FRASERS SOLAR FARM

Planning Assessment Report

ENTURA-139A87
17 March 2020

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Abbreviations

BESS	Battery Energy Storage System
CEMP	Construction Environmental Management Plan
CFA	Country Fire Authority
CMA	Catchment Management Authority
DELWP	Department of Environment, Land, Water and Planning
EES	Environmental Effects Statement
EMS	Environmental Management System
EPA	Environmental Protection Authority
EVC	Ecological Value Class
FZ	Farming Zone
HML	Higher Mass Limit
kV	Kilovolt
LCVIA	Landscape Character and Visual Impact Assessment
LGA	Local Government Authority
LPPF	Local Planning Policy Framework
LSIO	Land Subject to Inundation Overlay
LV/MV	Low Voltage/Medium Voltage
MNES	Matters of National Environmental Significance
MSS	Municipal Strategic Statement
MV	Megavolt
MWTS-MFA	Morwell Terminal Station-Maffra 66kV transmission line
NIRV	*Noise from Industry in Regional Victoria* EPA Guidelines
PCU	Power Conservation Unit
PFF	Planning Policy Framework
PV	Photovoltaic
RDZ1	Road Zone Category 1
SEPP N-1	State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade)

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1. Introduction

South Energy, on behalf of Frasers Lane Development Pty Ltd who is the applicant, is seeking planning approval for the development of the 75MW Frasers Solar Farm on the corner of Frasers Lane and Traralgon-Maffra Road in Glengarry North, Victoria.

Entura has been engaged by the applicant to undertake the engineering design and a planning assessment to demonstrate compliance with the planning provisions of the Latrobe Planning Scheme (the 'planning scheme') applicable to the proposed development and legislative requirements of the *Planning and Environment Act 1987* in Victoria.

This Planning Assessment Report accompanies the application for a planning permit and has been structured to systematically identify and address all of the relevant planning policies and development standards set out in the planning scheme.

Table 1.1 summarises the planning permit application details.

Table 1.1: Project details

Category	Provision of Planning Scheme
Property Address	Frasers Lane, Glengarry North, VIC
Title Details	124A\PP3627 124\PP3627 125C\PP3627 125\PP3627 Road reserve of Traralgon-Maffra Road
Zone	Clause 35.07 – Farming Zone (FZ) Clause 36.04 – Road Zone (RDZ1)
Overlay	Clause 44.01 – Land Subject to Inundation Overlay (LSIO)
Land use	Renewable energy facility Utility Installation
Particular Provisions	Clause 52.05 – Sign Clause 52.17 – Native Vegetation Clause 53.13 – Renewable Energy Facility
Planning Permit Trigger	FZ – use and development RDZ1 – works Signs – use and development Native vegetation – use and development
Applicant	Frasers Lane Development Pty Ltd

1.1 Application structure

This report provides the following information:

- An introduction to the site and the development.
- An outline of the legislative context.
- An assessment of the proposal against the provisions of the planning scheme.
- A summary of the specialist studies.
- A preliminary and consolidated environmental management plan.

Certificate of titles, as well as specialist studies referred to within the main report are included as appendices at the end of this report.

1.2 South Energy

The proponent of Frasers Solar Farm, South Energy, is an independent developer company dedicated to providing a sustainable future for the energy sector through the development and ultimate construction of utility scale solar photovoltaic (PV) installations.

Concurrent to the concept design for Frasers Solar Farm, they are currently developing four other solar farms in Victoria. More information for South Energy can be found on their website: https://southenergy.com.au/

2. Proposal

2.1 The site

The proposed Frasers Solar Farm is located on the corner of Frasers Lane and Traralgon-Maffra Road, Glengarry North, Victoria. The proposal will be situated across four parcels owned by the one landowner, with a combined area of approximately 110 hectares. The site is located approximately 6km south of Toongabbie and 7km north of Glengarry, as shown in Figure 2.1.

The solar farm will connect to the MWTS-MFA (Morwell Terminal Station-Maffra) 66kV overhead transmission line, which runs adjacent to the eastern boundary on the Traralgon-Maffra Road reserve. Power generated from this facility will be transmitted to the electricity grid via overhead power lines connecting from the on-site substation to the overhead transmission line.

The property is flat and predominantly used for cattle grazing. There are no existing dwellings on the site which is currently fenced with standard post and wire fencing. As part of the proposal, some vegetation will be required to be removed for the purposes of developing the site as a solar farm.

Land use in the area surrounding the site is also predominantly agricultural. A map showing the buildings in the 2km vicinity of the site is shown in Figure 2.2. It should be noted however, that the buildings include sheds and other ancillary buildings and not solely residential properties.

The immediate area of the site is predominantly flat and gently sloping, and as such the project site receives considerable sunlight over the course of the day.

Title information is included in Appendix A.

2.2 Description of works

The proposal includes a 75MW solar farm comprising of approximately 228,000 tracking photovoltaic (PV) modules installed over an area of approximately 110 hectares. The modules will be mounted on a single-axis tracking system. As part of this application, a Battery Energy Storage System (BESS) of up to 20MW/40MWh rated capacity has been included, although this may not be installed immediately as part of the construction of the solar farm. Technical drawings of a typical BESS that would be suitable for installation at this site has been included in Appendix B.5.

PV panels lie at the heart of any photovoltaic system. They consist of solar cells which convert the sun's energy into electrical energy. The main component of a solar cell is a modified silicon, which is used as the semi-conductor to transport direct current flow into the connected device when the sun shines on the cells. Typically, the solar cell is doped with boron and phosphorus in order to create electrically conductive semiconductor material. The PV panels selected for this development will ensure optimal use of solar radiation and guarantee high system yields and reliable operation under the most demanding environmental and weather conditions.

The solar farm layout, elevations and typical details are shown in the proposal plans, which are included in Appendix B.

Figure 2.1: Area of proposed solar farm

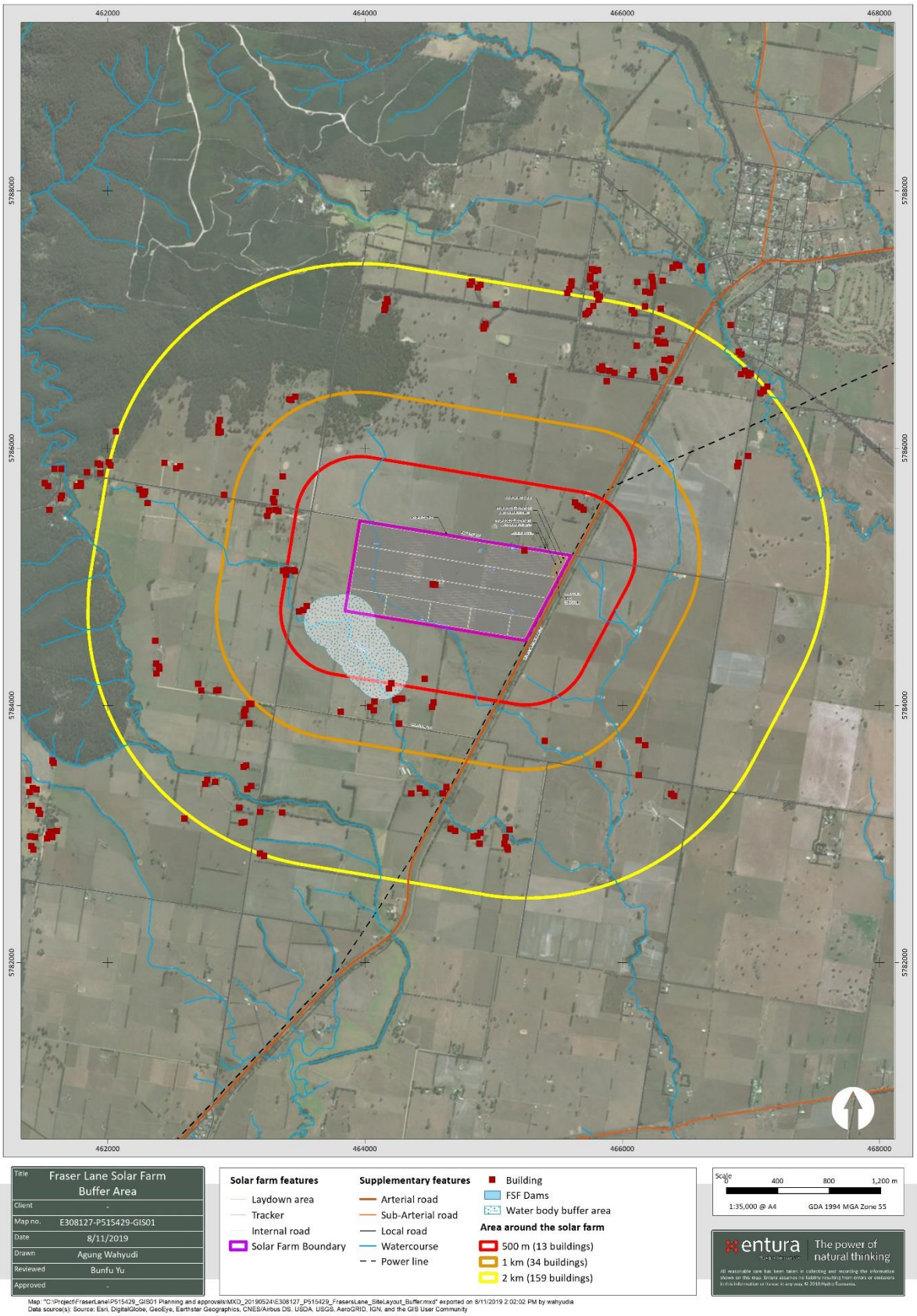

Figure 2.2: Buildings within 2km of solar farm site

2.2.1 Solar PV module and mounting structure

This development will incorporate a total of approximately 228,000 PV panels on a series of ground mounted single-axis trackers. Each proposed PV panel type will be approximately 2.1m x 1m x 0.04m and will be mounted onto a steel or aluminium supporting structure. Taking into account the maximum tracking angle of 60° from the horizontal with a ground clearance of 0.5m, the maximum height above the ground of each panel will be approximately 4m.

The foundation structure will be pile driven to a sufficient embedment depth to avoid the need for concrete foundations where possible. The panels and supporting structure will be separated into blocks, with each block corresponding to a Power Conversion Unit (PCU) containing two inverters. A block is connected to 120 trackers, with 100 PV panels per tracker. The dimensions of each tracker will be approximately 52.5m x 4m with a pitch distance (centre to centre distance between trackers) of 7.5m.

Each tracker will be spaced to minimise shading from panel to panel. There will be a minimum 20m setback between the site boundary and the end of each row of modules to allow for maintenance, access and any planting or landscape modifications.

An example of a single axis tracking system is shown in Figure 2.3, and a schematic of solar panel orientation is shown in Figure 2.4.

Figure 2.3: Typical single axis tracking system with two modules in portrait orientation (Supplied: South Energy)

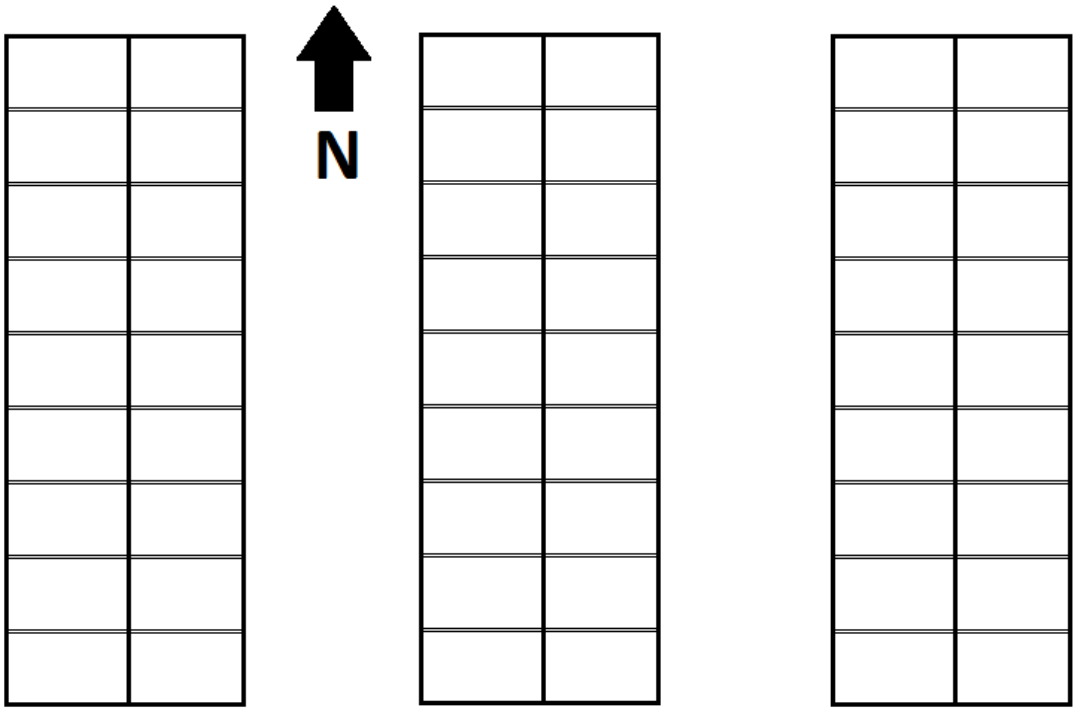

Figure 2.4: Solar farm panel rows oriented along the north-south axis
(Supplied: South Energy)

2.2.2 Power conservation unit

The proposed development utilises Power Conversion Units (PCU) which are used to convert the direct current from the modules into alternating current for use in the grid. Each PCU contains two inverter units and a LV/MV transformer. A typical PCU will measure approximately 12m x 3m x 2.5m and will be olive green in colour. An example of a PCU is shown in Figure 2.5.

Figure 2.5: Typical example of power conversion unit
(Supplied: South Energy)

2.2.3 Electrical infrastructure

Units containing the switchgear and electrical controls for the solar farm will be located in the compound in the southwestern corner of the site. The switchgear units is expected to be contained in an indoor facility measuring approximately 11m x 6m x 2.5m and will also be olive green in colour.

The substation building will be located in the compound in the northeastern corner of the site. This building is where the electrical energy from the solar farm is either stepped up or down for distribution to the electricity network. The building is expected to be approximately 6m x 4m x 2.5m and will also be olive green in colour.

There will be underground electrical cabling connecting the arrays with the inverter cabins and the on-site substation. These cables will be buried underground in a simple ducted trench to a maximum depth of 1.2m. The substation will transfer generated energy to the network through a connection to the adjacent MWTS-MFA 66kV line along Traralgon-Maffra Road.

Low noise-emitting electrical infrastructure will be selected as part of the detailed design stage, with noise emissions to be monitored as part of the environmental management component of the project.

The final infrastructure design and connection of the proposed solar farm to the grid is still subject to a detailed grid connection assessment with AusNet Services.

2.2.4 Access

Vehicular access to the site is proposed to be via the existing access on Frasers Lane. There will be very limited traffic generated by the solar farm once it is operational and it is proposed that the existing access track will be sufficient after construction of the proposed development.

Internal compacted gravel access tracks will be required during the construction phase to suit the smaller heavy good vehicle (HGV) used and will remain in-situ for the ongoing maintenance of the solar farm. The internal access tracks will be approximately four metres wide. The access track includes a track around the site perimeter. This four-metre-wide perimeter access track is sited within a 10m wide fire break in accordance with Country Fire Authority (CFA) recommendations.

The site will be utilising two existing access points on Frasers Lane and in-situ crossovers.

2.2.5 Site fencing

For security and safety purposes, the solar farm will be closed to the general public throughout the construction and operational phases. An approximately 2.4m high standard security mesh fence will be installed around the perimeter of the solar farm per industry practice, with access only available via lockable gates. The fence will be placed around the site at the start of the construction programme and will remain for the duration of the operation.

Fencing around the perimeter of the site will be designed to reduce impacts on wildlife that may occur as a result of fauna species attempting to move through the landscape where fencing has been erected. Furthermore, the proposed fencing will be designed to withstand flood events and debris, and will protect the proposed perimeter landscaping, ensuring that the solar farm is secure.

The exact design specifications of the fencing are not yet determined and will be finalised during the detailed design phase of the project. A typical security fence elevation has been included in Appendix B.6.

2.2.6 Temporary construction facilities

According to the Economic Impact Assessment undertaken by Ethos Urban, the overall construction period is anticipated to be approximately 12 months and will involve over 130 direct and 210 indirect construction jobs. A copy of the Economic Impact Assessment is included in Appendix G.

To ensure the efficient management of the construction phase, a construction compound will be set up and will be located in the northeast corner of the site. It will be approximately 100m x 100m in size and will be surfaced with locally sourced gravel.

The area will contain four temporary construction buildings as follows:

- Self-contained amenities approximately 6m x 3.3m x 2.6m.
- Office approximately 10m x 5m x 3m.

A materials storage area will also be included within the compound along with a parking area for construction vehicles. The temporary facilities will be removed following completion of the construction. A small area, located in the northeast corner will be retained for operative and site visitor parking during the operational phase, after the temporary facilities are removed.

2.3 Hours

Construction operations will take place between 7.00am and 6.00pm, Monday to Friday.

No external floodlighting will be used at the solar farm during construction or operation.

2.4 Landscaping

Landscaping will be used to improve the condition and amenity of the development as needed, and will also help minimise visual impacts from the development. Planting of appropriate vegetation of varying height and density, with a minimum of 2m, will provide satisfactory screening along the site boundaries wherever required. The landscape buffer will contain a variety of indigenous species characterised by local plant communities. Landscaping is further discussed in Section 6.8.

2.5 Environmental management

As a passive use and because the design of the solar farm has been guided by relevant environmental studies, the operation of the solar farm is unlikely to have any significant environmental impacts. As part of the design, there have been mitigation measures included to eliminate or reduce the environmental impacts to a satisfactory level. A preliminary identification of issues for the Environmental Management Plan has been included in Section 8 of this report.

The key mechanism for managing impacts will involve the preparation of, and commitment to, a Construction Environmental Management Plan (CEMP) and the establishment of necessary supporting procedures and monitoring programs. A CEMP is normally required as a secondary consent via approval conditions and will take into account any additional condition requirements.

2.6 Solar farm benefits

The economic impact assessment outlined that the proposed development will not present any negative cumulative impacts with regard to accommodation, labour and resources. It is also expected that the development will promote positive opportunities for participation for businesses and workers in the greater Latrobe Valley area.

2.6.1 Renewable energy generation

In addition to the direct benefit to the farm which the proposed development is to be installed, the development will provide an important contribution towards the reduction of CO_2 levels and will be a contributor to meeting Victoria's renewable energy target of 50 percent by 2030 and also contribute to Australia's commitment to the Paris Climate Change Agreement 2016.

Other benefits include:

- Generation of enough energy from a renewable source to power the equivalent of approximately 25,000 homes.
- A reduction in the amount of CO_2 produced in generating this energy by the equivalent of approximately 157,000 tonnes per annum when compared to fossil fuels.
- The creation of both full time and part time permanent jobs throughout the operational phase of development.
- The creation of approximately 130 direct and 210 indirect local jobs during the construction phase with local companies being used for the construction work wherever possible.
- Helping to reduce the burden on an oversubscribed power network.
- A private investment of tens of millions of dollars into the local area.
- The introduction of a number of new part-time engineering jobs during the operational phase.

From a community perspective, it is expected that once completed, the solar farm can potentially support small-scale tourism and educational opportunities in the future, being the first solar farm to be developed in the area.

Open days for local people and school-children to come and see the site and learn about renewable technology. These economic benefits will have a large effect on the local economy due in part to the multiplier effect whereby contractors will be temporarily living in the local area and as such will be spending money in the local shops, restaurants and hotels.

2.6.2 Farm diversification

The solar farm is in an area identified with low agricultural potential and the area has mostly been cleared. An agricultural assessment undertaken by Ag-Challenge Consulting noted that while the development of the solar farm will alter the nature of the farm and reduce the carrying capacity of the farm, the development site can still be utilised for sheep grazing around the single-axis trackers and PV panels, which will assist in minimising overgrown vegetation thus reducing bushfire risk.

The report also noted that there are no detrimental impacts to surrounding farm businesses or the agricultural amenity of the region by way of the development. The full Agricultural Assessment Report has been included in Appendix E.

3. DELWP Solar Energy Facilities Guidelines

The Department of Environment, Land, Water and Planning (DELWP) released the *Solar energy facilities – design and development guideline* (the 'Guideline') in July 2019 to provide an overview of the policy, legislative and statutory planning arrangements for solar energy projects in Victoria.[1] The Guideline applies to ground-mounted PV solar structures with the purpose of electricity generation and exportation to the National Electricity Market, which is the intent of Frasers Solar Farm.

The recent gazetted VC161, effective 17 September 2019, also transfers the assessing authority from Local Government to the Minister for Planning.

It is important to note that the majority of preparation and field studies undertaken for this project occurred prior to the Guideline and as such, the Guideline is not addressed in most reports. Efforts, however, have been made to summarise the relevant information of those studies in this section.

3.1 Regulatory and stakeholder engagement

As part of the feasibility study and development approvals phases of the proposed Frasers Solar Farm development, Entura and South Energy have undertaken a range of regulatory and stakeholder engagement, including with:

- Latrobe Council[2]
- West Gippsland Catchment Management Authority (WGCMA)
- Department of Environment, Land, Water and Planning (DELWP)
- VicRoads.[3]

As part of the planning process as prescribed under Section 55 of the *Planning and Environment Act 1987*, the application will be referred to WGCMA due to the presence of a Land Subject to Inundation Overlay over the site.

Community engagement has been undertaken by South Energy and involved community drop-in sessions as well as doorknocking and letter drops. This has been outlined in Section 4 and the full report included in Appendix C.

[1] As all specialist studies were undertaken prior to the finalisation of the guidelines, they make reference to the draft version.

[2] Prior to Amendment VC161 of the Victorian Planning Provisions, the assessing authority for solar farms was the Local Government Authority. Consequently, Latrobe Council had been regularly engaged and consulted until the effective date of the amendment.

[3] Initial iterations of the solar farm layout included a new access point on the Traralgon-Maffra Road, and as such VicRoads was consulted. However, with the advice of the traffic consultant and in later revisions of the layout, the new access point has been removed.

3.2 Siting of project

A feasibility study was undertaken prior to the current development approvals phase to determine whether the site was suitable for the development of a solar farm. A number of investigations were undertaken, including a preliminary opportunities and constraints identification, flora and fauna desktop assessments, high-level hydrology assessments, desktop cultural heritage assessment as well as geotechnical investigations. The study identified that the site was largely unconstrained with the addition of a number of other factors contributing to its suitability.

The site is conveniently located adjacent to the MWTS-MFA 66kV transmission line that connects to Morwell Terminal Station. This also means that there is minimal new transmission infrastructure that is required to be constructed.

The site also contained limited significant environmental values. While there were some native vegetation present on site, there was no record or siting of threatened species or communities. An Agricultural Impact Assessment also concluded that the agricultural value of the land was not high. Moreover, despite the new use of the site as a solar farm, partial grazing can be continued.

The visual impact of the solar farm has been taken into consideration as part of the project design. Entura engaged two related consultancies, Hemisphere Design as well as FORMium, to provide landscape character, visual impact and landscaping services which form part of this development. A Landscape Character and Visual Impact Assessment was undertaken, which demonstrated that the area was not of high scenic quality. This is aligned to the planning scheme in that there are no scenic or environmental significance overlays applying to the site. The assessment also identified that while there were several sensitive receptors in the vicinity, impacts on them can generally be reduced with landscaping.

A landscape plan was prepared by FORMium to support the planning application. The plan recommends a boundary vegetation buffer with a width of 10m using a variety of vegetation of varying heights. Closely associated with bushfire management, the vegetation buffer will also utilise mulching as the understorey for weed management.

3.3 Design stage

A range of studies have been undertaken to investigate the environmental and social impacts resulting from the proposed Frasers Solar Farm. While these are discussed in more detail under Section 6, a summary has been prepared with consideration of the Guideline.

Landscaping screening helps to reduce the visual impact of the proposed solar farm facility on nearby surrounding sensitive uses, as well as community members and road users. The screening will also help to reduce noise and manage dust. The landscape screening proposed for this development is a vegetation buffer 10m wide around the entire boundary of the site. The dominant trees will grow to approximately 10m. The buffer retains and adds to the existing boundary vegetation onsite. The species that have been selected for the landscape design have been chosen for their local indigeneity.

A minimum setback of 30 m, as recommended within the Guidelines, has not been met for this development. A 20m buffer, however, which includes access track suitable for firefighting and maintenance purposes, and a landscape buffer, have been proposed. This has been decided based on the lack of pedestrian traffic along the arterial road directly adjacent the property to which the solar farm is developed on, and therefore it is considered that heat island effect is not as significant.

The nearest residential properties are between approximately 300m to 750m away from the project site boundary. In considering the Panel Report prepared for the Greater Shepparton Solar Farm Panel Hearing, the expert witness report prepared by Ken Guthrie (Sustainable Energy Transformation) suggests that temperature increases within 30m would be negligible. For this project site, the nearest foot traffic is the Gippsland Rail Trails across the road from the development site, which is located well over 30m from the panels.

In addition, the need to include a 10m buffer along either side of the Designated Waterway to protect native vegetation and minimise any chance of erosion, leads to a reduced generating capacity. In considering the expensive grid connection costs is estimated to be in excess of $10 million, resulting in a relatively high proportion of fixed electrical infrastructure costs. As such, further widening of the buffer would significantly reduce the solar farm installed capacity, and hence the economic viability of the project.

A glint and glare study was undertaken to understand the impacts on nearby sensitive land uses, including on residents, road users as well as aviation service providers. The study concluded that while there are a number of observation points near the proposed solar farm site that will result in temporary after-image for observers, the duration is likely to result in low impact due to the use of tracking PV panels. Mitigation measures were also recommended within that study for landscaping, which is being included within this planning application.

Measures to keep the site secure at all times have been considered within this proposal. Wire mesh fencing of up to 2.4m high is being proposed and have been considered within the landscaping and visual impact studies. While it is acknowledged that fencing can be seen, it is necessary as part of the protection of the infrastructure to be installed on site. The fencing is proposed to be placed around the boundary to minimise the potential damage to the vegetation buffer that may occur had the fencing been placed inside the vegetation buffer. This is also to take into consideration fire hazard and weed management. The existing farm fencing will be replaced.

Traffic considerations have been included within the proposal and a Traffic Impact Assessment was completed as part of this proposal. The only significant traffic generated by the solar farm will be during the construction phase. Access to the solar farm site will be via Frasers Lane, which is accessed off Traralgon-Maffra Road. The study identified that the traffic resulting from this development, both in the construction and then in the operation phase, will not cause unacceptable impacts to road users.

The proposed solar farm will not cause unacceptable noise or dust impacts to the surrounding area. Construction will occur only between 7am to 6pm, Monday to Friday. Additionally, the location of the site benefits from limited sensitive uses nearby. The flat topography of the project site also means that there are limited earthworks as part of the proposal. Additionally, proposed landscaping will help to minimise and mitigate noise and dust impacts.

3.4 Construction and operation

Preliminary environmental management considerations have been included in this planning application (refer to Section 8). A Construction Environmental Management Plan (CEMP) will be prepared prior to the commencement of construction and approved in accordance with permit conditions.

4. Community Engagement

Community and stakeholder consultation on the proposed Frasers Solar Farm was undertaken by South Energy, and communication and engagement expert CNC Project Management. The community engagement summary report is included in Appendix C. This section outlines the method and findings from the engagement process.

4.1 Consultation method

The consultation includes direct landowner engagement as well as community drop-in sessions. Project team members from South Energy and CNC Project Management visited residents within 2km of the project site and engaged through phone conversation, door knocking or letter drop.

Two community drop-in sessions were held, one on Thursday, 6 June 2019 at the Toongabbie Mechanic's Institute, and the other on Sunday, 15 September 2019 at Glengarry Mechanics Hall. A community feedback form was available for attendees to provide feedback on a range of matters, including:

- Local area values that mean most to them
- What they liked about solar farms
- What projects the community fund committee should consider supporting
- What views or landscape characteristics in the region mean most of them
- Feedback on the community engagement event.

4.2 Consultation findings

Overall, the level of support regarding the proposed Frasers Solar Farm has been significant, including support from surrounding neighbours, as well as larger environmental or sustainability community groups such as Latrobe Valley Sustainability Group, Gippsland Climate Change Network, and Voice of the Valley. Government agencies such as Sustainability Victoria, Invest Victoria, and Latrobe Valley Authority have also been consulted and have provided support to the project.

The consultation process also identified several key areas of concern as summarised below:

- Capacity and configuration of the solar farm (e.g. height and density of the panels)
- Visual impact
- Traffic and impact on road condition
- Noise emissions
- Bushfire risk management.

The most prevalent concerns have been the size of the solar farm as well as the visual impact resulting from the development. To address this, South Energy undertook a further Landscape Character and Visual Impact Assessment to allow qualitative assessment of the development on the community, determine the zone of influence, and identify those residences which are sensitive receptors. A summary of the LCVIA as well as other specialist studies is provided in Section 6.

5. Legislative framework

5.1 Commonwealth

5.1.1 Environment Protection and Biodiversity Conservation Act 1999 (Cth)

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides for the protection of Matters of National Environmental Significance (MNES) and the conservation of Australia's biodiversity. Whilst the States are primarily responsible for environmental impact assessment, where an action is likely to result in a 'significant' impact on a MNES the proponent of the action is required to refer the project to the Commonwealth Environment Minister, who must make a decision on whether the action would require further assessment of the potential impacts as a 'controlled action'.

The proposed development site is agricultural land that is primarily used for grazing. A review of the information provided by the EPBC Act Protected Matters Search Tool has identified that the proposed activity will not have a significant impact on a MNES as it does not involve a place of world or national heritage value, nor will there be any impacts to nationally-listed threatened species, ecological communities or migratory species. Accordingly, approval under the EPBC Act is not required.

5.2 State legislation

5.2.1 Planning and Environment Act 1987 (Vic)

The PE Act establishes a framework for the use, development and protection of land in Victoria. It empowers planning schemes and sets out the process for assessment, public notification or referral of the proposal as well as any review or appeal of the decision.

Approval is required under the Latrobe Planning Scheme. In accordance with Clause 72.01, the Minister for Planning, through which DELWP is the responsible authority.

The proposed solar farm is consistent with the key objectives of the PE Act, and will result in the orderly and sustainable use and development of land, with minimal impact on natural resources and ecological processes.

The relevant provisions of the Latrobe Planning Scheme applicable to this proposal is assessed in Section 7 of this report.

5.2.2 Environment Protection Act 1970 (Vic)

This Act seeks to prevent environmental harm through the setting of state environment protection policies (SEPPs), waste management policies and regulations. As the proposal is not a Scheduled Premises (as defined in the Act), a Works Permit is not required for the development.

5.2.3 Environment Effects Act 1978 (Vic)

In Victoria, environment assessment of the potential environmental impacts or effects of a proposed development may be required under the *Environment Effects Act 1978*. The Minister for Planning determines whether an Environmental Effects Statement (EES) is necessary to be submitted with the proposal. The development does not trigger any of the assessment criteria under the Ministerial Guidelines for Assessing Environmental Effects. Accordingly, it is not necessary to submit an EES with this application.

5.2.4 Flora and Fauna Guarantee Act 1988 (Vic)

The *Flora and Fauna Guarantee Act 1988* (FFG Act) identifies flora and fauna species and ecological communities of importance to Victoria. A 'Protected Flora Licence' or Permit is required if works or activities are planned on public land which might kill, injure or disturb protected native plants.

The development site is located on private land, therefore there will be no requirement for a permit under the FFG Act. The connection of the solar farm to the existing Morwell Terminal Station-Maffra 66kV transmission line located on the Traralgon-Maffra Road reserve will not require the removal of any vegetation, as the new overhead powerline will connect onto the existing power poles.

5.2.5 Water Act 1989 (Vic)

This Act provides the legal framework for managing Victoria's water resources for the purpose of promoting the orderly, equitable and efficient use of water resources. The Act applies to management of surface water and groundwater resources.

Under this Act, a licence is required to take and use water from a waterway, groundwater, a spring or soak, or water from a dam for a use other than domestic and stock use or otherwise made exempt under the Act. A licence is also required under this Act to construct, alter, operate, remove or decommission any works on a waterway or bore for the purpose of taking or using water, unless otherwise made exempt under the Act.

In addition, there is an (unnamed) designated waterway within the project site, hence a 'works on waterway' permit will be required from West Gippsland Catchment Management Authority (WGCMA).

5.2.6 Heritage Act 1995 (Vic)

This Act protects heritage places and objects that are of significance to Victoria through the Victorian Heritage Register, the Heritage Inventory and the Heritage Council of Victoria. Sites of local significance are identified through Heritage Overlays within local planning schemes, rather than under the Act and are the responsibility of the local council.

A historic cultural heritage desktop assessment was undertaken by Landskape during the feasibility stage of the project. It was identified that no heritage place is located near or on the site, and that predictive modelling shows there is a low potential for historic cultural heritage to be harmed by the proposed works.

5.2.7 Road Management Act 2004 (Vic)

The Traralgon-Maffra Road (C105), which the site fronts, is owned and managed by VicRoads and any alteration to it for access will require consent of VicRoads. There is, however, no proposal to add to or widen the existing access onto the Traralgon-Maffra Road, with all traffic entering and exiting the site via the two existing accesses on Frasers Lane.

The solar farm will connect to the existing Morwell Terminal Station-Maffra 66kV transmission line that runs adjacent to the eastern boundary. The transmission line is situated in the Traralgon-Maffra Road reserve. No native vegetation will be removed as a result of this connection.

5.2.8 Aboriginal Heritage Act 2006 (Vic)

This Act provides protection of Aboriginal cultural heritage by linking the protection of Aboriginal cultural heritage more directly with planning and land development processes. Development that may impact upon Aboriginal cultural heritage may require a Cultural Heritage Management Plan (CHMP). As the works associated with installation of the solar farm are not high impact activities, a CHMP and approval is not required.

An Aboriginal cultural heritage desktop assessment was also undertaken by Landskape during the feasibility stage of the project. It was identified that no Aboriginal heritage items or sites have been previously recorded on the site, and that predictive modelling shows there is a low potential for historic cultural heritage to be harmed by the proposed works.

5.2.9 Victorian Renewable Energy Targets (Vic)

The Victorian Renewable Energy Target (VRET) is legislated in the *Renewable Energy (Jobs and Investment) Act 2017* (Vic), and aims to facilitate the investment of renewable energy projects and jobs.

On 30 October 2019, the *Renewable Energy (Jobs and Investment) Amendment Bill 2019 (Vic)* was passed in the Victorian Parliament, bringing the VRET 2030 target of 50% into legislation. The proposed solar farm will contribute towards Victoria achieving its renewable energy generation targets.

6. Key matters

A range of studies were undertaken by various consultants during the feasibility and current development approvals phase for the proposed Frasers Solar Farm; these are outlined in the table below.

Table 6.1: Specialist reports

Specialist studies	Author
Acoustic impact	AECOM
Agricultural impact	Ag-Challenge Consulting
Biodiversity	Entura
Community engagement	CNC Project Management
Cultural heritage	Landskape
Economic impact	Ethos Urban
Glint and glare	Entura
Landscape character and visual impact	Hemisphere Design
Landscaping design	FORMium
Surface water	Entura
Traffic and transport	OneMildGrid

Summaries of these studies are presented in this section with the full report contained in the relevant appendix. Community engagement was discussed in Section 4.

6.1 Acoustic impact

An acoustic impact assessment was undertaken by AECOM to determine the potential environmental noise emissions from the operation of the proposed solar farm. The assessment was undertaken based on the inverters operating at nominal power and 100% fan speed during 7am to 10pm, and a reduced current with 50% fan speed from 10pm to 7am.

It is understood that there may be additional noise impacts during construction, as a result of increased traffic and minor ground works and installation. However, construction will only take place during daytime and on weekdays, thus it is considered that the temporary noise pollution is acceptable.

6.1.1 Assessment against NIRV Guidelines

The acoustic assessment considered the proposal against the EPA's *Noise from Industry in Regional Victoria* (NIRV) Guidelines.

As prescribed by the Guidelines, and calculated methodically in the acoustic assessment report, the recommended maximum noise levels for the Frasers Solar Farm is shown in Table 6.2.

Table 6.2: Recommended Maximum Noise Levels from NIRV Guidelines

NIRV Time Period	Time	Recommended Max. Noise Level (dB(A))
Day	7am – 6pm weekdays 7am – 1pm Saturdays	46
Evening	6pm – 10pm weekdays 1pm – 10pm Saturdays 7am – 10pm Sundays & Public Holidays	41
Night	10pm – 7am	36

As part of the assessment, noise modelling was utilised to predict the noise levels at nearby residences as a result of the operation of the solar farm. It was modelled for two scenarios – at full power operation during the hours 7am – 10pm covering Day and Evening periods as defined in the NIRV Guidelines, and at 50% power operation from 10pm to 7am emitting less noise during the Night Period. Each was also modelled for two meteorological conditions – neutral, and with a moderate breeze (3m/s wind). The modelling was undertaken considering the eight nearest residential locations, which equate to those residences within a 1 km radius of the development.

The modelling considered the following items that will generate environmental noise emissions:

- 20 Power Conversion Units (PCUs) across the site, each incorporating three inverters
- One PCU comprising three battery inverters, associated with battery energy storage system, to be located near the north-eastern corner of the site
- A substation which will be located at the north-eastern corner of the site.

In accordance with SEPP N-1, adjustments are to be applied to the noise level at the receiver to account for the character of the sound. A tonal character of ‘prominent’ involves a tonal addition of 5 dB(A). In considering this adjustment, for the worse-case residence among the eight residences, this leads to a maximum of 35 dB(A) in neutral conditions, and up to 41 dB(A) in a moderate breeze would be evident. Where the solar farm is operating at only half capacity which will be the case at night time, a maximum of 31 dB(A) in neutral conditions, and 36 dB(A) in moderate conditions, may be evident.

These modelling results indicate that the predicted noise emissions from the proposed solar farm development will be compliant with the noise criteria as prescribed by the Guidelines, under both neutral and moderate weather conditions (moderate breeze) at all nearby receptor locations.

The full acoustic impact assessment is included in Appendix M.

6.2 Agricultural impact

An agricultural impact assessment was undertaken by Ag-Challenge Consulting. The assessment identified the proposed site to be of flat depositional landscape, consisting of a soil profile from loam, to sandy clay loam, to medium clay.

The site is currently used for cattle grazing, however the assessment of the agricultural values of the site indicated that there are two primary restrictions to the agricultural potential of the site. These factors are that the soils are not well suited for cropping, and that there is no irrigation infrastructure.

While it is a given that the installation of solar panels will affect the current agricultural use of the site, it will not impact on any neighbouring farms. The panels will influence the amount of sunlight that plants will receive, and will lower the carrying capacity of the farm.

There will also be impacts on soil moisture as affected by rainfall. Instead of rain falling evenly across the land, rain will mostly fall on the solar panels, generating a runoff which will be directed onto the area of land just below the panels. This may have an impact upon the growth of the pasture overall.

Where stock is used to control the growth of grass, sheep are preferable to cattle as they are less likely to damage the infrastructure on site. It is, however, considered that there are no detrimental impacts of the solar farm to the surrounding business.

The full agricultural impact report is included in Appendix D.

6.3 Biodiversity

A natural values assessment was undertaken by Entura to determine if any significant or threatened species and/or communities were present or recorded on site. The assessment included a desktop review and a field study.

The desktop review of the flora and fauna data on NatureKit indicated that there were no flora or fauna species of conservation significance recorded or present on the project site. Additionally, there were no recorded entries for native vegetation that is mapped as that of 'Endangered Ecological Vegetation Class' (EVC) on site. A field study was then undertaken to verify the desktop findings.

6.3.1 Existing conditions

The proposed solar farm is located on agricultural land that is predominantly used for cattle grazing, and does not contain any patches of native vegetation. The ground cover is introduced species of grasses as well as plantings of vegetation in the form of shelterbelts. It is concluded that the species found on or adjacent to the site are not indigenous to the area.

A site visit undertaken on 15 April 2019 by a qualified ecologist identified that there are 28 scattered trees across the site, 18 were alive and 10 were dead (see an example in Figure 6.1). These trees meet the definition of 'large tree' and 'scattered tree' under the Department of Environment, Water, Land and Planning (DELWP) Guidelines for the Removal, Destruction or Lopping of Native Vegetation ('the Guidelines').

6.3.2 Removal extent

Nine trees, two which are alive and seven which are dead, will be removed as part of the development, equating to 0.633ha. The removal of these trees cannot be avoided for the construction of the solar farm. As the extent of native vegetation removal is greater than 0.5ha as defined under the Guidelines, the detailed assessment pathway was triggered and offsets were required. No native vegetation will be removed as a result of the new overhead powerlines.

Figure 6.1: Dead trees as photographed on site

6.3.3 Mitigation

Efforts have been made to avoid the removal of native vegetation, with most of the native vegetation to be retained on site. The solar farm design has considered the avoidance of native vegetation through an iterative process. In particular, trees of higher biodiversity value – determined based on factors including canopy, clustering, and presence of hollows – have been retained. The trees which need to be inadvertently removed are considered to be of comparative lower biodiversity value. This has been identified based on their isolation from adjacent living trees and thus also their susceptibility to wind throw and collapse. The two live trees to be removed are also determined to be of lower biodiversity value – determined to have no hollows present, and the other with an entire canopy which has recently collapsed. A full 'avoid and minimise' statement has been included in the biodiversity report.

As part of the mitigation strategy, there are also measures which will be undertaken to minimise potential impacts on wildlife. This includes having a licenced wildlife spotter during tree felling, as well as scheduling those works to be outside of the spring breeding season.

In accordance with the guidelines, a proposed offset has been sought for this proposal from VegetationLink, an accredited offset provider with DELWP. A total offset of 0.129 general habitat units is required and must be located within the West Gippsland Catchment Management Authority (WGCMA) or Latrobe City Council area.

The offset site would require a strategic biodiversity score of equal to, or greater than, 0.284 and must include at least 9 large trees. A preliminary offset quotation has been obtained and is appended

with the full biodiversity report, which is included in Appendix E. Once a planning permit has been received, the offset purchase will be completed.

The biodiversity report, including the DELWP Native Vegetation Report and an offset quote is included in Appendix E.

6.4 Bushfire

The proposed solar farm is not located in areas of Bushfire Management Overlay. However, it is located in farming areas and as such, considerations for bushfire risk and mitigation have been given.

6.4.1 Existing conditions

The site is predominantly cleared and currently used for grazing. As part of the proposal, most of the trees on site will need to be cleared to ensure optimal performance of the photovoltaic panels.

6.4.2 Relevant guidelines and standards

The proposed layout of the solar farm was assessed against Country Fire Authority's (CFA) newly released *CFA Guidelines for Renewable Energy Installations*, particularly Section 6 which includes additional conditions specific for solar facilities.

Under Section 6.1 of the guidelines, siting for solar facilities must have a 6m separation between solar panel banks or rows. Confirmation was obtained by personnel at the Fire and Emergency Management department of CFA that the proposed layout complied with this requirement.

Section 6.3 of the guidelines relates to fuel/vegetation management at solar facilities. The proposed site is currently used for grazing and therefore is largely cleared. Additionally, it is proposed that once the solar farm is in operation, sheep will be maintained on the property as a means to keep the grass vegetation down.

6.4.3 Mitigation

The proposal will incorporate the following measures to mitigate against bushfire risks:

- A minimum 10m setback from the site boundary and all landscape screening for CFA emergency access.
- Internal access roads to facilitate safe and efficient internal circulation for emergency and personnel vehicles in the instance of a fire.
- The grassland underneath the trees to be planted as recommended in the landscape plan will be mulched to manage grass growth and to maintain a low bushfire risk. Additionally, it is proposed that sheep will be brought to the property upon completion of construction to maintain a low grass height.
- A wildfire prevention and emergency plan will be developed as part of the construction and operation of the solar farm.

6.5 Cultural heritage

A desktop cultural heritage study was undertaken by Landskape during the feasibility phase of the project. The study recommended that there is a low chance of Aboriginal and cultural heritage artefacts being found on site. However, a 200m cultural heritage buffer is present in the southwest corner of the site due to its proximity with Four Mile Creek. Subsequently, the design of the proposed solar farm has factored this consideration by not placing any panels or infrastructure within that buffer.

The desktop cultural heritage study report was prepared independent of the feasibility report, and is included in Appendix F.

6.5.1 Mitigation

Other than a standard protocol for in the instance of the finding of heritage items, no mitigation is necessary.

6.6 Economic impact

An economic impact assessment was undertaken by Ethos Urban. The assessment identified that the solar farm project will provide approximately $110 million in investment during the construction phase and be a source of employment opportunities, both within the construction and operational phases. This includes 130 direct and 210 indirect positions during the construction period, and 6 direct and 17.5 indirect jobs during the operational phase.

Although the project will see a reduction in agricultural and grazing land, the site only represents 0.01% of the total agricultural land within the greater Latrobe-Gippsland Region. The study also identified that the proposed solar farm will not negatively impact the existing economic endeavours of the area, such as accommodation, resources and labour. It was identified that the area has significant capacity to accommodate the needs of the workers, including amenities and accommodation.

Furthermore, the project is expected to help the local economy through the injection of $1.8 million into the regional economy. Additionally, a Community Investment Project will be set up which will see a portion of the project's revenue being invested back into the local community through funding local projects and organisations.

The economic impact assessment is included in Appendix G.

6.7 Landscape character and visual impact

The Landscape Character and Visual Impact Assessment which involved desktop and field visits, as well as a desktop glint and glare assessment. These studies are summarised below.

6.7.1 Landscape character and visual impact assessment

A Landscape Character and Visual Impact Assessment (LCVIA) was undertaken by Hemisphere Design, with site visits in March and June. The methodology for the visual impact assessment includes:

- A desktop study including review of maps and identification of visibility of the development based on the photomontage imagery.
- A field assessment to familiarise the visual qualities of the area, the extent of visibility, key viewpoints and to obtain photos to process photomontage imagery.
- Identification and assessment at sensitive receptors.

The assessment was conducted from two public viewpoints as well as three sensitive receptors. Viewpoints are not considered as a sensitive receptor mainly due to their location, either attracting only a low number of observers, or where a traveller will only get a fleeting glimpse of the solar farm. The viewpoints and sensitive receptors assessed are identified below:

- Viewpoints:
  - Road reserve of Traralgon-Maffra Road, 500m from southern boundary (Figure 6.2)
  - From the corner of Frasers Lane near the northwest corner of the project site (Figure 6.3).
- Sensitive receptors:
  - From Gippsland Plains Rail Trail, east of the proposed site (Figure 6.4)
  - From 390/415 Glengarry North Rd, southwest of the proposed site (Figure 6.5)
  - Cluster of four dwellings on Chappels Road, south of the proposed site (Figure 6.6).

Figure 6.2: Photomontage simulated from 500m south of the southern boundary

Figure 6.3: Photomontage simulated from Frasers Lane near northwestern corner of the project site

Figure 6.4: Photomontage simulated from the Gippsland Plains Trail

Figure 6.5: Photomontage simulated from 390/415 Glengarry North Road residences

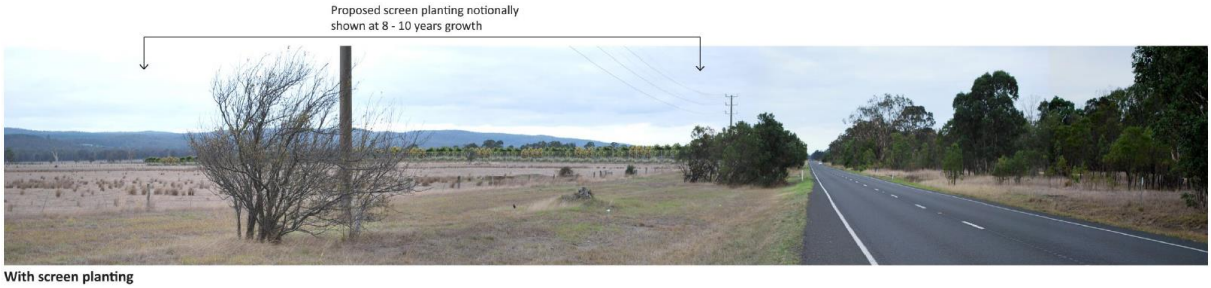

Figure 6.6: Photomontage simulated from cluster of housing on Chappels Road

The assessment from public viewpoints to the site indicates that there is a low visibility and impact on the surrounding area, adjacent properties and roadways. Supporting imagery was produced to corroborate the assessment that there is a low level visibility of the application site. The PV panels to be installed on the single-axis trackers and associated buildings are low across the landscape. Additionally, there are no nearby airports or overhead flight paths and low glare panels will be used in the solar arrays. The nearest airport is West Sale Airport, located 40km east of the site and the impact of the solar farm development is considered insignificant to flights and use of these sites.

The solar farm is not expected to present a significant impact for the visual amenity of the area and the wider contextual landscape. Furthermore, a landscaping plan will be implemented to help mitigate visual impacts to the site from all four boundaries.

The assessment concluded that while the proposed Frasers Solar Farm will alter the character and visual qualities of the Glengarry North locality, the impact will be largely inconsequential.

A summary of the assessment at the three sensitive receptors is outlined in Table 6.3. The full LCVIA report has been included in Appendix I.

Table 6.3: Summary of the visual impact at the three sensitive receptors

Sensitive receptor	Landscape setting	Visual impact
Gippsland Plains Rail Trail	The rail trial is a popular recreational facility, located adjacent to the eastern boundary of the site, however is separated by Traralgon-Maffra Road. The landscape has been categorised to have 'low scenic quality'. This category refers to areas with fewer valued features in the landscape. Examples of valued features include National Parks. Lower scenic quality landscapes generally have a greater ability to absorb change.	The visual impact from this sensitive receptor is currently considered to be moderate to high due to the absence of existing large vegetation. However, the visual impact once the solar farm has been constructed is expected to be slightly adverse once the proposed landscaping has matured.
From 390/415 Glengarry North Road	The landscape setting of these properties has been rated as low scenic quality. The setting is characterised by expansive views extending to the distinct Strzelecki Ranges.	The visual impact from this sensitive receptor is currently considered as moderate. Despite the close proximity to the solar farm site, the views of the solar farm are expected to be most considerable when exiting the property due to dwelling orientation. The visual impact is therefore expected to reduce to slightly adverse once the proposed landscaping has matured.
Cluster of four dwellings on Chappels Road	The landscape setting of these properties has been rated as low scenic quality. The setting is characterised by expansive foreground views across and above the open agricultural landscape.	The visual impact from this sensitive receptor is currently considered as low to moderate. There will be no change after the implementation of the solar farm as the current views are considered to be minor in impact.

6.7.2 Glint and glare

A desktop glint and glare assessment was undertaken by Entura to understand the impact of glint and glare on surrounding neighbours, community members and road users.

The hazard level for glint and glare is calculated determined by simulating the angle of the sun throughout the year, and simulating the parameters of the solar farm. These parameters include the footprint of the solar panels, whether the panels are on tracking or fixed frames and the orientation of the panels.

Overall, the unmitigated glare resulting from the proposed development was determined to have mild impacts. Some areas, such as the Traralgon-Maffra Road and Frasers Lane intersection is expected to have a higher degree of glare at particular times of the day compared to other areas, merely due to its proximity to the PV panels.

The full desktop glint and glare assessment report is included in Appendix H.

6.7.2.1 Mitigation

The assessment recommended that glint and glare impacts can be mitigated by the implementation of vegetation of at least 3m depth around the boundary. At mature age, the vegetation will be between 7-10m in height. This recommendation has been adopted in the landscape design.

6.8 Landscaping

As part of the development approvals process for the proposed Frasers Solar Farm, landscape architectural firm, FORMium, was engaged to provide a suitable landscape design to reduce and/or mitigate visual impact on the surrounding area and sensitive receptors.

To achieve this, FORMium undertook a site visit to understanding the existing conditions of the site as well as the general amenity and landscape features of the surrounding area. The full landscape plan and associated plant schedule is included in Appendix J.

6.8.1 Existing conditions

The proposed site and wider contextual landscape character is predominantly agricultural with both crop production and cattle grazing. Predominant views lines from the site include East Gippsland and beyond to the distant Strzelecki Ranges to the east, and the chimney towers of the Loy Yang Power Station to the south and southeast.

The wider Glengarry North township is primarily flat, and heavily modified agricultural landscape. The overall landscape character is considered to be of low scenic quality, and has a low sensitivity to change.

The site currently consists of existing trees scattered along the boundary and within the site, including:

- River red gums within the site;
- A row of cypress pines within the site;
- Copse *Acacia melanoxylon* on the road reserve;
- Scattered Blackwood;
- Existing strip of shelter belt of approximately three years growth in the southwest boundary; and
- Existing shelter belt vegetation along the entire western boundary.

6.8.2 Landscape design

The proposed landscape plan has been designed to complement the existing local rural character while effectively and rapidly buffering the view of the proposed solar farm. The landscape plan has been designed to:

- Suit the existing and adjacent fencing character by use of farm style post and wire fencing.
- Provide visual screening and windbreak protection using rows of mixed indigenous plant species.
- Improve the visual amenity of the site by use of black security woven-wire mesh fencing and access gates.
- Retain existing trees along Frasers Lane boundary.
- Retain and add to existing shelterbelt on western and southwest boundary.
- Retain and supplement to existing cluster of River Red Gums in the southwest corner.

Due to the low agricultural value of the site with considerably dry soils, the selected species for the landscape design have been chosen for their hardiness, low water demand, and local indigeneity. Dominant trees will be combined with understorey trees and large shrubs to form a vegetation buffer of approximately 7-10m high at maturity.

6.8.3 Mitigation

To mitigate potential visual impacts, a landscape plan has been included as part of the development application as a mitigation measure for visual impact. The plan involves the plantation of a vegetation buffer with trees that will reach approximately 7-10m at maturity.

6.9 Surface water

A surface water assessment was undertaken as part of the development approvals process, particularly due to the presence of a designated waterway over the site that runs in a south-westerly direction. A joint visit to the site of the proposed solar farm by South Energy, West Gippsland Catchment Management Authority and Entura formed part of the assessment.

The full surface water assessment is included in Appendix K.

6.9.1 Existing conditions

The proposed site is located on a cattle-run pasture. The site is relatively flat and the associated drainage lines present are in poor condition in relation to the available instream habitat and the associated riparian zone. Flows via these drains then enter on-line dams.

The site is located downstream of a 2.3 km^2 relatively steep area of densely vegetated mixed forest, and is located entirely within the Latrobe River catchment. Upstream of the Traralgon-Maffra Road, a catchment of approximately 8 km^2 contributes runoff to the solar farm site. Under significant (but rare) flood conditions, Four Mile Creek, which runs south-westerly and is the only named waterway over the site, has the potential to contribute runoff to the southwest portion of the site.

6.9.2 Mitigation

While the development is unlikely to lead to any significant changes in flood levels or velocities on the site or on adjacent properties, a Works on Waterways application should be submitted to the West Gippsland Catchment Management Authority for works over a designated waterway.

Given the existing conditions, it is unlikely that poor water quality discharges associated with the construction of the solar farm will enter associated waterways and further degrade their condition. Despite this, to mitigate the potential degradation in water quality, a Construction Environmental Management Plans will be developed to effectively manage the environmental impacts, including water quality exiting the site during construction. In addition, there will be minimal removal of turf exposing soil and sediment further limiting the risk to the water quality entering the associated waterways.

6.10 Traffic

A traffic and transport assessment was undertaken by OneMileGrid. The full report is included in Appendix L.

6.10.1 Existing conditions

The proposed solar farm is bounded by Traralgon-Maffra Road to the east and Frasers Lane to the north.

Traralgon-Maffra Road is an arterial road with single traffic lane in each direction. Frasers Lane is a local road and is unpaved. Based on the concept layout, the site will be accessed via two access gates on Frasers Lane. The access road is an approved HML-road, capable of taking vehicles up to B-double trailers.

6.10.2 Construction phase

It is anticipated that a 12-month construction phase will generate the following daily vehicle movements (inbound and outbound):

- 20 HGV movements for deliveries
- 50 passenger vehicle movements.

Both Traralgon-Maffra Road and Frasers Lane are gazetted approved VicRoads Higher Mass Limit (HML) roads, and are therefore able to cater vehicles up to B-double trailers.

The main access for both construction and operation phases of the development is expected to be Frasers Lane, with the eastern access on Frasers Lane serving as the primary entrance and exit. Assessment of Frasers Lane has concluded that it is suitable to carry the expected capacity during the construction phase.

6.10.3 Operational phase

The nature of solar farm means that, once installed and operating, there is minimal on-site activity required during the life-cycle of the solar farm. A few technicians and engineers will be employed for maintenance purposes such as performing inspection and routine maintenance, and trouble-

shooting. Additionally, contractors will be required to perform vegetation control on as-needed basis. The site operatives will visit the site on an ad-hoc basis, estimated to be approximately once every month for two days.

On this basis, the operational phase is calculated to be approximately no more than five staff arriving and departing daily, and up to three visitors or deliveries across the day, noting that deliveries or visitors will not be of daily occurrence. Any educational visits to the solar farm will be programmed in advance.

All traffic movements will be through the Frasers Lane access which is in turn accessed from the Traralgon-Maffra Road (refer to Figure 6.7 and Figure 6.8 for entrance point).

6.10.4 Mitigation

Mitigation will be through the implementation of a Traffic Management Plan to be incorporated into a Construction Environmental Management Plan. This plan will detail the specific actions and issues associated with the preferred transport route for construction.

Figure 6.7: Looking south along Traralgon-Maffra Road, with Frasers Lane entrance on the right (Source: Google StreetMaps)

Figure 6.8: Looking north along Traralgon-Maffra Road, with Frasers Lane entrance on the left (Source: Google StreetMaps)

7. Regulatory assessment

The proposed development is subject to the Latrobe Planning Scheme. Relevant provisions are discussed in this section.

7.1 Planning Policy Framework

As part of the Victorian Government's Smart Planning program, changes are currently underway to simplify the Victorian Planning Provisions. The gazettal of Amendment VC148, effective since 31 July 2018, has replaced the State Planning Provision Framework with a new integrated Planning Policy Framework (PPF). Currently, the new PPF combines state and regional policies, with local planning policies yet to be merged.

The Planning Policy Framework comprises general principles for land use and development in Victoria and specific policies dealing with a range of issues, land uses and development. Responsible authorities are required to ensure consistency with these general principles and specific policies in their decision-making. Relevant PPFs are identified in Table 7.1.

Table 7.1: Relevant Planning Policy Framework provisions

Clause	Objective	Relevance
Clause 11 Settlement	Aims to prevent environmental impacts as a result of siting incompatible land uses close together.	The solar farm is located on low quality agricultural land and its design will allow grazing of land by sheep, to be introduced after the completion of the construction phase.
Clause 12.01 Biodiversity	Outlines the need to protect and conserve Victoria's biodiversity, ensuring that any permitted clearing of native vegetation results in no let loss.	Although avoidance measures have been undertaken such as the retention of some large trees, the proposed development will require removal of some native vegetation for the installation of solar arrays. Offset measures will be undertaken to compensate for the biodiversity impact from the removal of native vegetation. In addition to the offset requirements, as part of the proposed landscaping design, various types of vegetation will be planted, completing to the reinstatement of natural values on site.
Clause 12.03 Water Bodies and Wetlands	Encourages the protection of river corridors, waterways, lakes and wetlands.	A section of Four Mile Creek cuts the south-western corner of the site. The configuration of the PV panels and associated infrastructure have been designed to avoid the area. A designated waterway is present over the middle of the site, however minimal earthworks means that the waterway will remain largely intact. The relevant permit will be sought from the CMA for works on waterways and a surface water assessment accompanies this permit application.

Clause	Objective	Relevance
Clause 13.07 Land Use Compatibility	Ensures compatibility of use as appropriate to the land use function and character of the area.	The development is located on land identified with low agricultural potential and therefore presents as an appropriate and positive use of land that contributes to the sustainability of the region.
Clause 14.01 Agriculture	Encourages sustainable agricultural land uses and the preservation of productive farmland.	Glengarry is predominantly used for grazing and agriculture. The development of a solar farm is considered to be compatible with the existing land use. The primary purposes of the land for agriculture and grazing, can still continue at reduced capacity concurrently with the operation of the development.
Clause 14.02 Water	Ensures that there are no significant impacts on the water or marine environment within the project site.	Impacts on these waterways have been minimised through careful design of PV panel locations and access tracks. The PV panels are sufficiently raised allowing water to continue flowing across the site in rainfall events. A surface water assessment was undertaken and identified that the development is unlikely to significantly impact on water flow or flow velocity of the waterway on site.
Clause 15.02 Energy and resource efficiency	Encourages land use and development that assists in the efficient use of energy and minimisation of greenhouse gases.	The proposal is for the development of a renewable energy generation facility (solar farm). This directly contributes to the minimisation of greenhouse gases.
Clause 17.01 Employment	Aims to ensure that the development will facilitate in strengthening and diversifying the economy.	The solar farm contributes to the local economy by providing opportunities for employment during the construction and operational stages. Continued investment of this magnitude in Victoria will have positive impacts on the strength of the state's economy. An Economic Impact Assessment was undertaken and identified that the proposed project will create 130 direct and 210 indirect positions during the construction period, and 6 direct and 17.5 indirect jobs during the operational phase.
Clause 18.01 Land Use and Transport Planning	Encourages a coordinated development of all transport modes to provide comprehensive transport system.	The project will see an increase in the use of Traralgon-Maffra Road particularly during the construction phase. However, it is noted that the access to the solar farm is located on Frasers Lane off the main road, and is therefore not expected to cause unacceptable amounts of traffic disruption. A traffic impact assessment was undertaken as part of this project.

Clause	Objective	Relevance
Clause 19.01 Energy	Aims to facilitate and support the development of energy supply infrastructure. In particular, Clause 19.01-2S Renewable Energy promotes the provision of renewable energy provided siting and design considerations are met.	The proposal is for a renewable energy generation facility. By adhering to planning constraints, the generation capacity of the site is maximised, while taking into account existing infrastructure, environmental impacts and surrounding amenities.

7.1.1 Municipal Strategic Statement

The Municipal Strategic Statement (MSS) outlines the key strategic planning, land use and development objectives for the municipal, and the strategies and actions identified to achieve these objectives. It provides a local context for the application of the objectives of planning in Victoria and the strategic basis for the application of the zones, overlays and particular provisions in the planning scheme.

The Latrobe Strategic Land Use Framework Plan under Clause 21.01 is relevant to this application. The Vision is outlined in the *Latrobe 2026* document: '*In 2026 the Latrobe Valley is a liveable and sustainable region with collaborative and inclusive community leadership'.*

The strategic document identifies the significant contribution that Latrobe Valley has had on generation of electricity for Victoria, as well as corresponding provision of direct employment. Accordingly, the proposal seeks to further the opportunities for Latrobe by the development of a solar farm, which is a method of renewable energy generation.

To assist the region in achieving the above vision, five themes have been set to guide the process. Relevant to this proposal, the following themes have been considered:

- Job creation and economic sustainability
- Appropriate, affordable and sustainable facilities, services and recreation; and
- Planning for the future.

The proposal contributes to employment opportunities during the construction, operation and maintenance stages. The economic impact assessment demonstrated that there are positive opportunities for the greater Latrobe and Gippsland areas in terms of employment, labour and resources, as well as contributions to the economy. There will also be ongoing economic stimulus associated with the solar farm development as well as rates returns to the council.

The proposal also seeks to contribute to the provision of sustainable facilities and services by providing a means of renewable energy generation, which results in significantly less carbon emission when compared to non-renewable sources. The provision of electricity infrastructure contributes to the viability of the region, ensuring a sustainable future and development of the town.

From a strategic planning perspective, it is considered that the proposed solar farm furthers the provision of infrastructure that facilitates sustainable development, and promotes urban growth and regional infrastructure.

7.1.2 Local Planning Policy Framework

Although the Victorian Government introduced the new PPF in late July 2018, the integration of the local policies into the statewide framework is currently still underway. As such, consideration of the provisions within the Local Planning Policy Framework (LPPF) as well as the MSS is still required. The proposed solar farm has been assessed under the relevant MSS in Table 7.2.

Table 7.2: Relevant Municipal Strategic Statement provisions

Clause	Objective	Relevance
Clause 21.03 Factors influencing future planning and development	Outlines factors which are important to the Shire's future land use and development.	The proposed development influences the use of land by proposing a development that is considered to be compatible with the primary agricultural land use. The solar farm is also planning for the future, through introducing a sustainable and renewable form of energy generation. The construction and operation phase is also expected to bring job opportunities and hence positively impact the economic sustainability of the area.
Clause 21.04 Municipal vision	Outlines the vision for land use and development within the Shire.	The proposal seeks to support the existing agricultural use and adds value to existing primary production activities by the development of a solar farm. While the agricultural use of the site will be reduced, it is being replaced by a higher order use which provides economic opportunities and sustainable outcomes for the area. Additionally, after the completion of the construction of the solar farm, the grazing will be reinstated at a lower capacity. The agricultural use of farm will be returned to its full state after the decommissioning of the solar farm at the end of its lifecycle, unless refurbished for further operations, to which would be subject to a new development application.
Clause 21.06 Environment	Ensures the natural values and significant landscapes are retained.	The area in which development is proposed for contains landscapes and environmental values. Measures have been adopted to ensure these values are conserved as best as practicable.

Additionally, the proposal has been considered against the Latrobe City Strategic Land Use Framework Plan, shown in Figure 7.1. There are no specific aspirations for the areas between Glengarry and Toongabbie where the proposed solar farm is located. However, it is important to note that Traralgon, located south of the project site, is identified as a growth corridor. It would be expected that the solar farm will inject economic and employment opportunities to the greater Latrobe Valley area, assisting in the growth of surrounding townships.

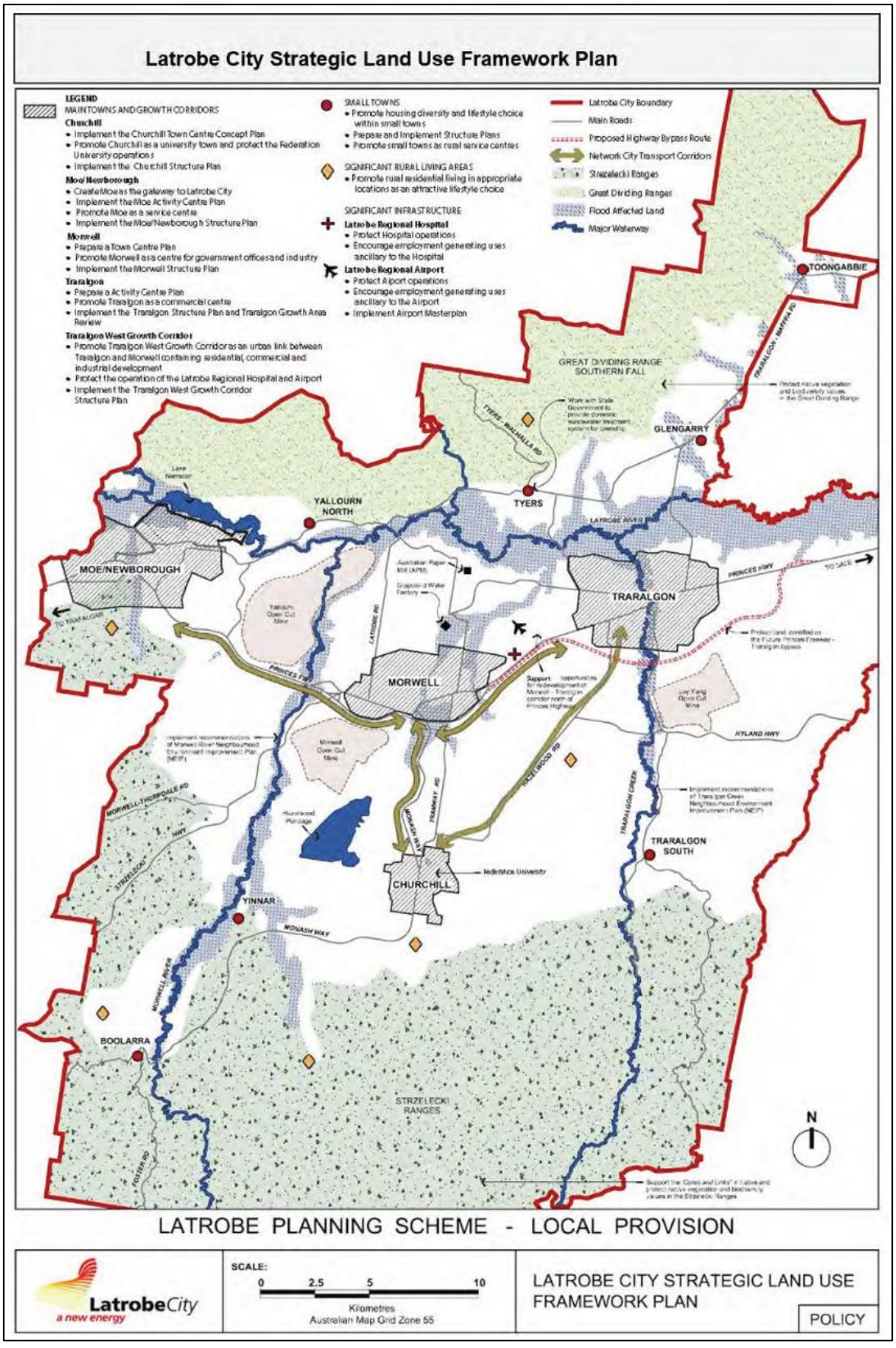

Figure 7.1: Latrobe City Strategic Land Use Framework Plan

7.2 Latrobe Planning Scheme

The development is located within the Latrobe local government area, and as such is subject to the Latrobe Planning Scheme, administered under the *Planning and Environment Act 1987*.

7.2.1 Use classification

Relevant land uses under Clause 73.03 of the planning scheme are shown in Table 7.3. The recent gazetted amendment VC157 of the Victorian Planning Provisions, which took effect in April 2019, is related to this proposal as it concerns power lines and substations. As such, the Minor Utilities use class no longer includes power lines less than 220 kV and substations of 66 kV or less, if they are associated with a large scale energy generation facility.

Table 7.3: Use definitions

Land use term	Definition
Minor Utility Installation	Land used for a utility installation comprising any of the following: a) sewerage or water mains; b) storm or flood water drains or retarding basins; c) flow measurement device or a structure to gauge waterway flow; d) gas mains providing gas directly to consumers; e) a sewerage treatment plant, and any associated disposal works, required to serve a neighbourhood; f) a pumping station required to serve a neighbourhood; g) power lines designed to operate at less than 220,000 volts but excluding any power lines directly associated with an Energy generation facility or Geothermal energy extraction; or h) an electrical sub-station designed to operate at no more than 66,000 volts but excluding any sub-station directly associated with an Energy generation facility or Geothermal energy extraction.
Utility installation	Land used: a) for telecommunications; b) to transmit or distribute gas, oil or power; c) to collect, treat, transmit, store or distribute water; or d) 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.
Energy generation facility	Land used to generate energy for use off site other than geothermal energy extraction. It includes any building or other structure or thing used in or in connection with the generation of energy.
Renewable energy facility	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.

Land use term	Definition
	It includes any building or other structure or thing used in or in connection with the generation of energy by a renewable resource. It does not include a renewable energy facility principally used to supply energy for an existing use of the land.

The uses of land for this proposal are classified as follows:

- The grid connection is classified as a **Utility Installation** as, despite being 66 kV, it is directly related to an **Energy generation facility**.
- The solar farm is classified as a **Renewable Energy Facility**, as it harnesses renewable energy sources from the sun.

7.2.2 Zone

Clause 35.07 – Farming Zone

The proposed solar farm is located wholly within the **Farming Zone** (Clause 35.07), as shown in Figure 7.2.

Within this zone, both a Utility Installation and a Renewable Energy Facility are a Section 2 use (Permit required).

It is considered that the proposal furthers the zone purposes outlined in Clause 35.07. The assessment of the proposal with the relevant zone purposes are discussed in Table 7.4.

Table 7.4: Farming Zone zone provisions

Zone Purpose	Response
To implement the Municipal Planning Strategy and the Planning Policy Framework.	The proposal has been assessed against the Planning Policy Framework in earlier sections of the report. The LPPF, including the MSS has also been considered. It is considered that this proposal furthers the themes under the Latrobe Council vision and is suitable under the Local Planning Policy Framework.
To provide for the use of land for agriculture.	Along with the generation of renewable energy, the proposed solar farm will allow for continued partial grazing of low value agricultural land, and future full agriculture uses reinstated following site decommission.
To encourage the retention of productive agricultural land.	The proposal and associated minimal earthworks will minimise disturbance to the land. Upon decommissioning at the end of the lifespan of the solar farm, the site will be reinstated to its agricultural use.

To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture.	The proposed solar farm will provide the farming business with a guaranteed income stream of 30 years, which will significantly assist to revive the agricultural ventures on site, and maintain its viability from a financial perspective. No new dwellings are proposed.
To encourage the retention of employment and population to support rural communities.	The site has been selected due to its low agricultural value. The proposal will therefore further the local economy and provide employment opportunities
To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.	The creation of local jobs during the construction phase will provide economic benefits for local companies and employment for the local population. These will provide benefits to the local economy.

The proposal is considered to be compliant with the Decision Guidelines for the Farming Zone, as listed under Clause 35.07-6. The relevant guidelines are discussed in Table 7.5.

Table 7.5: Decision guidelines for Farming Zone

Decision Guidelines	Response
General Issues	
The Municipal Planning Strategy and the Planning Policy Framework.	This relevant provisions of the MSS and PPF, as well as zones and overlays provisions are identified and satisfactorily addressed in earlier sections.
Any Regional Catchment Strategy and associated plan applying to the land.	No Regional Catchment Strategy is associated with the subject site.
The capability of the land to accommodate the proposed use or development, including the disposal of effluent.	The site is found to be suitable for the proposed development. It meets the relevant requirements of the Latrobe Planning Scheme. There are no disposal of effluent which can impact on the natural values on site and in surrounding areas.
How the use or development relates to sustainable land management.	The proposed solar farm addresses the elements of sustainable land management by integrating the management of land and environmental resources to meet human living needs, such as the provision of electricity.
Whether the site is suitable for the use or development and whether the proposal is compatible with adjoining and nearby land uses.	The development will not compromise adjacent land uses. The adjacent and nearby uses include power and terminal stations. The proposed solar farm continues the land use for energy provision, but by means of a more sustainable generation method.

Decision Guidelines	Response
How the use and development makes use of existing infrastructure and services.	There is no electrical infrastructure currently on-site. A transmission line is located parallel to the eastern boundary on the road reserve. New electrical infrastructure will be constructed to connect the generated electricity to the electricity grid.
Agricultural issues and impacts from non-agricultural uses	
Whether the use or development will support and enhance agricultural production	The proposed solar farm will allow for grazing, and future replacement agriculture uses following decommissioning of the site.
Whether the use or development will adversely affect soil quality or permanently remove land from agricultural production.	The proposal will not cause effluent spillage or leakage. The use will not affect soil quality or result in permanent removal of land.
The potential for the use or development to limit the operation and expansion of adjoining and nearby agricultural uses.	The proposed solar farm is not expected to limit the potential of operation of adjoining or nearby uses. The proposal will also offer benefit to the surrounding uses particularly on a local level, including the generation of electricity from a renewable source.
The capacity of the site to sustain the agricultural use.	Partial agriculture use is expected to continue in the presence of the proposal such as through grazing of sheep after the construction phase is completed. The site is capable to be reinstated to its full agricultural use after decommissioning.
The agricultural qualities of the land, such as soil quality, access to water and access to rural infrastructure.	The proposed development will complement agricultural uses of the site. It will not prevent access to water and rural infrastructure.
Any integrated land management plan prepared for the site.	There was no identified need to prepare a land management plan as part of this development.
Dwelling issues	
Whether the dwelling will result in the loss or fragmentation of productive agricultural land.	No dwellings are proposed as part of the development.
Whether the dwelling will be adversely affected by agricultural activities on adjacent and nearby land due to dust, noise, odour, use of chemicals and farm machinery, traffic and hours of operation.	
Whether the dwelling will adversely affect the operation and expansion of adjoining and nearby agricultural uses.	
The potential for the proposal to lead to a concentration or proliferation of dwellings in	

Decision Guidelines	Response
the area and the impact of this on the use of the land for agriculture.	
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 proposal does not result in any spillage or leakage, which would otherwise impact on the natural physical features or resources of the area. The panels will be sufficiently raised above ground and therefore will not affect the flow of water.
The impact of the use or development on the flora and fauna on the site and its surrounds.	The site for the proposed development is largely cleared. To allow for the development, some native vegetation will need to be removed, which will be appropriately offset. No significant flora and fauna have been identified on the site.
The need to protect and enhance the biodiversity of the area, including the retention of vegetation and faunal habitat and the need to revegetate land including riparian buffers along waterways, gullies, ridgelines, property boundaries and saline discharge and recharge area.	The site is agricultural land which is used for grazing, and supports no habitat features which contributes to biodiversity. While a watercourse runs through the site, the design of the panels on site considerably stays clear of the flow path of the watercourse and is therefore not considered to have an impact on the watercourse. Development has also avoided named waterway, Four Mile Creek, in the southwestern corner of the proposed site.
The location of on-site effluent disposal areas to minimise the impact of nutrient loads on waterways and native vegetation.	The proposed use will not generate effluent that will impact 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.	A 100 x 100m compound will be located on close to the eastern boundary. The compound is essential for the operation of the solar farm, and therefore is not considered to adversely impact on agricultural uses.
The impact of the siting, design, height, bulk, colours and materials to be used, on the natural environment, major roads, vistas and water features and the measures to be undertaken to minimise any adverse impacts.	The PV panels for the proposed solar farm will ensure optimal use of solar radiation and guarantee high system yields with reliable operation. The modules are capable of sustaining demanding weather conditions. The solar farm is setback a minimum of 20 m from the site boundary, which comprises of a 10m wide vegetation buffer and 10m wide access track. Although used as a fire buffer, the

Decision Guidelines	Response
	setback also ensures that visual impact is minimised from the road.
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 visual impact resulting from the solar farm on nearby uses and character of the area is low. Results from the LCVIA suggest that the visual impacts from the proposal is deemed acceptable given the neighbouring uses (see Appendix D for full report). There are no identified architectural, historic, scientific areas of significance within the area. Landscaping will be implemented to minimise visual impacts for the development (see Appendix G).
The location and design of existing and proposed infrastructure including roads, gas, water, drainage, telecommunications and sewerage facilities.	There are some existing infrastructure on site, including power lines running parallel to the eastern boundary of the site. The proposed development will not impact the existing infrastructure. The new infrastructure, such as cables, inverters, and compounds, are part of the operation of the solar farm. Their location has been chosen to minimise visual clutter, while ensuring minimal impact to natural values.
Whether the use and development will require traffic management measures.	The use will not generate the need for traffic management measures. A traffic and transport assessment has been undertaken and determined that the existing eastern access on Frasers Lane is suitable to cater for the entering and exiting of vehicles, There is minimal on-site activity required during the lifecycle of the project.

Clause 36.04 – Road Zone

The overhead power line associated with the connection of the solar farm to the electricity grid will involve traversing the **Road Zone** (Clause 36.04), as shown in Figure 7.2.

Within this zone, Utility Installation is a Section 2 use (Permit required).

It is considered that the proposal furthers the zone purposes outlined in Clause 36.04. The assessment of the proposal with the relevant zone purposes are discussed in Table 7.6Table 7.4.

Table 7.6: Road Zone zone provisions

Zone Purpose	Response
To implement the Municipal Planning Strategy and the Planning Policy Framework.	The Local Planning Policy Framework, including the Municipal Strategic Statement has been considered in previous sections of the assessment.
To identify significant existing roads.	The overhead power line will be connected to the existing 66kV power line on the road reserve of Traralgon-Maffra Road.
To identify land which has been acquired for a significant proposed road.	The proposed overhead power line does not involve the acquisition of any land.

The proposal is considered to be compliant with the Decision Guidelines for the Road Zone, as listed under Clause 36.04-3. The relevant guidelines are discussed in Table 7.7.

Table 7.7: Decision guidelines for Road Zone

Decision Guidelines	Response
General Issues	
The Municipal Planning Strategy and the Planning Policy Framework.	This relevant provisions of the MSS and PPF, as well as zones and overlays provisions are identified and satisfactorily addressed in earlier sections.
The views of the relevant road authority.	VicRoads will be a referral authority as part of the assessment process. Prior engagement with VicRoads (with additional scope that is no longer pursued) indicated that they did not have any concerns for the project.
The effect of the proposal on the operation of the road and on public safety.	Installation of overhead power lines from the solar farm development to existing power poles is not expected to have any impact on the operation of the road or on public safety.

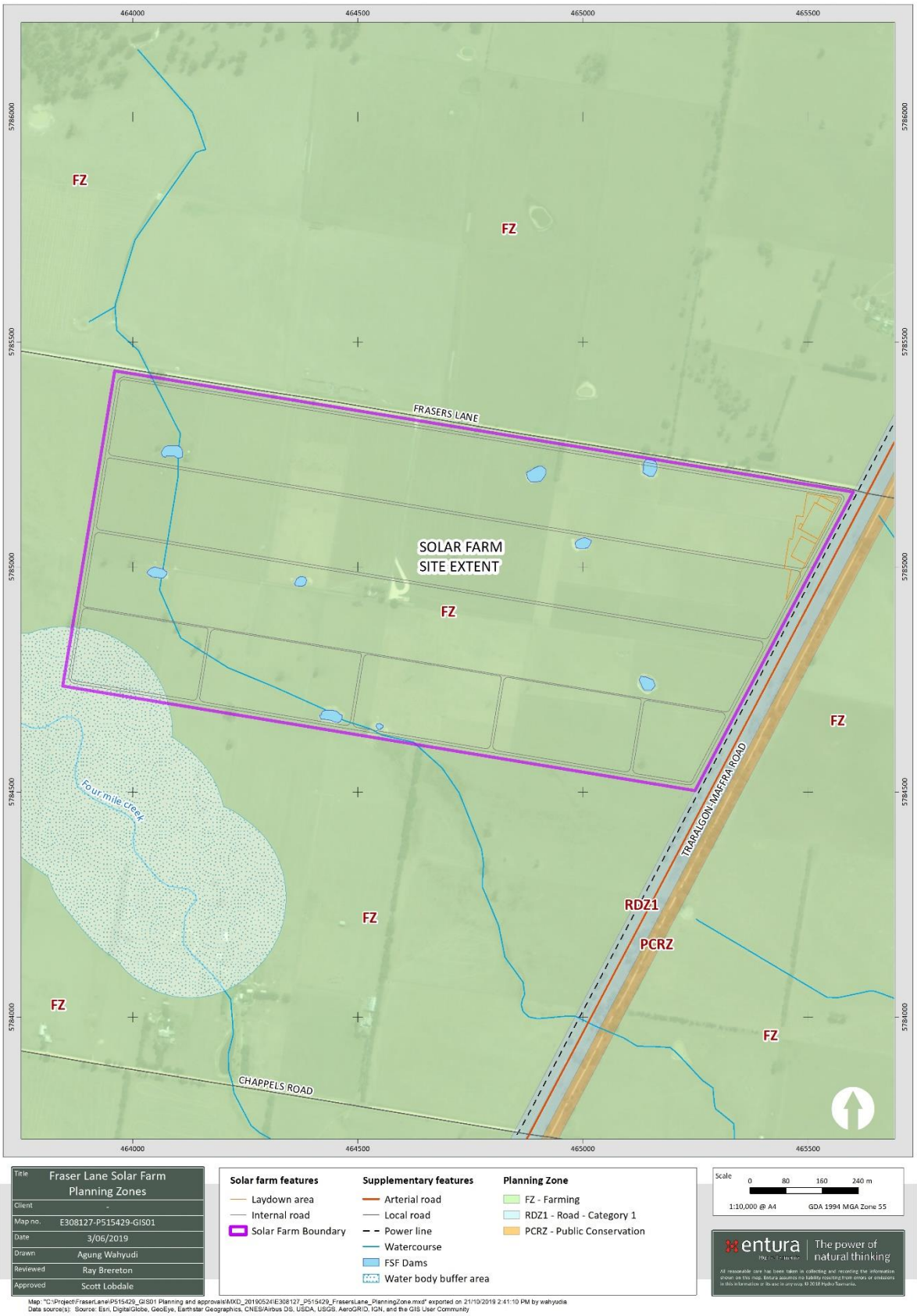

Figure 7.2: Planning zones

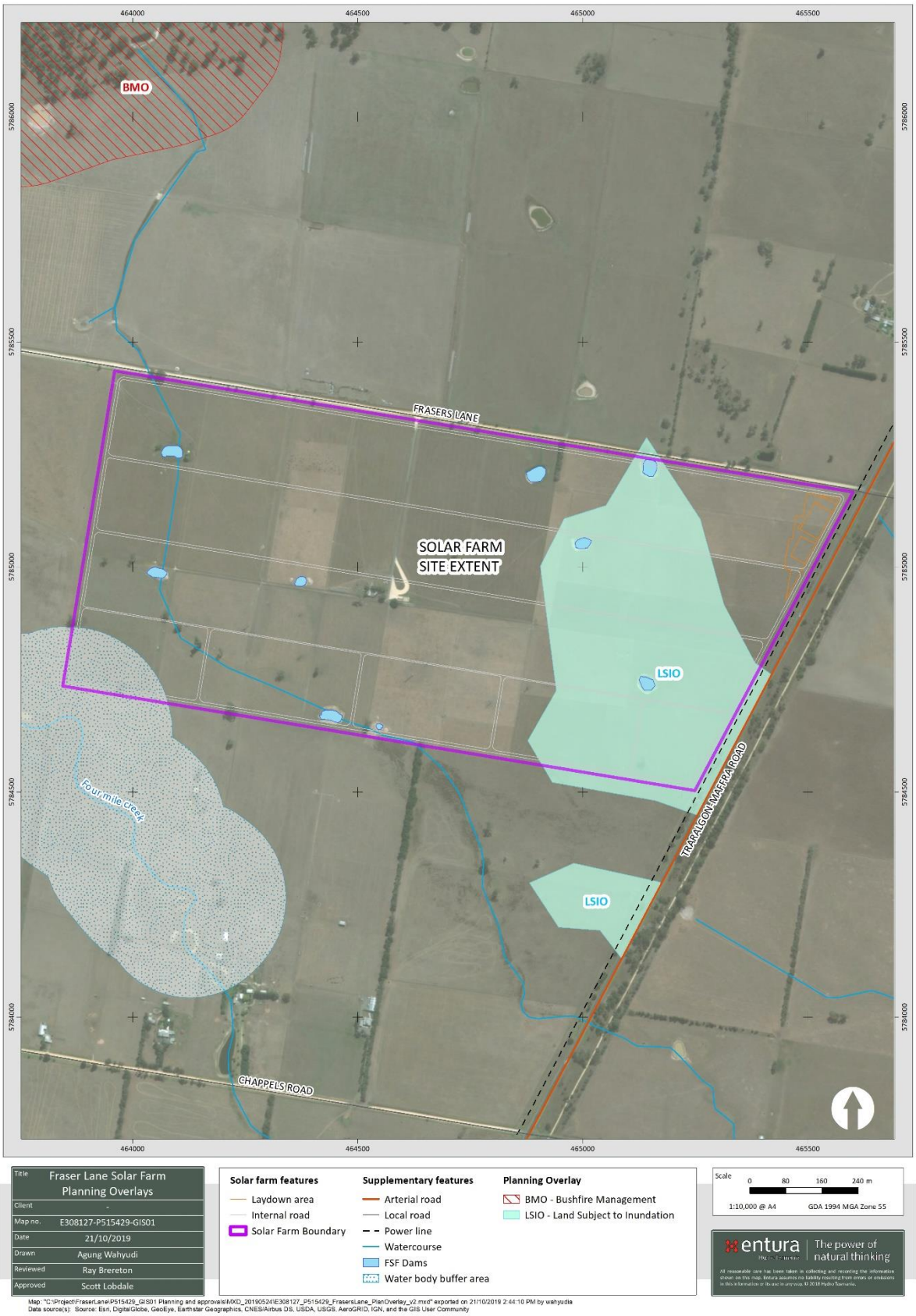

Figure 7.3: Planning overlays

7.2.3 Overlays

An area of the proposed solar farm site is covered by the **Land Subject to Inundation Overlay** (LSIO) (Clause 44.04) as shown in Figure 7.3.

Development is proposed on the area covered by this overlay, however it is considered that the development will not adversely impact on the flow of the creek or flood storage as the proposal involves the installation of PV panels which will allow water to flow underneath the module.

It is considered that the proposal is consistent with the overlay purpose, as discussed in Table 7.8, and satisfactorily addresses the decision guidelines of this overlay, as indicated in Table 7.9.

Table 7.8: Land Subject to Inundation Overlay

Overlay Purpose	Response
To implement the Municipal Planning Strategy and the Planning Policy Framework.	The Local Planning Policy Framework, including the Municipal Strategic Statement has been considered in previous sections of the assessment.
To identify land in a flood storage or flood fringe area affected by the 1 in 100 year flood or any other area determined by the floodplain management authority.	The proposal acknowledges the presence of the watercourse. The proposal does not prevent flood storage or flood flow as no major infrastructure is constructed over these areas. The design of the PV panels allows water to move underneath the module. The surface water assessment identified that this project is unlikely to lead to any significant changes in flood levels or velocities for the site, or adjacent properties. Additionally, the changes to water quality is expected to be at most minimal, which can be readily managed by the implementation of the CEMP.
To ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity.	The development will not interfere with the flow of the creek that traverses the site. The proposed design is not expected to cause significant rise in flood level or flow velocity. The PV panels is not expected to prevent the passage of flow for floodwaters.
To reflect any declaration under Division 4 of Part 10 of the *Water Act 1989* where a declaration has been made.	No declarations have been made.
To protect water quality in accordance with the provisions of relevant State Environment Protection Policies, particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria).	Water quality and waterways are not affected by this proposal as it does not involve the runoff of any effluent or waste.

Overlay Purpose	Response
To ensure that development maintains or improves river and wetland health, waterway protection and flood plain health.	The proposal does not impose harm to any natural features as it does not involve any effluent or waste run off which could pollute the waterways or flood plains.

Table 7.9: Decision guidelines for Land Subject to Inundation Overlay

Decision Guidelines	Response
The Municipal Planning Strategy and the Planning Policy Framework.	The Municipal Planning Strategy and Planning Policy Framework has been considered in Table 7.1 and Table 7.2.
Any local floodplain development plan.	No local floodplain development plan has been developed. It is considered that the proposal does not initiate the need for one as the development does not prohibit flood storage or water flow.
Any comments from the relevant floodplain management authority.	No comments are relevant to this proposal.
The existing use and development of the land.	The proposal is considered to be consistent in its use and development of the land. The site has been chosen for a solar project due to its flat topography, and its low potential for agricultural purposes.
Whether the proposed use or development could be located on flood-free land or land with a lesser flood hazard outside this overlay.	Proposed works on this overlay is not expected to generate any additional hazard to areas outside of this overlay. It does not prevent the flow or storage of water. The development is not located on flood-prone land (the site is not covered by the Flood Overlay).
The susceptibility of the development to flooding and flood damage.	The design of the modules is not expected to increase the susceptibility of the development or the area to flood or 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 access way. • The flood warning time available. • The danger to the occupants of the development, other floodplain residents and emergency personnel if the site or access way is flooded.	There are no dwellings within the LSIO area on site. The development proposed for this area is not likely to bring any additional hazards to the area. It does not prohibit the flow or storage of water.

Decision Guidelines	Response
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 proposal is not considered to obstruct the flow of water, therefore no redirection is required. Where there is an access road traversing the creek, a suitably-sized culvert will be constructed to allow flow of water underneath the road.
The effect of the development on river health values including wetlands, natural habitat, stream stability, erosion, environmental flows, water quality and sites of scientific significance.	The proposal does not result in effluent or waste leakage or spillage which would adversely impact on river health values.

7.2.4 Particular Provisions

Particular provisions are specific provisions for particular uses, and are applied in addition to the requirements of the zones and overlays. Three provisions are required to be considered for this proposal.

Clause 52.05 – Sign

As part of the development, a 'Business Identification Sign' indicating the Frasers Solar Farm development is proposed to be erected at the proposed two access points of the site, both located on Frasers Lane. The signs will be located on land zoned Farming Zone.

As defined under Clause 35.07-7, the Farming zone is located in Category 4 (sensitive areas). As such, the proposal warrants the need to address Clause 52.05, which relates to the proposed development of a sign.

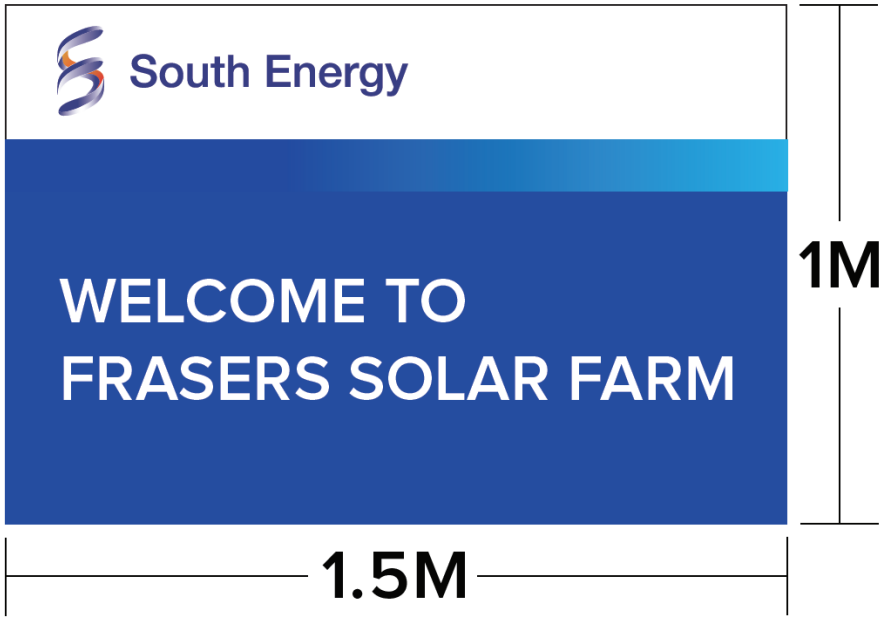

Figure 7.4: Proposed sign design and dimension

Pursuant to Clause 52.05-14, a 'Business Identification Sign' in Category 4 (sensitive areas) requires a permit. The condition to which a permit may be granted is that the total area does not exceed 3 sqm. There are no existing signs on the property.

As part of the development, a sign indicating the Frasers Solar Farm site is proposed to be erected at each of the two access points of the site, both on Frasers Lane. The signs will be located on land zoned Farming Zone. Each sign has an area of 1.5 sqm, therefore the total area of the two signs is within the condition as stipulated in Clause 52.05-14.

The sign will be an aluminium sheet to the dimensions mentioned above, and secured to the perimeter fencing at approximately 1.8m off the ground. The sign will not be freestanding and therefore no structure will be required. The nearest sign is the street identification sign for Frasers Lane approximately 100m west of the sign on the first access point.

It is considered that the proposed sign satisfactorily addresses the decision guidelines for this Particular Provision, as indicated in Table 7.10.

Table 7.10: Decision guidelines for Signs

Decision Guidelines	Response
The character of the area including: • The sensitivity of the area in terms of the natural environment, heritage values, waterways and open space, rural landscape or residential character. • The compatibility of the proposed sign with the existing or desired future character of the area in which it is proposed to be located. • The cumulative impact of signs on the character of an area or route, including the need to avoid visual disorder or clutter of signs. • The consistency with any identifiable outdoor advertising theme in the area.	The sign is considered to be of minimal impact to the area. It is proposed to be installed and secured flush to the perimeter fencing. The nearest sign to the proposed identification sign is the street identification sign for Frasers Lane. There are no identifiable outdoor advertising theme for the area.
Impacts on views and vistas: • The potential to obscure or compromise important views from the public realm. • The potential to dominate the skyline. • The potential to impact on the quality of significant public views. • The potential to impede views to existing signs.	As the sign is proposed to be installed and secured flush to the perimeter fencing, it will not have an impact on the views or vistas from a public realm, skyline or a public view. It will also not impede on the views to existing views.
The relationship to the streetscape, setting or landscape: • The proportion, scale and form of the proposed sign relative to the streetscape, setting or landscape. • The position of the sign, including the extent to which it protrudes above existing buildings or landscape and natural elements. • The ability to screen unsightly built or other elements.	The scale and dimension of the sign is considered to be appropriate for the area. The sign is used for identification purposes, and features a mild colour tone that is not abstract.

Decision Guidelines	Response
• The ability to reduce the number of signs by rationalising or simplifying signs. • The ability to include landscaping to reduce the visual impact of parts of the sign structure.	
The relationship to the site and building: • The scale and form of the sign relative to the scale, proportion and any other significant characteristics of the host site and host building. • The extent to which the sign displays innovation relative to the host site and host building. • The extent to which the sign requires the removal of vegetation or includes new landscaping.	The scale and dimension of the sign is considered to be appropriate for the development. It will not require the removal of any vegetation, and will not prohibit the planting of the landscape buffer that is proposed for the site.
The impact of structures associated with the sign: • The extent to which associated structures integrate with the sign. • The potential of associated structures to impact any important or significant features of the building, site, streetscape, setting or landscape, views and vistas or area.	There is no structure associated with the proposed sign. The sign is proposed to be installed and secured flush to the fencing.
The impact of any illumination: • The impact of glare and illumination on the safety of pedestrians and vehicles. • The impact of illumination on the amenity of nearby residents and the amenity of the area. • The potential to control illumination temporally or in terms of intensity.	The proposed sign is not illuminated.
The impact of any logo box associated with the sign: • The extent to which the logo box forms an integral part of the sign through its position, lighting and any structures used to attach the logo box to the sign. • The suitability of the size of the logo box in relation to its identification purpose and the size of the sign.	The proposed sign does not include a logo box.
The need for identification and the opportunities for adequate identification on the site or locality.	The purpose of the identification sign is to allow the community as well as maintenance officers to know the location of the development. The solar farm is expected to be a local attraction when it is constructed.
The impact on road safety. A sign is a safety hazard if the sign: • Obstructs a driver's line of sight at an intersection, curve or point of egress from an adjacent property.	The sign is not considered to impact on road safety, given it will not protrude from the point of installation.

Decision Guidelines	Response
• Obstructs a driver's view of a traffic control device, or is likely to create a confusing or dominating background that may reduce the clarity or effectiveness of a traffic control device. • Could dazzle or distract drivers due to its size, design or colouring, or it being illuminated, reflective, animated or flashing. • Is at a location where particular concentration is required, such as a high pedestrian volume intersection. • Is likely to be mistaken for a traffic control device, because it contains red, green or yellow lighting, or has red circles, octagons, crosses, triangles or arrows. • Requires close study from a moving or stationary vehicle in a location where the vehicle would be unprotected from passing traffic. • Invites drivers to turn where there is fast moving traffic or the sign is so close to the turning point that there is no time to signal and turn safely. • Is within 100 metres of a rural railway crossing. • Has insufficient clearance from vehicles on the carriageway. • Could mislead drivers or be mistaken as an instruction to drivers.	The sign is considered to be large enough for drivers or their passengers to identify the road after turning onto Frasers Lane.

Clause 52.17 – Native Vegetation

This particular provision applies to the proposed works as it involves the removal of native vegetation. DELWP's *Guidelines for the Removal, Destruction or Lopping of Native Vegetation* (the Guidelines) has been addressed in the Biodiversity report, included in Appendix D.

While the proposal has been carefully designed to minimise the need for removal of native vegetation in accordance with Clause 52.17, removal in several locations cannot be avoided as alternative design solutions were not feasible. The vegetation is not located within a Property Vegetation Plan. As assessed within the biodiversity report, the proposal will require the removal of nine large trees, equivalent to 0.633 ha of native vegetation to be removed.

In accordance with the provisions of this clause, as well as the Guidelines, the proposal has been assessed against the detailed assessment pathway as it comprises greater than 0.5 ha of vegetation to be removed. The removal is in Location 1, and the dimensions and species of the trees to be removed are included in the Appendix D.

An 'avoid and minimise' statement has also been included in the Biodiversity Report. Mitigation measures will be implemented during the removal of the vegetation to minimise impacts on wildlife, including the presence of a licenced wildlife spotter, and scheduling tree-felling for outside of the spring breeding season.

Clause 52.17-6 requires the removal of native vegetation to be offset in accordance with the Guidelines. Pursuant to this, an offset of 0.129 general habitat units is required and must be located within the West Gippsland Catchment Management Authority or Latrobe City Council. The offset site would require a strategic biodiversity value score of equal or greater than 0.284, and will need to include at least 9 large trees.

Clause 53.13 – Renewable energy facility

The proposal warrants the need to address Clause 53.13, which relates to the proposed use or development of land associated with renewable energy facilities (except wind and geothermal energy extraction).

It is considered that the proposal satisfactorily meets the application requirements, as addressed in Table 7.11

Table 7.11: Application requirement for Renewable Energy Facility

Application Requirements	Response
A site and context analysis, including:	
A site plan, photographs or other techniques to accurately describe the site and the surrounding area.	Site plans are included in Appendix B, which includes the proposed infrastructure. The site and surrounding area have been described in Section 2.1 of this report.
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 solar farm layout and grid connection map are included in Appendix B. A location map is shown in Figure 2.2.
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.	Design plans and site layouts for the PV panels, and associated infrastructure are included in Appendix B.
Accurate visual simulations illustrating the development in the context of the surrounding area and from key public view points.	A Landscape and Visual Impact Assessment (LCVIA) has been included as part of this planning report (refer to Appendix D). It has been supported by photomontage imagery undertaken at three sensitive receptors or localities, and two viewpoints nearby to the area. It is concluded that due to the flat topography of the area, the solar farm results in low visual impact to its surroundings. Furthermore, vegetation screening will be implemented for screening, especially from

Application Requirements	Response
	public viewpoints such as road users of Traralgon-Maffra Road and Frasers Lane.
The extent of vegetation removal and a rehabilitation plan for the site.	Some native vegetation will need to be removed as part of the development, however appropriate offset measures have been implemented (refer to Appendix E). A Landscape Plan has also been prepared to demonstrate that mitigation measures have been considered for this proposal.
Written report and assessment, including:	
An explanation of how the proposed design derives from and responds to the site analysis.	This planning assessment report is considered to satisfactorily address the proposal, the amenity impacts including visual and traffic, and how the proposal design responds to the site analysis. A desktop Aboriginal heritage assessment was undertaken as part of the feasibility study of project, which was undertaken prior to the current development approvals phase. The assessment reported that there have been no Aboriginal or historical cultural heritage items or sites have been previously recorded on the project site. Additionally, predictively modelling indicates that there is a low potential for heritage values to be found on site or harmed by the activity. It is expected that there will be an increase in noise and vibration impacts during the construction phase of the project, resulting from normal operation of machinery and truck movements. Works will not be undertaken outside of standard hours unless approval has been sought from the relevant agencies. The operational noise impacts is expected to be minimal, due to the use of low noise-emitting infrastructure, and the nearest residence located 600m away from the power conversion unit.
A description of the proposal, including the types of process to be utilised, materials to be stored and the treatment of waste.	
Whether a Works Approval or Licence 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.	A feasibility study was undertaken prior to the development approvals phase to determine the suitability of the site for the proposed solar farm development. The assessment determined that the site was suitable, based on factors including infrastructure and topography.

Application Requirements	Response
	A statement of the solar farm benefits is discussed in Section 2.6.
An environmental management plan including, a construction management plan, any rehabilitation and monitoring.	A preliminary environmental management plan is provided in Section 8. It is expected that subject to council permit conditions, revisions will need to be made.

The proposal is also considered to be compliant with the decision guidelines for the Particular Provisions for Renewable Energy Facility, as listed under Clause 53.13. The relevant guidelines are discussed in Table 7.12.

Table 7.12: Decision Guidelines for Renewable Energy Facility

Decision Guidelines	Response
The effect of the proposal on the surrounding area in terms of noise, glint, light spill, vibration, smell and electromagnetic interference	Noise impacts during construction will be low. Construction activities will take place only during permitted hours of work in the daytime. The angle of the PV panels has been orientated to maximise solar exposure. There are no nearby airports or flight paths in the vicinity. The type of solar array selected for this development are low glare panels. A suitably-sized landscape buffer will be applied along the site boundaries to achieve visual impact mitigation. Electromagnetic interference is considered insignificant from the proposal development due to very low levels emitted from solar farms and associated assets. There are no vibration or smell impacts that is expected from the development of the solar farm.
The impact of the proposal on significant views, including visual corridors and sightlines.	A visual impact assessment has been included as part of this planning report. It has been supported by photomontage imagery undertaken at three receptors nearby to the area. It is concluded that due to the flat topography of the area, and the limited quantity of sensitive receptors, the solar farm results in low visual impact to its surroundings. Furthermore, vegetation screening will be implemented for screening, especially from road users of Traralgon-Maffra Road and Frasers Lane.
The impact of the proposal on the natural environment and natural systems.	South Energy seeks to increase the benefits and sustainability of its solar projects. The proposed

Decision Guidelines	Response
	development is considered to provide landscape benefits through landscaping and management of the site during its operational phase.
Whether the proposal will require traffic management measures.	No specific traffic management is required for the development. There is minimal traffic movement during the construction and operational phases at the site.

7.3 Notification

Public notification of the development is required as part of the assessment process. In addition, referral agencies must be consulted and the responsible authority must take any comments into account when determining the matter. In the case of a Section 2 Use, notification is required unless the responsible authority believes that sufficient consultation has already occurred.

7.4 Incorporated Documents

Clause 72.04 lists documents which are incorporated in, and therefore form part of the planning scheme. Relevant documents are discussed below.

7.4.1 Guidelines for the removal, destruction or lopping of native vegetation

The Native Vegetation Guidelines (DELWP, 2017) were prepared by the Victorian Government to assist in the assessment and offset for the removal, destruction or lopping of native vegetation. The guidelines are called in under Clause 52.17 of the planning scheme as an application requirement.

The guidelines outline:

- The assessment of impacts from removing native vegetation on biodiversity and other values.
- How offsets are calculated and established to compensate for the loss in biodiversity value from the removal of native vegetation.

The objective for permitted clearing of native vegetation is that there is no net loss in the contribution made by native vegetation to Victoria's biodiversity.

As the proposed development involves more than 1ha of native vegetation removal, therefore referral to DELWP is required. A biodiversity assessment was completed, and identified that the proposal will be assessed under the detailed pathway, where a general offset applies to the removal.

8. Environmental management

As part of the previous feasibility and current development application phases of the proposed Frasers Solar Farm project, a number of desktop and/or field studies were undertaken. Through detailed technical investigations and community consultation, potential impacts have been identified and options for managing these impacts examined.

Where possible, potential impacts have been eliminated through the design response. Where changes to the project description or design could not be made, measures to mitigate potential impacts have been addressed in the construction and operation processes.

The key mechanisms for managing impacts during these phases involve the preparation of, and commitment to, a detailed Construction Environmental Management Plan (CEMP) and the establishment of necessary supporting procedures and monitoring programs. The framework for environmental management is shown in Figure 8.1.

Entura has developed a preliminary consolidated mitigation management plan, outlined in Section 8.4, however will likely need to be further refined dependent on permit conditions.

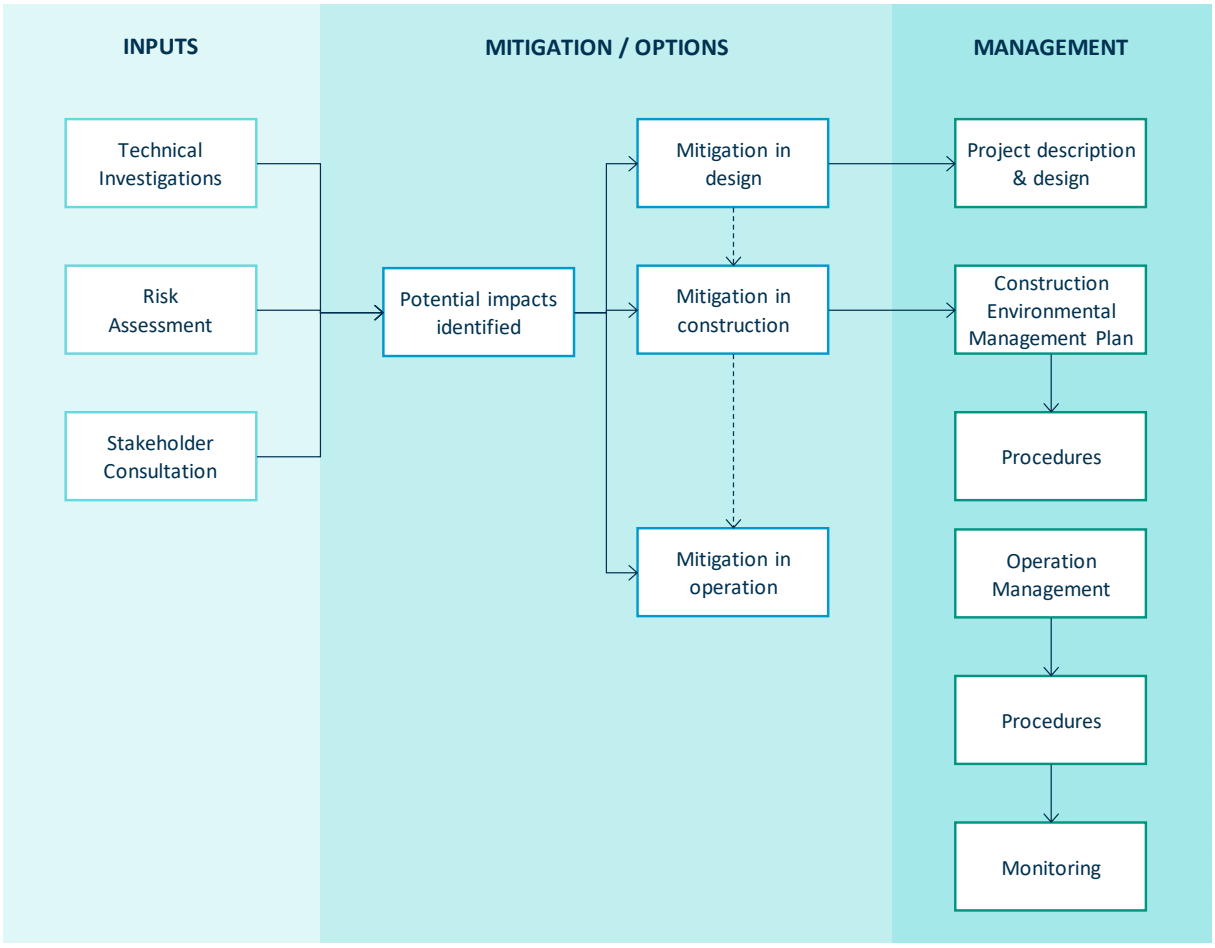

Figure 8.1: Environmental management framework

8.1 Construction Environmental Management Plan

A number of major contracts will be required for the construction of Frasers Solar Farm. Each major contractor will be responsible for environmental management of the scope of works specified within their individual contracts. South Energy will manage each of these contracts and be directly responsible for environmental management of any aspects of the project outside any major contract.

The CEMP is the overarching document comprised of a number of management plans that deal with specific environmental and social issues. It will outline the procedures and controls required to meet the following:

- Commitments made as part of this application
- Any condition of the planning permit
- South Energy's environmental management system.

The CEMP will detail the individual contractors' preferred methods for meeting performance standards.

Ongoing management of environmental and social issues during operation of the Frasers Solar Farm should be achieved through South Energy's related environmental management system.

8.1.1 South Energy's role and responsibilities

South Energy is responsible for compliance with its Environmental Management System (EMS). The EMS is relevant to the construction and operation of the proposed solar farm and addresses environmental aspects of the works, including:

- Monitoring of contractor's environmental performance
- Direct management of environmental aspects of the work not included within the major contracts scope of work
- Liaison with regulatory agencies.

8.1.2 Major contractor responsibilities

In accordance with the conditions of individual contracts, the major contractors will be responsible for environmental management of their contracted scope of works. Detailed environmental management requirements will be included within each major contract.

The major contractors will be required to submit a CEMP to South Energy incorporating the key elements of ISO 14001, including:

- A responsibility matrix (including subcontractors)
- Regulatory requirements applicable to the development
- Incident management and complaint protocols including example forms and procedures
- Site induction program including access protocols
- Agreed monitoring processes and audit program.

South Energy will assist the main contractors in the preparation of the CEMPs by providing all relevant EMS documentation and any additional specific information or guidance on the management of environmental aspects.

8.2 Environmental and social management plans

A range of environmental and social management plans are expected to manage environmental and social risks during the construction and operation of the proposed solar farm. Key environmental and social plans expected to be prepared include:

- Traffic management plan
- Complaints Investigation and Response Plan
- Glint and Glare Management Plan
- Environmental Management Plans, covering construction and operation, including:
    - Flood and stormwater mitigation management plan utilising the surface water assessment report
    - Noise management plan
    - Sediment, erosion, dust and water quality management plan
    - Hydrocarbon and hazardous substances management plan
    - Wildfire prevention and emergency response plan
    - Vegetation management plan
    - Biosecurity management plan
    - Other environmental risks not specifically covered in this report, such as waste.

Each of the management plans will describe the objectives and performance targets and provide key management, monitoring and reporting requirements. The plans will describe specific management and monitoring measures based on the final project design and selected construction methods.

8.3 Performance monitoring and compliance

Continual monitoring and review is necessary to ensure compliance with CEMP objectives and requirements. The CEMP documents will be designed to be regularly reviewed and updated to reflect changes to regulations, increased knowledge of natural systems and improvement in management systems and implementation measures. Therefore, a clear monitoring framework will be an integral part of the CEMP documents to determine whether objectives are being achieved.

A detailed performance monitoring program will be developed, which will include frequency of monitoring, responsibilities and importantly the process for identifying, and resolving non-conformances against the CEMP documents. This includes the mechanisms for notification to the appropriate public authority if a non-conformance involves a breach of legislative requirements.

8.4 Summary of mitigation measures

Environmental impacts have been identified by each of the specialist studies. The specialists, where required, have recommended mitigation measures that will address identified potential impacts and

ensure compliance with legislation and guidelines. These recommendations are reflected in the consolidated commitments in Table 8.1.

Table 8.1: Consolidated mitigation measures

Ref.	Mitigation Measures	Design	Construction	Operation
GE	**General**			
GE01	Other than service connections, all works are confined within the boundaries of the solar farm.	•		
GE02	Construction hours will be restricted to normal working hours as far as practicable. Any work outside of these hours will be subject to a permit by Latrobe City Council.		•	
GE03	Suitable PPE will be worn by all personnel on site appropriate to the activities they are undertaking.		•	•
GE04	Periodic auditing will be undertaken to verify compliance with these commitments.		•	•
GE05	Dust suppression measures will be applied to unpaved areas within the site whenever dust is visible. Vehicles on site to travel at a speed unlikely to exacerbate dust conditions. Vehicles to travel on well-defined roads.		•	
GE06	Construction activity will be kept to a minimum during times of very high winds and extreme weather conditions. Specific risk conditions will be provided within the Frasers Lane site specific CEMP		•	
GE07	Site will be secure from trespassers and will use appropriate measures to avoid and/or minimise their visual impact and impacts on native flora and fauna	•	•	•
BO	**Biodiversity**			
BO01	A Forest Produce Licence will be sought if the native vegetation removed from site is to be sold.		•	•
BO02	A licenced wildlife spotter will be on site during tree felling operations.		•	
BO03	Tree felling exercise is to be completed outside of spring breeding season for birds and mammals.		•	
CC	**Community Consultation**			
CC01	The Community Consultation Program will continue with relevant parts implemented as part of the CEMP. The program will seek to maintain local relationships and keep affected or interested parties informed about the project in order to reduce inconvenience, disruption and uncertainty in the local community. Project contact details will be provided so that community members can raise issues and concerns.		•	
CC02	Nearby affected residents or persons undertaking land uses which may be affected will be informed on an ongoing basis of any major activities on site, including those which may have an impact on noise or traffic.		•	

Ref.	Mitigation Measures	Design	Construction	Operation
CH	**Cultural Heritage**			
CH01	A standard protocol for the reporting and management of Aboriginal cultural heritage finds will be adopted as part of the CEMP.		•	
FR	**Flood Risk**			
FR01	An Emergency Management Plan will be developed and incorporated into the operations procedures for the site.			•
FiR	**Fire Risk**			
FiR01	An Emergency Management Plan will be developed and incorporated into the CEMP and the operations procedures for the site.			
GG	**Greenhouse Gas**			
GG01	Where practicable, construction materials are to be sourced as close to the site as possible to reduce transport fuel use.		•	
GG02	Construction equipment will be maintained in good working order to maximise fuel efficiency of equipment.		•	
GG03	Appropriately sized equipment will be used for construction activities.		•	
GL	**Glint and Glare**			
GL01	A glint, glare and light spill management plan will be developed for the operation of the plant		•	•
HM	**Hazardous Material and Waste**			
HM01	A Waste Management Plan is to be incorporated into the CEMP.		•	
HM02	A waste register is to be developed and maintained to monitor and record volumes of all waste, and the methods and locations of disposal.		•	•
HM03	Spill kits are to be readily available on site, including absorbent materials.		•	•
LA	**Landscape**			
LA01	A detailed landscape plan will be developed, submitted for approval to the responsible authority, and then adopted for the proposal.	•		
LA02	The CEMP is to include a Weed Management Plan identifying the methods for containment of weeds as well as their eradication and removal when identified on site.		•	
NM	**Noise Management**			
NM01	The CEMP is to include considerations for noise reduction.		•	
SW	**Stormwater**			
SW01	Where possible, excavation and stockpiling of material will be programmed to avoid periods of likely high rainfall.		•	
SW02	Sediment and erosion controls to be installed before construction commences		•	

Ref.	Mitigation Measures	Design	Construction	Operation
SW03	Contingency measure plans from intense stormwater events will be included within the sediment, erosion and water quality EMP should control structures fail		•	
SW04	Examine whether diversion drains and temporary stormwater controls will be required to reduce on-site volumes via the hydrologic survey and modelling		•	
TT	**Traffic and Transport**			
TT01	A Traffic Management Plan will be prepared and implemented as part of the CEMP.	•	•	
TT02	All relevant permits from VicRoads or local government for over-dimensional vehicle movements will be obtained when and where required.		•	
WW	**Waterways**			
WW01	A Works on Waterways permit will be sought from West Gippsland Catchment Management Authority to be issued under the *Water Act 1989* prior to the commencement of works.	•		
WW02	Sediment, dust and erosion controls within CEMP to minimise pollution entering tributaries and waterways associated with the site		•	

8.5 Decommissioning

Following the cessation of electricity generation by the solar farm at the end of its proposed 30 year lifespan, the site will either be decommissioned and reinstated for agricultural use, or refurbished for further operations. Project decommissioning will be a simple and swift process owing to the method used to install the modules and supporting structures. The costs of decommissioning will be primarily covered by the inherent value left in the materials, which can be recycled.

9. Conclusion

The proposal for the 75MW Frasers Solar Farm, located at the corner of Frasers Lane and Traralgon-Maffra Road has been assessed against the relevant requirements of the Latrobe Planning Scheme, DELWP Solar Energy Facility Design and Development Guideline, as well as other applicable legislations and policies. It is considered to be consistent with the overall intent of the Municipal Strategic Statement, Local Planning Policy Framework, and is compliant with the provisions of the scheme.

The proposed development facilitates the provision of infrastructure for the generation of renewable energy. This will assist the Australian electricity grid by providing an additional source of energy. The proposal will also bring social and economic growth, through the generation of employment opportunities during both construction and the solar farm's operation, therefore resulting in economic benefits across various phases of the project.

The environmental risks identified as part of the proposal are considered to be easily managed. Effective implementation of control measures during the construction stage will be outlined in the Construction Environmental Management Plan which will be prepared prior to the commencement of construction.

Avoidance measures have been undertaken to minimise the clearance of native vegetation, such as retaining any vegetation that is not directly in the solar array footprint, and implementing a buffer around the designated waterway. Of the 28 trees on site, nine will need to be removed. These will be appropriately offset either within the Latrobe City Council area or West Gippsland catchment area.

Given the flat topography of the land, visual impact has been identified to affect three sensitive receptors to different extents. As part of the proposal, site landscaping has been proposed to mitigate visual impact for community members, road users as well as residents within the area. The road infrastructure has been determined to be largely capable of absorbing the increase of vehicle movements during the construction of the solar farm.

This planning assessment report demonstrates that the issues concerning the proposal can be satisfactorily managed, and the proposal is compliant with relevant provisions of the regulatory frameworks. It is recommended that the application be approved.

Appendices

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A Title Information

B Solar Farm Plans

B.1 Concept layout plan

B.2 Elevation plans (control building, switchgear, operations and maintenance building)

B.3 Sectional plans

B.4 Substation (electrical infrastructure and connection) layout

B.5 Battery energy storage system plan

B.6 Fence elevation

C Community Engagement Report

D Agricultural Impact Assessment

E Biodiversity Assessment

F Cultural Heritage Assessment

G Economic Impact Assessment

H Glint and Glare Assessment

I Landscape Character and Visual Impact Assessment

J Landscape design

K Surface Water Assessment

L Traffic and Transport Assessment

M Acoustic Impact Assessment

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