegetation and waterways. The Flora and Fauna Assessment (Chapter 6.1) outlines how the Proposal avoids, minimises, and offsets native vegetation removal. **River corridors and waterways** The Proposal includes revegetation along creek corridors (Chapter 3.7), and along roads and boundaries (Chapter 3.2.5). This aims to improve wildlife corridors through the site. The Hydrology Assessment (Chapter 6.4) states that the Proposal would not contribute to additional flooding or degrade the water quality of the existing waterways crossing the site.
12.01-1L Protection of biodiversity ▪ Protect habitats that contain indigenous flora and fauna, particularly where those species are threatened. ▪ Ensure that the enhancement of biodiversity outcomes does not pose an unacceptable increase in bushfire risk to community and infrastructure. ▪ Retain native vegetation on roadsides, waterways and public and private land to facilitate healthy habitats to improve biodiversity.	
12.01-2S Native vegetation management Ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. Ensure that the removal, destruction or lopping of native vegetation applies the three-step 'avoid, minimise, offset' approach in accordance with the Guidelines for the removal, destruction or lopping of native vegetation (DELWP 2017).	
12.03-1S River corridors, waterways, lakes and wetlands To protect and enhance river corridors, waterways, lakes and wetlands: ▪ Protect the environmental, cultural and landscape values of all water bodies and wetlands. ▪ Ensure development responds to and respects the significant environmental, conservation, cultural, aesthetic, open space, recreation and tourism assets of water bodies and wetlands. ▪ Ensure development is sensitively designed and sited to maintain and enhance environmental assets, significant views and landscapes along river corridors and waterways and adjacent to lakes and wetlands. ▪ Ensure development does not compromise bank stability, increase erosion or impact on a water body or wetland's natural capacity to manage flood flow.	
12.03-1L River corridors and waterways	

Enhance the health of waterway corridors by increasing vegetation along corridors.	
Clause 13 Environmental Risk and Amenity	
Relevant Provisions	**Assessment**
13.01-1S Natural hazards and climate change Minimise the impacts of natural hazards and adapt to the impacts of climate change through risk-based planning. Site and design development to minimise risk to life, property, the natural environment, and community infrastructure from natural hazards.	The Proposal seeks to increase renewable energy capacity, thereby reducing emissions and the risks of climate change, and helping to improve air quality in the long term. **Bushfire risk** The Proposal is appropriately sited to minimise risk to life, property, the natural environment, and community infrastructure. The planning, siting and design of the Proposal responds to bushfire and flooding hazards, undertakes appropriate risk assessment, and incorporates bushfire and flooding protection measures. The Latrobe City Municipal Fire Management Plan 2018 (Latrobe City Council, 2018) has been considered, and the Fire and Bushfire Report (Chapter 6.11) outlines the bushfire protections measures that have been incorporated into the design. The proposed BESS meet the design and siting requirements in the Design guidelines and model requirements for renewable energy facilities (CFA, 2022). A more detailed response to those guidelines is included in the accompanying Fire and Bushfire Report. **Floodplain management** The design includes a buffer to waterways that traverse the site. A Hydrology and Flood Impact Assessment has been prepared (Chapter 6.4) which considers the impact of flooding and recommends mitigation measures, which have been incorporated into the design. **Land use compatibility** The Proposal is located in the Farming Zone, which is deemed appropriate for a renewable energy facility. 'Agrisolar' is incorporated into the Proposal to continue the existing farming practices along with the production of renewable energy. There are residential properties, particularly to the south-west of the site which have been considered in design process. Buffers have been provided and landscape screening is proposed.
13.02-1S Bushfire planning Strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.	
13.02-1L Planning in the Bushfire Management Overlay (BMO) Consider as relevant: Latrobe City Municipal Fire Management Plan 2018 (Latrobe City Council, 2018)	
13.02-1L Bushfire Prone Areas Ensure that development, subdivision and uses identified in Clause 13.02-1S (Use and development control in a Bushfire Prone Area) incorporate measures to mitigate bushfire risk, including: ▪ A construction standard no higher than BAL-29 unless there are significant siting constraints. ▪ A reliable water supply for property protection and firefighting. ▪ Adequate access for emergency management vehicles. Prepare a Bushfire Emergency Management Plan (BEMP), including triggers for closure or restricted operation on days of elevated fire danger.	
13.03-1S Floodplain management To assist the protection of: ▪ Life, property and community infrastructure from flood hazard. ▪ The natural flood carrying capacity of rivers, streams and floodways. ▪ The flood storage function of floodplains and waterways. Strategies include: ▪ Identify land affected by flooding, including land inundated by the 1 in 100-year flood event (1 per cent Annual Exceedance Probability). ▪ Avoid intensifying the impact of flooding through inappropriately located use and development. ▪ Plan for the cumulative impacts of use and development on flood behaviour.	
13.03-1L Floodplain management For land affected by the Urban Floodway Zone, Flood Overlay or Land Subject to Inundation Overlay within the mapped extent of a 1% Annual Exceedance Probability (AEP) flood (commonly knowns as 1:100 year flood), discourage: ▪ Raised earthworks.	
13.07-1S Land use compatibility ▪ Protect community amenity, human health and safety while facilitating appropriate commercial, industrial, infrastructure or other uses with potential adverse off-site impacts. ▪ Ensure that use or development of land is compatible with adjoining and nearby land uses. ▪ Avoid or otherwise minimise adverse off-site impacts from commercial, industrial and other uses through land use separation, siting, building design and operational measures.	

ADVERTISED PLAN	Further, the Proposal supports the role and function of the coal buffers between urban areas and coal resource areas, as it does not involve residential, rural living, commercial or industrial uses which are deemed 'incompatible use and development within buffer areas.'

Clause 14 Agriculture

Relevant Provisions	Assessment
14.01-1S Protection of agricultural land To protect the state's agricultural base by preserving productive farmland: ▪ Consider state, regional and local, issues and characteristics when assessing agricultural quality and productivity. ▪ Avoid permanent removal of productive agricultural land from the state's agricultural base without consideration of the economic importance of the land for the agricultural production and processing sectors. ▪ Protect productive farmland that is of strategic significance in the local or regional context. ▪ Protect productive agricultural land from unplanned loss due to permanent changes in land use. ▪ Balance the potential off-site effects of a use or development proposal (such as degradation of soil or water quality and land salinisation) against the benefits of the proposal.	**Protection of agricultural land** The Proposal supports the objectives and strategies relating to agriculture protection, as it allows for agricultural activities (grazing) to continue during the operation of the solar farm (known as "agrisolar" or "solar grazing"). **Catchment planning and management.** The includes appropriate buffers to waterways that traverse the site. **Coal resources** The site is located within an area identified on the Gippsland Coalfields Policy Area map as Category B and C coal areas (SRO1) which are second and third stage coal exploration and extraction areas. The Proposal would not compromise the future exploration and extraction of the coal resources in the area. Solar panels are light on the land and can be removed following decommissioning without adverse impacts on natural resources. Furthermore, the Proposal supports the role and function of the coal buffers between urban zones and coal resource areas, as it discourages 'incompatible use and development within buffer areas' which includes residential, rural living, commercial and industrial uses.
14.01-1R Protection of agricultural land – Gippsland Protect productive land and irrigation assets, including the Macalister Irrigation District, that help grow the state as an important food bowl for Australia and Asia.	
14.01-1L Protection of agricultural land ▪ Discourage non-agricultural uses from locating or developing in a manner that will inhibit the expansion of farming uses. ▪ Ensure the siting of a building does not compromise the operation of nearby commercial agricultural enterprises, including its impacts on noise, odour, sight lines and infrastructure and livestock movements.	
14.02-1S Catchment planning and management Assist the protection and restoration of catchments, waterways, estuaries, bays, water bodies, groundwater, and the marine environment. Retain natural drainage corridors with vegetated buffer zones at least 30 metres wide along each side of a waterway to: ▪ Maintain the natural drainage function, stream habitat and wildlife corridors and landscape values, ▪ Minimise erosion of stream banks and verges, and ▪ Reduce polluted surface runoff from adjacent land uses.	
14.03-1S Resource exploration and extraction To encourage exploration and extraction of natural resources in accordance with acceptable environmental standards: ▪ Develop and maintain buffers around mining and extractive industry activities. ▪ Protect the brown coal resource in Central Gippsland by ensuring that: - Changes in use and development of land overlying coal resources, as generally defined in Framework for the Future (Minister for Industry, Technology and Resources and Minister for Planning and Environment, 1987) and the Land Over Coal and Buffer Area Study (Ministry for Planning and Environment, 1988), do not compromise the winning or processing of coal. - Coal-related development is adequately separated from residential or other sensitive uses and main transport corridors by buffers. - Use and development within the buffer areas are compatible with use and development adjacent to these areas.	

14.03-1R Resource Exploration and Extraction - Gippsland Coal Resource To protect the Gippsland brown coal resource and associated buffer areas: ▪ Encourage land uses that do not impede coal development in the protected coal resource areas. ▪ Provide for use and development in coal resource areas identified on the Gippsland Coalfields Policy Area map that does not compromise the existing and future use of the coal resource. ▪ Manage land in the coal resource areas to mutually protect urban amenity and coal resource development. ▪ Discourage non-coal related land use or development in coal resource areas that would be costly or difficult to remove. ▪ Discourage uses that could prejudice the winning or processing of the protected coal resource, including: - Urban uses. - Non-coal related industrial uses. - Major overburden dumps. - Rural living and rural residential uses. - Commercial uses.	
14.03-1L Coal resources Encourage Categories B and C areas identified in the Gippsland Coalfields Policy Area Map in Clause 14.03-1R to be used for agricultural uses.	
Clause 17 Economic Development	
Relevant Provisions	**Assessment**
17.01-1S Diversified economy To strengthen and diversify the economy: Facilitate growth in a range of employment sectors, including health, education, retail, tourism, knowledge industries and professional and technical services based on the emerging and existing strengths of each region. Improve access to jobs closer to where people live. Support rural economies to grow and diversify.	**Diversified economy** The Proposal helps to facilitate growth in a new and innovative employment sector, thereby improving access to jobs within the Latrobe Valley and wider Gippsland, and supporting rural economies to grow and diversify, in line with Clause 17.
17.01-1R Diversified economy – Gippsland Improve Gippsland's capacity in advanced manufacturing and engineering with particular reference to Latrobe Valley industries.	
Clause 19 Infrastructure	
Relevant Provisions	**Assessment**
19.01-1S Energy supply To facilitate appropriate development of energy supply infrastructure: ▪ Support the development of energy generation, storage, transmission, and distribution infrastructure to transition to a low-carbon economy. ▪ Ensure energy generation, storage, transmission and distribution infrastructure and projects are resilient to the impacts of climate change. ▪ Support energy infrastructure projects in locations that minimise land use conflicts and that take advantage of existing resources and infrastructure networks. ▪ Facilitate energy infrastructure projects that help diversify local economies and improve sustainability and social outcomes. ▪ Facilitate renewable energy generation and storage to meet on-site energy needs.	**Energy supply and renewable** The Proposal seeks to facilitate renewable energy development in an appropriate location. It takes advantage of existing infrastructure, provides benefits to industry and the community, supports the transition to a low-carbon economy with renewable energy and greenhouse emission reductions, facilitates local energy generation to help diversify the local economy and improves sustainability outcomes. The Proposal has been assessed against the Solar Energy Design Guidelines (Chapter 5.6.1) and the consultation program was based on the
19.01-2S Renewable Energy To promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met: ▪ Facilitate renewable energy development in appropriate locations. ▪ Protect energy infrastructure against competing and incompatible uses.	

▪ Develop appropriate infrastructure to meet community demand for energy services. ▪ Set aside suitable land for future energy infrastructure. ▪ Consider the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.	Community Engagement and Benefit Sharing in Renewable Energy Development in Victoria (Chapter 4). **Pipeline infrastructure** The siting and design of the Proposal has taken the high-pressure pipeline and taken setbacks into account. More information can be found in the Safety Management Study (Chapter 6.12).
19.01-3S Pipeline infrastructure Recognise existing transmission-pressure gas pipelines in planning schemes and protect from further encroachment by residential development or other sensitive land uses, unless suitable additional protection of pipelines is provided.	
19.01-3L Pipeline infrastructure Minimise risks associated with land use and subdivision within the measurement length of high-pressure gas transmission pipelines. Encourage risk sensitive development to be located outside of the pipeline measurement length.	

The Proposal strongly supports the purpose and strategies of the above Latrobe Planning Policy Framework, particularly through the protection of biodiversity value, the growth of the renewable energy industry to assist in the Latrobe Valley's economic transition, and the minimal amenity impact to the existing settlements in the area.

5.8 Zones and Overlays

5.8.1 Clause 35.07 Farming Zone

The entirety of the site is located within the Farming Zone, shown in Figure 17, where the provisions of Clause 35.07 and Schedule 1 to the zone (FZ1) of the Latrobe Planning Scheme apply.

The purpose of the Farming Zone is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To provide for the use of land for agriculture.
- To encourage the retention of productive agricultural land.
- To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture.
- To encourage the retention of employment and population to support rural communities.
- To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.
- To provide for the use and development of land for the specific purposes identified in a schedule to this zone.

In the Table of Uses at Clause 35.07-1, a 'Renewable energy facility (other than Wind energy facility)' and a 'Utility installation (other than Minor utility installation and Telecommunications facility)' are categorised as section 2 uses. A Renewable energy facility must meet the requirements of Clause 53.13 (see chapter 5.9.5).

The relevant permit triggers within the Farming Zone are:

- Use of the land for a 'Renewable energy facility (other than Wind energy facility)'
- Use of the land for a 'Utility installation (other than Minor utility installation and Telecommunications facility)' (for the purposes of the BESS)
- Use of the land for a 'Utility installation (other than Minor utility installation and Telecommunications facility)' (for the purposes of the Substation)
- Construct or carry our works where:
  - The buildings and works are associated with a Section 2 use.
- For earthworks which change the rate of flow or the discharge point of water across a property boundary.

Schedule 1 to the Farming Zone lists setback requirements from roads, boundaries and dwellings. The Proposal includes solar panels and fencing within 100 metres of land in a TZ2 and PAO, 20 metres of any other road, 5 metres from any boundary, and 100 metres from a dwelling not in the same ownership. As solar panels and fencing are classified as 'structures' within the Planning and Environment act, a permit is triggered.

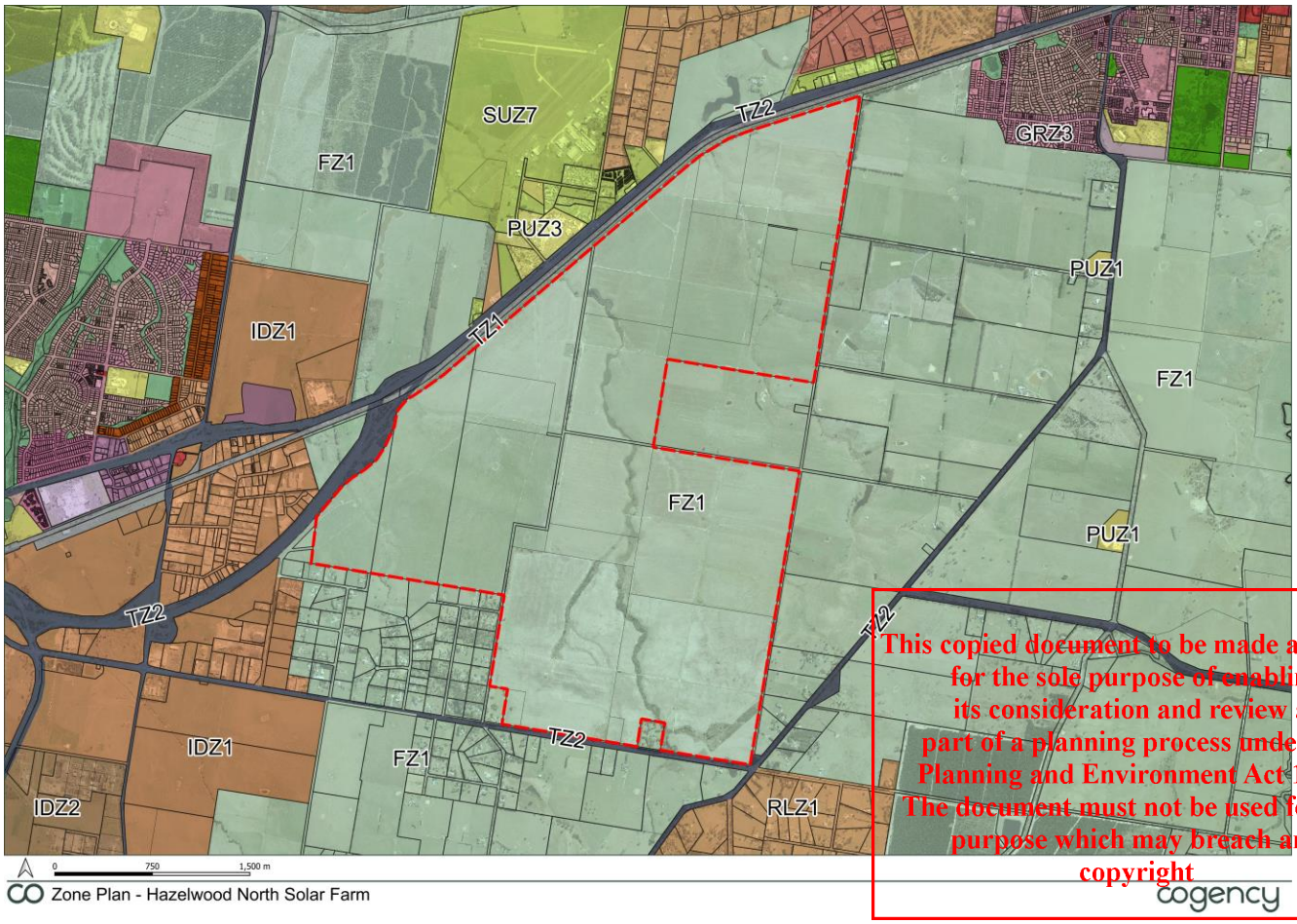


Figure 17 - Zone Plan

5.8.2 Clause 36.04 Transport Zone (TZ1 and TZ2)

The site is adjacent to a Transport Zone 1 to the north (Melbourne-Traralgon Railway) and a Transport Zone 2 to the south and west (Firmins Lane and the Princess Freeway) (Figure 17).

The purpose of the Transport Zone is to:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To provide for an integrated and sustainable transport system.
- To identify transport land use and land required for transport services and facilities.
- To provide for the use and development of land that complements, or is consistent with, the transport system or public land reservation.
- To ensure the efficient and safe use of transport infrastructure and land comprising the transport system.

No works are proposed within the Transport Zone 1.

Minor road upgrades are proposed within the Transport Zone 2 at main site entrance on Firmins Lane. These works will include a deceleration lane to allow for the safe entry and egress of vehicles during the construction phase of the Proposal. More details of the road upgrades can be found within the Traffic Engineering Assessment (Chapter 6.3)

The proposed road works at Firmins Lane do not trigger a permit under the Transport Zone according to Clause 62.02-2.

5.8.3 Clause 42.01 Environmental Significance Overlay (ESO1)

The northern and western sections of the site are affected by the Environmental Significance Overlay (ESO) and Schedule 1 (Urban Buffer) (ESO1) as shown on Figure 18.

The purpose of the ESO is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To identify areas where the development of land may be affected by environmental constraints.
- To ensure that development is compatible with identified environmental values.

The purpose of ESO1 is to encourage land uses that serve as a buffer between coal activities and urban settlements in order to protect urban amenity and coal resource development in the surrounding areas.

The relevant permit triggers within the ESO1 are:

- Construct a building or construct or carry out works.
- Remove, destroy or lop any vegetation, including dead vegetation.

An application under the ESO1 should include a landscape layout which includes the descriptions of vegetation to be planted, the surfaces to be constructed, site works specification and method of preparing, draining, watering and maintaining the landscape area. Furthermore, a fire management plan is for any proposed development within 1000 metres of a mining licence.

Under ESO1, development must:

- Be compatible with both the adjacent urban and coal related uses of land.
- Provide an opportunity for improvement in the visual amenity of areas surrounding the urban settlements, and the visual protection from the effects of coal resource development on the landscape.
- Be productive within the constraints required from mutual protection, separation and compatibility of adjacent uses.
- Maintain the integrity of the buffer area and discourage any incremental or future pressures for urban or coal related development in the future.

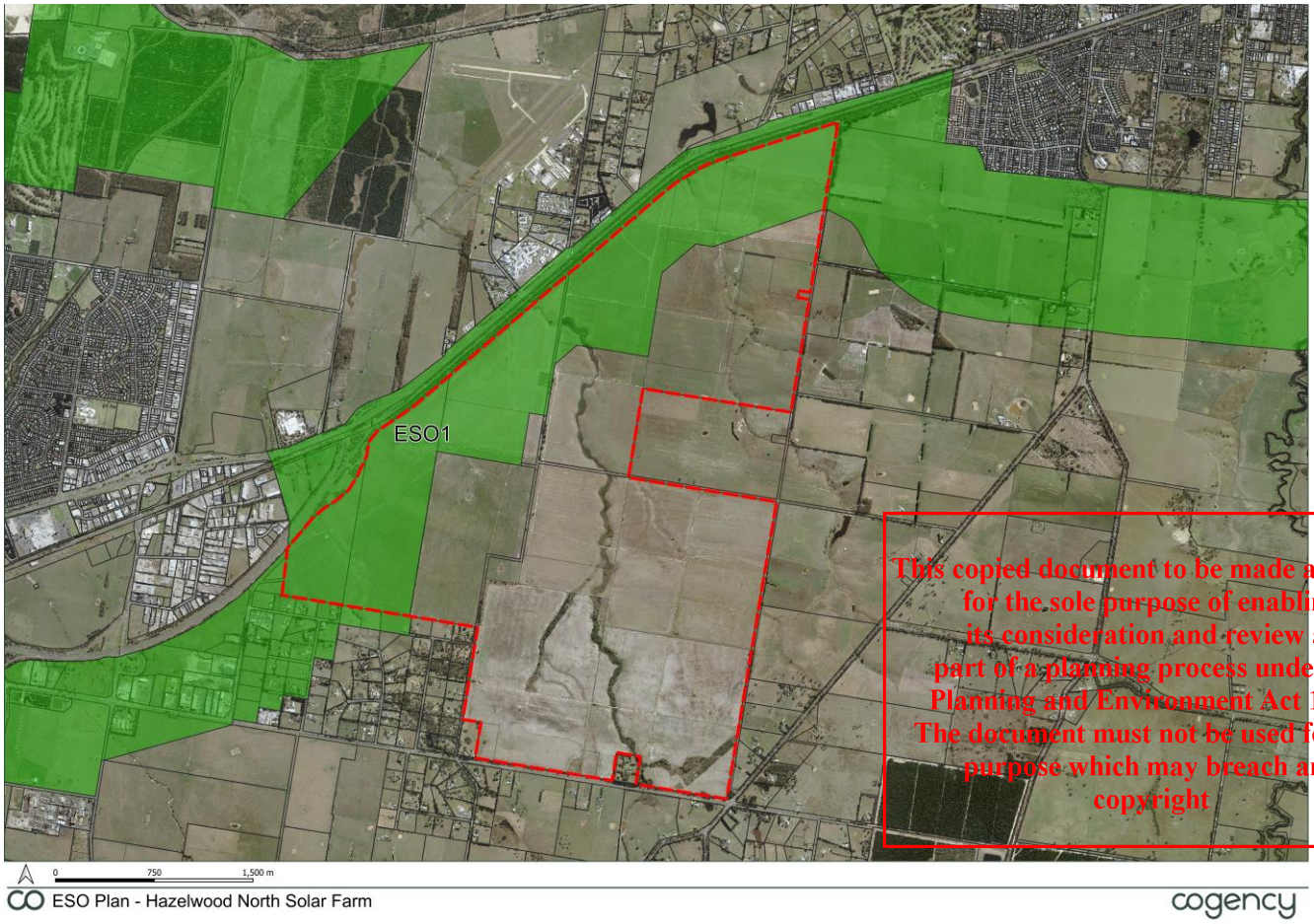


Figure 18 – Environmental Significance Overlay Schedule 1 "Urban Buffer" (ESO1)

5.8.4 Clause 43.01 Design and Development Overlay (DDO)

Parts of the site are affected by different Design and Development Overlay (DDO) schedules. Schedules 1, 3, 5, 6, 10 and 11 to the DDO apply to the site, all of which stipulate different planning objectives and controls, as outlined in the following sections below.

Under the DDO parent clause, a permit is required to construct a building or construct or carry out works unless a schedule to this overlay specifically states that a permit is not required. However, pursuant to clause 43.02-2, a permit may be granted for buildings and works which are not in accordance with any requirement in a schedule to this overlay.

5.8.4.1 Design And Development Overlay - Schedule 1 (DDO1) – Pipeline

The western section of site is affected by DDO1 as shown in Figure 19, relating to "Major Pipeline Infrastructure", with a purpose to "ensure that all buildings and works and in particular buildings designed to accommodate people are sufficiently separated from high pressure pipelines to avoid a safety hazard".

The relevant permit triggers within DDO1 are to:

- Construct a building or construct or carry out works, and
- Construct a fence within 3 metres of any pipeline.

Planning Scheme Amendment C121latr proposes to replace DDO1 with the Buffer Area Overlay Schedule 1 (BAO1). The proposed BAO1 will seek to protect major pipeline infrastructure. A permit will not be required for

the Proposal under the proposed BAO1. More details regarding Amendment C121latr can be found in Chapter 5.13.1.

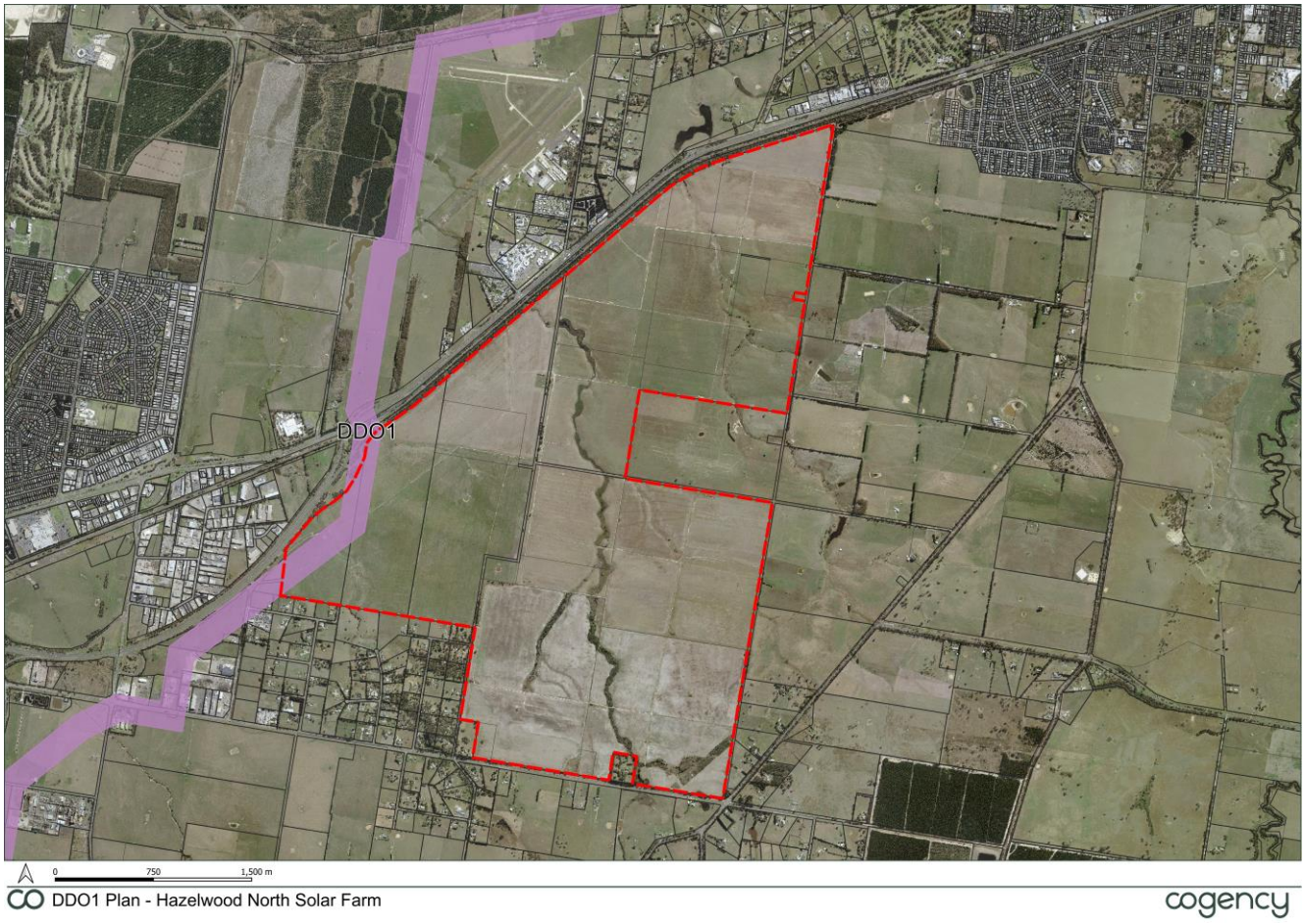


Figure 19 - Design and Development Overlay Schedule 1 "Pipeline" (DDO1)

5.8.4.2 Design And Development Overlay - Schedule 3 (DDO3) – Bypass / noise attenuation

The northern and western sections of the site are affected by DDO3 as shown in Figure 20, relating to the proposed bypass, with a purpose to "ensure that development of land near the future alignment of the Princes Highway - Traralgon Bypass is undertaken with appropriate noise attenuation measures to minimise the impact of traffic noise on noise sensitive activities".

A permit is required for buildings and works at the northern extent of the overlay. However, the provisions of DDO3 do not require the submission of noise attenuation measures for a solar farm and associated infrastructure.

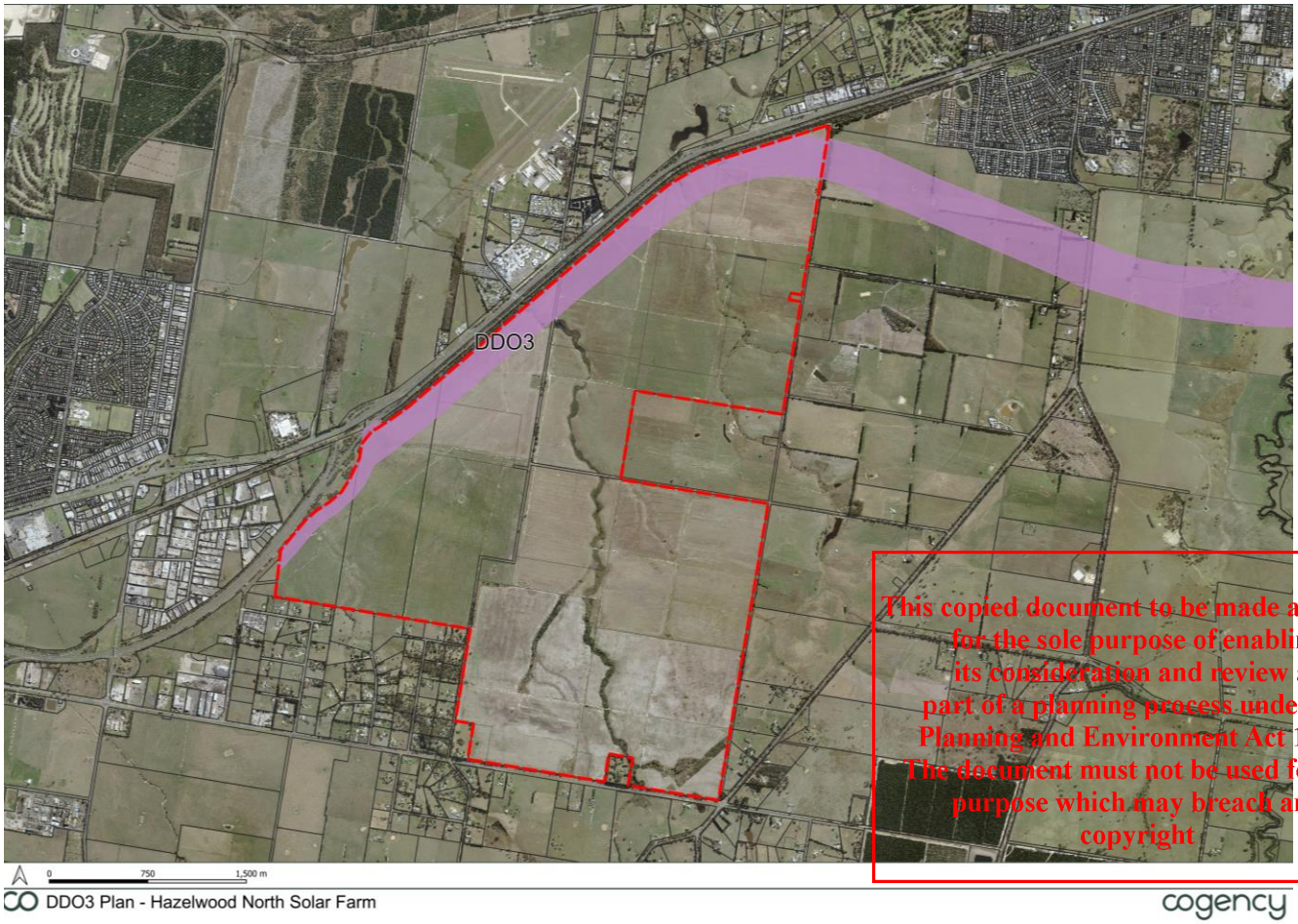


Figure 20 - Design and Development Overlay Schedule 3 "Bypass" (DDO3)

5.8.4.3 Design And Development Overlay - Schedule 5 (DDO5) and Schedule 6 (DDO6) – Helicopter flight paths

A portion of the site at its western boundary adjoining the Princes Freeway is subject to DDO5 and a slightly larger portion to DDO6, as shown on Figure 21.

DDO5 and DDO6 relate to the Latrobe Regional Hospital Emergency Medical Services Helicopter Flight Path Protection. Their purpose is to ensure that “the height of all buildings and works are constrained within specified limits to avoid creating a hazard to aircraft in the vicinity of the Latrobe Regional Hospital” and “flight paths associated with the Latrobe Regional Hospital EMS helicopter landing site are protected from the encroachment of inappropriate obstacles”.

As the DDO5 only covers a small area of land within the site that is affected by the Public Acquisition Overlay, there are no proposed works relating to the Proposal within this overlay, and a permit is not triggered.

On the other hand, a permit is required for buildings and works with the height of 68.4 metres or more above the AHD on land within DDO6, as shown on Figure 22. This has been determined through the height of the solar panels at ‘maximum tilt’ (4.5 metres) and a survey of the site completed on 19 January 2022 by Martec Aerial Services, refer to Appendix T. It is also important to note that the natural ground level in some areas of the DDO6 is already higher than 68.4 metres, meaning any application for buildings or works would trigger a permit.

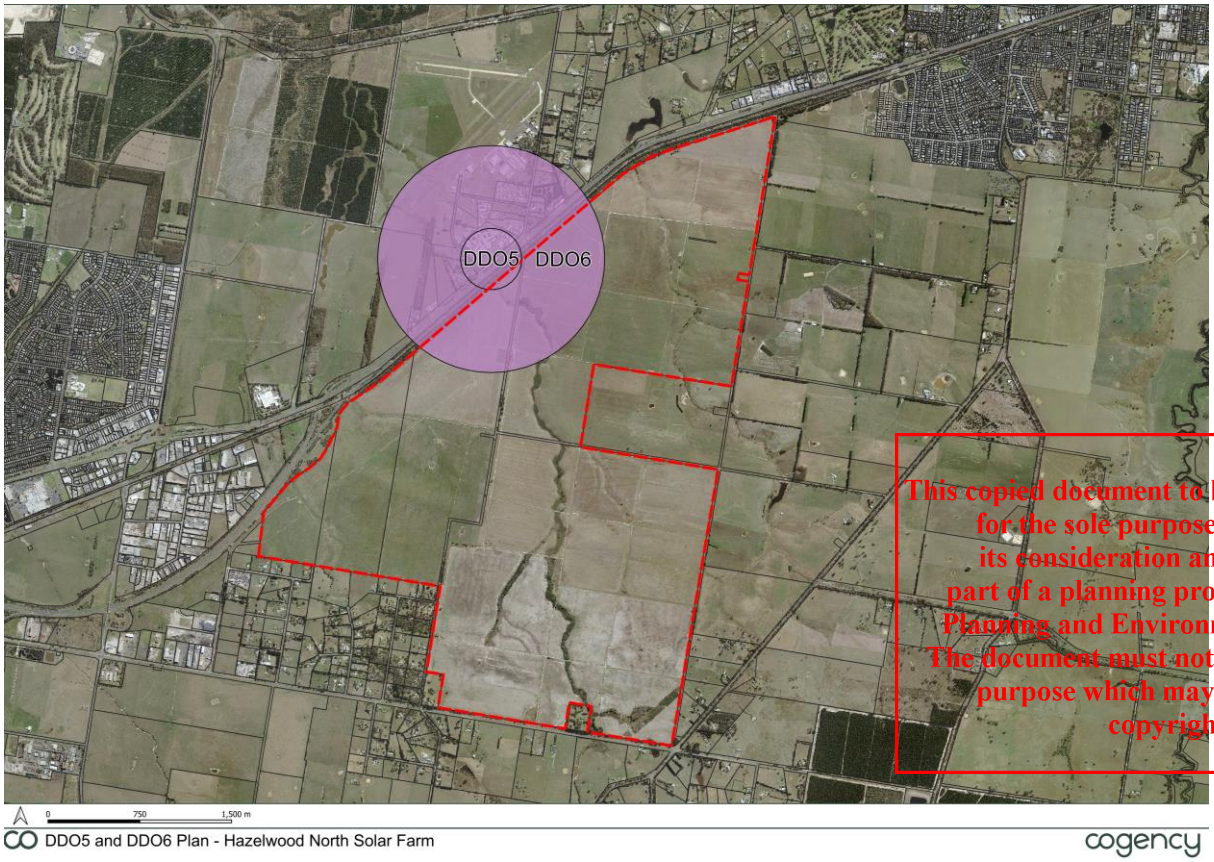


Figure 21 - Design and Development Overlay Schedule 5 "Flight Path" (DDO5) and Design and Development Overlay Schedule 6 “Flight Path” (DDO6)

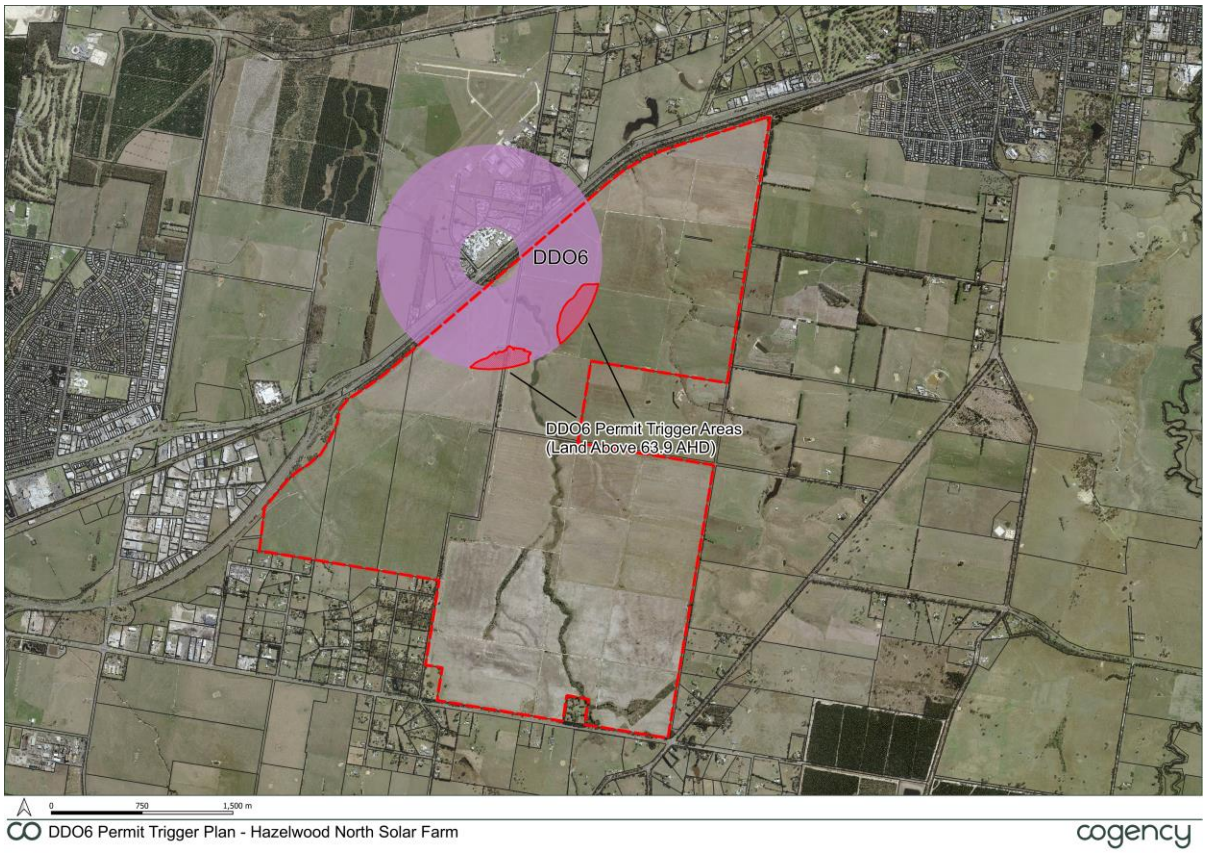


Figure 22 - DDO6 Permit Trigger Extent

5.8.4.4 Design And Development Overlay - Schedule 10 (DDO10) and Schedule 11 (DDO11) – Obstacle height areas 3, 4, 5 & 6

A large portion of the site is subject to DDO10, and a small portion of the eastern and southern sections of the site are subject to DDO11, which relate to obstacle height areas 3, 4, 5 & 6 of the Latrobe Regional Airport (see Figure 23).

The purpose of DDO10 and DDO11 is to ensure that:

- All buildings and works are within specified height limits.
- Appropriate external building materials are used, to avoid creating a hazard to aircraft flight paths in the vicinity of Latrobe Regional Airport.
- Flight paths associated with Latrobe Regional Airport are protected from the encroachment of inappropriate obstacles which may affect the safe and effective operation of the Airport.

Within the DDO10 a permit is required for buildings and works which exceed a height of 96.5 metres AHD, as there are some areas of the solar farm which exceed that height, as shown on Figure 24. This has been determined through the height of the solar panels at 'maximum tilt' (4.5 metres) and a survey of the site completed on 19 January 2022 by Martec Aerial Services. It is also important to note that the natural ground level in some areas of the DDO10 is already higher than 96.5 metres, meaning any application for buildings or works would trigger a permit.

No proposed buildings or works will exceed 10 metres above natural ground level within the DDO11 meaning no permit is required under that schedule.

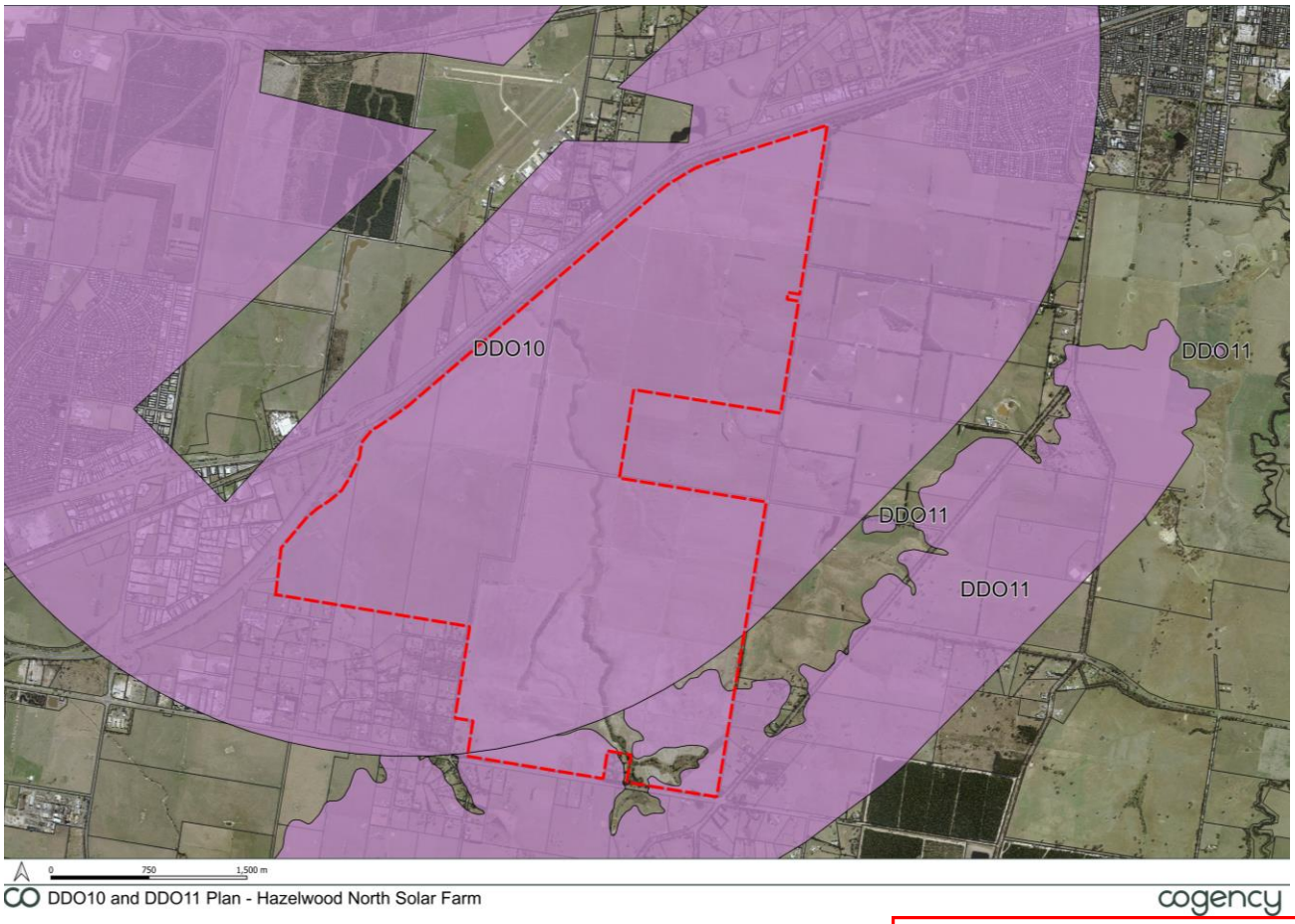


Figure 23 - Design and Development Overlay Schedule 10 "Flight Path" (DDO10) and Design and Development Overlay Schedule 11 "Flight Path" (DDO11)

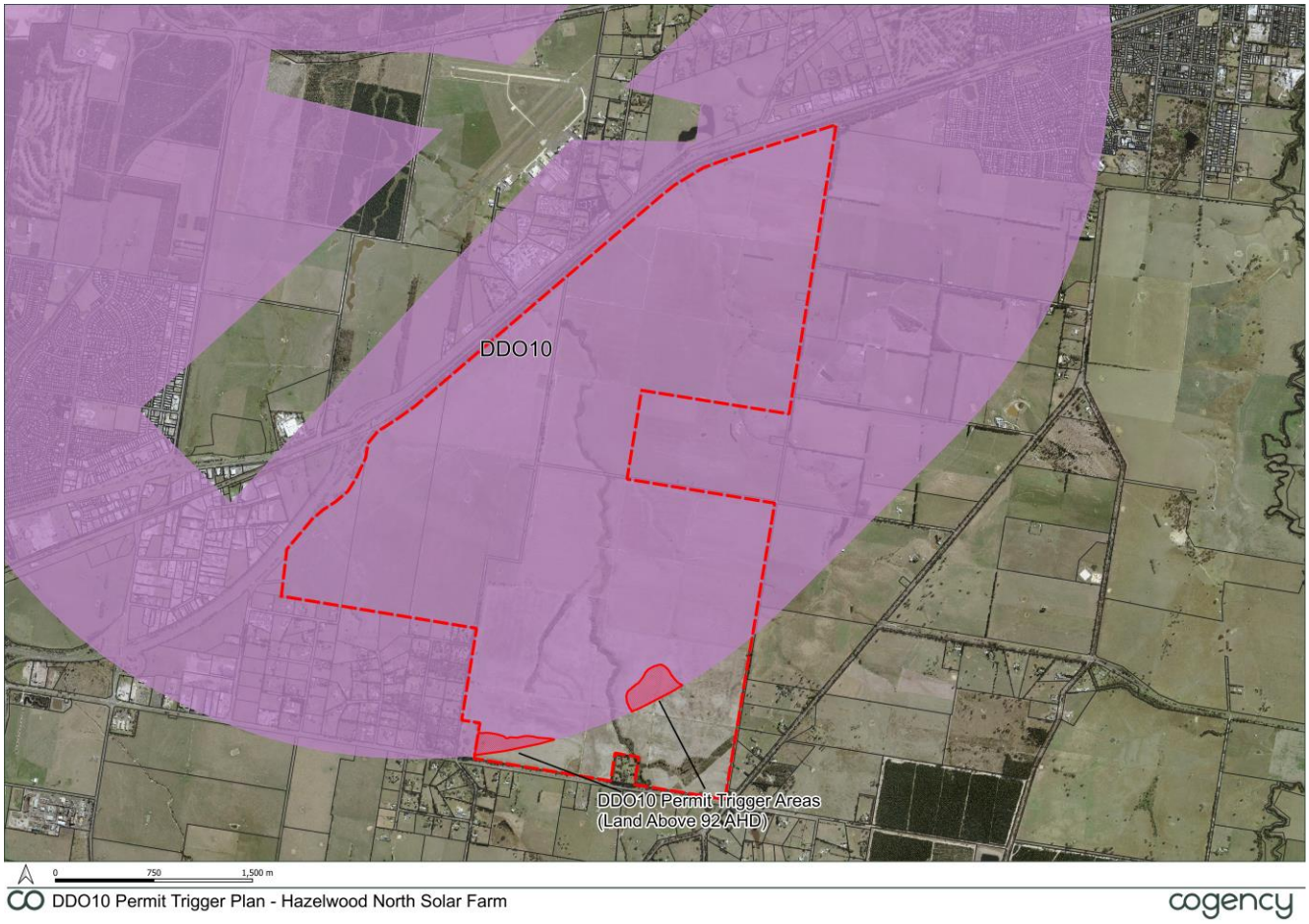


Figure 24 - DDO10 Permit Trigger Extent

5.8.5 Clause 44.04 Land Subject to Inundation Overlay (LSIO)

A small portion of the site at its south-west corner is subject to the provisions of the Land Subject to Inundation Overlay (LSIO), as shown in Figure 25.

The purpose of LSIO is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To identify flood prone land in a riverine or coastal area affected by the 1 in 100 (1 per cent Annual Exceedance Probability) year flood or any other area determined by the floodplain management authority.
- To ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, responds to the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity.
- To minimise the potential flood risk to life, health and safety associated with development.
- To reflect a declaration under Division 4 of Part 10 of the Water Act, 1989.
- To protect water quality and waterways as natural resources by managing urban stormwater, protecting water supply catchment areas, and managing saline discharges to minimise the risks to the environmental quality of water and groundwater.
- To ensure that development maintains or improves river, marine, coastal and wetland health, waterway protection and floodplain health.

No permit is required under the LSIO as no buildings are proposed, the works will be limited to open type fencing.

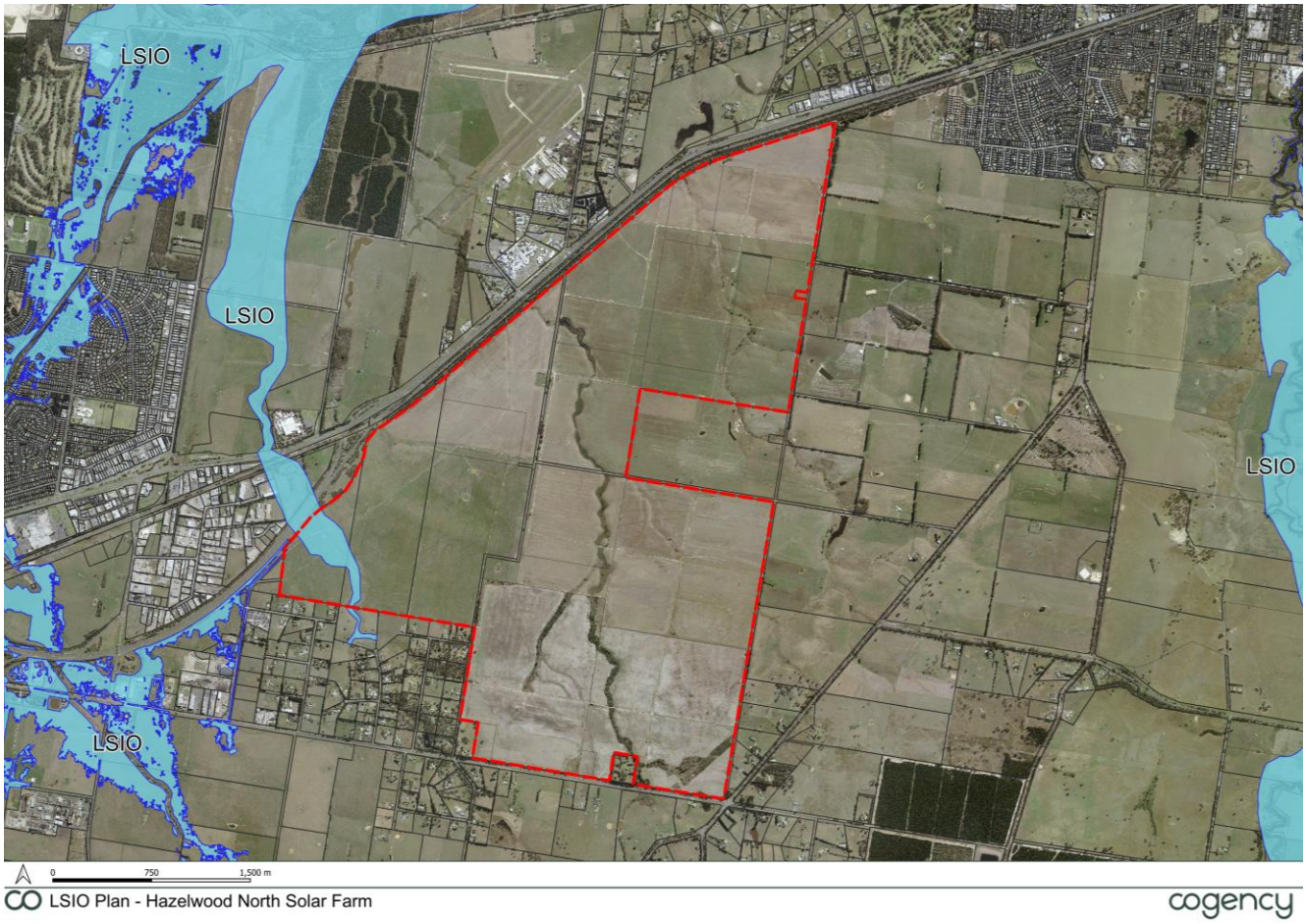


Figure 25 - Land Subject to Inundation Overlay (LSIO)

5.8.6 Clause 44.06 Bushfire Management Overlay (BMO)

A small slither of land at the site's eastern boundary is affected by the BMO and Schedule 1 (BMO1), as shown in Figure 26.

BMO1 relates to bushfire protection measures for the Boolarra, Moe, Morwell, Newborough, Yallourn, Yallourn North, Traralgon South Bal-12.5 Areas.

The purpose of the BMO is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire.
- To identify areas where the bushfire hazard warrants bushfire protection measures to be implemented.
- To ensure development is only permitted where the risk to life and property from bushfire can be reduced to an acceptable level.

Under the BMO1, a permit is not required to construct a building or construct or carry out works for the proposed land use (as neither solar energy facility nor utility installation are listed uses under clause 44.06-2).

Nevertheless, a Fire and Bushfire Report (Chapter 6.11) has been prepared to support the Proposal.

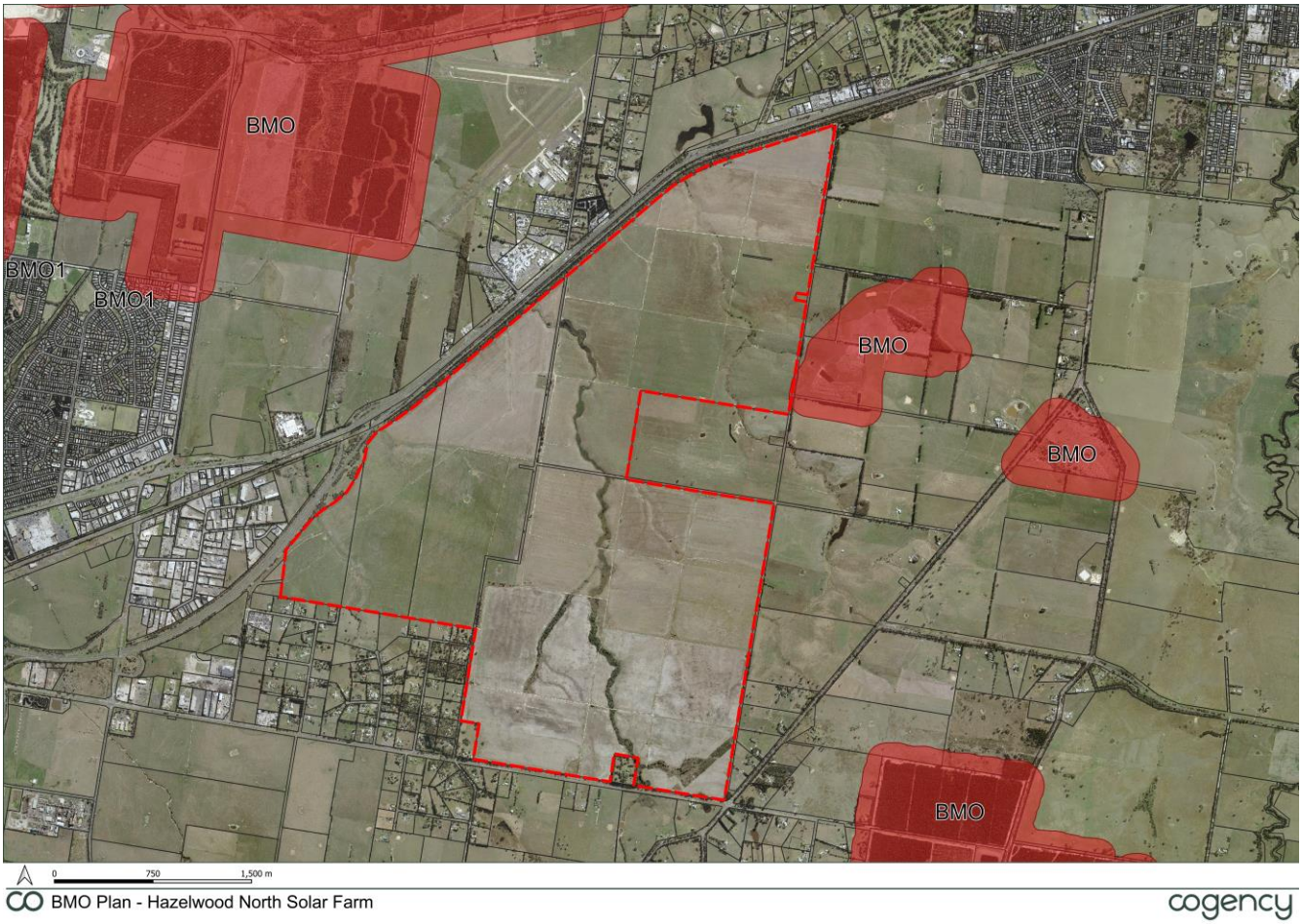


Figure 26 - Bushfire Management Overlay Schedule 1 (BMO)

5.8.7 Clause 44.07 State Resource Overlay (SRO)

The eastern half of the site is subject to the provisions of the State Resource Overlay and Schedule 1 to this overlay (SRO1), as shown in

Figure **27**.

The purpose of the SRO is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To protect areas of mineral, stone, and other resources, which have been identified as being of State significance, from use and development that would prejudice the current or future productive use of the resource.

SRO1 relates to the Gippsland Brown Coalfields area. The management objective provides that: “In order to ensure the medium to long term extraction and use of the coal resource for power generation, building, works and subdivision of land over the resource should be of a type that will not inhibit, by way of community significance or cost of removal, the eventual productive use of that resource”.

An application under the zone to construct a building or construct or carry out works must be accompanied by:

- A report which explains how the proposed use, building, works or subdivision:
  - is consistent with the management objective specified in the schedule,
  - responds to the decision guidelines pursuant to Clause 44.07-8.

A permit is not required for the proposed use and development of land under the SRO1. Furthermore, there are no current mining licences within 1 km of the Proposal. This is demonstrated in

Figure 28.

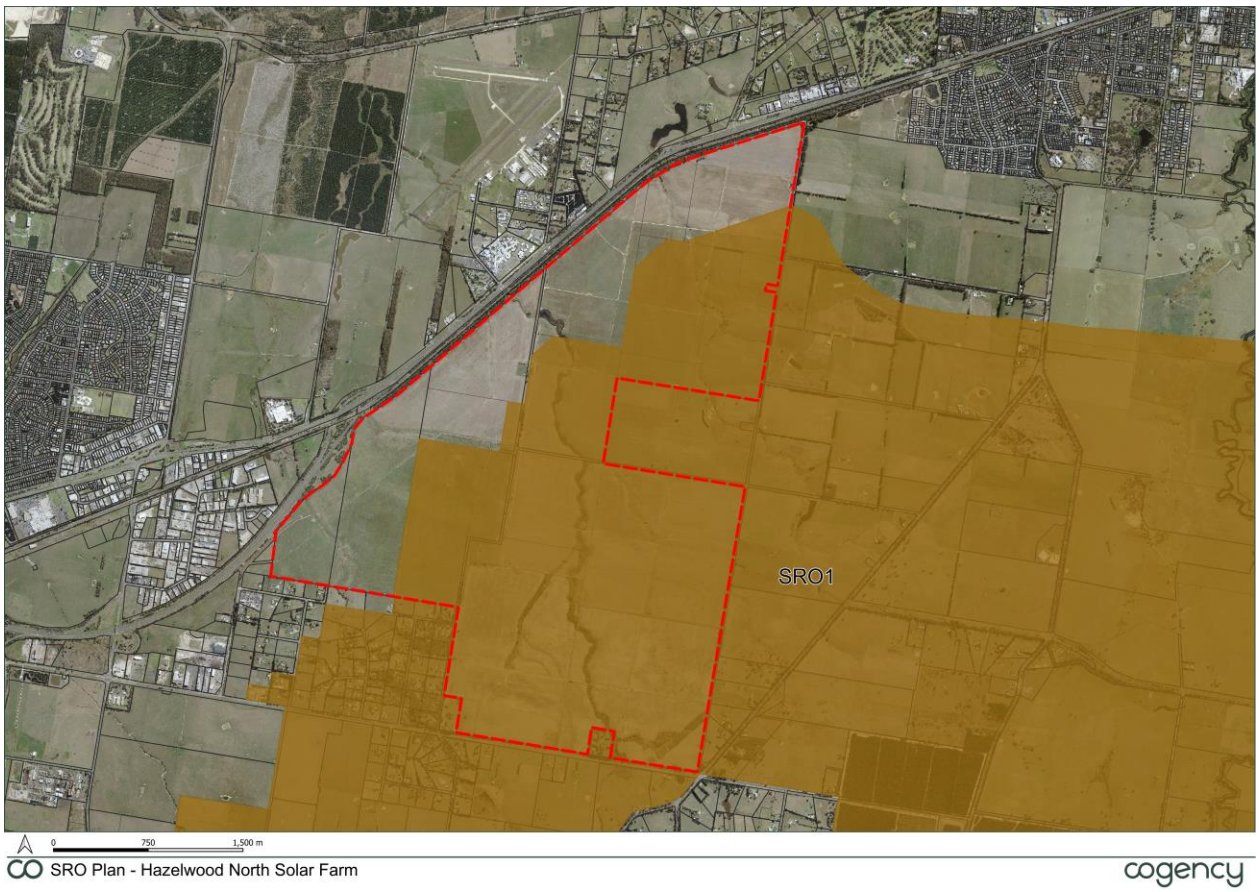


Figure 27 - State Resource Overlay Schedule 1 (SRO1)

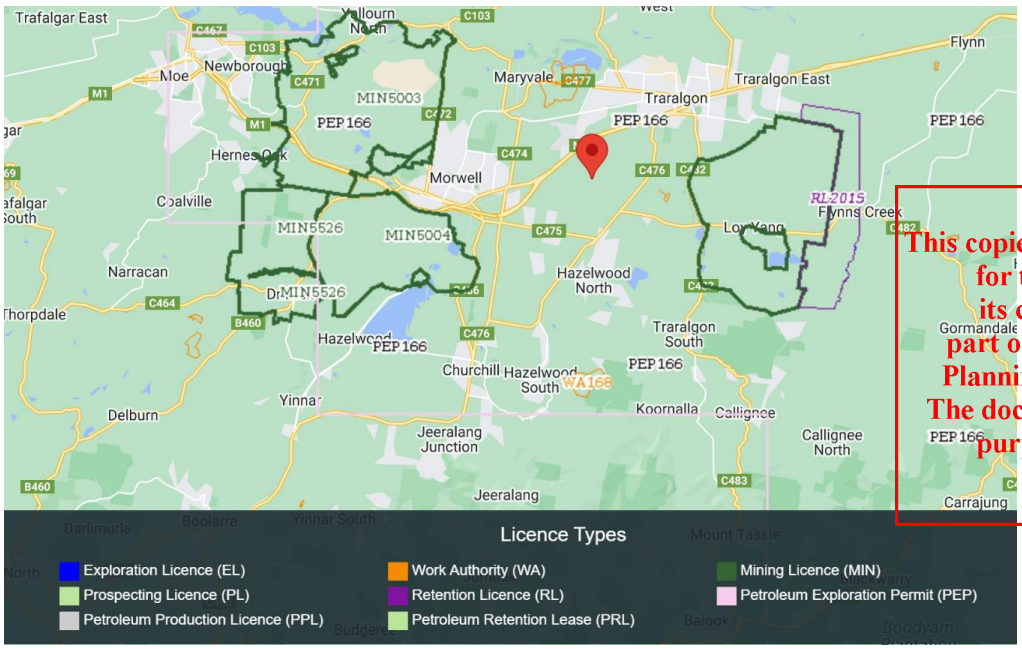


Figure 28 - Current mining licences in the area (Earth Resources Victoria)

5.8.8 Clause 45.01 Public Acquisition Overlay (PAO1)

The western and northern sections of the site are subject to the provisions of the Public Acquisition Overlay (PAO), as shown on Figure 29. The land is designated under Schedule 1 to the overlay (PAO1) for the purposes of road acquisition (relating to the proposed Princes Freeway – Traralgon Bypass), and the acquiring authority is VicRoads.

The purpose of the PAO is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To identify land which is proposed to be acquired by a Minister, public authority or municipal council.
- To reserve land for a public purpose and to ensure that changes to the use or development of the land do not prejudice the purpose for which the land is to be acquired.
- To designate a Minister, public authority, or municipal council as an acquiring authority for land reserved for a public purpose.

A permit is required to use land within the PAO for any Section 1 or Section 2 use in the zone, as well as to remove vegetation or carry out works.

The Proposal does not involve the use or development of land within the PAO and therefore a permit is not triggered.

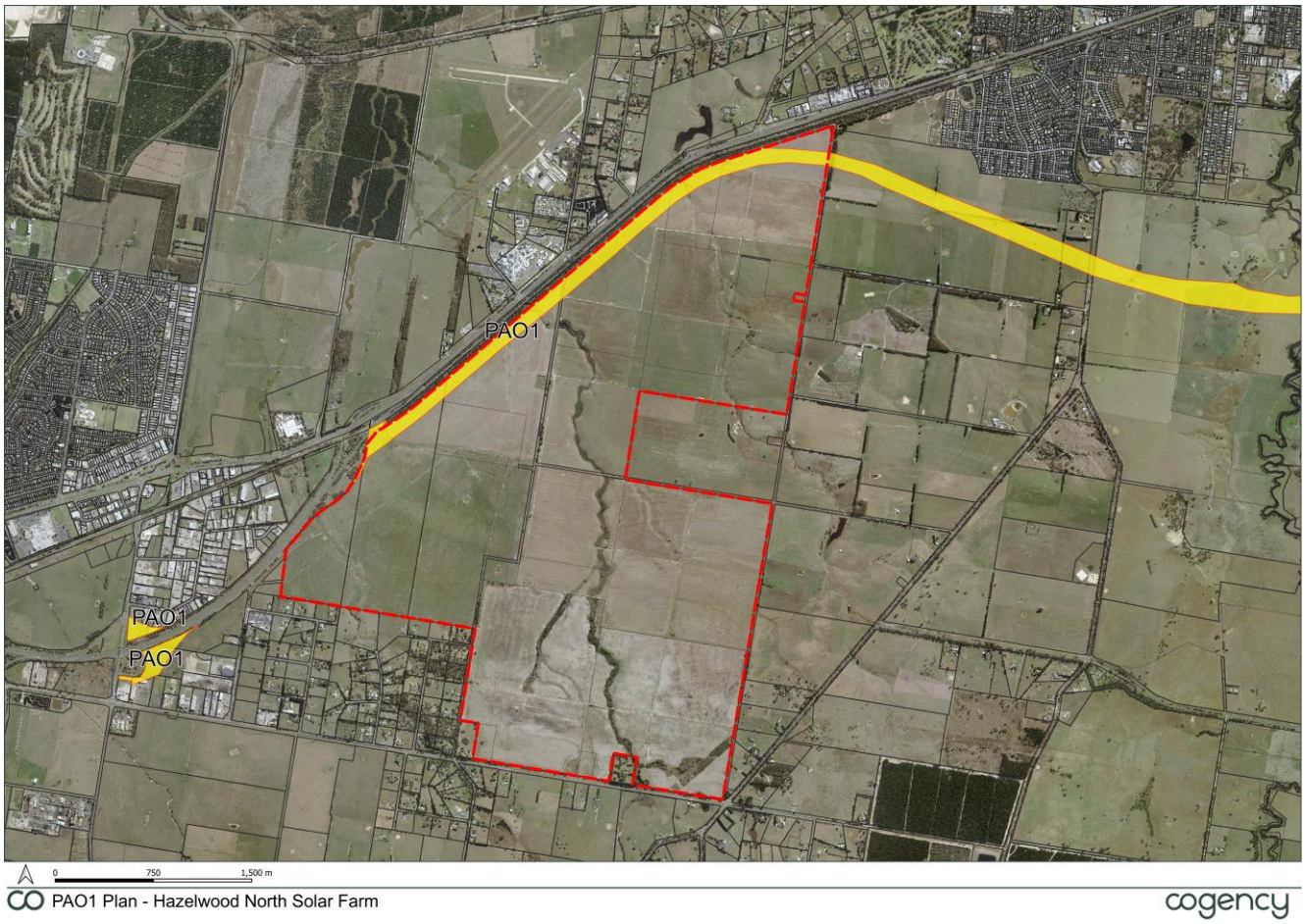


Figure 29 - Public Acquisition Overlay Schedule 1 “Bypass” (PAO1)

5.9 Particular provisions

The following particular provisions of the Latrobe Planning Scheme are relevant to the Proposal.

5.9.1 Clause 52.05 Signs

The purpose of Clause 52.05 are as follows:

- 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.

In relation to signage provisions, the site is located within Category 4 “sensitive areas”, where maximum limitations provide for “unobtrusive signs in areas requiring strong amenity control”.

A business identification sign is a section 2 use, and therefore its placement on the site requires a permit. The total display area of the sign on the entire premises must not exceed 3 sqm.

Small business identification signage is proposed to be placed at the entrances to the site and will provide for appropriate identification of the facility and direction for workers and visitors. The details of the signage will be finalised in detailed design.

5.9.2 Clause 52.12 Bushfire Protection Exemptions

Clause 52.12-2 provides exemptions from a planning permit for vegetation removal along a fence line.

Any requirement of the planning scheme to obtain a planning permit, or any provision of this planning scheme that prohibits the removal, destruction or lopping of vegetation, does not apply to the removal, destruction or lopping of any vegetation along a boundary fence between properties in different ownership if all of the following requirements are met:

- The fence must be located in an area that is designated as a bushfire prone area under the Building Act 1993.
- The fence must have been constructed before 10 September 2009.
- The clearing alongside both sides of the fence when combined must not exceed 4 metres in width, except where land has already been cleared 4 metres or more along one side of the fence, then up to 1 metre can be cleared along the other side of the fence.

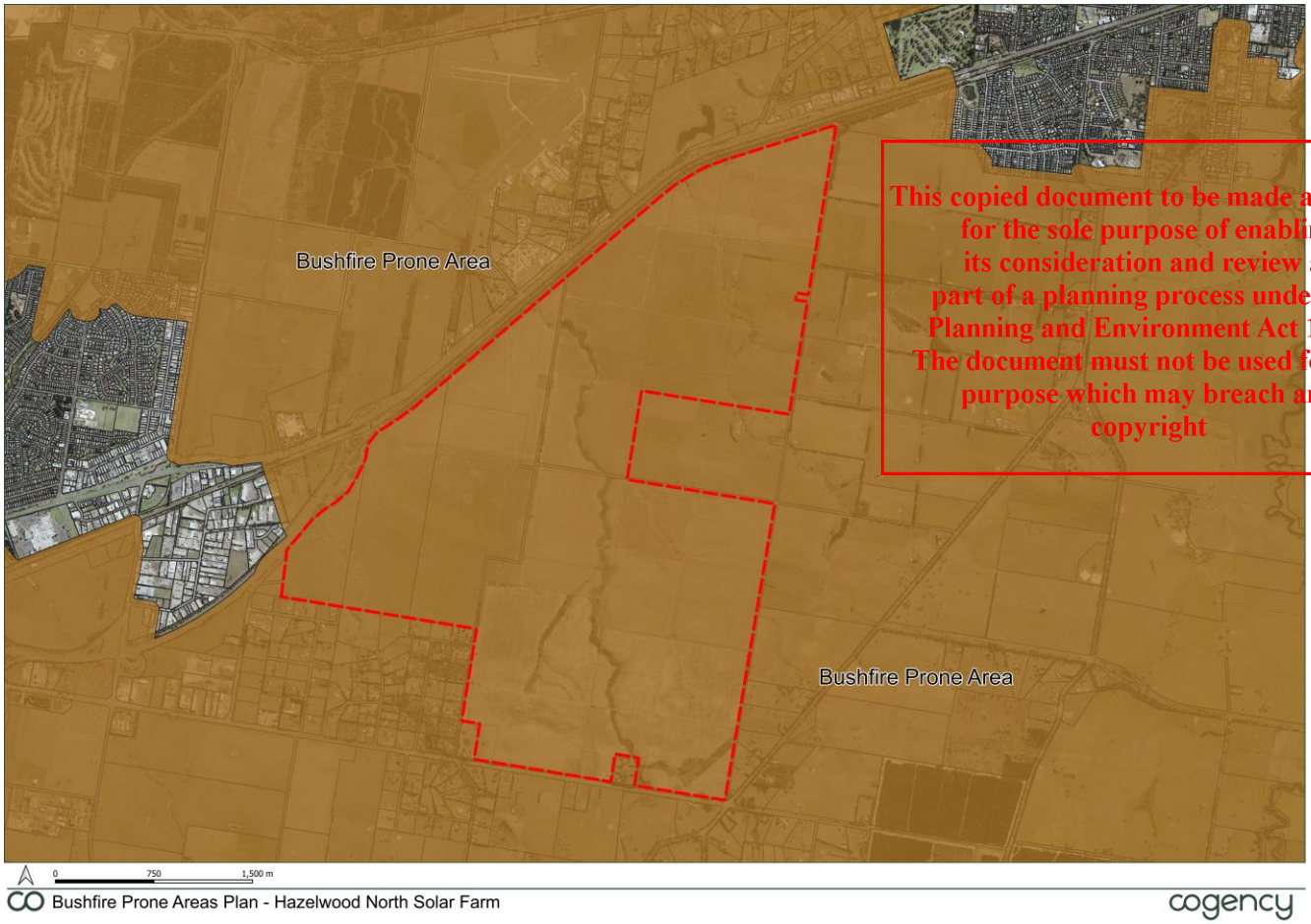


Figure 30 - Bushfire Prone Area Plan (BPA)

5.9.3 Clause 52.17 Native Vegetation

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* (DELWP 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.

- To manage the removal, destruction or lopping of native vegetation to minimise land and water degradation.

A permit is required to remove, destroy, or lop native vegetation, including dead native vegetation.

However, for the land associated with the construction of the Princes Freeway - Traralgon Bypass, a permit is *not* required to remove, destroy or lop native vegetation, provided that it is to the minimum extent necessary, subject to meeting the requirements of the Guidelines to the satisfaction of the Secretary to DTP.

5.9.4 Clause 52.29 Land Adjacent to the Principal Road Network

The purpose of Clause 52.29 is:

- To ensure appropriate access to the Principal Road Network or land planned to form part of the Principal Road Network.

- To ensure appropriate subdivision of land adjacent to Principal Road Network or land planned to form part of the Principal Road Network.

This clause applies to land adjacent to a road in the Transport Zone 2 or land in a PAO if a transport manager (other than a municipal council) is the acquiring authority, and the purpose of the acquisition is for a road.

The relevant permit requirement under this clause is to:

- create or alter access to a road in a Transport Zone 2.

5.9.5 Clause 53.13 Renewable Energy Facility (Other than wind energy facility)

The purpose of Clause 53.13 is "To facilitate the establishment and expansion of renewable energy facilities, in appropriate locations, with minimal impact on the amenity of the area".

This clause applies to an application under any provision of this planning scheme to use or develop land for a renewable energy facility (other than a wind energy facility). It therefore applies to this Proposal.

An application must be accompanied by the following information, as appropriate:

- A site and context analysis, including:
  - A site plan, photographs or other techniques to accurately describe the site and the surrounding area.
  - A location plan showing the full site area, local electricity grid, access roads to the site and direction and distance to nearby accommodation, hospital or education centre.
- A design response, including:
  - Detailed plans of the proposed development including, the layout and height of the facility and associated building and works, materials, reflectivity, colour, lighting, landscaping, the electricity distribution starting point (where the electricity will enter the distribution system), access roads and parking areas.
  - Accurate visual simulations illustrating the development in the context of the surrounding area and from key public viewpoints.
  - The extent of vegetation removal and a rehabilitation plan for the site.
- Written report and assessment, including:
  - An explanation of how the proposed design derives from and responds to the site analysis.
  - A description of the proposal, including the types of process to be utilised, materials to be stored and the treatment of waste.
  - Whether a Development Licence, Operating Licence, Permit or Registration is required from the Environment Protection Authority.
  - The potential amenity impacts such as noise, glint, light spill, emissions to air, land or water, vibration, smell and electromagnetic interference.
  - The effect of traffic to be generated on roads.
  - The impact upon Aboriginal or non-Aboriginal cultural heritage.
  - The impact of the proposal on any species listed under the Flora and Fauna Guarantee Act 1988 or Environment Protection and Biodiversity Conservation Act 1999.
  - A statement of why the site is suitable for a renewable energy facility including, a calculation of the greenhouse benefits.
  - An environmental management plan including, a construction management plan, any rehabilitation and monitoring.

5.10 General Provisions

The following general provisions of the Latrobe Planning Scheme are relevant to the Proposal:

5.10.1 Clause 62.02 Buildings and Works

The proposed upgrade of Firmins Lane at the primary entrance to the site is except from a permit according to Clause 66.02-2 as the proposed works are considered 'Roadworks.'

5.10.2 Clause 66.02 Use and Development Referrals

The proposed BESS will likely trigger a referral to The Victorian WorkCover Authority as a determining referral authority in accordance with Clause 66.02-7 Industry, Utility Installation or Warehouse.

While the exact quantity of lithium to be housed within the BESS has not been determined, it is estimated to be greater than the fire protection quantity under the Dangerous Goods (Storage and Handling) Regulations 2012.

5.11 Summary of permit triggers & assessment

Table 5 - Permit Triggers Assessment Table		
Zones and Overlays		
Clause 35.07 - Farming Zone (FZ1)		
Permit Triggers	**Decision Guidelines**	**Assessment**
✓ *Permit Triggered* Use and development of the land for a 450 MW solar energy facility and associated infrastructure (Section 2 Use). Use and development of the land for an 1800 MWh BESS (Section 2 Use). Use and development of the land for a Substation (Section 2 Use). Buildings and works associated with a Section 2 use. Buildings and works within 100 metres of a Transport Zone 2 or PAO, within 20 metres of any other road, and within 100 metres of a dwelling not in the same ownership. Flood mitigation earthworks which will change the rate of flow of water across the northern property boundary.	**General issues** ▪ Any Regional Catchment Strategy and associated plan applying to the land. ▪ The capability of the land to accommodate the proposed use or development, including the disposal of effluent. ▪ How the use or development relates to sustainable land management. ▪ Whether the site is suitable for the use or development and whether the proposal is compatible with adjoining and nearby land uses. ▪ How the use and development makes use of existing infrastructure and services. **Agricultural issues and the impacts from non-agricultural uses** ▪ Whether the use or development will support and enhance agricultural production. ▪ Whether the use or development will adversely affect soil quality or permanently remove land from agricultural production. ▪ The potential for the use or development to limit the operation and expansion of adjoining and nearby agricultural uses. ▪ The capacity of the site to sustain the agricultural use. ▪ The agricultural qualities of the land, such as soil quality, access to water and access to rural infrastructure. ▪ Any integrated land management plan prepared for the site. **Environmental issues** ▪ The impact of the proposal on the natural physical features and resources of the area, in particular on soil and water quality. ▪ The impact of the use or development on the flora and fauna on the site and its surrounds. ▪ The need to protect and enhance the biodiversity of the area. ▪ The location of on-site effluent disposal areas to minimise the impact of nutrient loads on waterways and native vegetation. **Design and siting issues** ▪ The need to locate buildings in one area to avoid any adverse impacts on surrounding agricultural uses and to minimise the loss of productive agricultural land. ▪ The impact of the siting, design, height, bulk, colours and materials to	Given the suitability of the site for a solar farm and the opportunities for the design and layout to positively respond to the site's natural features, it is considered that the Proposal supports the Purpose of the Farming Zone and is compliant with the Decision Guidelines outlined in Clause 35.07-6. The use and development of the site for this purpose would not prohibit productive agricultural activities on the land both now and in the long term, through the retention of grazing during operation (known as "solar grazing" or "agrisolar") and the opportunity to continue grazing at full capacity again following decommissioning of the solar farm. As such, the Proposal would not permanently remove land from agricultural production, and it would not affect the operation of agricultural or industrial activities on adjoining properties. Furthermore, the Proposal would enhance employment opportunities on the land. All the components of the Proposal are strategically sited so as not to adversely affect soil and water quality, and where possible are setback from roads, creeks, site boundaries, and dwellings. Given the size of the landholding, the design and development of the Proposal has responded positively to these features. It is likely that the proposed flood mitigation measures (see chapter 6.4.1) will change the rate of flow of water across the northern property boundary, triggering a permit. These flood mitigation measures are necessary for the protection of the solar farm and neighbouring properties during extreme weather events and do not represent any material detriment to neighbouring properties.

	be used, on the natural environment, major roads, vistas and water features and the measures to be undertaken to minimise any adverse impacts. ▪ The impact on the character and appearance of the area or features of architectural, historic or scientific significance or of natural scenic beauty or importance. ▪ The location and design of existing and proposed infrastructure including roads, gas, water, drainage, telecommunications and sewerage facilities. ▪ Whether the use and development will require traffic management measures.	
Clause 36.04 - Transport Zone		
Permit Triggers	**Decision Guidelines**	**Assessment**
- *No Permit Trigger*	N/A	The Proposal includes the upgrade of the site entrance to Firmins Lane to include a deceleration lane to allow for the safe entry and egress of vehicles during the construction phase of the Proposal. These works are for the use as a road and are therefore except from a permit according to Clause 62.01. More details of the road upgrades can be found within the Traffic Engineering Assessment (Chapter 6.3)
Clause 42.01 - Environmental Significance Overlay (ESO1)		
Permit Triggers	**Decision Guidelines**	**Assessment**
✓ *Permit Triggered* Construction of solar panels, access roads, fencing, and a substation within the Environmental Significance Overlay. Removal of 2.342 hectares of vegetation within the Environmental Significance Overlay.	▪ The statement of environmental significance and the environmental objective contained in a schedule to this overlay. ▪ The need to remove, destroy or lop vegetation to create a defendable space to reduce the risk of bushfire to life and property. ▪ Any other matters specified in a schedule to this overlay: **Buildings and works** ▪ The movement of pedestrians and cyclist, and vehicles providing for supplies, waste removal, emergency services and public transport. ▪ The provision of car parking. ▪ The availability of and connection to services. ▪ Any natural or cultural values on or near the land. ▪ Interface with non-industrial areas. ▪ Outdoor storage, lighting and storm water discharge. ▪ The designs of buildings to provide for solar access. ▪ All buildings and works must be maintained in good order and appearance to the satisfaction of the responsible authority.	It is considered that the proposed use and development of the site for a solar farm supports the role and function of the "Urban Buffer", given that the Proposal is not for an urban use. It is situated outside of the key settlement areas of Morwell and Traralgon, and therefore maintains adequate separation between the surrounding urban areas and coal mining activities. A solar farm is compatible with the adjacent land uses, by not impacting the operation and expansion of agricultural, industrial and coal mining activities, and can be designed to limit impacts to the extent possible on nearby residences. The Proposal maintains the integrity of the Urban Buffer by discouraging pressures for housing and coal related development to sprawl onto agricultural land. Furthermore, to support the purpose of the ESO, the design and layout of the Proposal responds positively to the environmental features of the site, such as the vegetation and watercourses. The amount of vegetation removal will be minimised, and

		trees maintained where possible to provide visual screening from the adjoining sites and freeway.
Clause 43.02 - Design and Development Overlay – Schedule 1 (DDO1 - Major pipeline infrastructure)		
Permit Triggers	**Decision Guidelines**	**Assessment**
✓ *Permit Triggered* Construction of a fence within 3 metres of a high pressure gas pipeline.	▪ The appropriateness of constructing any buildings or fences within 3 metres of any pipeline. ▪ The appropriateness of constructing any dwelling or building designed to accommodate 20 or more people within 200 metres of a Type C Pipeline. ▪ The views of the Secretary of the Department administering the Pipelines Act 1967.	The design and layout of the Proposal responds to the pipeline, in line with requirements set out in DDO1. No proposed solar panels will be located within the DDO1, however security fencing and access tracks will be built within 3 metres of the pipeline, triggering a permit. A Safety Management Study has been undertaken (Chapter 6.12), ensuring the safe construction and operation of the solar farm in relation to the gas pipeline.
Clause 43.02 - Design and Development Overlay – Schedule 3 (DDO3 - Noise attenuation)		
Permit Triggers	**Decision Guidelines**	**Assessment**
✓ *Permit Triggered* Construction of solar panels, access roads and fencing.	▪ Any comments received from the Head, Department of Transport.	The design and layout of the Proposal responds to the proposed bypass, in line with requirements set out in DDO3 and the other relevant provisions of the Latrobe Planning Scheme relating to the bypass such as the Public Acquisition Overlay. No solar panels or associated infrastructure is proposed to be built within the PAO1 to the north of the site, reserved for the Traralgon Bypass. There are proposed solar panels, fencing and access tracks within the DDO3 as the overlay extends beyond the PAO1. This will trigger a permit to construct or carry out works within the DDO3. The use of the land for a solar farm will not present an amenity risk to the proposed Traralgon Bypass, given the generous setbacks proposed. The Proposal would have no material impact on the construction and use of the Traralgon Bypass.
Clause 43.02 - Design and Development Overlay – Schedule 5 (DDO5 – Flight Path)		
Permit Triggers	**Decision Guidelines**	**Assessment**
- No Permit Trigger	N/A	The Proposal does not trigger a permit under the DDO5. The solar panels do not present any hazard to the Latrobe Regional Hospital EMS helicopter landing site. This is confirmed in the Aviation Assessment (Chapter 6.8).

Clause 43.02 - Design and Development Overlay – Schedule 6 (DDO6 – Flight Path)		
Permit Trigger	**Decision Guidelines**	**Assessment**
✓ *Permit Triggered* Construction of approximately 13 ha of solar panels which exceed a height of 68.4 metres AHD.	Before deciding on an application for buildings and works the responsible authority will consider the views of the Department of Human Services and the Chief Executive Officer, Latrobe Regional Hospital.	A small area of solar panels at full tilt will exceed 68.4 metres above AHD. This triggers a permit under the DDO6. It should be noted that the natural ground level in some areas of the DDO6 exceeds this height as well, meaning any development within this area triggers a permit. The solar panels do not present any hazard to the Latrobe Regional Hospital EMS helicopter landing site, due to their low height and the significant distance between the panels and the landing site. The Proposal is highly compliant with the design objective of the DDO6, as confirmed in the Aviation Assessment (Chapter 6.8).
Clause 43.02 - Design and Development Overlay – Schedule 10 (Obstacle height area no 3)		
Permit Trigger	**Decision Guidelines**	**Assessment**
✓ *Permit Triggered* Construction of approximately 12 ha of solar panels which exceed a height of 96.5 metres AHD.	▪ The Latrobe Regional Airport Master Plan (2019). ▪ The Obstacle Limitation Surface (OLS) within the Airspace Protection Plan contained in the Latrobe Regional Airport Master Plan (2019). ▪ National Airports Safeguarding Framework, Guideline F - Managing the Risk of Intrusions into the Protected Airspace of Airports. ▪ The location and height of the proposed development. ▪ The need to prevent buildings or structures from being built which could interfere with and cause a safety hazard to aircraft operations. ▪ Natural surface level survey to determine the AHD level of the proposed development site. ▪ The suitability of building design and the potential impact of building materials on the flight path of aircraft. ▪ The views of the Latrobe Regional Airport Board. ▪ The need to require independent aeronautical advice so as not to interfere with or cause a safety hazard to aircraft operations.	A small area of solar panels at full tilt will exceed 96.5 metres above AHD. This triggers a permit under the DDO10. It should be noted that, as with the DDO6, the natural ground level in some areas of the DDO10 exceeds 96.5 metres above AHD. The Proposal is considered to be highly compatible with the design objectives of the DDO10 and will not present any material detriment to the Latrobe Regional Airport or aircraft flight paths. Productive pre-application coordination with the Latrobe Regional Airport Board has occurred to date, with more engagement expected post-lodgement. The Aviation Assessment (Chapter 6.8) has evaluated the risk of the Proposal to the function of the Latrobe Regional Airport. Additional modelling will be undertaken by RHEBIN Airport Consulting post permit approval.
Clause 43.02 - Design and Development Overlay – Schedule 11 (DDO11 - Obstacle height areas no 4, 5 and 6)		
Permit Triggers	**Decision Guidelines**	**Assessment**
- *No Permit Trigger*	N/A	No buildings or works within the DDO11 are proposed to exceed 10 metres above natural ground level. Therefore, no permit is required under DDO11.

Clause 44.04 - Land Subject to Inundation Overlay (LSIO)		
Permit Triggers	**Decision Guidelines**	**Assessment**
- *No Permit Trigger*	▪ Any local floodplain development plan. ▪ Any comments from the relevant floodplain management authority. ▪ The existing use and development of the land. ▪ Whether the proposed use or development could be located on flood-free land or land with a lesser flood hazard outside this overlay. ▪ Alternative design or flood proofing responses. ▪ The susceptibility of the development to flooding and flood damage. ▪ The potential flood risk to life, health and safety associated with the development. Flood risk factors to consider include: ▪ The frequency, duration, extent, depth and velocity of flooding of the site and accessway. ▪ The flood warning time available. ▪ The effect of the development on redirecting or obstructing floodwater, stormwater or drainage water and the effect of the development on reducing flood storage and increasing flood levels and flow velocities. ▪ The effect of the development on river, marine and coastal health values including wetlands, natural habitat, stream stability, erosion, environmental flows, water quality, estuaries and sites of scientific significance.	The layout and design of the solar farm responds to this flood prone area at the south-western section of the site and provide flood proofing measures, assisted through the Hydrology Assessment (Chapter 6.4). No panels are proposed within the LSIO, with the works limited to security fencing. In addition, no earthworks are proposed within the land affected by the LSIO.
Clause 44.07 - State Resource Overlay (SRO)		
Permit Trigger	**Decision Guidelines**	**Assessment**

- *No Permit Trigger*	▪ The statement of resource significance and the management objectives specified in a schedule to this overlay.
	▪ The significance of the future productive use of the resource to the state.
	▪ Any transport network implications related to the proposal.
	▪ When the resource is likely to be required for extraction.
	  - The desirability of preventing any use, buildings, works, or subdivision which may adversely impact on the future productive use of the resource.
	▪ Any other matters specified in a schedule to this overlay:
	  - The need to ensure development of the land does not inhibit the eventual development and use of the coal.
	  - The need to exclude urban development, including low density residential development, and rural living development, from this overlay area.
		As required under Clause 44.07-5 of the SRO, the Planning Report in support of the application under the Farming Zone to construct a building or construct or carry out works will explain how the proposed use and development of the site for a solar farm and utility installation is consistent with the management objective of the SRO1 and responds to the decision guidelines outlined in Clause 44.07-8.
		Although a permit is not required, it is considered sensible to engage with Earth Resources Victoria (within the State Department of Jobs, Precincts and Regions) and explain the compatibility of a solar farm with the coal resource, noting that no urban subdivision is proposed, and that a solar farm can be easily removed in the future.

	- The impact of the building and works on nearby existing or proposed brown coal mining or electricity generation and any nearby agricultural uses.	
Clause 45.01 - Public Acquisition Overlay (PAO1)		
Permit Trigger	**Decision Guidelines**	**Assessment**
- *No Permit Trigger*	N/A	In accordance with the PAO, the design and layout of the Proposal avoids the area of land traversing the western and northern sections of the site, thereby allowing the future acquisition and development of the proposed bypass. As such, a permit is not required.
Particular Provisions		
Clause 52.05 - Signs		
Permit Trigger	**Decision Guidelines**	**Assessment**
✓ *Permit Triggered* A business identification sign less than 3 sqm in a Category 4 zone.	▪ The character of the area. ▪ Impacts on views and vistas. ▪ The relationship to the streetscape, setting or landscape. ▪ The relationship to the site and building. ▪ The impact of structures associated with the sign. ▪ The impact of any illumination. ▪ The impact of any logo box associated with the sign. ▪ The need for identification and the opportunities for adequate identification on the site or locality. ▪ The impact on road safety.	Small, non-illuminated business identification signage is proposed to be placed at the two key entrances to the site at Firmins Lane and Walshs Road. The signage will be no more than 3 sqm and will provide for appropriate identification of the facility and direction for workers and visitors. The details of the sign will be finalised at the detailed design stage.
Clause 52.12 – Bushfire Protections Exemptions		
Permit Trigger	**Exemption for vegetation removal along a fence line**	**Assessment**
- *No Permit Trigger*	Any requirement of the planning scheme to obtain a planning permit, or any provision of this planning scheme that prohibits the removal, destruction or lopping of vegetation, does not apply to the removal, destruction or lopping of any vegetation along a boundary fence between properties in different ownership if all of the following requirements are met: ▪ The fence must be located in an area that is designated as a bushfire prone area under the Building Act 1993. ▪ The fence must have been constructed before 10 September 2009. ▪ The clearing alongside both sides of the fence when combined must not exceed 4 metres in width, except where land has already been cleared 4 metres or more along one side of the fence, then up to 1 metre can be cleared along the other side of the fence.	As the entirety of the site is designated as a Bushfire Prone Area, a planning permit is not required to remove, destruct, or lop any vegetation along a boundary fence between the site and the neighbouring properties in different ownership, as long as the abovementioned requirements are met. These permit exemptions should be considered in the design of the Proposal and utility installation.

Clause 52.17 - Native vegetation		
Permit Trigger	**Decision Guidelines**	**Assessment**
✓ *Permit Triggered* Removal of approximately 2.342 hectares of native vegetation.	Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider the decision guidelines specified in the Guidelines as appropriate.	Approximately 2.342 hectares of native vegetation is proposed to be removed and a permit under Clause 52.17 is therefore required. The site is predominantly cleared and previously used for forestry, and the majority of vegetation is found along the site's boundaries. The design and development of the Proposal has minimised the removal, destruction or lopping of native vegetation on the site to the extent possible, in accordance with this clause. This Proposal is accompanied by a Flora and Fauna Assessment (Chapter 6.1). Included within this report is a detailed assessment of the proposed native vegetation removal, the impact on the natural environment and the proposed mitigation methods. A small area of native vegetation is proposed to be removed outside of the site, located along the roadside at the Firmins Lane entry. This is to allow for the development of a deceleration lane for safe entry to the site during construction. More information can be found in the attached Flora and Fauna Assessment.
Clause 52.29 – Land adjacent to the principal road network		
Permit Trigger	**Decision Guidelines**	**Assessment**
✓ *Permit Triggered* Altering the existing site access to Firmins Lane (Transport Zone 2).	▪ The views of the relevant road authority. ▪ The effect of the proposal on the operation of the road and on public safety. ▪ Any policy made by the relevant road authority pursuant to schedule 2, clause 3 of the Road ▪ Management Act 2004 regarding access between a controlled access road and adjacent land.	The proposed primary access point is at Firmins Lane, which is a Transport Zone 2. The Proposal seeks to alter the existing access to this road for the purposes of upgrading the intersection, to allow for construction vehicles to access the site. A permit is therefore required under Clause 52.29. In addition, the site is affected by a PAO along the northern edge for the future development of the Traralgon Bypass (Figure 29 - Public Acquisition Overlay Schedule 1 "Bypass" (PAO1)). The Proposal affects land adjacent to this PAO but would not affect access within the overlay, therefore no permit is required. This Proposal is accompanied by a traffic engineering assessment (Chapter 6.3). The report outlines the relevant traffic management measures that are proposed to be implemented alongside this development. The proposed development is consistent with the purpose of Clause 52.29 and will comply with the decision guidelines.

Clause 53.13 – Renewable Energy Facility (other than a wind energy)		
Permit Trigger	**Decision Guidelines**	**Assessment**
- *No Permit Trigger*	▪ The effect of the proposal on the surrounding area in terms of noise, glint, light spill, vibration, smell and electromagnetic interference. ▪ The impact of the proposal on significant views, including visual corridors and sightlines. ▪ The impact of the proposal on strategically important agricultural land, particularly within declared irrigation districts. ▪ The impact of the proposal on the natural environment and natural systems. ▪ The impact of the proposal on the road network. ▪ *Solar Energy Facilities Design and Development Guideline* (DTP 2022).	The Victorian government recognises that solar power has a vital role to play as the state makes the transition to a net zero emissions future. Renewable energy sources such as solar power helps to reduce fossil fuel consumption, greenhouse gas emissions and air pollution, and improve energy security in the long term. The proposed Hazelwood North Solar Farm with a capacity of approximately 450 MW will be considered a large-scale solar energy facility – one of the largest in the state – helping to deliver a clean source of energy generation and reach Victoria's renewable energy and climate change targets. This planning permit application contains a site and context analysis, a design response and a written report containing technical assessments against the application requirements mentioned above under Clause 53.13. The design and layout of the Proposal minimises, to the extent possible, potential impacts on the surrounding area such as noise, glint, light spill, vibration, smell, electromagnetic interference, significant views, agricultural land, natural environments, natural systems, and the road network.

5.12 Strategic Documents and Other Matters

5.12.1 Latrobe City Council Plan 2021-2025

Latrobe City Council identifies 'Sustainable' as one of five community visions. Relevant strategies include:

- Work towards net zero energy emissions across Latrobe City Council operations through the delivery of new energy initiatives, efficiencies and offsets.
- Work in partnership with indigenous custodians in sustainable land management and preservation and regeneration of our natural environment.
- Restore waterways and bushland areas to improve health and wellbeing of community and presentation of Latrobe City as well as our important biodiversity values.
- Efficiently utilise the assets that we have for the economic stimulus and benefit of our community while protecting the environment.
- In partnership with community and business, deliver sustainability initiatives and take actions to adapt to a changing climate.

The Proposal assists Latrobe City Council in meeting their targets of sustainability and aligns with their sustainable community vision strategies.

5.12.2 Morwell Traralgon Employment Corridor Investment Masterplan – August 2018

The Morwell Traralgon Employment Corridor Investment Masterplan is a strategic document incorporated into the Latrobe City planning scheme in 2020. The Morwell Traralgon Employment Corridor encompasses the area of land located immediately north of the Princes Highway between Morwell and Traralgon.

The site is identified as Precinct H within the MTEC Investment Masterplan. The plan recommends no changes to this precinct as the area is encumbered by a State Resource Overlay.

The Proposal is consistent with the MTEC Investment Masterplan it does not present any barriers to the current or future development of the area. Furthermore, the Traralgon Bypass route will remain undeveloped, considerable buffers between the solar farm and sensitive uses are proposed, and the use of the land as a solar farm is not considered a permanent change in land use due to the solar panels being light on the land.

5.12.3 Gippsland Regional Growth Plan - May 2014

The Gippsland Regional Growth Plan was developed to provide broad direction for land use and development across the Gippsland Region. In C*hapter 11.3 – Natural resources* the plan anticipates an increase in renewable energy production in Gippsland:

- "Environmental considerations will support changes in power generation and renewable energy projects across Gippsland."
- "Over time the cost of energy produced from high carbon-emitting fuels such as coal will increase, reducing its competitiveness compared to low emissions energy and renewable energy such as hydro power, geothermal, wind and solar."
- "While Gippsland's energy in the immediate term is closely linked to its brown coal deposits, there are opportunities to develop renewable energy resources as part of a long-term strategy to maintain Gippsland as Victoria's energy hub."

The Hazelwood North Solar Farm aligns with the growth plan as it will provide renewable energy production to replace the ageing brown coal power generators.

5.13 Planning Scheme Amendments

5.13.1 Amendment C121latr

Currently, most of the licensed pipelines which traverse the Latrobe City municipality are protected by the Design and Development Overlay Schedule 1 (DDO1). The Amendment proposes to remove the existing DDO1 and replace it with a Buffer Amenity Overlay (BAO1).

As of July 2023, the Amendment is awaiting ministerial approval.

The introduction of the BAO1 to replace the DDO1 will remove the permit trigger within the DDO1 (construction of a fence within 3 metres of a pipeline) and will not introduce any new permit triggers. The use of the land for a solar farm would not require a permit according to Clause 3.0 of the proposed Schedule 1 to the Buffer Area Overlay.

5.13.2 Amendment C131latr

The amendment updates flood controls based on modelling from the Latrobe River Flood Study (2015) and the Traralgon Flood Study (2016). The amendment affects 65,614ha (Vic Map data) of land within the Latrobe municipality which is within proximity of the Latrobe River and the Traralgon Creek and considered to be at risk of flooding.

No new LSIO areas will affect the site as a part of this amendment.

6. Technical Impact Assessments

6.1 Flora and Fauna Assessment

A Flora and Fauna Assessment report (Nature Advisory, 18 July 2023) was prepared to consider the impact of the Proposal on ecological values. This report followed an earlier initial Flora and Fauna Assessment (Nature Advisory, May 2022) (Initial Flora and Fauna Assessment).

The assessments involved a desktop assessment of flora, fauna and native vegetation, site inspection, assessment of the extent and condition of native vegetation, assessment of impacts on flora and fauna species listed under the various regulatory controls.

Within the study area, 27.072 hectares of native vegetation in patches was recorded, which included 14 large trees.

Through a site inspection and database searches flora and fauna species likely to occur or with the potential to occur were identified.

Flora

Targeted surveys were undertaken for the following EPBC Act listed flora species that had potential to occur:

- River Swamp Wallaby-grass and Purple Blown-grass within creeks and drainage lines along road sides where impacts are proposed.
- Matted Flax-lily within suitable habitat (Plains Grassy Woodland) where this is proposed to
- be impacted, especially within road reserves.

None of these species were recorded.

Fauna

Aquatic targeted surveys were undertaken in September 2022 to determine the presence of the following listed fauna species:

- Dwarf Galaxias (EPBC Act: Vulnerable)
- Flinders Pygmy Perch (FFG Act: Vulnerable)

Flinders Pygmy Perch was recorded within the creek habitat. As the Proposal avoids all three creek corridors, no impact on the habitat is expected.

Native Vegetation Removal

The Proposal would result in the loss of 2.342 hectares of native vegetation when assessed under the Native Vegetation Guidelines. This comprises:

- 2.202 hectares of native vegetation in patches (including no large trees in patches)
- Two large scattered trees, equating to a loss of 0.140 hectares under the Guidelines.

The majority of the native vegetation removal will occur within the south-east corner of the site (See Figure 31).

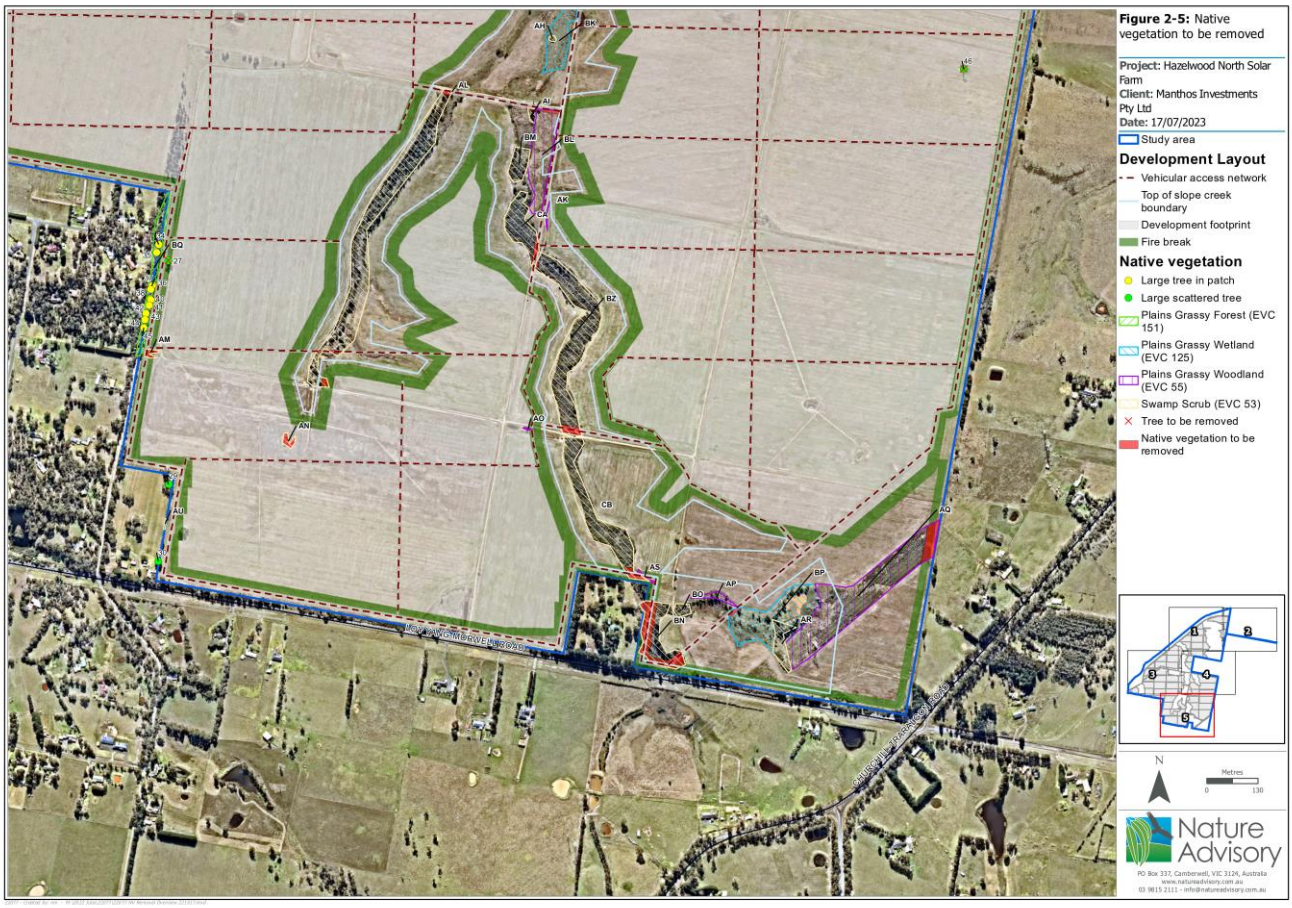


Figure 31 - Native vegetation to be removed (Nature Advisory)

The Proposal would not have a significant impact on any habitat for any rare or threatened flora species and the Proposal would not impact on any threatened ecological communities.

6.1.1 Regulatory considerations

Native vegetation offsets

Offsets required to compensate for the proposed removal of native vegetation under the Native Vegetation Guidelines are as follows:

- 0.633 general habitat units and must include the following offset attribute requirements:
- Minimum strategic biodiversity value (SBV) of 0.417.
- Occur within the West Gippsland CMA boundary or the Latrobe municipal district.
- Include protection of at least two large trees.

Under the Guidelines all offsets must be secured prior to the removal of native vegetation. The offset will be achieved via a third-party offset. Evidence that the required offset is available is provided in Appendix 9 of the Flora and Fauna Assessment.

EE Act

The Ministerial Guidelines for Assessment of Environmental Effects under the Environment Effects Act 1978 (DSE, 2006) identifies criteria that trigger a referral to the Minister for Planning.

The ecologists assessed the criteria (ecological) that could trigger a referral to the Minister for Planning and determined that referral was not required.

EPBC Act

Any significant impacts on these species listed under the EPBC Act require the approval of the Australian Minister for the Environment. Targeted surveys are recommended for:

- River Swamp Wallaby-grass within creeks and drainage lines along roadsides where impacts are proposed.
- Matted Flax-lily within suitable habitat (Plains Grassy Woodland) where this is proposed to be impacted, especially within road reserves.

As there were no EPBC Act listed species or communities found to occur within the habitats impacted by the Proposal, no EPBC Act Referral will be required.

FFG Act

The following FFG Act values listed as threatened or protected could be susceptible to impacts from the proposed development, if these impacts extend onto public land (e.g. adjacent road reserves).

- Acacia (protected)
- Matted Flax-lily –Critically Endangered (FFG Act)
- Purple Blown-grass –Endangered (FFG Act)

A Protected Flora Permit will be required from DTP to remove the plant taxa comprising the abovementioned listed threatened community, listed threatened flora species or otherwise protected values from public land.

CALP Act

In accordance with the CALP Act, the noxious weed species listed below, that were recorded in the study area, must be controlled.

- Bathurst Burr
- Blackberry
- Flax-leaved Broom
- Paterson's Curse
- Spear Thistle
- Sweet Briar

Precision control methods that minimise off-target kills (e.g. spot spraying) should be used in environmentally sensitive areas (e.g. within or near native vegetation, waterways, etc.).

6.1.2 Waterway Revegetation Plan

A Waterway Revegetation Plan has been prepared by Nature Advisory on 18 July in addition to the Flora and Fauna Assessment. The revegetation plan has been informed by the site assessments and investigations undertaken by Nature Advisory for the Flora and Fauna Assessment. The plan sets out the management actions for a 5-year period to manage the three creeks which run through the site.

An area of 180 ha has been set aside for waterway revegetation as shown on the Masterplan (Appendix C). Of this 180 ha, a total of 13.43 ha will be planted with identified native vegetation (Figure 32).

Lifeform Category	Lifeform density per hectare	Common Name	Scientific Name	No. plants required
Medium shrub	400 plants	Swamp Paperbark	*Melaleuca ericifolia*	1,075
		Woolly Tea-tree	*Leptospermum lanigerum*	1,075
		Prickly Tea-tree	*Leptospermum continentale*	1,075
		Prickly Currant-bush	*Coprosma quadrifida*	1,075
		Prickly Moses	*Acacia verticillata*	1,075
Large tufted graminoid	1000 plants	Tall Sedge	*Carex appressa*	3,358
		Spiny-head Mat-rush	*Lomandra longifolia*	3,358
		Common Tussock-grass	*Poa labillardierei*	3,358
		Tall Rush	*Juncus procerus*	3,358
Large non-tufted graminoid	1000 plants	Thatch Saw-sedge	*Gahnia radula*	4,477
		Fine Twig-sedge	*Machaerina arthrophylla*	4,477
		Common Reed	*Phragmites australis*	4,477
Revegetation area required (hectares)		**13.43**	**Total**	**32,238**

Figure 32 - Planting guide for waterway revegetation (Nature Advisory)

In addition, planting protection and ongoing maintenance and management are proposed (See Figure 33). This will ensure the proposed planting is protected from kangaroos and rabbits which were noted during the flora and fauna assessment.

Figure 33 - Typical planting protection (Nature Advisory)

6.1.3 Flora and Fauna Mitigation Measures

The following design recommendations are provided to avoid/minimise impacts to native vegetation, and flora and fauna habitats:

- The majority of native vegetation is situated within the study area's creeks and associated tributaries. Therefore, buffers should be created around these water courses and works should avoid these areas where possible, to minimise impacts. This is especially relevant in the south of the study area, where native vegetation is more prevalent and of greater quality.
- Scattered and planted native trees should be retained where possible, as these are likely to provide fauna habitat for native birds and some mammals.
- Farm dams that support native vegetation should be retained and buffers created around these dams where possible, due to their habitat value for native fauna.

Additional recommendations to mitigate impacts to vegetation and fauna habitat during construction are provided below:

- Implement erosion and sediment control near creek lines during construction to be specified in a Construction Environmental Management Plan (CEMP).
- Establish appropriate vegetation protection zones around areas of native vegetation to be retained prior to works.
- Establish appropriate Tree Protection Zones around scattered native trees to be retained prior to works.
- Ensure all construction personnel are appropriately briefed prior to works, and that no construction personnel, machinery or equipment are placed inside vegetation zones/TPZs.
- A suitably qualified zoologist should undertake a pre-clearance survey of planted trees to be removed during the week prior to removal to identify the presence of any nests or hollows.
- If considered necessary based on the results of the pre-clearance survey, a suitably qualified zoologist should be on site during any tree removal works to capture and relocate any misplaced fauna that may be present.

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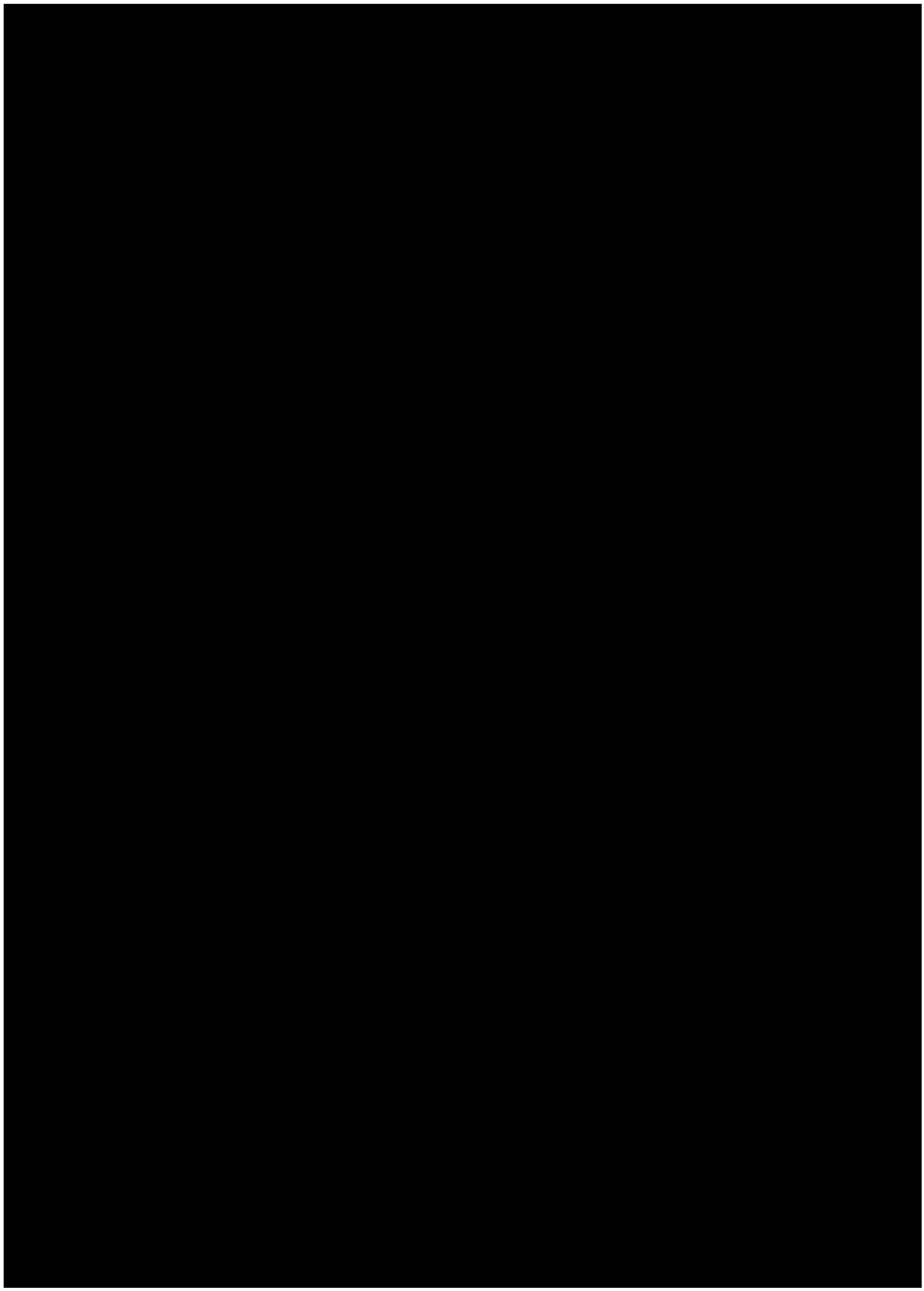

6.2.1 Aboriginal Cultural Heritage Impact Mitigation Measures

A Cultural Heritage Management Plan (CHMP) is currently being prepared in coordination with GLaWAC RAP and will be submitted to DTP for evaluation.

Mitigation measures related to Aboriginal Cultural Heritage will be determined through the Cultural Heritage Management Plan process.

6.3 Traffic Engineering Assessment

A *Traffic Engineering Assessment* was prepared by Traffix Group (18 July 2023) to address traffic, access and parking considerations for the Proposal. In preparing the assessment Traffix Group reviewed the planning controls, inspected the site and conducted traffic surveys to understand existing traffic volumes.

Traffic Generation

Traffic generation during general operating hours will primarily be associated with staff arrivals and departures. Traffix Group conservatively assumed that the maximum of 11 staff arrive in the AM peak hour and depart in the PM peak hour, there would be no more than 10 vehicle movements generated in any one hour, and no more than 22 vehicle movements per day. In addition, very limited external maintenance vehicles or deliveries are to be generated by the facility during ongoing operation. Accordingly, there will be no material traffic impact to the surrounding road network during ongoing operations.

The application proposes a maximum of 200 construction staff on site at any one time during peak construction periods from 7am-5pm, Monday-Friday and up to 100 truck deliveries per day. Based on the location of the site and for a conservative assessment, Traffix Group assumed all construction staff will drive to work in separate vehicles. It is expected that construction staff arrival and departures to be spread throughout the morning and afternoon peak periods and therefore won't entirely coincide with the road network commuter peak hours. In total, during the construction stage there will be a maximum of approximately 600 vehicle movements per day generated (i.e., 300 entry movements and 300 exit movements). This will result in a total average daily traffic volume on Firmins Lane in the order of 3,975 vehicles per day.

Car parking

A 'renewable energy facility' is not a specified land-use under Table 1 of Clause 52.06 of the Planning Scheme and therefore car parking must be provided to the satisfaction of the Responsible Authority.

The car parking demands for the site are likely to be limited to staff, with only a minor level of visitor demand associated with contractors. It is expected that 5-10 employees may be on-site at any one time for the ongoing operation of the renewable energy facility. Accordingly, car parking will be provided at a rate of least one car space per employee on the site at the peak time (i.e.,10 employee car spaces).

Bicycles

Clause 52.34 of the Planning Scheme does not specify bicycle parking requirements for a 'renewable energy facility'. Traffix Group were satisfied, given the Proposal use and rural location, that there would be no demand for bicycle parking.

Loading

Clause 65.01 requires a consideration of loading facilities. Loading activities for the proposed solar energy facility associated with equipment/parts transportation during maintenance are anticipated to occur relatively infrequently and will be entirely managed on-site within the internal accessways. Traffix Group were satisfied that loading and unloading could be accommodated within the network of internal service roads.

6.3.1 Transport Impact Mitigation Measures

Firmins Lane access upgrade

Using the construction traffic volume estimates outlined above, Traffix Group undertook an assessment of the warrants for turning treatment for Firmins Lane primary access based on the *Austroads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings* (Austroads, 2019). That guide technically applies to intersections, rather than driveways and therefore provides a conservative assessment of the treatment for a private access connection.

During the construction stage, the volume of traffic on Firmins Lane in the morning peak hour will meet the warrants for the following treatments:

- Auxiliary left-turn treatment or channelised left-turn treatment.
- Channelised right-turn treatment.

Traffix Group recommends these treatments at the site's primary access to Firmins Lane (Figure 35 and Figure 36).

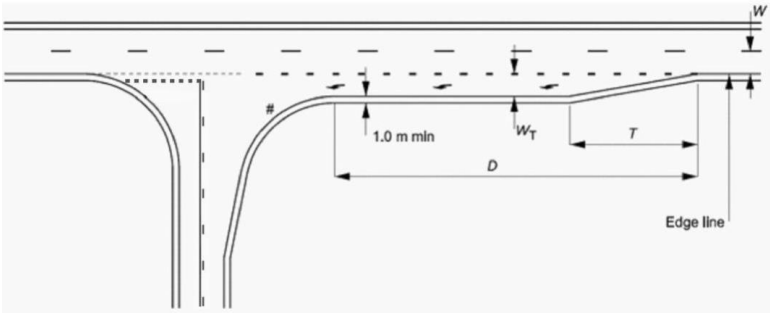

Figure 35 - Auxiliary left-turn Treatment (Traffix Group)

Figure 36 - Channelised right turn treatment (Traffix Group)

In addition, Traffix Group concluded that:

- The proposed parking car provisions are appropriate and will suitably accommodate the predicted peak staff parking demands and occasional visitors during the operation period.
- The proposed primary vehicle access connection with Firmins Lane should be upgraded at the commencement of the construction stage to include auxiliary left-turn (AUL) and channelised right-turn treatments (CHR).
- The existing vehicle access to Walshs Road is to be suitably retained as a secondary access for limited staff and service vehicle access during the ongoing operation period.
- Gates for emergency vehicle access only should be provided with Davey Jones Lane and Groppi Road.
- Loading activities can be appropriately accommodated within the site via the network of internal service roads.
- There is no statutory requirement or anticipated demand to provide bicycle parking.
- The traffic engineering assessment requirements of the Solar Energy Facilities Design and Development Guideline associated with the construction stage of the Proposal have been sufficiently addressed for the purposes of town planning approval with further details to be provided in the future as part of condition(s) of permit.

6.4 Hydrology and Flooding Impact Assessment

A Hydrology and Flood Impact Assessment was conducted by Venant Solutions (13 July 2023) assessing the existing waterways flowing through the site to evaluate the flood risk associated with the Proposal. The primary objective of the flood modelling was to assess the compliance of the Proposal with flood-related planning approval requirements.

The modelling approach utilised validated RORB models to determine the flow rates entering the site, and TUFLOW flood models were developed to cover the entire site (Figure 37). These modelling techniques followed industry best practices, incorporating the principles outlined in the Australian Rainfall and Runoff 2019.

The comprehensive assessment concluded that the Proposal would not encounter significant flood risks that could hinder its progress. Furthermore, any identified flood risks can be effectively managed through the implementation of standard mitigation measures.

In addition to the flood risk assessment, the modelling process also considered the potential impact on surface water quality and groundwater. Based on the evaluation, it is anticipated that the Proposal will pose minimal risks to both surface water quality and groundwater.

Overall, the results of the flood modelling study support the Proposal. It indicates that the development can proceed without significant limitations from flood-related factors and with negligible adverse effects on surface water quality and groundwater.

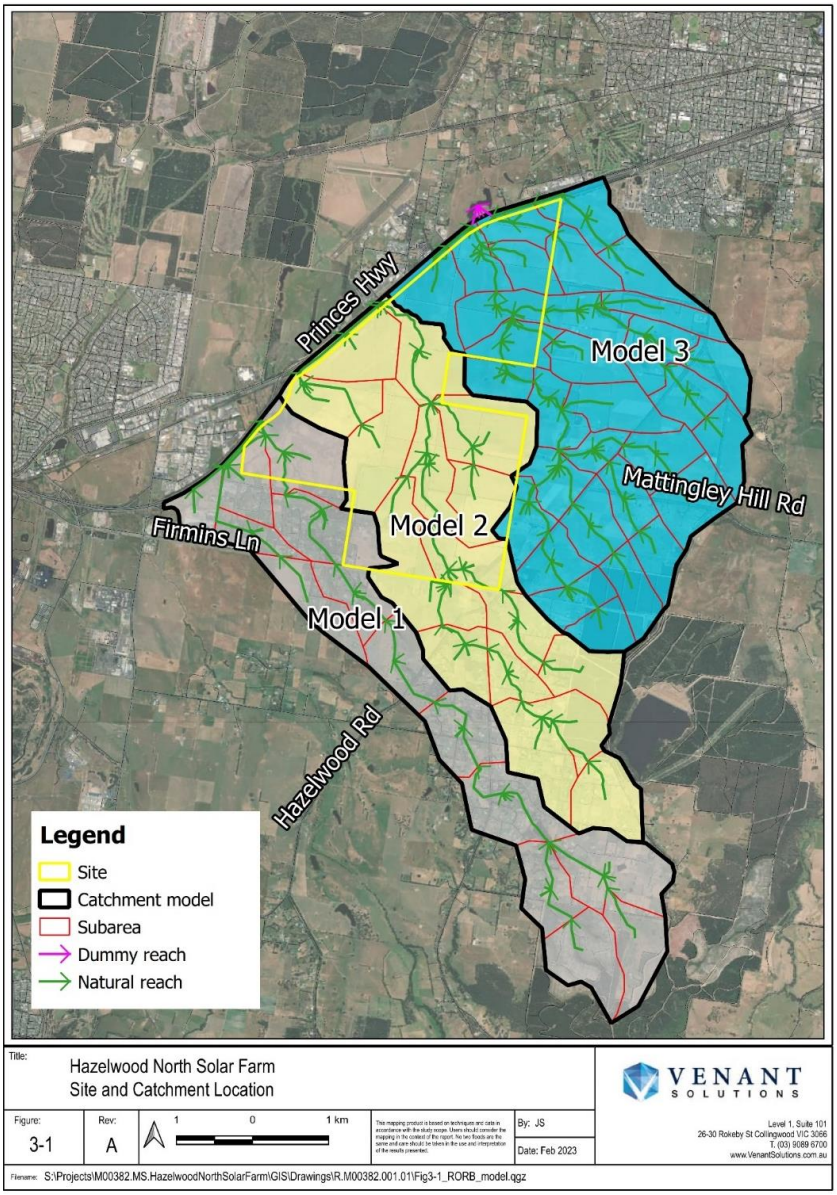

Figure 37 - Flood and Catchment Models (Venant Solutions)

6.4.1 Flooding Impact Mitigation Measures

To manage downstream flood impacts, the following concept design flood mitigation options were developed as shown in Figure 38:

- Storage 1
  - Excavated an area of approximately 8,250 m2 to a level of 65 m AHD behind the existing site boundary access track to create an additional 3,850 m3 of storage.
  - A 225 mm circular culvert was modelled to ensure minor flows could still pass under the access track.
- Storage 2
  - The existing access track embankment across the flowpath was raised by approximately 1 m to a level 64.2 m AHD providing an additional 9,400 m3 of storage.
- Storage 3
  - The water level in the existing farm dam on the unnamed waterway was lowered to 56 m AHD. This may require excavation of the existing dam so that water can be retained in the dam for farming purposes.

- The current dam has a low flow culvert maintaining the water level in the dam. However, during the Site Visit this culvert was observed to be damaged and would not be able to pass any flow. This culvert would need to be reinstated to maintain the water level in the dam below 56 m AHD.
- An additional 11,300 m2 adjacent to the existing dam was excavated to a level of 57.4 m AHD.
- The dam wall was also raised to a level of 58.1 m AHD and 58.3 m AHD south and north of the existing spillway respectively which had its level maintained at approximately 57.5 m AHD.
- In total the work described above provided an additional 24,200 m3 of storage volume.

▪ Northern boundary access track works

- A 1.3 km section of the northern boundary access track was raised by 0.1 m, with a 0.3 m deep - 2 m wide table drain on the upstream side of the track to divert flows into the unnamed waterway.
- A further two shorter sections of the northern boundary access track were also raised to 56.3 m AHD and 55.6 m AHD to locally divert flow in consolidated overland flowpaths.

All of the above works are located south of the Public Acquisition Overlay so that they would not require alteration if that portion of the site is developed for the proposed Bypass in the future.

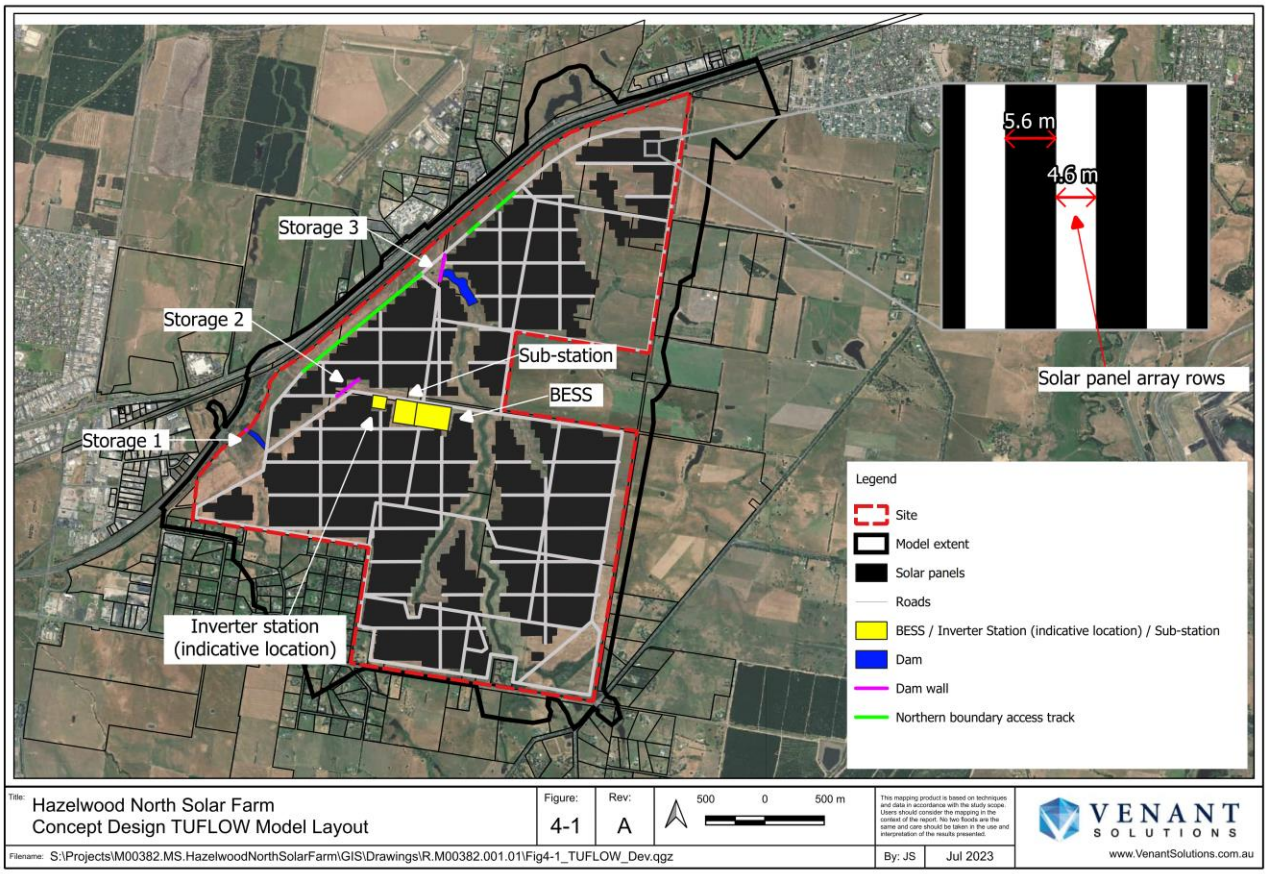

Figure 38 - Flood Mitigation Concept Design (Venant Solutions)

6.5 Landscape and Visual Impact Assessment

A Landscape and Visual Impact Assessment (LVIA) was prepared by Moir Landscape Architecture (17 July 2023). The objective of the landscape and visual impact assessment was to determine how the Proposal would affect the existing visual amenity, landscape character, and scenic quality of the surrounding area.

Overall, the LVIA found that the existing landscape has the capacity to accommodate small-scale visual changes associated with the Proposal if the suggested mitigation strategies are adopted and effectively managed.

The site, characterised by modified land for agricultural activities, is bounded by rural residential areas to the south and southeast, by industrial and commercial land to the west and north and by farming land to the west. The Proposal is situated in a cleared area with several open cut coal mines, power stations and electricity infrastructure located in close proximity, forming part of the existing visual character.

Several key publicly accessible locations were analysed and were found to generally exhibited low or very low visual impact due to distance and intervening vegetation. Mitigation measures, such as proposed vegetation along the eastern boundary and mitigation planting along the southern boundary, are recommended to minimise visual impacts and integrate the solar farm into the surrounding landscape.

A preliminary dwelling assessment was also undertaken, which analysed the visual impact rating of the 251 dwellings within 1 km of the Proposal. The majority of the dwellings were found to have no visual impact and no dwellings were found to have higher than low visual impacts with mitigation measures. This assessment demonstrated the negligible visual impact of the Proposal for surrounding properties.

The low height and scale of the Proposal generally limits the visual impact on the surrounding landscape. Regardless, in order to mitigate potential visual impacts, several mitigation measures including vegetation screening are proposed to be implemented (Chapter 6.5.1). By following the recommendations outlined in the report, the overall impact from of the Proposal will be significantly reduced. These measures aim to blend the Proposal harmoniously into the existing landscape while addressing visual concerns.

By implementing the recommended mitigation measures, the Proposal can proceed while preserving the core landscape character of the area and causing minimal visual impact on the surrounding visual landscape. While there may be temporary alterations to the existing visual landscape during the construction phase, these changes would gradually diminish over time, resulting in minor long-term alterations to the regional landscape.

Additionally, the Landscape and Visual Impact Appendix C – Dwelling Assessment illustrates the anticipated visual impact of the Proposal from each dwelling within 1.5km. Each dwelling is given a visual impact rating, with no dwelling featuring greater than ‘low impact’.

The two photomontages (see Figure 39 and Figure 40) have been selected as these viewpoints are anticipated to be the highest impact from the public realm. From these photomontages the low-scale and low visual impact of the Proposal can be clearly seen, which will be further obscured by the proposed vegetation screening (see Chapter 3.2.5).

Figure 39 - Photomontage 01, Firmins Lane

Figure 40 - Photomontage 02, Romuald Road

6.5.1 Landscape, Visual & Cumulative Impact Mitigation Measures

The following mitigation measures are recommended to further reduce any potential visibility of the Proposal:

- As the proposed solar arrays are generally spaced at 10.21 metres and achieve a maximum height of 4.595 metres at tilt, they can be generally screened by relatively narrow bands of vegetation mix of trees and mid-level shrubs species.
- To ensure that the screen planting integrates into the existing landscape character, the bands should be planted with fast growing small trees and bushes, and low lying vegetation to ensure a naturalistic effect whilst providing habitat and movement corridors for the native fauna.
- A landscape vegetation management plan should be prepared, for the purposes of managing the planting program and ensure successful establishment of vegetation (see Chapter 3.7).
- To consult with landowners where landscaping has been proposed, in order to receive their feedback and adjust the mitigation measures accordingly.

Design Considerations

- The design will retain the existing roadside planting where possible along the eastern and southern boundary of the site to reduce the overall visual impact.
- Consideration will be given to the colours of the PCUs, the BESS, O&M buildings and storage shed to ensure minimal contrast and to help blend into the surrounding landscape to the extent practicable.
- Existing vegetation generally present around the Site will be retained and protected to maintain the existing level of screening.
- Consideration should be given to controlling the type and height of PCU's, the battery, and storage shed to ensure the development does not contrast significantly with surrounding landscape.

6.6 Noise Impact Assessment

A Noise Impact Assessment has been prepared by SLR Consulting (30 June 2023) to evaluate the potential acoustic impacts of the proposed 450 MW solar farm and BESS.

The predicted noise levels were assessed against the various requirements of the EPA (EP Act, EP Regulations and Noise Protocol limits and GED).

The key impacts of the Proposal in relation to noise are as follows:

- **Noise from construction activities:** To manage these impacts, it is proposed to schedule construction activities to the EPA normal working hours (e.g. day period 7.00 am to 6.00 pm), implement community

engagement and best practice noise management controls (Chapter 6.6.1), conduct regular maintenance, and use broadband reversing beepers, etc, to minimise residual risk of impact or harm to nearby receptors.

- **Noise from operational activities:** Compliance with the Noise Protocol is expected at all sensitive receptors for all time periods (Figure 41), provided that any audible noise is adequately controlled.

The operational assessment was conservatively based on the assumption that all operational noise sources are operating at full load (solar array inverters, BESS, substation, etc.). Noise emissions from the solar array inverters are unlikely to be significant during the night period (10pm to 7am) when there is very limited or no solar influx.

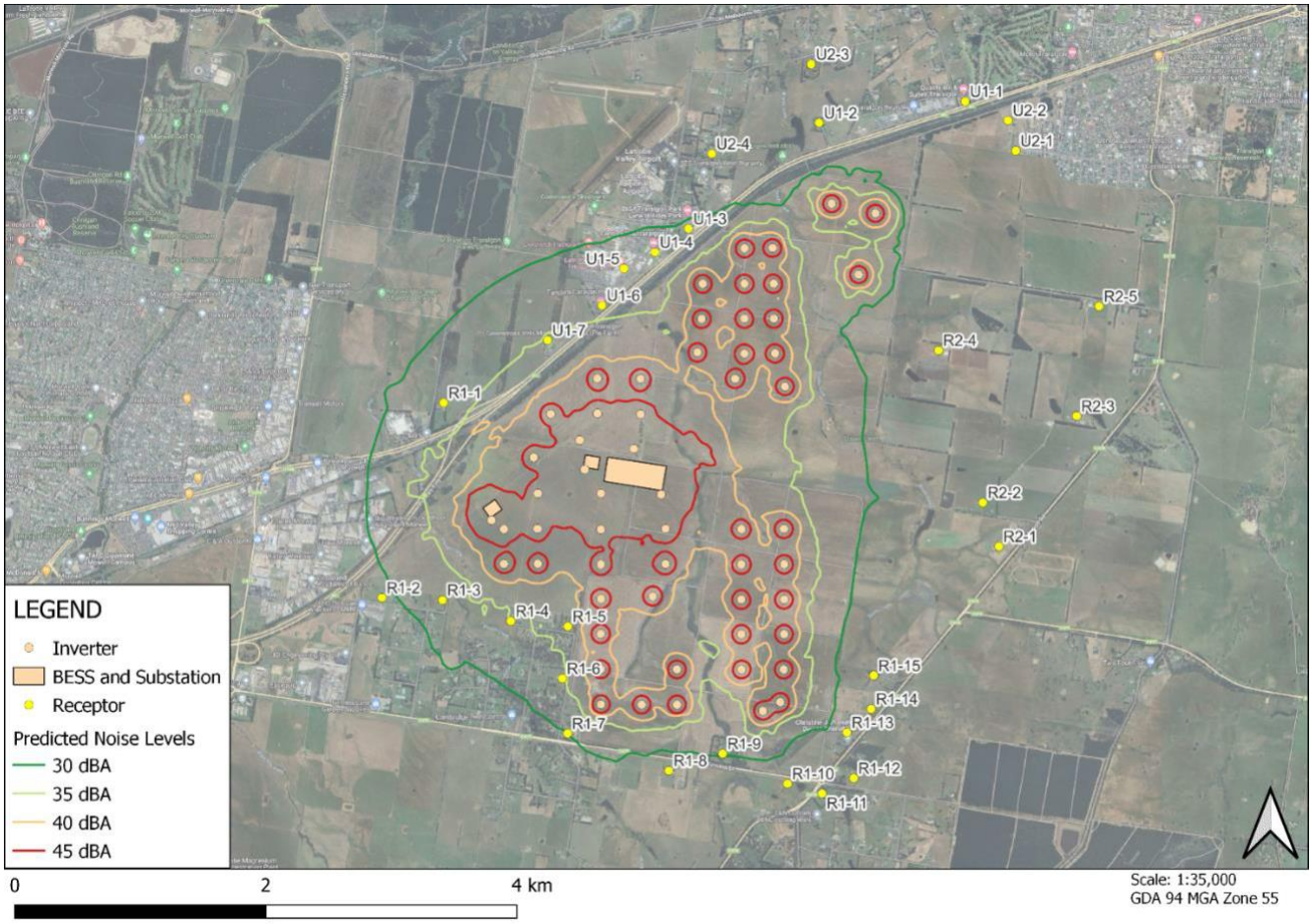

Figure 41 - Operational Noise Contours (SLR Consulting)

Using a conservative approach for the operational noise assessment, SLR Consulting found that the predicted operational noise levels at all sensitive receptors surrounding the site are less than the respective night-time noise limit for these areas. Therefore, the Proposal complies with the Noise Protocol without the need to implement further mitigation measures.

The noise levels will be assessed again during detailed design (once the equipment and layout has been fully confirmed) to ensure that compliance with the noise limits can be maintained, followed by operational noise measurements to confirm compliance.

The construction noise impacts will be controlled by works limited to EPA normal working hours only and a combination of training/equipment maintenance and community engagement (see best practice noise impact mitigation measures below).

6.6.1 Noise Impact Mitigation Measures

Best practice construction noise control strategies to be considered are listed below:

- Ensure construction works to occur during EPA normal working hours (day).
- Notification of receptors of the proposed works schedule and potential noise impacts and relevant contacts for queries or complaints.
- Incorporate clear signage at the site including relevant contact numbers for community enquiries.
- The lowest noise emitting plant and equipment that can economically and efficiently undertake the work should be selected where possible.
- Maintain regular maintenance of equipment to keep it in good working order and operating at the lowest feasible noise level.
- Use less intrusive broadband reversing beepers on mobile plant where possible.
- Equipment operators are to be made aware of noise impacts and techniques to minimise emissions through training/instruction, examples include:
  - Avoid dropping materials from height into bins, trucks, and receptacles.
  - Operate mobile plant and power tools in a quiet, efficient manner where possible.
  - Switch plant off when not in use.
- Machines/tools found to produce excessing noise compared with industry best practice should be removed from service until repairs or modification can be made, or the machine/tool is replaced.
- Where possible avoid tonal reversing/movement alarms on machinery and replace with broadband (non-tonal) alarms or ambient noise-sensing alarms.
- Use dampened bits on impulsive tools (e.g. ratchet drivers) to avoid 'ringing' noise where possible.

6.7 Agricultural Assessment

An Agricultural Assessment was undertaken by Ag Challenge Consulting on 30 June 2023 describing the existing agricultural use of the land and to consider the impact of the Proposal.

The Agricultural Assessment concluded the following key points:

- There are no inherently unique features about the Proposal site that distinguish it from neighbouring farms in the area.
- The climate of the area has a reasonably reliable and moderate annual rainfall of 747mm average, cool to cold winters with a significant frost incidence from May to September, and a growing season of about 7 months.
- The landform is a flat to gently undulating plain and is a remnant of a relict landscape that once covered much of the Latrobe Valley.
- The soil types present are noted for their duplex profiles (contrasting texture between surface soils and subsoils), absent soil structure in the A2 horizon and medium to heavy clay subsoils.
- The dominant agricultural use of the land is grazing with sheep and cattle. A significant use is broadacre cropping for wheat and oilseeds (canola).
- The land is neither highly productive nor highly versatile. It is not considered to be significant land or strategically important land from an agricultural perspective.
- The development of a solar energy facility on the combined property will alter the nature of the farm. Cropping will no longer be practical. With appropriate design of the panels and improvement of stock water availability, sheep will be able to graze beneath the panels.
- Heightened wildfire risk may occur if attention is not given to how fuel loads are managed. Flexible fuel load management needs to be considered as part of the Proposal's design. The solar arrays will be arranged into fenced paddocks that will enable controlled grazing to manage the fire risk, and the paddock shapes and alignments will be arranged so that under panel mustering can be achieved efficiently. Under panel grazing with sheep is to be part of that management.
- There are no perceived detrimental impacts of the development of the solar energy facility to the surrounding farm businesses. The impacts to the agricultural amenity of the Region are not significant.
- The concentration of runoff from the panels onto the soil surface have the potential to initiate soil erosion. Consideration will be given to minimising this risk at the design stage, and the retardation of the surface runoff along stable, slow moving drainage channels will be a key requirement of the Proposal's design.

6.7.1 Agricultural Mitigation Measures

The mitigation measure recommended by Ag Challenge is to prevent soil erosion along drainage lines where concentrated flows occur during storm events. To mitigate this, the retardation of the surface runoff along stable, slow moving drainage channels will be required during the detailed design of the solar farm.

No additional mitigation measures are required.

6.8 Aviation Impact Assessment

An Aviation Impact Assessment was undertaken by REHBEIN Airport Consulting on 20 July 2023. It evaluated the anticipated aviation impacts of the Proposal to the nearby Latrobe Regional Airport.

The results of the aviation impact assessment are summarised below:

- The Proposal would remain below the 1 in 35 surfaces as per *Guideline B: Managing The Risk Of Building Generated Windshear And Turbulence At Airports*. No further assessment is required in accordance with Guideline B.
- The solar farm as a land use does not relate to land uses with 'high' or 'moderate' wildlife attraction risk as per *Guideline C: Managing The Risk Of Wildlife Strikes In The Vicinity Of Airports*. However, the Draft Landscaping Plan, in particular the planned vegetation to be planted on the perimeter of the solar farm site, must be submitted to the airport operator to ensure the proposed vegetation is not a wildlife (in particular bird) attraction.
- The site is within the 6 km radius of the Latrobe Regional Airport and as such any lighting that may be proposed within this area should not infringe the provision of regulation 94 of the Civil Aviation Regulations 1988.
- The proposed solar panels as identified in this report would not infringe the Latrobe Regional Airport Obstacle Limitation Surfaces or the PANS-OPS surfaces.
- Proposed perimeter planting vegetation mature height at maximum 12 m must remain below the Latrobe Regional Airport Obstacle Limitation Surfaces and the PANS-OPS surfaces.
- The site is outside the lateral extents of the public safety areas for Latrobe Regional Airport as per *Guideline I: Managing The Risk In Public Safety Zones At The Ends Of Runways*, as such no further assessment in accordance with Guideline I is required.
- Solar glare hazard analysis predicts 'yellow glare' (glare with potential for temporary after image) may be produced on the approach paths to Runway 03, Runway 27 and Runway 09.

6.8.1 Aviation Impact Mitigation Measures

The following recommendations have been outlined by REHBIN Airport Consulting in relation to aviation impacts:

- The analysis results of the 'yellow glare' that may be produced on the approach paths to Runway 03, 27 and 09 should be submitted to the airport operator and the local planning authority. Further detail of the 'yellow glare' predicted will be provided in due course to assist in discussions with the Latrobe Regional Airport operator and decision making on the acceptability of the solar installations within the context of the airport.
- Due to the proximity of site to the Latrobe Regional Hospital HLS, for any construction that may take place either in close proximity to the DDO or within the extents of the DDO, it is recommend that consultation with the Department of Health is undertaken to ensure there is no impact to helicopter operations to and from the Latrobe Regional Hospital HLS.

6.9 Glint and Glare Assessment

A Glint and Glare Assessment has been prepared by SLR Consulting on 27 June 2023 (see Appendix M) to evaluate the potential glint and glare impacts of the proposed 450 MW solar farm and BESS.

The potential glare conditions have been considered for daytime reflective glare from the solar panels within the facility as well as nighttime illumination glare from 24/7 operational security lighting. This assessment did not consider aviation glare as that has been covered by REHBIN Airport Consulting in their Aviation Impact Assessment (Chapter 6.8).

The Glint and Glare Assessment highlights that solar panels are designed to capture (absorb) the maximum possible amount of light and are therefore designed to minimise reflections off the surface of each panel, thereby reducing the opportunity for glint and glare.

The key findings of the glint and glare assessment are as follows:

- Motorist and Rail Traffic Glare
  - Due to the terrain, solar geometry and surrounding vegetation there will be minimal glare for surrounding road and rail users. This is particularly important for nearby roads such as the M1 (Pacific Highway) and the Melbourne – Traralgon Railway Line.
  - One section at the west end of Walshs Road was identified as having potential for moderate glare impact, and recommendations for additional screening have been made (see the Mitigation Measures below).
- Residential Nuisance Glare
  - 105 Romuald Road, Hazelwood North was identified as having potential for low glare impact from the Proposal. Upon further investigation of the duration and times when this occurred it is expected that the sun itself will dominate any view from the receiver location and the glare should not be an issue.
  - Nil glare was found at all other modelled locations.
- Night-time Illumination Glare
  - Consideration has been given to the night-time lighting at the site related to equipment and/or buildings, fire access routes and egress, personal safety, emergency lighting etc.
  - Night-time security/emergency lighting will be incorporated at various parts of the site infrastructure. For any 24/7 lighting at the site for operational purposes, there should be negligible impact, assuming that the lighting design is in accordance with AS 4282-2019. Equipment such as the batteries are located in the middle of the site making them even less obtrusive.

6.9.1 Glint and Glare Impact Mitigation Measures

Walshs Road Screening

Under the Victorian Guidelines, the 695 minutes of ‘yellow’ glare found on the ocular hazard plot (per year) for Walshs Road would be classed as moderate impact. To mitigate this, SLR recommends that screening be used along the edge of the site around the area shown in (Figure 42). The screening should be dense and at least 3 metres in height and has been coordinated with the landscape design.

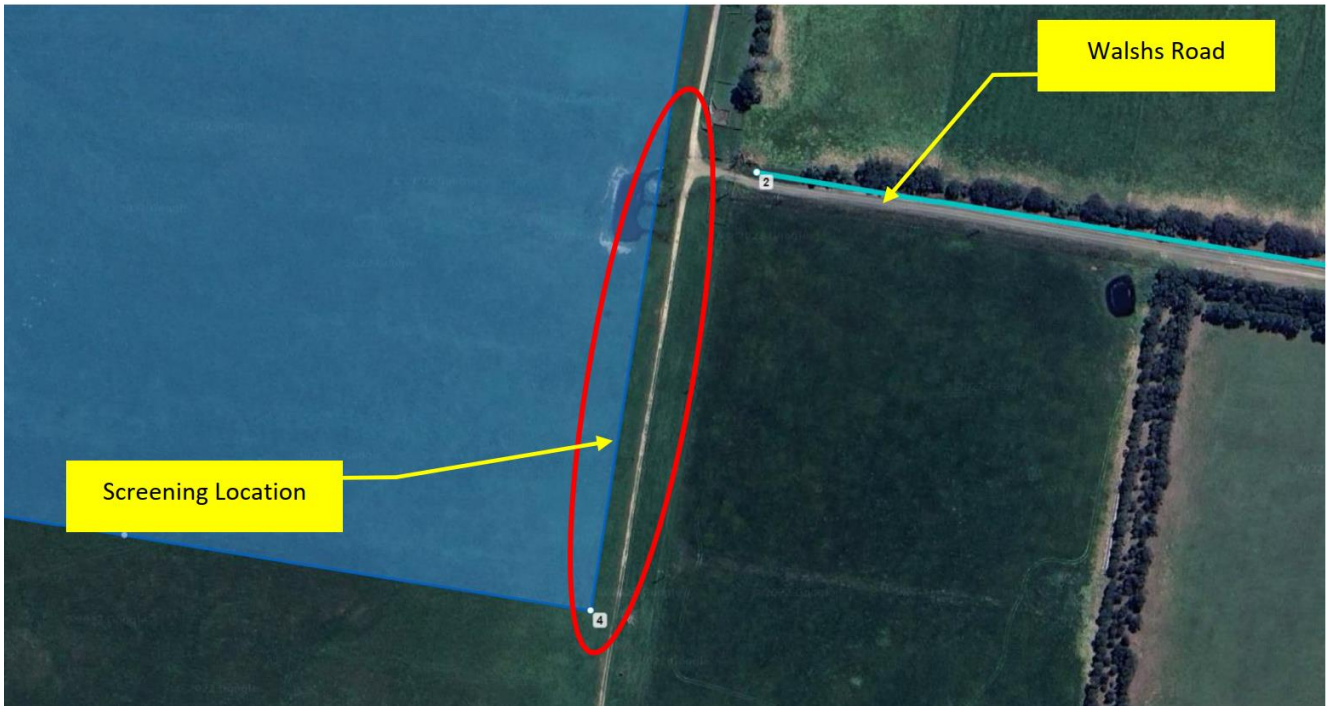

Figure 42 - Recommended screening at Walshs Road (SLR Consulting)

Night-time Illumination Glare

The recommendations set out below are aimed at achieving the best lighting performance while having minimal impact on the surrounding properties:

- Direct lights downward as much as possible and use luminaries that are designed to minimise light spill (Figure 43).
- Do not waste energy and increase light pollution by over-lighting.
- Wherever possible use floodlights with asymmetric beams that permit the front glazing to be kept at or near parallel to the surface being lit.

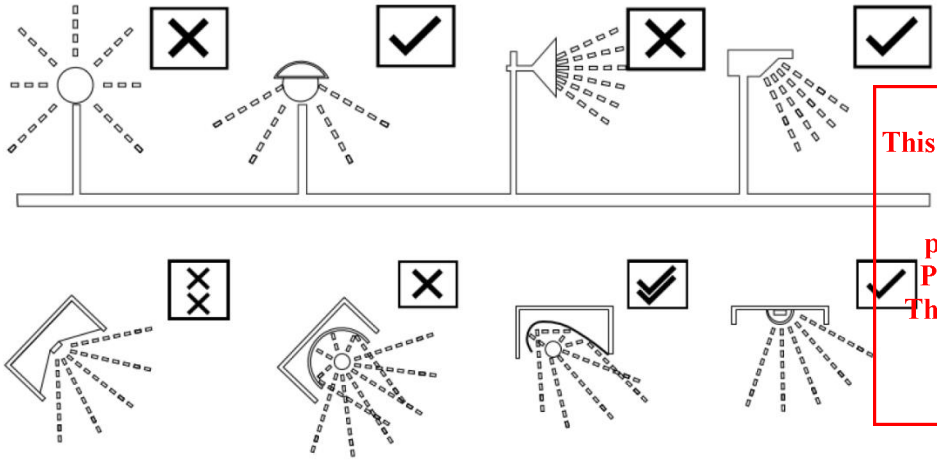

Figure 43 - Luminaire Desing Features that Minimise Light Spill (SLR Consulting)

6.10 Socio Economic Assessment

A Socioeconomic Impact Assessment was undertaken by Urban Enterprise on 18 July 2023 to identify and assess the social and economic impacts that are expected to be delivered by the Proposal.

The findings of the assessment are as follows:

- The estimated construction investment of $646 million is estimated to generate $1.89 billion in total (i.e. direct and indirect) economic output and support 1,695 (FTE) jobs during the construction phase, including 500 direct jobs.
- Labour requirements during the construction phase for HNSF will be sourced from a local, regional and state catchment. There is a strong base of local construction workers to draw from in Latrobe City, with close to 3,000 jobs (~9% of all employed persons).
- 500 direct construction workers will generate an uplift in demand for services. Jobs attracted from outside of the region will likely require a mix of rental housing and commercial accommodation.
  - Viewing the Proposal in isolation, Morwell and Traralgon will have adequate rental property and commercial room capacity to meet need. However, if all renewable projects are delivered across Gippsland (as planned), servicing the cumulative housing needs could present a challenge.
- The ongoing operation of the solar farm is estimated to generate $69 million in total economic output and support 41 (FTE) jobs per annum, which includes 11 direct jobs (FTE).
- The Agrisolar component of the Proposal aims to replace land currently used for cropping with sheep grazing (7,000-7,800), which will allow agricultural production and the associated value to prevail.
- The Proposal will leverage the existing electricity infrastructure to transport electricity to state consumers, making efficient use of the existing network. The energy capacity is equivalent to powering around 130,000 homes.
- Traditional energy (coal mining, power) is critical to the local economy, but will continue to be phased out over time. Supporting cumulative investment in new energy will encourage local economic transition in a related sector; encouraging a 'pivot' for the energy supply-chain and skills base alongside opportunities for new business investment.
- The Latrobe City Council will receive revenue in the form of an annual charge associated with solar energy generation. The estimated revenue delivered to Council in year 1 is in the order of $0.59 million (at full generation capacity).

6.10.1 Socioeconomic Impact Mitigation Measures

Recommended mitigation measures have been included in the Socioeconomic Impact Assessment to optimise benefits and minimise negative impacts. The recommended mitigation measures are listed below:

- Amenity disruptions from construction activities
  - Provide regular updates and notifications about the Proposal and potential disruptions to nearby landowners.
  - Undertake public community consultation sessions held in-region.
- Loss of agricultural production value
  - The current Proposal to replace land currently used for cropping with sheep grazing (7,000-7,800), which will allow some agricultural production and the associated value to prevail.
- Community funds
  - The Proponent proposes to establish a community fund to support local projects and programs that deliver community benefits.
- Amenity impacts
  - Technical studies have been prepared to assess potential amenity impacts and recommend mitigation measures.
  - Undertake public community consultation sessions held in-region.

6.11 Fire and Bushfire Report

A Fire and Bushfire Report was completed by Nature Advisory on 22 June 2023. The objective of the report was to identify primary bushfire risks associated with the proposed Hazelwood North Solar Farm.

The key findings of the report are as follows:

- The entirety of the Proposal is within land designated as a designated Bushfire Prone Area (BPA).
- The majority of the site is not subject to the Bushfire Management Overlay (BMO), with the exception of a small area adjacent to Walshs Road.
- A 20 metre wide fire break is required around the perimeter of the site in accordance with the Design Guidelines for Renewable Energy Facilities (CFA 2022).
  - Due to the presence of higher threat vegetation (scrub and treed) within creeks and along the northern and western boundaries of the site, a fire break of 30 metres is recommended in recognition of the heightened threat this poses.
  - Details of the firebreaks can be found in Figure 44.
- The assessment demonstrates that the Proposal meets the requirements of Clause 13.02-1S Bushfire of the State Planning Provisions, and the *Design Guidelines and Model Requirements – Renewable Energy Facilities* (CFA, 2022).

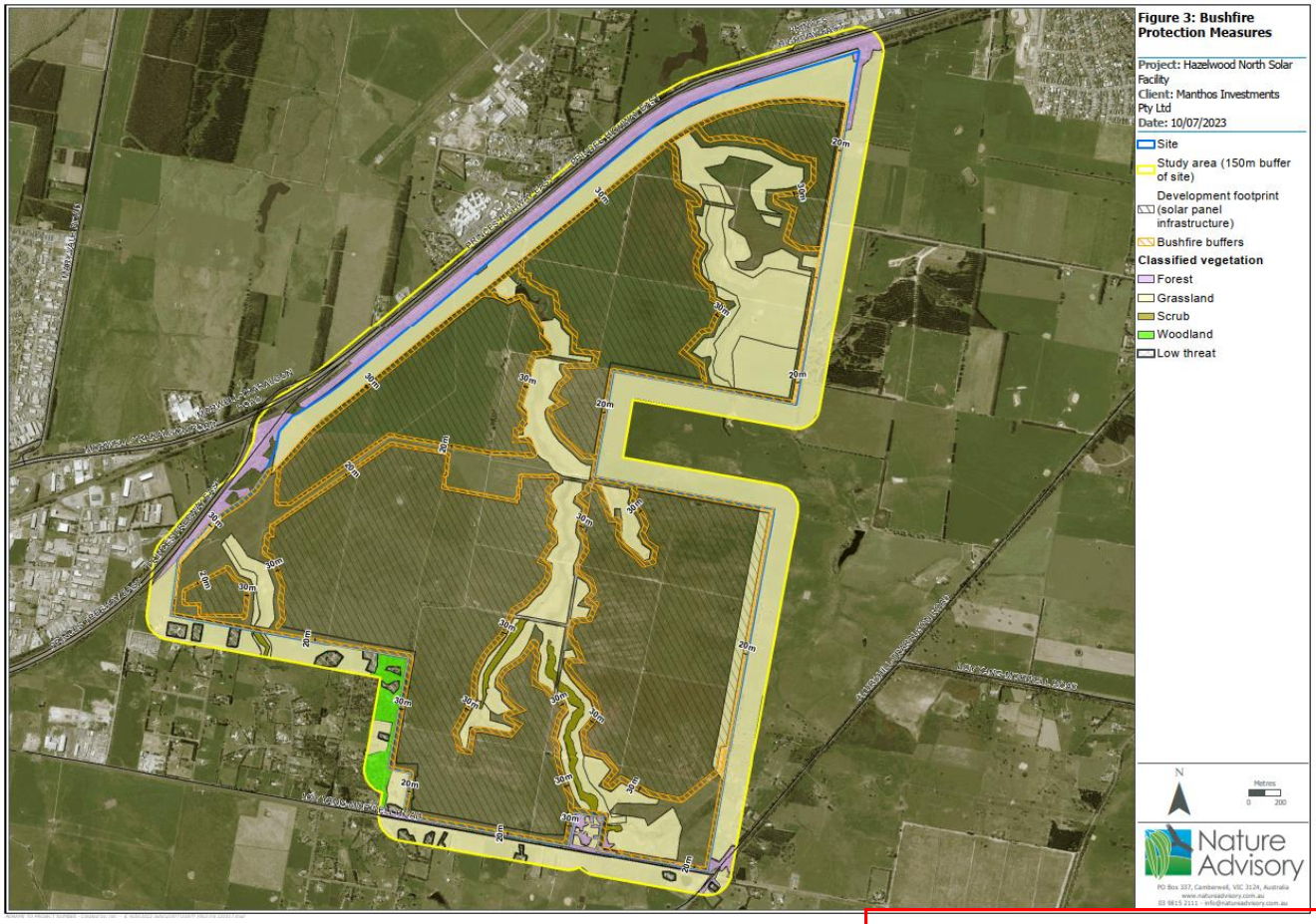

Figure 44 - Bushfire Protection Measures (Nature Advisory)

6.11.1 Fire Risk Mitigation Measures

Fire risk mitigation measures have been outlined within the Fire and Bushfire Report, including the following key recommendations:

Fire Risk Management

As demonstrated within the report, the Proposal will implement the risk management strategies of the *Design Guidelines and Model Requirements for Renewable Energy Facilities (CFA 2022).* This includes:

- Emergency vehicle access,
- Firefighting water supply,
- Onsite vegetation management,
- Fire breaks,
- Large scale BESS guidelines,
- Dangerous goods storage and handing, and
- Siting.

In addition, the following risk mitigation measures are recommended:

Electrical/Battery Fault Mitigation Measures

- Regular maintenance of electrical/BESS infrastructure.
- Report any issues relating to infrastructure faults or unsafe work practices.
- Ensure staff have reviewed the bushfire management plan and received appropriate training. I.e., familiarisation of egress routes and emergency meeting points.
- Maintenance of water supply requirements.
- Maintenance of fire breaks around infrastructure, particularly the BESS.
- Ensure that the CFA are familiar with the site layout (i.e. vehicle access, water supplies, infrastructure, etc.).

Bushfire/grassfire in the landscape mitigation measures

- Ensure staff have reviewed the bushfire management plan and received appropriate training. I.e., familiarisation of egress routes and emergency meeting points.
- Maintenance of the identified fire breaks around the parameter of the site.
- Maintenance of water supply requirements.
- Ensure that the CFA are familiar with the site layout (i.e. vehicle access, water supplies, infrastructure, etc.).

6.12 Safety Management Study (High Pressure Gas Pipeline)

A Safety Management Study has been completed by Riskcon on 12 January 2023 in relation to the High Pressure Gas Pipeline to the west of the site. The objectives of the report were as follows:

- Identify the location of high-pressure gas pipelines within or in the vicinity of the proposed development,
- Where there is potential for impact of the development on the pipelines, determine how the safeguards will meet the requirements of AS 2885,
- Make recommendations for increased safeguards, where required, to ensure the risks are controlled to 'As Low As Is Reasonably Practicable' (ALARP), and
- Report on the findings of the study in support of the Planning Application for the Proposal.

The assessment focused on the credible pipeline failure modes and how the development could influence these failures modes. The analysis conducted identified that the Proposal would have a minimal impact to the pipeline itself as the development is aboveground and doesn't require earthworks. Furthermore, associated infrastructure that could result in impacts to the pipeline is located a substantial distance away and the location of the pipeline underground would prevent such impacts from having an adverse effect on the pipeline itself.

Based upon the review, it is considered that the Proposal, which includes all components such as solar panels, BESS, inverters, transformers, etc. would not result in a substantial increase in risk of the existing pipeline than that which currently exists; therefore, it is considered that the risk associated with the pipeline would be reduced to ALARP as required.

6.12.1 Safety Management Mitigation Measures

The following recommendations have been made to ensure the safe construction and operation of the Proposal alongside the existing high pressure gas pipeline:

- The site induction, for all personnel at site, shall include information regarding the gas pipeline including location and protections to identify the gas pipeline (i.e., marker tape, etc.).
- All personnel working at the site shall be inducted prior to commencing any work.
- Appropriate markings shall be provided along the length of the gas pipeline as required to minimise the potential for unauthorised works occurring within the vicinity of the gas pipeline, in conjunction with the Site Induction and relevant site-specific construction management plans.
- Any work within the vicinity of the pipeline shall be submitted to APA and confirmed prior to commencement.
- Pipeline is to be marked on site by a representative of APA.
- No work is to be performed within 3 m of pipeline without an APA representative present.
- No mechanical equipment is to be used for excavation within one (1) metre of the pipeline in any radial direction even after the pipeline location has been visually prove; unless under explicit direction from an APA representative.
- No mechanical works are allowed within 600 mm in any radial direction of the pipeline visually proving the pipeline location; excavation is to be conducted with hand tools only until the pipeline location has been visually proven.
- No mechanical equipment is to be used for excavation within 300 mm in any radial direction; excavation is to be conducted with hand tools only.
- For backfill, suitable padding material (screened spoil or clean sand with particles less than 2.8 mm in size) is required for at least 150 mm around the pipe.
- A 10 m clearance to the pipeline shall be provided (i.e. to the location of the pipeline itself, not the easement).

7. Conclusion

The Proposal at Firmins Lane for a 450 MW solar farm consists of solar panels, a centrally located 1800 MWh BESS, substation, access tracks, fencing, native vegetation screening, a construction compound, agrisolar, and waterway revegetation.

Having regard to the Latrobe Planning Scheme and in particular the Farming Zone and applicable overlays, the Proposal is considered to represent a net community benefit for the local area and the State as a whole. It strongly supports relevant State and local policy in relation to energy storage and generation, emission reductions, economic development and environmental and landscape values.

The proposed solar farm and BESS will assist with Victoria's renewable energy transition, supporting the Victorian Energy Target plan for 65% of electricity to be sourced from renewables by 2030 and 95% by 2035, and the energy storage targets of at least 2.6 GW by 2030 and at least 6.3 GW by 2035.

The Proposal is ideally located on farmland and has been sited and designed to avoid to the extent possible areas with significant flora and fauna values. It is situated close to existing electricity transmission infrastructure and outside of the population centres of Morwell and Traralgon. Owing to its location next to an existing heavy industrial precinct, and the proposal for native vegetation screening, the Proposal sits comfortably within the landscape and the broader rural environment.

Further, due to the low-scale nature of the Proposal and the sheer size of the site allowing for existing key features and natural values to be largely avoided, it is considered to be of relatively low impact to both the local environment and nearby residents, especially once mitigation measures such as perimeter screening are taken into account.

The Proponent has undertaken a comprehensive community and stakeholder engagement program, proactively and appropriately consulting a wide range of stakeholders, including nearby residents and the wider Latrobe Valley community. Consistent and clear information has been provided to stakeholders outlining the details of the Proposal and any potential impacts. Engagement commenced during the early stages of planning and design, allowing stakeholders ample opportunity to get involved. Further engagement will occur post-lodgement.

The potential impacts of the Proposal have been rigorously assessed by suitably qualified consultants in relation to flora and fauna, Aboriginal cultural heritage, traffic, hydrology, visual, noise, agricultural, aviation, glint and glare, socioeconomic, bushfire and safety management. All technical assessments have shown an acceptable level of impact and compliance with the relevant standards, further reduced by the recommended mitigation measures.

The Proposal is an appropriate development of the site, will not result in unacceptable off-site amenity impacts and is consistent with the relevant local, State and Federal policy. Furthermore, it is expected to generate approximately $1.89 billion in total economic output, supporting approximately 500 jobs during the construction phase, and producing more than 700,000 MWh of clean electricity per year. It is therefore considered that the Proposal warrants planning approval.

Appendices

Appendix A Site photos

Figure 45 - Lower slope of hill around waterway in North East of activity area facing southeast

Figure 46 - Boyd's Creek facing south

Figure 47 - Boyd's Creek facing South West

Figure 48 - Boyd's Creek facing West

Figure 49 - Central Creek facing northeast

Figure 50 - Site of Proposed Battery Storage facing North

Figure 51 - Central Creek Crossing facing West

Figure 52 - Facing North between two drainage lines of Boyd's Creek

Figure 53 - Central Creek Crossing facing east

Figure 54 - Central Creek facing Southeast

Figure 55 - Central Creek facing Northwest

Figure 56 - Grazing paddocks that occupy majority of the site area

Appendix B Certificates of Title

Appendix C Site Layout Masterplan

Appendix D BESS Design Plans

Appendix E Flora and Fauna Assessment

[redacted]

Appendix G Traffic Engineering Assessment

Appendix H Hydrology and Flooding Impact Assessment

Appendix I Landscape and Visual Impact Assessment

Appendix J Noise Impact Assessment

Appendix K Agricultural Assessment

Appendix L Aviation Impact Assessment

Appendix M Glint and Glare Assessment

Appendix N Socio-Economic Assessment

Appendix O Fire and Bushfire Report

Appendix P Safety Management Study

Appendix Q Environment Effects Self-Assessment

Appendix R Community and Stakeholder Engagement Summary Report

Appendix S Waterway Revegetation Plan

Appendix T Site Survey