

# Town Planning Report

Goorambat East Solar Farm



# Town Planning Report

Goorambat East Solar Farm

Client: Neoen Australia Pty Ltd

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Prepared by

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## Executive Summary

### Applicant Details

<b>Applicant</b>	Neoen Australia Pty Ltd
<b>Contact Person</b>	Kristina Yan <a href="mailto:kristina.yan@neoen.com">kristina.yan@neoen.com</a> 0488 554 461

### Application Details

<b>Site Address</b>	379 Goorambat-Chesney Rd Goorambat, Victoria 3725
<b>Formal Property Description</b>	Lot 1 and 2 TP399580 Lot 1 and 2 TP179662 Lot 1 TP161528 Allotment 39B Parish of Goorambat Allotment 41 Parish of Goorambat Allotment 59A Parish of Goorambat An unused Government Road within the project boundary

<b>Description of Proposal</b>	The proposal seeks planning approval for the development and use of a Renewable Energy Facility (solar) and a utility installation, removal of native vegetation, construction and display of business identification signage and car parking associated with the Goorambat East Solar Farm.
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<b>Permit Requirement</b>	A permit is required for the use of the land in accordance with <b>Clause 35.07-1</b> , buildings and works in accordance with <b>Clause 35.07-4</b> and <b>Clause 44.03-2</b> , the removal of native vegetation in accordance with <b>Clause 52.17-1</b> and the construction and display of business identification signage in accordance with <b>Clause 52.02-14</b> . In addition, the provision of car parking spaces to the satisfaction of the Responsible Authority in accordance with <b>Clause 52.06-6</b> .
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<b>Zone</b>	Farming Zone ( <b>Clause 35.07</b> )
<b>Overlay</b>	Rural Floodway Overlay ( <b>Clause 44.03</b> )
<b>Particular Provisions</b>	Signs ( <b>Clause 52.05</b> ) Car Parking ( <b>Clause 52.06</b> ) Native Vegetation ( <b>Clause 52.17</b> ) Renewable Energy Facility (Other Than Wind Energy Facility and Geothermal Energy Extraction) ( <b>Clause 53.13</b> )
<b>Area of Aboriginal Cultural Heritage Sensitivity</b>	No
<b>Land Owner</b>	Various (refer <b>Appendix A</b> for Certificate of Titles)
<b>Municipality</b>	Benalla Rural City Council

## 1.0 Introduction

### 1.1 Overview

This report has been prepared by AECOM Australia Pty Ltd (AECOM) on behalf of Neoen Australia Pty Ltd (the applicant) (Neoen) in relation to a planning permit application for the development and use of a Renewable Energy Facility (solar) and utility installation, removal of native vegetation, construction and display of business identification signage and car parking associated within the district of Goorambat. The site is located approximately 215 kilometres to the northeast of the Melbourne Central Business District within the Rural City of Benalla and the project is referred to as the Goorambat East Solar Farm (the Project). The location of the site is shown in Figure 1. The purpose of the Renewable Energy Facility is to supply electricity generated from solar radiation into the National Energy Market. The Project is expected to have a network capacity of up to 250 Megawatts (MW) provided by approximately 500,000 solar photovoltaic (PV) panels/modules and up to approximately 120 inverters. A range of associated infrastructure will also be required including:

- Terminal substation;
- Connection to the electricity grid;
- Security features (including fencing);
- Operations and maintenance areas;
- Site access and internal access roads;
- Landscaping; and
- Business identification signage.

It is proposed the Project will connect into the existing 220 kV overhead transmission line (the Shepparton Terminal Station (SHTS) to Dederang Terminal Station (DDTS) transmission line). This existing transmission line traverses the site from the northwest corner, extending east through the site. The Project will connect via the proposed terminal substation to this transmission line within the site.

The design layout presented in this planning permit application is indicative only, and the final design layout will be determined during the detailed design phase of the project. Any changes as a result of the final design layout will be generally in accordance with the indicative design response enclosed in this application and subject to the identified site constraints. It is anticipated that if this application for a planning permit is approved, Neoen will seek endorsement of plans which will form part of the permit from Council in accordance with relevant planning permit conditions.

The proposal seeks planning approval for development and use of a Renewable Energy Facility (solar) and utility installation, removal of native vegetation, construction and display of business identification signage and car parking in accordance with the following provisions of the Benalla Planning Scheme (the Planning Scheme):

- Use of the land for a Renewable Energy Facility (solar) and utility installation in accordance with:
  - **Clause 35.07-1** (Farming Zone)
- Buildings and works for a Renewable Energy Facility (solar) in accordance with:
  - **Clause 35.07-4** (Farming Zone) and **Clause 44.03-2** (Rural Floodway Overlay)
- The removal of native vegetation in accordance with:
  - **Clause 52.17-1** (Native Vegetation)
- The construction and display of business identification signage in accordance with:
  - **Clause 52.05-14** (Signs)
- The provision of car parking spaces to the satisfaction of the Responsible Authority:
  - **Clause 52.06-6** (Car Parking)

## 1.2 Application Structure

This Planning Permit Application Report (Report) is structured as follows:

- **Section 1** introduces the Project and outlines the application background including the applicant and consultation and engagement undertaken to date.
- **Section 2** outlines the background of the application including the applicant and consultation and engagement undertaken to date.
- **Section 3** provides a description of the site and surrounding environment.
- **Section 4** provides a detailed description of the Project.
- **Section 5** identifies the statutory and policy context that are of relevance to the Project and provides a detailed assessment of the Project against the identified planning policy and legislation.
- **Section 6 provides** a summary of the potential impacts from the construction and operation of the Project including a summary of the specialist technical reports and assessments.
- **Section 7** concludes the report.

Several technical reports have been prepared to inform this planning permit application, comprising:

- Certificate of Titles - **Appendix A**
- Community Relations Plan (dated 15 August 2019), prepared by Neoen – **Appendix B**
- Design Response Details (for information purposes only) - **Appendix C**
- *Site Management and Integration of Agriculture* (dated 23 May 2019), prepared by AgriSci Pty Ltd – **Appendix D**
- *Flora and Fauna Assessment Report – Goorambat East Solar Farm* (dated 16 August 2019), prepared by AECOM - **Appendix E**
- *Cultural Heritage Assessment* (dated 14 August 2019), prepared by Andrew Long and Associates - **Appendix F**
- *Glint and Glare Assessment* (dated 16 August 2019), prepared by AECOM - **Appendix G**
- *Surface Water Assessment* (dated 16 August 2019), prepared by AECOM - **Appendix H**
- *Traffic Impact Assessment* (dated 16 August 2019), prepared by AECOM - **Appendix I**
- Agricultural Assessment (dated 14 August 2019), prepared by Phillips AgriBusiness - **Appendix J**
- *Preliminary Landscape and Visual Impact Assessment Memo* (dated 16 August 2019), prepared by Hansen Partnerships - **Appendix K**
- *Framework Environmental Management Plan* (dated 16 August 2019), prepared by AECOM – **Appendix L**

## 2.0 Application Background

### 2.1.1 Neoen Australia Pty Ltd

Neoen is a developer, operator and long-term investor in renewable energy assets. Neoen has an established track record of constructing eleven renewable energy projects in Western Australia, South Australia, New South Wales and Victoria (refer Plate 1).

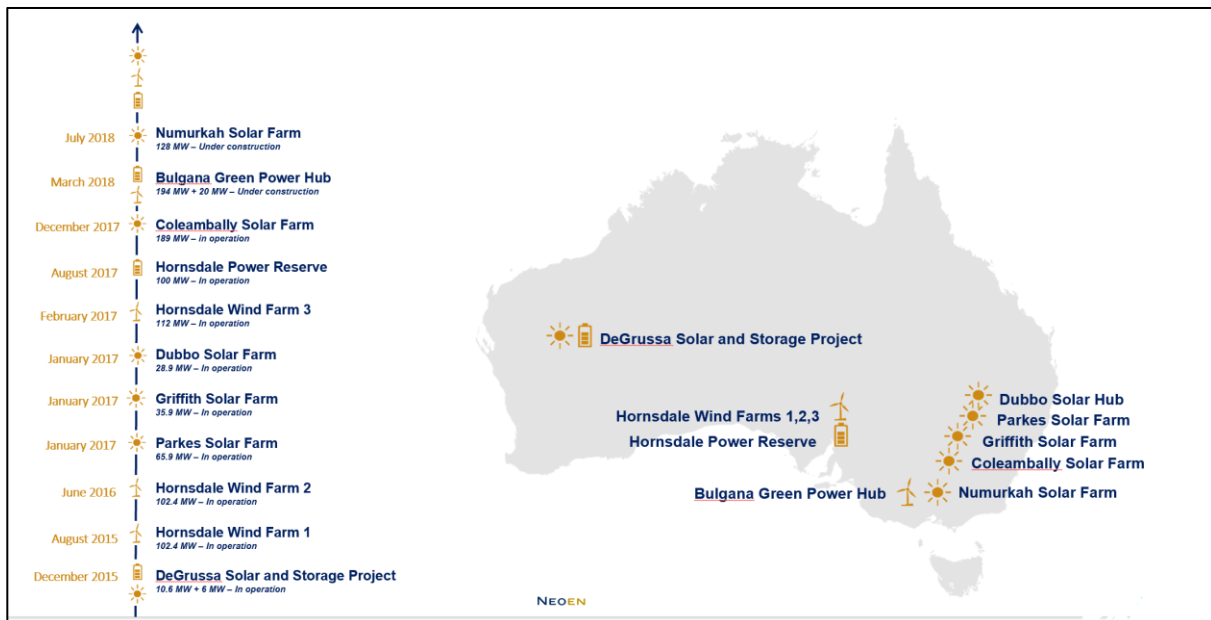


Plate 1 Neoen Renewable Energy Projects

### 2.1.2 Project Background

Neoen's opportunity in the Goorambat region resulted from an outside contact from the landholder consortium. Neoen was chosen by the landowner consortium for their integrated approach and long-term ownership to ensure land stewardship and continued communication.

Feasibility studies conducted in late 2018 determined two potential sites for a solar farm development. These two sites were referred to as the 'Eastern Front' (located in the Goorambat region east of Broken Creek and the site subject to this application) and the 'Western Front' (located in the Stewarston and Major Plains regions west of Broken Creek). These studies sought to determine the optimal grid connection point for each front separately and for both fronts together. Community engagement commenced in early 2019 to present the two opportunities to the public.

In June / July 2019, the feasibility studies determined the financial viability of the eastern site (being the site subject to this application) (the Goorambat East Solar Farm).

### 2.1.3 Consultation

Neoen has undertaken consultation with Benalla Rural City Council (Council), relevant State agencies and the community throughout the development of the Project.

The following summarises the key consultation undertaken prior to the lodgement of this planning permit application:



- **Consultation with Benalla Rural City Council**

A pre-application meeting was held on Monday 12 November 2018 with Council. Participants from Council, Neoen and AECOM were present.

The outcomes of the pre-application meeting included:

- A planning permit application must consider the Draft Solar Energy Facilities Design and Development Guidelines.
- An application should include an Agricultural Assessment, Traffic Impact Assessment, Glint and Glare Assessment, Landscape and Visual Impact Assessment, Flora and Fauna Assessment, Framework Environmental Management Plan (Framework EMP) and Heritage Impact Assessment.
- Council confirmed the likely referral authorities would include (but not limited to) VicTrack (due to proximity to the Benalla to Oaklands railway line), AusNet, the Victorian Environment Protection Authority (EPA), the Victorian Country Fire Authority (CFA) and the Victorian Department of the Environment, Land, Water and Planning (DELWP).
- Application will be advertised in the local paper (Benalla Ensign), letters to be sent to surrounding properties and signs to be displayed on the sites. Council will arrange notification letters however; AECOM / Neoen will be responsible for organising advertisement in the paper and signs to be displayed on-site.
- It was advised given the contentious nature of solar farm applications in general, the submission would be tabled at a Council meeting.

Subsequent meetings both formal and informal were undertaken with Council Mayor Scott Upston, Council CEO Dom Testoni and Neoen representatives, along with Council Planning Officers. Updates to the project were often exchanged via email correspondence between Neoen and Council.

- **Consultation with other Government Levels**

- An introductory meeting with State MP Steph Ryan was held on 30 January 2019.
- Initial discussions with newly elected Federal MP Helen Haines have occurred with plans to further update Federal MP Haines on project details in September 2019.

- **Continuous consultation with DELWP**

- Hume Region managers from DELWP attended a meeting held with the Council and were regularly provided updates to the development of Project by Neoen. Updates mainly related to the potential impacts on native vegetation, and efforts to avoid and minimise these potential impacts.
- A meeting was held with DELWPs Impact Assessment team to discuss the project opportunities within the district of Goorambat and surrounding areas.

- **Consultation with Ausnet and AEMO**

- Neoen has had ongoing engagement with Ausnet and AEMO to determine practical and economically viable connection strategies. On several occasions Ausnet surveyed the sites proposed for connection and/or transmission easement routes.

- **Community Drop-In Sessions**

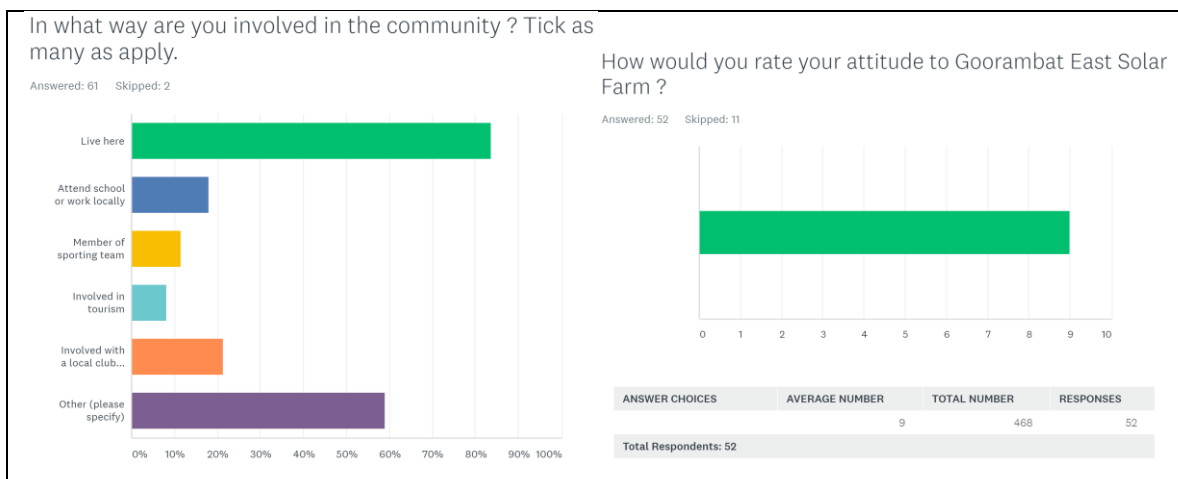
- A community drop-in session was held on Wednesday 20 March 2018 at the Goorambat and District Public Hall to present Neoen's opportunities in the area. An advertisement was posted in the Benalla Ensign Newspaper. The display provided information to the public on Neoen's approach to solar farm development as well as contact details if any further questions were to arise and forms to provide feedback.
- A second community information day was held on Saturday 10 August 2019 at the Goorambat Football Netball Club on their home-game day. Notification of the day was advertised in the Benalla Ensign, via letterbox drop and email correspondence.

- **One-on-one Engagement with Surrounding Neighbours**
  - Neoen has undertaken extensive consultation with potentially affected and surrounding landowners and is committed to the ongoing consultation with the community throughout the life of the Project.
  - Neoen made a distinct effort to discuss the project with local businesses to hear their concerns, including the Goorambat Post Office and Railway Pub.
- **Community Groups**
  - The local Goorambat Progressive Community Group has been updated regularly on Neoen development plans and also provided support at information days. In particular they have provided practical advice on the proposed Community Fund.
  - The local CFA captain and volunteers have been consulted and sent updates of the Project.
  - Neoen attended local events run by advocacy groups in the region.

**2.1.4 Community Relations Plan**

A Community Relations Plan has been prepared by Neoen (refer **Appendix B**). The purpose of this Plan is to identify the community consultation approach and objectives for the Project. It outlines the overall framework across the phases of the project lifecycle (from development to construction to operations). Furthermore, the plan provides a summary of the key stakeholders including landowners, local community and local government.

It is noted the feedback and questions received from the community have been incorporated and addressed in this planning permit application. Furthermore, direct responses have been provided to members of the community who have requested further information.



**Plate 2 Feedback Results from the community for the proposed Goorambat East Solar Farm**

## 3.0 Site Investigation Area and Surrounds

### 3.1 Site Investigation area

The site investigation area (site) is located approximately 215 kilometres to the northeast of the Melbourne Central District (refer Figure 1). The site is situated within the Rural City of Benalla, which forms part of the Hume Region in North-Eastern Victoria.

The site is located approximately 12 kilometres to the north of Benalla and approximately 500 metres to the south of the Goorambat Township (refer Figure 2).

The site has an approximate total site investigation area of 630 hectares and is irregular in shape. The site is generally bound by Goorambat-Thoona Road to the northwest, Hooper Road to the northeast, adjoining agricultural land and associated dwellings to the southeast, and Benalla-Tocumwal Road to the southwest.

The Benalla to Oaklands railway line traverses the site extending southeast to northwest towards the Goorambat Township. Goorambat-Chesney Road extends south from the Goorambat Township and runs adjacent to the railway line. Spinks Lane extends east from Goorambat-Chesney Road.

The following sections describe the key features of the site area including land use, landscape and topography and existing infrastructure. Refer Figure 3 (below) for a summary of the site and context analysis.

#### Land Use

The land is currently used for agricultural purposes such as farming and livestock grazing and has been subject to vegetation removal. There is minimal farming infrastructure located within the site, of which comprises a dwelling and several sheds located, which are towards the southeast corner of the site (accessed via Spinks Lane). There are also several sheds located towards the intersection of Saunders Road and Hooper Road (northeast corner of the site). There is no irrigation supply within the site investigation area.

#### Landscape

The land is relatively flat with topography rising to the northeast of the site and is situated approximately 160 metres above sea level.

The Flora and Fauna Assessment Report (prepared by AECOM) identified and recorded the following flora and fauna values within the site:

- 22 Habitat Zones of Ecological Vegetation Class (EVC) 803 Grassy Woodland recorded equating to 7.871 hectares (2.61 habitat hectares)
- No mapped wetlands
- 203 scattered trees (194 large trees and nine small trees)
- One recorded *Flora and Fauna Guarantee Act 1988* (FFG Act) Listed Species (Buloke)
- One FFG Act Listed Ecological Community considered present (Victoria Temperate Woodland Bird Community)
- No *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) are considered likely to have a greater than 'possible' likelihood of occurrence within the site

Additional information on the existing vegetation is contained in the Flora and Fauna Assessment Report (refer **Appendix E**) and Section 6.1 of this report.

#### Wetland and Watercourses

In accordance with Goulburn Broken Catchment Management Authority (GBCMA) and Goulburn Murray Water (GMW) information, two designed waterways run through the site, as well as several watercourses that are not deemed designated waterways (see Figure 3). Preliminary advice was provided by the GBCMA to Neoen on the alignment of the two designated waterways (refer **Appendix**

H) and is anticipated to be formalised shortly. In addition, the alignments of the designated waterways were confirmed by the GMW during an on-site field survey.

A wetland is mapped as a current wetland on DELWP's MapshareVic platform on the east side of Goorambat-Chesney Road and south of Spinks Lane, however visual inspection of the land confirms the area mapped as a wetland has not held water for some time and appears the same as neighbouring cropped land parcels without depression. Although this section of land is mapped as a wetland and is not covered by a manmade surface, it does not meet the definition of a wetland within Victoria and is not physically present as a constraint to development nor considered in this application to be wetlands (refer **Appendix E** for further information). In addition, through the Surface Water Assessment (refer **Appendix H**), advice was sought from the GBCMA, of which concluded that no designated wetland is present on the site and subsequently, no setbacks are required. In addition, both GMW and DELWP have been on-site, and have verbally concluded that no designated wetland is present.

The designated waterways run generally east-west through the site, whilst drainage lines appear to follow land parcel boundaries as shown in Figure 3 (below).

### Existing Power Infrastructure

Three existing 220 kV overhead transmission line circuits (two Glenrowan to Shepparton and one Shepparton to Dederang) traverse through the site, from the northwest corner to the eastern extent. The Project will connect into the existing Shepparton to Dederang transmission line.

## 3.2 Land subject to the planning permit application

The proposed use and development of the land comprises several freehold land parcels as follows (refer **Appendix A** for a copy of the Certificate of Titles):

- Lot 1 and 2 of Title Plan 179662
- Lot 1 and 2 of Title Plan 399580
- Lot 1 of Title Plan 161528
- Allotment 39B, Parish of Goorambat
- Allotment 41, Parish of Goorambat
- Allotment 59A, Parish of Goorambat

There is also an unused Government Road that bisects the site in an east-west direction between Taylor Road and Spinks Lane (see Figure 3). DELWP is the Public Land Manager for this unused Government Road. This road is unlikely to be required by Council within the foreseeable future.

Refer Figure 4 (below) for the land holdings of the project site.



Plate 3 Spinks Lane (looking east)



Plate 4 Goorambat-Chesney Road (looking northwest)



**Plate 5** Intersection of Benalla-Tocumwal Road and Sharp Road (looking east)



**Plate 6** Spinks Lane (looking southwest to railway line)



**Plate 7** Saunders Road (looking east)



**Plate 8** Benalla-Tocumwal Road (looking northeast)



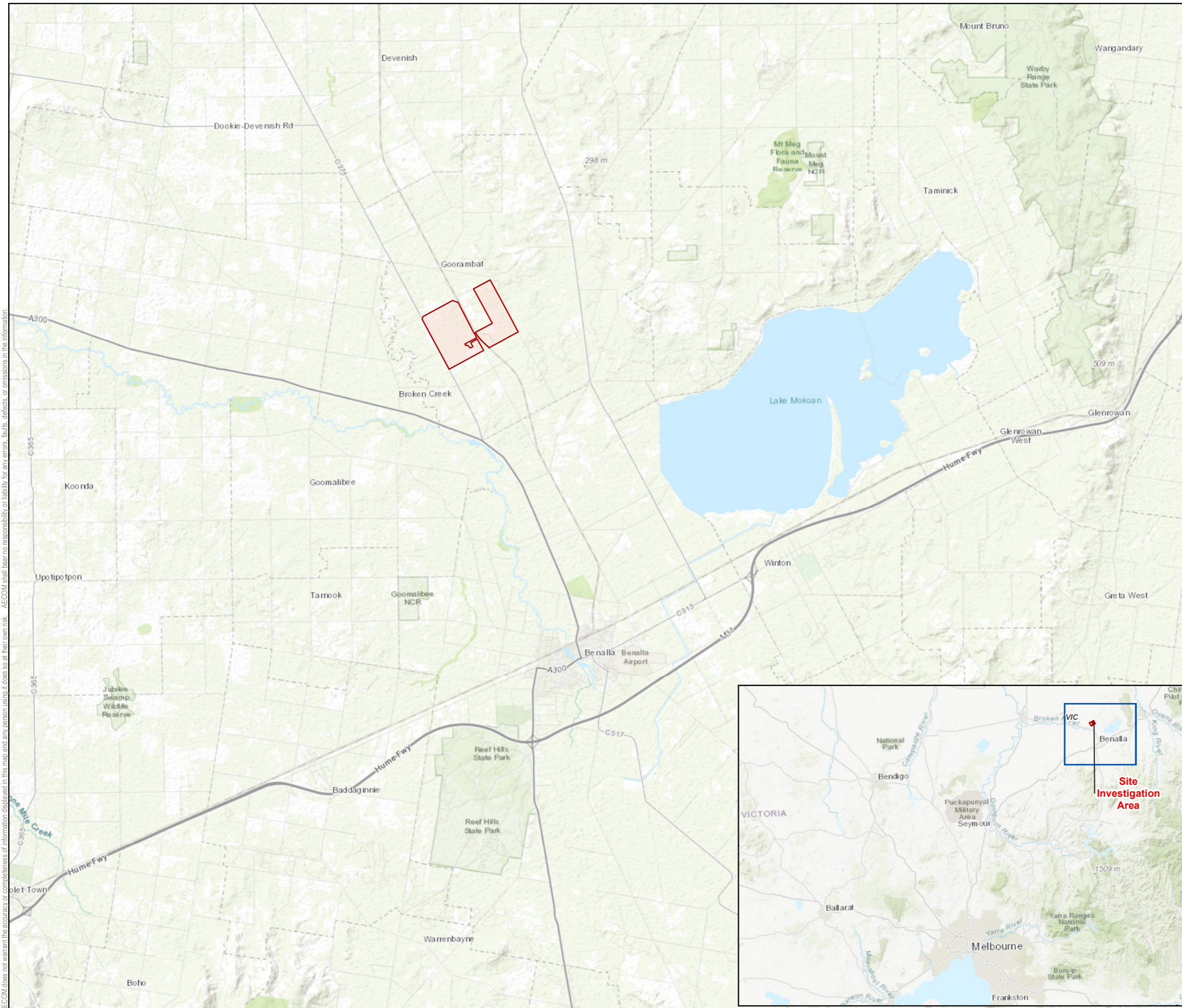
**Plate 9** Goorambat-Chesney Road and Spinks Lane intersection



**Plate 10** Level-crossing on Spinks Lane

**Legend**

□ Site Investigation Area



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**Goorambat East Solar Farm**

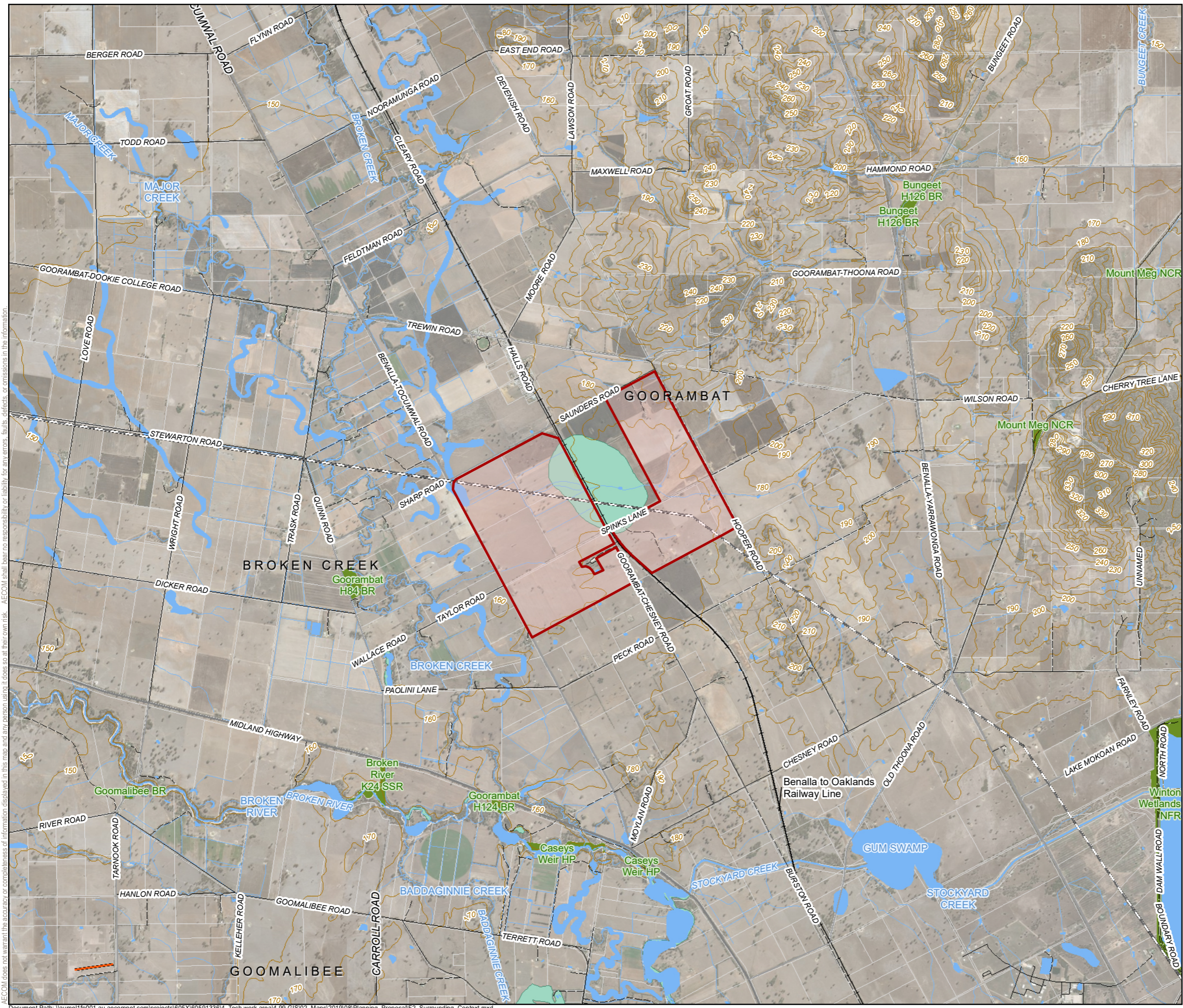
**SITE LOCATION**

PROJECT #: 60591336  
 CREATED BY: JB  
 LAST MODIFIED: brierej; 14/08/2019  
 VERSION: 1

**Figure 1**

**Legend**

- ▭ Site Investigation Area
- Existing 220kV Overhead Transmission Line
- Airstrip
- Highway
- Arterial
- Sub-Arterial
- Local
- 2WD
- 4WD
- + Railway
- Contours
- Watercourses
- Cadastre
- Parks & Reserves
- Wetlands
- Waterbodies



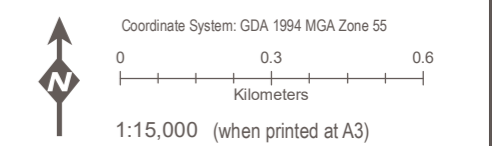
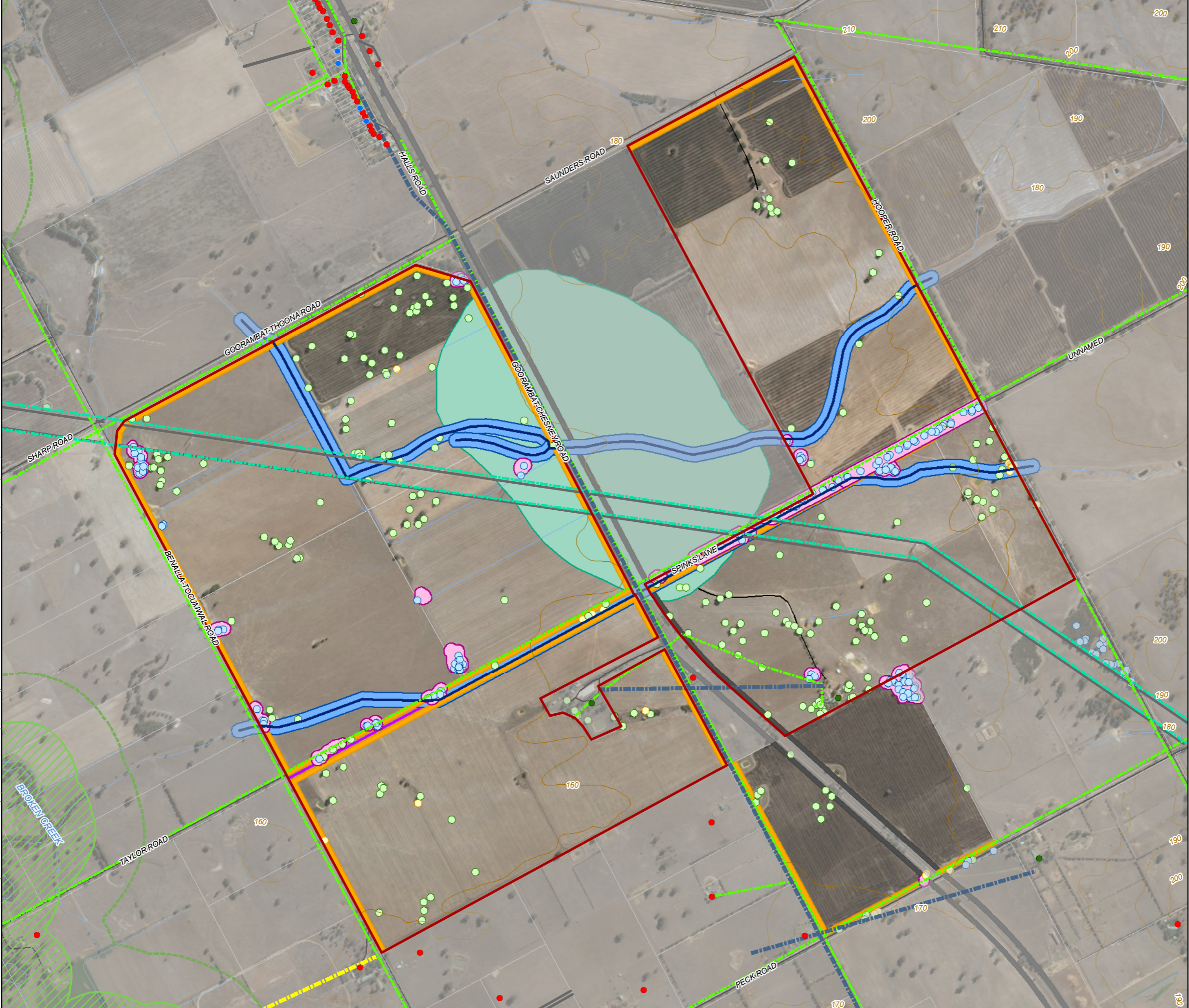
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**Goorambat East Solar Farm**  
**SURROUNDING CONTEXT**

PROJECT #:	60591336	<b>Figure 2</b>
CREATED BY:	JB	
LAST MODIFIED:	brierej; 14/08/2019	
VERSION:	1	

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**Legend**

- Site Investigation
- Dwelling (Non-Participating Landowner)
- Dwelling (Participating Landowner)
- Social Feature
- Optus Underground Cable/Conduit
- AusNet High Voltage Overhead Line
- Telstra Cables
- Overhead Transmission Lines
- Easement
- Contours
- Designated Waterways
- Watercourses
- Unused Government Road
- Roads
- Cadastre
- Wetlands
- Large Scattered Trees (15 metre maximum tree protection zone buffer)
- Small Scattered Trees (15 metre maximum tree protection zone buffer)
- Large Tree in Patches (15 metre maximum tree protection zone buffer)
- Remnant Patches (including 15 metre buffer)
- 20 metre buffer from road reserve boundary
- Designated Waterways 30 metre buffer on either side
- 20 metre buffer from railway reserve
- Areas of Aboriginal Cultural Heritage Sensitivity
- Areas of Aboriginal Cultural Heritage Sensitivity 200 metre Buffer

\*Inverters require 30 metre buffer and solar panels required 15 metre buffer as confirmed by GMW on 5 August 2019

Data Sources: Locality, Railway, Drainage Line, Streets, Features © VICMAP - 2018  
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**Goorambat East Solar Farm**

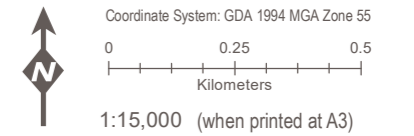
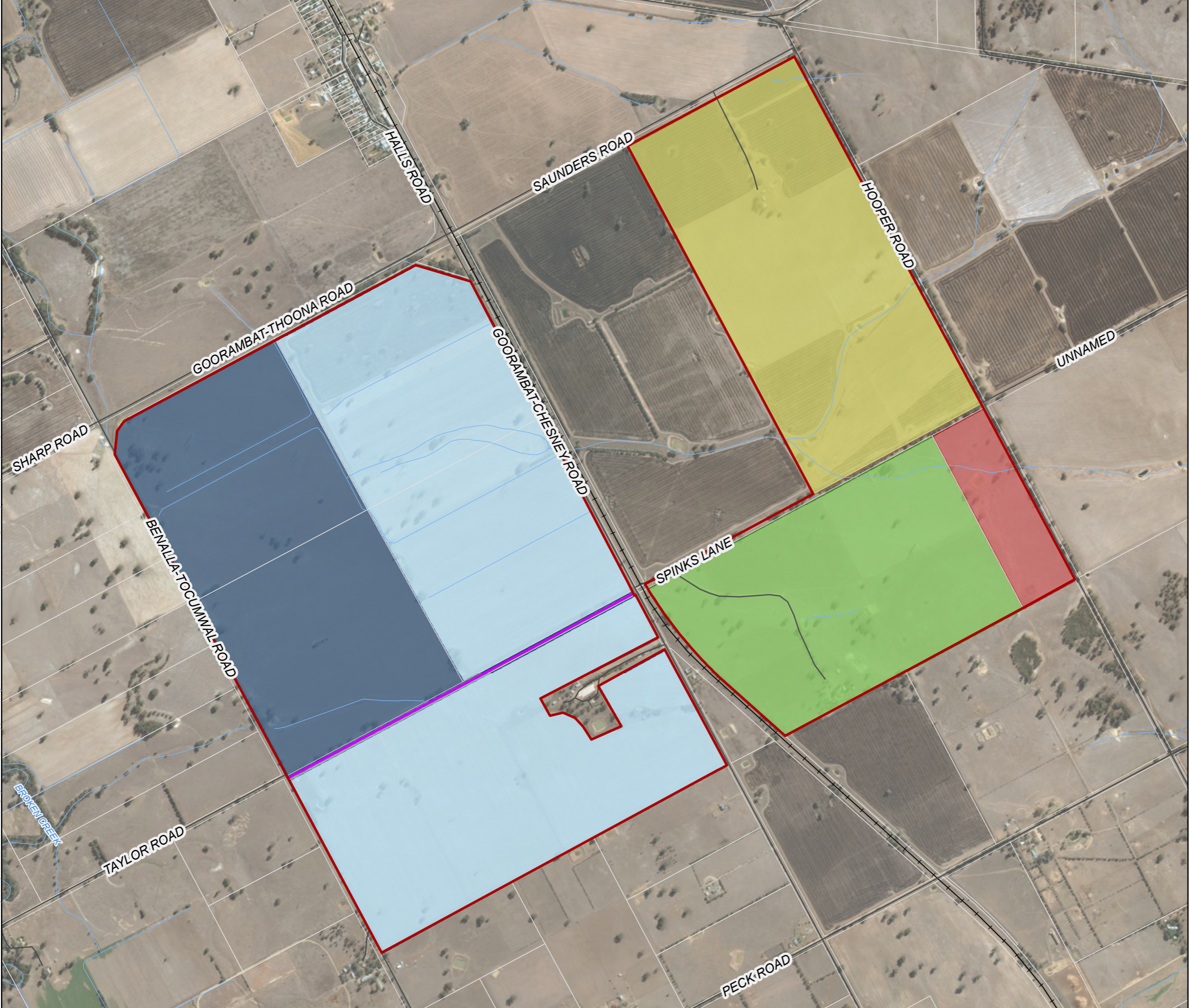
**SITE AND CONTEXT ANALYSIS**

PROJECT #:	60591336
CREATED BY:	JB
LAST MODIFIED:	brierej; 16/08/2019
VERSION:	1

**Figure 3**



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- Legend**
- Site Investigation Area
  - Roads
  - Unused Government Road
  - Railway
  - Watercourses
  - Cadastre
  - Allotment 39B Parish of Goorambat
  - Allotment 59A Parish of Goorambat
  - Lot 1 and 2 TP399580
  - Allotment 41 Parish of Goorambat
  - Lot 1 TP161528
  - Lot 1 and 2 TP179662

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**Goorambat East Solar Farm**

**LAND HOLDING**

PROJECT #:	60591336	<b>Figure 4</b>
CREATED BY:	JB	
LAST MODIFIED:	brierej; 16/08/2019	
VERSION:	1	

### 3.3 Surrounding Context

As shown in Figure 3, the surrounding area predominantly consists of land used for agricultural purposes with associated residential dwellings and farming infrastructure. The surrounding land is generally contained within the Farming Zone except for the Public Use Zone (Schedule 4) applied to the Benalla to Oaklands Railway Line as shown in Figure 7 (below).

The immediate surrounds respective to the project site generally comprise agricultural land uses. Broadacre cropping is the major land use in the local region. Hay is also an important enterprise through baling crop stubble or in adverse seasons, directing crops to hay rather than grain. Grazing consists primarily of wool production, followed by beef and prime lamb. There is no irrigation supply and because of soil profile characteristics, the land is generally unsuited to irrigation.

A general description of the land uses in the vicinity to the site investigation area is set out below:

- To the **north** of the site is land used for agricultural purposes. Approximately 500 metres north of the site is the Goorambat Township. Land within the Goorambat Township is generally located within the Township Zone and Low Density Residential Zone. Extending beyond the Goorambat Township, land is generally located within the Farming Zone.
- To the **east** of the site is generally agricultural land and dwellings located within the Farming Zone.
- To the **south** of the site is generally agricultural land and dwellings located within the Farming Zone. The railway line continues further south of the site towards Benalla.
- To the **west** of the site is generally agricultural land and dwellings located within the Farming Zone. In addition, Broken Creek is located to the west and extends generally north to south.

#### 3.3.1 Sensitive Receptors

Figure 5 (below) illustrates the location of dwellings surrounding the site. The sensitive receptors are the 'non-participating landowners' located within the Farming Zone and the residential area of the Goorambat Township located approximately 500 metres to the north of the site. Figure 5 shows that there are fourteen dwellings within a 500 metres radius of the project site.

#### 3.3.2 Transport Network

The main notable transport corridors in the region include:

- Midland Highway that extends from Geelong to Mansfield. The Midland Highway is located approximately six kilometres of the south of the Project site.
- Hume Freeway located to the south of the site.
- Benalla Tocumwal Road located adjacent and to the west of the site.

There is also an unused Government Road that bisects the site in an east-west direction between Taylor Road and Spinks Lane (refer Figure 3). DELWP is the Public Land Manager for this unused Government Road. This road is unlikely to be required by Council within the foreseeable future.

A summary of the local roads near the Project is set out in Table 1 and shown in Figure 3.

Table 1 Project Local Roads Summary

Road	Description
Benalla-Tocumwal Road	One-lane two-way sealed road
Goorambat-Thoona Road	Two-way sealed road
Goorambat-Chesney Road	One-lane two-way sealed road
Saunders Road	One-lane two-way gravel road
Hooper Road	Two-way unsealed road
Spinks Lane	Two-way unsealed road
Peck Road	One-lane two-way gravel road
Unused Government Road	Unused Government Road between Taylor Road and Spinks Lane.

### 3.4 Site Selection

The project site was chosen by Neoen having regard to the selection of a site that will have minimal impacts on surrounding communities, the environment and other land use activities, such as avoiding areas of strategically important agricultural land, while also seeking to support Victoria's endeavours to provide new, sustainable energy generation into the National Electricity Market.

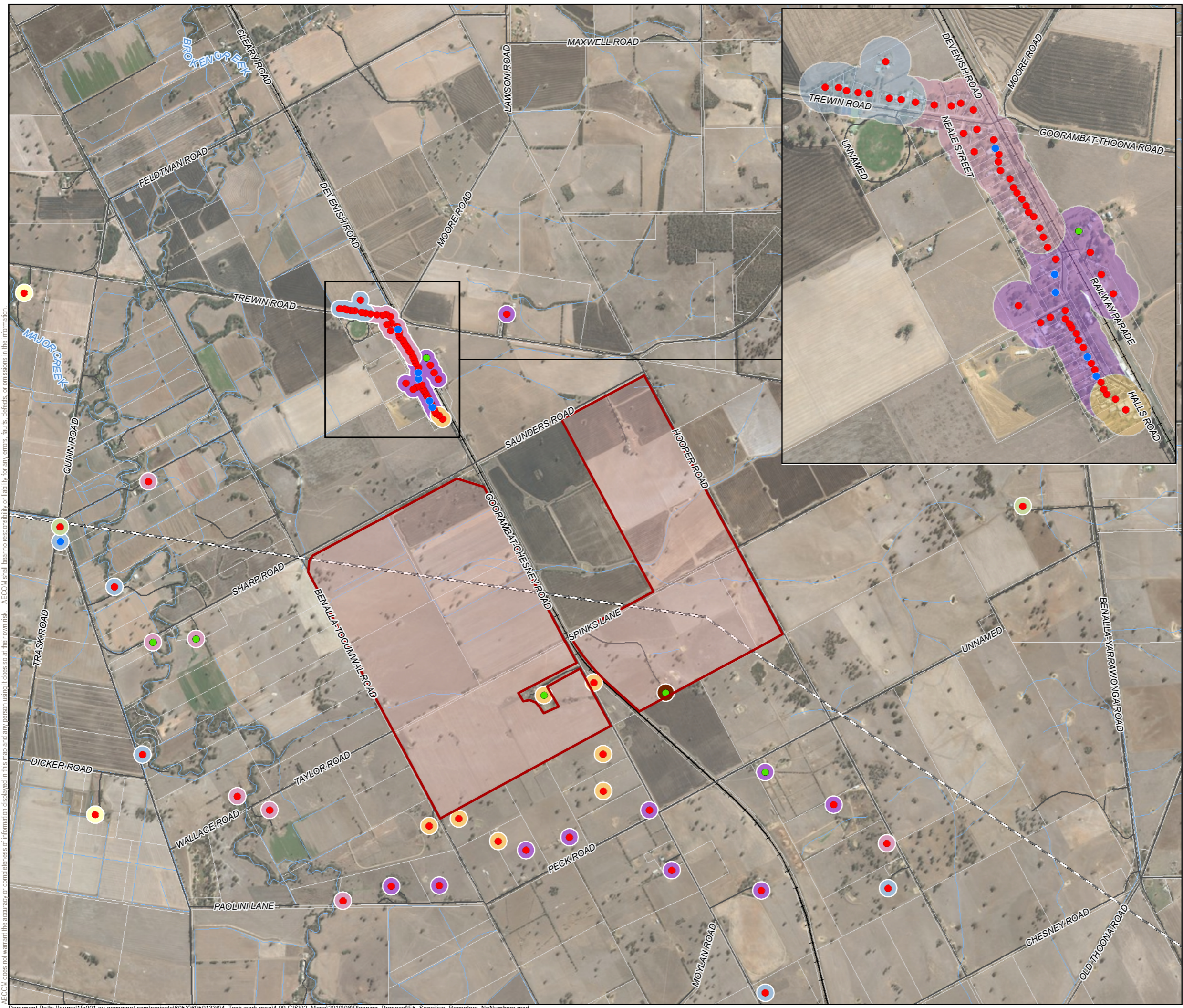
Neoen has identified the site investigation area as being appropriate for a solar energy facility due to the following key reasons:

- The site has direct access to high voltage powerlines within the site. This removes the requirement for additional transmission infrastructure outside of the site, minimising adverse impacts on sensitive receptors and the need for additional electrical infrastructure in the landscape.
- The Agriculture Assessment (refer **Appendix J**) concludes the project will not result in the loss of highly productive agricultural land given the opportunity to be compatible with cropping and/or grazing activities and will not adversely impact on ongoing operation or expansion of agricultural land uses in the region. The site is not recognised in any document as strategically significant agricultural land and is not in a declared irrigation district. The Project would be compatible with cropping and grazing land uses and would not adversely impact on ongoing operation or expansion of agricultural land uses in the region.
- There are open, cleared areas that can be used for Project infrastructure so that native vegetation removal can be avoided and minimised. Refer Section 6.1 of this report and **Appendix E** for more detail.
- There is suitable road access for heavy and light vehicles via the classified road network and a generally well-maintained local road network in the immediate vicinity of the site.
- The topography is relatively flat. This means solar panels can be installed with minimal excavation requirements, limiting potential changes to the natural landscape.
- The site is away from existing sensitive receptors including the Goorambat Township. The changes to visual amenity for nearby sensitive receptors as a result of the Project have been assessed as being limited or moderate in their worst case. However, able to be appropriately managed with the implementation of management measures (refer Section 6.6 of this report and **Appendix K** for more detail).
- The proposed solar farm has been setback from designated waterways within the site and located away from the floodplain of any major water courses.

The abovementioned reasons provide support for the Project as they demonstrate consistency with the *Solar Energy Facilities – Design and Development Guideline (July 2019)* (page 10).

**Legend**

- Site Investigation
- Infrastructures**
  - Dwelling (Non-Participating Landowner)
  - Dwelling (Participating Landowner)
  - Social Feature
- Distance From site in metres**
  - On-Site
  - 0 - 500
  - 501 - 1000
  - 1001 - 1500
  - 1501 - 2000
  - 2001 - 2500
- Existing 220kV Overhead Transmission line
- Roads
- Railway
- Watercourses
- Cadastre



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**Goorambat East Solar Farm**

**SENSITIVE RECEPTORS**

PROJECT #:	60591336	<b>Figure 5</b>
CREATED BY:	JB	
LAST MODIFIED:	brierej; 16/08/2019	
VERSION:	1	

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## 4.0 Project Description

The design layout presented in this planning permit application is indicative only, and the final design layout will be determined during the detailed design phase of the project. A design response showing the key elements of the Project is included in Figure 6. In addition, refer **Appendix C** for additional indicative plans for information purposes.

The project seeks planning approval for the development and use of a renewable energy facility (solar) and utility installation, removal of native vegetation, construction and display of business identification signage and car parking associated with the Project in accordance with the following clauses of the Planning Scheme:

- **Clause 35.07** (Farming Zone)
- **Clause 44.03** (Rural Floodway Overlay)
- **Clause 52.17** (Native Vegetation)
- **Clause 52.05** (Signs)
- **Clause 52.06** (Car Parking)

### 4.1 Development and Land Use

The key features of the Project are set out below.

- Solar Panels (including mounting structures)
- A connection to the electricity grid, including a new terminal substation
- Underground electrical cabling
- Operations and maintenance areas
- Security features (including fencing and CCTV security system)
- Lighting
- Landscaping
- Site access including upgrades to existing site access points to make them suitable for use by construction and operations vehicles
- Business identification signage
- Site sheds and amenity buildings.

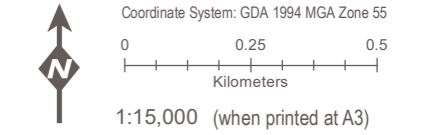
These key features are shown in the indicative design in Figure 6 and discussed in more detail in the following sections.

Buffers have been adopted from key existing landscape and infrastructure features to minimise potential impacts and ensure the project can be constructed and operated safely and efficiently. These buffers have been informed by relevant legislation and policy and discussions with project stakeholders and are set out in Table 2 (below).

**Table 2 Buffers from existing site features to be adopted for the Project**

Existing Site Feature	Buffer
Native Vegetation	Minimum 15 metres
Designated waterways	Minimum <ul style="list-style-type: none"> <li>• 30 metres from inverters</li> <li>• 15 metres from solar panels</li> </ul>
Road reserve	20 metres
Railway reserve	20 metres

INDICATIVE SYSTEM INFORMATION	
ITEM	SYSTEM SIZE
Maximum Capacity	Up to 250 MW
Mounting System	Single Axis Tracking
Quantity of Modules	Approximately 500,000 modules
Pitch	5.5 metres to 13 metres
Solar Panel Type	Bifacial 380W
Inverter Units	Approximately 120
Tracker Height	4 metres (maximum)
Row alignment	North-South (tracking east to west)
Tracker Rotation Range	-60 degrees to +60 degrees



**Legend**

- ▭ Site Investigation Area
- ▲ Grid Connection
- ◀ Site Access
- Dwelling (Non-Participating Landowner)
- Dwelling (Participating Landowner)
- Fence
- External Road - 7 metres wide
- Internal Road - 4 metres wide
- ▨ Single Axis Tracking Solar Array
- Existing 220kV Overhead Transmission Lines
- ▭ Operation and Maintenance Facilities
- ⊠ Designated Terminal Substation
- ▭ Large Scattered Trees (15 metre maximum tree protection zone buffer)
- ▭ Small Scattered Trees (15 metre maximum tree protection zone buffer)
- ▭ Large Tree in Patches (15 metre maximum tree protection zone buffer)
- ▭ Remnant Patches (including 15 metre buffer)
- ▭ Native Vegetation Proposed for Removal
- Designated waterways
- Watercourses
- Roads
- Unused Government Road
- Railway
- ▭ Cadastre

Note:  
Design layout is indicative only and the final design layout will be determined during the detailed design phase

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**Goorambat East Solar Farm**

**INDICATIVE DESIGN**

PROJECT #: 60591336  
 CREATED BY: JB  
 LAST MODIFIED: brierej: 16/08/2019  
 VERSION: 1

**Figure 6**

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**4.1.1 Solar Panels (including Mounting Structures)**

Photovoltaic (PV) modules or solar panels convert energy from the sun into DC electricity through a process known as the photoelectric effect.

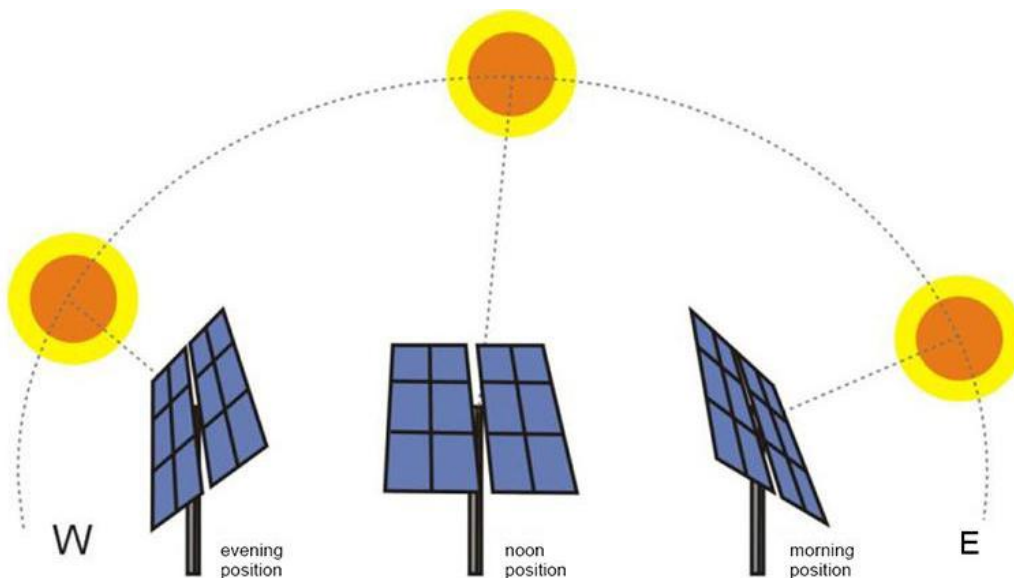
The Project comprises solar panels mounted on a single axis tracking mounting frames (refer Plate 11). These modules will have a width of between two metres and four metres, with the distance between each row of modules between 5.5 metres and 13 metres. The width dimension and module row separation distance will be selected during detailed design and is not anticipated to affect the impact assessment in this report.

The panels will be bifacial, which means the module collects light both on the front and rear side as it captures sunlight reflected from the surface under the solar tracker.

A horizontal single axis runs north to south with the modules able to tilt from east to west to follow the suns trajectory (refer Plate 12). The tracker rotation ranges from +60 to -60 degrees horizontally each day. The trackers will have a maximum height of four metres above ground level.



**Plate 11 Typical Single Axis Tracking System**



**Plate 12 Panel Alignment**

Table 3 (below) summarises the specifications of the proposed solar modules.

**Table 3 Design and Layout Parameters Summary**

Item	Detail
Row Alignment	North-South (tracking east to west)
Tracker Rotation Range	-60 degrees to +60 degrees
Pitch	About 5.5 metres to 13 metres depending on the arrangement of modules chosen at the detailed design phase.
Tracker height	4 metres (maximum)
Anti-reflection coating	No
Backtracking system	Yes
String Configuration	30 modules per string
Quantity of Inverters	Approximately up to 120
Quantity of Modules	Around 524,160 modules
Maximum Capacity	Up to 250 MW

#### 4.1.2 Connection to the electricity grid

The connection of the project to the Victorian electricity transmission network will occur via a new Terminal Substation that will connect to the existing 220kV Shepparton to Dederang Line.

##### 4.1.2.1 Terminal Substation

A terminal substation is the point at which the power generated from the solar farm will connect into the electricity grid. The terminal substation for the project is proposed to be centrally located within the site and adjacent to the transmission line. The terminal substation will be generally within the area bound by Goorambat-Thoona Road to the northwest, Goorambat-Chesney Road to the northeast, Taylor Road to the southeast and Benalla-Tocumwal Road to the southwest (refer Figure 6).

The terminal substation footprint will be an approximate maximum of 100 metres by 50 metres and have a maximum area of 5,000 square metres with the final design arrangement requiring a 15 metres perimeter buffer. Furthermore, an additional strip of land may be required around the fence for benching, earth works and potential landscape screening. The terminal substation will have a maximum height of approximately 45 metres (at the point of the proposed line cut-in works) The terminal substation will be accessed via an external site entry access road from Goorambat-Chesney Road (refer Section 4.1.5 of this report for further details) and used during construction to transport the transformer and other equipment to the substation site. As a design requirement, the finished design level (surface level) will be a minimum 300 millimetres above the 1:100 year level.

The terminal substation and grid connection works will initially consist of the following key elements (as shown in Plate 14):

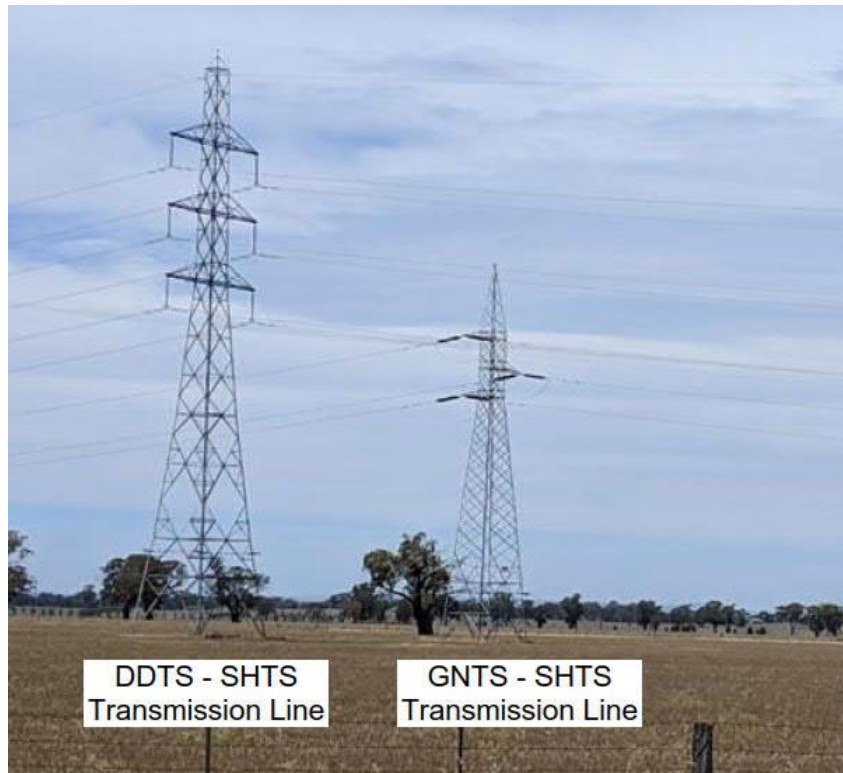
- 220/33kV power transformer (up to a maximum height of seven metres);
- Line cut-in works including new towers and poles (up to a maximum height of 45 metres);
- Control room building with secondary equipment including protection, control, communication and metering equipment (up to a maximum height of 2.5 metres);
- Oil / Water septic tank (up to a maximum height of 2.5 metres);
- Lightning protection rods (up to a maximum height of 40 metres);
- 220kV switchyard including three bays to connect the 220kV lines and transformer with structures up to 30 metres in height. Switchyard bay equipment includes post insulator supports, disconnectors, breakers, voltage transformers and surge arresters;
- Station service supply and environmental management system;



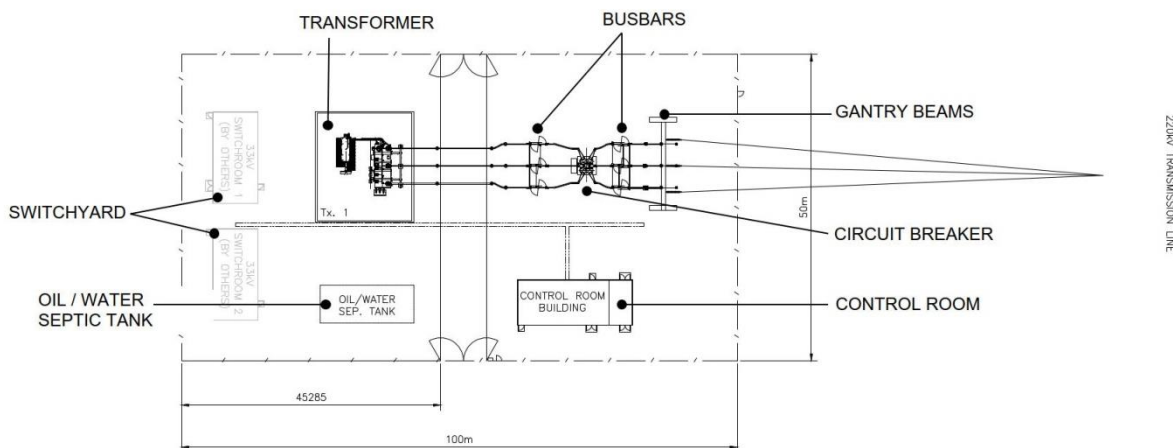
- Busbars and gantry beams (up to a maximum height of seven metres); and
- Fencing (up to a maximum height of 2.5 metres).

Cables from the PV modules will collect in the proposed terminal substation (located towards the northwest corner of the site before connecting to the existing 220kV overhead transmission line (Glenrowan to Shepparton and Shepparton to Dederang) that traverses the site.

Plate 15 illustrates an example terminal substation at Colleambally Solar Farm that is a similar size and scale to the terminal substation proposed for the Project.



**Plate 13 Existing 220 kV Transmission Line that bisects the site. The Project is anticipated to connect into the DDTS – SHTS line.**



**Plate 14 Typical Collector Substation Site Plan**



Plate 15 Example Terminal Substation (Colleambally Solar Farm)

#### 4.1.3 Underground electrical cabling

Cabling will connect the solar panels with the terminal substation and will consist of copper or aluminium cables. The cables will be buried in trenches that will be up to 1.2 metres deep and 0.6 to 2 metres wide in certain areas to ensure the required cable ratings and compliance with Australian Standards at all times. The cables would be bedded in a sand backfill typically 100 millimetres above and below each cable, with excavated material used to backfill the trench to ground level and cable location warning tape placed between the cables and finish surface in accordance with Australian Standards.

#### 4.1.4 Site Access

There are three main access points to the site proposed (refer Figure 6). These will be around seven metres in width to allow for two-way construction and operational vehicle movements. A description of the proposed site access points is as follows:

- The primary access point will be provided from the intersection of Goorambat-Chesney Road and Spinks Lane providing access to the western and eastern portion of project site.
  - To the west, the external access road will extend past the *Laydown and Site Shed Area 2* located at the northwest of the intersection of Goorambat-Chesney Road and Spinks Lane to the proposed terminal substation which is centrally within the western portion of the project site.
  - To the east, the external access road will extend along the existing Spinks Lane for approximately 140 metres towards the *Laydown and Site Shed Area 2* located to the south of Spinks Lane and extends south towards the Benalla to Oaklands Railway line.
- An access point will be provided from Goorambat-Chesney Roads, approximately 250 metres south of the intersection of Goorambat-Chesney Road and Spinks Lane. This access point will utilise the existing access driveway to 379 Goorambat-Chesney Road. The access road will extend into the site and along Goorambat-Chesney Road for approximately 200 metres and provide access to the proposed satellite laydown area.
- An access point from Saunders Road towards the northeast corner of the project site will provide access to the eastern portion of the site.

A network of new internal access tracks will also be used to provide access during construction and operation of the Project. An indicative layout of internal access tracks is shown in Figure 6 and will be refined during detailed design. The internal access tracks will be approximately four metres wide and will be constructed of crushed gravel.

#### 4.1.5 Operations and maintenance facilities

An Operations and Maintenance building is proposed adjacent to the Terminal Substation. This building will have a maximum footprint of 50 metres by 20 metres and have a total approximate area of 1,000 square metres. The building will have a maximum height of approximately three metres.

The operations and maintenance building will be used by the operational workforce and will be accessed via the same site entry access road as for the terminal substation.

Operation and maintenance areas will also be provided. Indicative locations for these facilities are shown on Figure 6 and are anticipated to include:

- **Site Office:** Currently it is proposed to utilise the existing dwellings on land parcels that have been acquired for the Project. Specifically, it is proposed to retain the sheds and dwellings located at 16 Spinks Lane and utilise these for site office areas (including staff amenities).
- **Staff amenities:** Amenities will include portable toilet facilities, shelter and seating areas.
- **Car parking areas:** It is proposed one hectare of car parking spaces will be located within the identified laydown areas during construction. Car parking will not be established within areas of native vegetation or areas of cultural heritage sensitivity.
- **Waste storage:** It is anticipated waste storage will be located within the proposed laydown areas.
- **Laydown and Site Shed Areas:** Three laydown areas are proposed to be located within the site. The location on the laydown areas are shown on Figure 6 and are likely to comprise
  - A laydown and site shed (shown as *Laydown and Site Sheds 1*) is proposed to be located to the northwest of the Spinks Lane and Goorambat-Chesney Road intersection. This area will have an approximate total area of 25,000 square metres and an approximate maximum height of three metres.
  - A laydown and site shed (shown as *Laydown and Site Sheds 2*) is proposed to be located to the south of Spinks Lane and to the east of the existing driveway accessing 16 Spinks Lane. This area will have an approximate total area of 20,000 square metres and an approximate maximum height of three metres.
  - A satellite laydown area is proposed to the east of Goorambat-Chesney Road and approximately 250 metres south of the intersection of Goorambat-Chesney Road and Spinks Lane. This area will have an approximate total area of 15,000 square metres and an approximate maximum height of three metres.

These areas will include external lighting and the relevant utilities (e.g. water and electricity). The location and configuration of operations and maintenance facilities will be confirmed during detailed design.

#### 4.1.6 Operations and Maintenance Areas

#### 4.1.7 Security Features

- **Fencing:** Perimeter security fencing is proposed around the solar farm and the terminal substation and is anticipated to comprise:
  - **Solar Farm:** Perimeter security fencing is proposed to be located inside vegetation screening between the solar panels and the site boundary. The fencing will have a maximum height of 2.4 metres and will be a chain link fence. Vehicle and pedestrian gates will be incorporated into the fencing. Pedestrian access gates will have a width of about one metre and vehicle access gate will have a width of around six metres.
  - **Terminal Substation:** Security fencing will be established around the terminal substation located towards the northwest corner of the site. The fencing will have a maximum height of

2.4 metres and will be a chain link fence. Vehicle and pedestrian gates will be incorporated into the fencing and will be the same dimensions as for the solar farm (see above).

Specific fencing details will be confirmed during detailed design. Refer **Appendix C** for an example of the typical fencing to be constructed at the site.

- **CCTV Security Systems:** A CCTV security system may be installed with cameras and infrared lighting. If a CCTV security system is required, infrastructure will be established at regular intervals around the project site.

#### 4.1.8 Lighting

The location of lighting will be determined at the detailed design phase however, all external lighting will be fitted with suitable shields and baffles so that direct light is emitted only within the project site boundaries.

#### 4.1.9 Landscaping

To mitigate any likely impact identified in the Preliminary Landscape Visual Impact Assessment Memo (Preliminary LVIA) (refer **Appendix K**), a continuous buffer planting belt is proposed along the boundary of the site, all roadways and the railway alignment. Further planting is proposed to the south-western boundary to mitigate impacts from the south along Benalla-Tocumwal Road.

The landscape proposal contained in **Appendix K** provides two types of buffer plantings and identifies a screening height of up to ten metres for vegetation that would be required to mitigate visual impacts. To maximise the growth of new plantings, all species should be indigenous and consistent with the relevant EVC.

In accordance with the Guidelines, landscaping will be planted early in the construction stage and in accordance with any fire management plan arrangements, to avoid increased bushfire risk exposure.

#### 4.1.10 Business Identification Signage

Business identification signage will be displayed on-site to identify elements of the Project including (but not limited to) site entrances and safety information. Final details of signage requirements will be determined during the detailed design phase. Signage will be limited to three square metres in accordance with **Clause 52.05-14** of the Benalla Planning Scheme (refer Section 4.3.3 of this report).

It is anticipated signage will be installed at the intersection of Goorambat-Chesney Road and Spinks Lane at the primary access point.

An example of the type of signage is shown in Plate 16 (below).



Plate 16 Example of Signage

#### 4.1.11 Use of Existing Infrastructure

There is limited existing infrastructure located within the project site; however Neoen will seek to use sheds and dwellings for operation and maintenance infrastructure subject to assessment of their suitability for the proposed use.

## 4.2 Removal of Native Vegetation

The Project has been designed using an iterative approach with the intent of avoiding and minimising native vegetation removal as much as practicable. The design presented in this application is the result of considered planning that aims to minimise impacts on native vegetation while ensuring good solar access and an operable layout. Neoen has consulted with DELWP during the design development process.

The Flora and Fauna Assessment Report (refer **Appendix E**) identified and recorded:

- 22 Habitat Zones of EVC 803 Grassy Woodland recorded equating to 7.871 hectares;
- 203 scattered trees (194 large trees and nine small trees);
- One recorded *Flora and Fauna Guarantee Act 1988* (FFG Act) Listed Species (Buloke); and
- One FFG Act Listed Ecological Community considered present (Victoria Temperate Woodland Bird Community).

Through sensitive design of the Project, no patches of native vegetation are proposed for removal, and 136 of the 203 scattered trees (135 large trees and eight small trees) are proposed to be retained with no valuable habitat for significant flora and fauna species to be impacted.

To allow for the efficient and viable operation of the solar farm, it is proposed to remove 67 scattered trees (including 66 large trees).

It is noted the concept design layout seeks to retain all large trees in patches. Furthermore, the extent of native vegetation removal does not meet the referral threshold set for native vegetation removal in

the Ministerial guidelines for assessment of environmental effects under the *Environment Effects Act 1978*.

As discussed in the Flora and Fauna Assessment Report, a *Mapped Current Wetland* was identified during the desktop study (Wetland ID 66914) within the site however, the site assessment did not identify the vegetation communities present as belonging to any of the EVCs within the wetland benchmark. Refer **Appendix E** for further information.

A Native Vegetation Removal Report is included in the Flora and Fauna Assessment Report (refer **Appendix E**) and can be summarised as follows:

**Table 4 Native Vegetation Removal Report Summary**

Proposed removal of native vegetation	General habitat units of offset	Strategic biodiversity score
67 scattered trees (including 66 large scattered trees)	0.796	0.170

Refer **Appendix E** for the Flora and Fauna Assessment Report and the Native Vegetation Removal Report for further information.

## 4.3 Program Details

### 4.3.1 Construction

Construction of the Project will occur over several stages as follows:

1. **Civil works** including (but not limited to) land clearing, levelling and earthworks, internal road construction, drainage installation, laydown area preparation, fencing installation and vegetation screening.
2. **Mechanical works** including (but not limited to) foundation piling, and tracker and module delivery and installation.
3. **Electrical works** including (but not limited to) cabling, module connection, connection to the grid, testing and commissioning.

It is anticipated construction will occur over twelve month period. Commencement of the Project will be subject to the outcome of the planning approvals process and grid connection agreements. Construction activities will be undertaken during standard hours for buildings and works with the exception of the following works, of which may need to occur outside standard working hours for safety and operability reasons:

- The delivery of plant, equipment and materials which is required outside of these hours as requested by police or other authorities for safety reasons; or
- Emergency works to avoid the loss of lives, property and/or to prevent environmental harm.

It is proposed that no construction works are undertaken on Public Holidays.

It is anticipated that most of the construction workforce will reside locally in either Goorambat or Benalla.

During construction, car parking will be provided on-site in designated car parking areas. Indicative locations of these car parking areas are shown in Figure 6. If required, a shuttle bus will be arranged at the discretion of the construction contractor during peak construction periods to shuttle staff to and from local accommodation to manage on-site parking demands.

### 4.3.2 Operation

The solar farm is anticipated to operate for up to 30 years.

It is anticipated six to 11 staff are likely to be required on-site during operation of the facility. Once the solar farm is commissioned, vehicle movements are likely to be within the site daily for maintenance purposes.

On-site operational activities could include:

- Cleaning of the modules on an as needs basis; and
- Full servicing of associated equipment.

Monitoring is generally undertaken remotely and it is expected that hazardous or dangerous goods or materials will not be stored on-site during operation.

#### 4.3.2.1 Co-location and Dual Use with Agriculture

Neoen is investigating co-location of agricultural activities and solar energy generation. Neoen has implemented grazing as a site management strategy at several solar farms and is investigating further trials of agrivoltaic systems at the Project site, including the co-location of agricultural activities and solar energy generation.

Refer **Appendix D** for further information regarding site management and integration of agriculture.

### 4.3.3 Decommissioning

The project would either be decommissioned or repowered at the end of its expected economic life (around 30 years). If the project is decommissioned, this will include the removal of all above ground infrastructure and rehabilitation of the site such that previous or improved agricultural uses can resume. This objective is supported by the aforementioned opportunities for the dual-use of agricultural activities and solar energy generation which can assist in maintaining the value of the underlying natural capital of the land.

It is anticipated the decommissioning stage will occur over approximately six month period and include the following key activities:

- The solar farm's generator will be disconnected from the AusNet Services metering point;
- Solar panels, trackers including foundation piles and inverters will be removed with materials to be reused or recycled where possible;
- All site amenities and equipment will be removed, and materials recycled or reused where possible;
- Cabling down to 800 millimetres will be removed and recycled;
- Fencing and signage will be removed; and
- The site will be rehabilitated.

Traffic required for decommissioning will be undertaken in consultation with the relevant authorities.

In the relevant lease documentation where the proponent does not own the land, the abovementioned decommissioning activities will be undertaken. In this instance, the lessor retains responsibility to return the land to its original condition.

Benalla Rural City Council will be advised of planned decommissioning activities in advance and provided with a Decommissioning Environmental Management Plan including (but not limited to) responsible authorities, timelines and the disposal location of panels and other equipment (including if any infrastructure can be recycled).

## 5.0 Legislation and Policy

The project site is located within Benalla Rural City Council and is subject to the provisions of the Benalla Planning Scheme (the Planning Scheme). The Planning Scheme sets out the relevant planning policies that responsible authorities much consider when administering the use and development of land including:

- Planning Policy Framework (PPF)
- Local Planning Policy Framework (Municipal Strategic Statements and Local Planning Policies) (LPPF)
- Zones and Overlays; and
- Particular and General Provisions (where relevant)

The Benalla Rural City is the Responsible Authority for assessment of this planning permit application.

Sections 5.0 and 6.0 of this report provide an assessment of the Project against relevant legislation and policy, a summary of the supporting technical assessments and an assessment of the Project against relevant economic, social and environmental impacts, highlighting the additional benefits of the Project and supporting the site selection within the Region. Copies of the supporting technical assessments are enclosed in the appendices.

### 5.1 State Legislation and Policy

#### 5.1.1 Planning and Environment Act 1987

The *Planning and Environment Act 1987* (Vic) (the P&E Act) provides the legal framework for the operation of Victoria's planning system. The P&E Act sets out procedures for preparing and amending the Victorian Planning Provisions and planning schemes, obtaining permits under schemes, settling disputes, enforcing compliance with planning schemes and other administrative procedures.

The main functions of the P&E Act are to:

- Set the broad objectives for planning in Victoria;
- Set the main rules and principles for how the Victorian planning system works;
- Set up the key planning procedures and statutory instruments in the Victorian planning system; and
- Define the roles and responsibilities of the Minister, councils, governments, government departments, the community and other stakeholders in the planning system.

The objectives of the P&E Act, of relevance to the Project are:

- *'provide for the fair, orderly, economic and sustainable use, and development of land'*
- *'facilitate appropriate development in accordance with the objectives'*
- *'balance the present and future interests of all Victorians'*

#### **Project Response**

##### ***Planning and Environment Act 1987***

The Project is consistent with the P&E Act as the proposed development and land use will not prejudice the existing and future land uses on the surrounding properties. The Project will provide economic benefits to the local community and to the Region.

This report and supporting documentation form a planning permit application that is consistent with Section 47 of the P&E Act. Sections 5.0 and 6.0 of this report provide a detailed assessment, of which demonstrates that the Project is consistent with the overarching objectives of planning in Victoria.



### 5.1.2 Renewable Energy Action Plan

Victoria's *Renewable Energy Action Plan* (the Plan) establishes Victoria's long-term renewable energy policy agenda and pathway. The Plan states that Victoria's renewable energy target is to be 25 per cent renewable energy generation by 2020 and 40 per cent renewable energy generation by 2025, which includes '20 per cent for large-scale solar power, to develop strong industry capability and lead the nation'.

The Plan identifies the following opportunities:

- *'Ensuring a reliable and resilient electricity supply;*
- *Building skills and capabilities to grow the sector;*
- *Investing in growing the renewable energy sector and economy; and*
- *Helping communities discover new energy opportunities and manage the transition.'*

It was announced on 13 August 2019, the *Renewable Energy (Jobs and Investment) Amendment Bill 2019* will build on the current abovementioned targets to legislate increasing Victoria's Renewable Energy Target to 50 per cent by 2030.

#### Project Response

##### *Renewable Energy Action Plan*

The Project helps to realise the opportunities outlined in the *Renewable Energy Action Plan* by investing in the renewable energy sector through the development of a solar farm producing a reliable supply of energy to the Region. The Project will be strengthening the skills and capabilities of the sector by creating approximately 250 jobs during the construction phase and offering up to 11 full time staff on a long-term or permanent basis for the operation and maintenance of the proposed solar farm.

In addition, the Project would provide an important contribution to helping Victoria meet the revised renewable energy target announced 13 August 2019.

### 5.1.3 Victoria's Climate Change Framework 2016

Victoria's *Climate Change Framework 2016* (the Framework) identifies the Government's long-term vision for climate change action. The vision for Victoria by 2050 is for net-zero emissions. The Framework sets out four pillars that underpin the State's transition to net zero emissions while maintaining economic prosperity which includes:

- *'Increase energy efficiency and productivity'*
- *'Move to a clean electricity supply'*
- *'Electrify our economy and switch to clean fuels'*
- *'Reduce non-energy emissions and increase carbon storage'*

#### Project Response

##### *Victoria's Climate Change Framework 2016*

The Project will contribute towards Victoria's 2050 vision for achieving zero-net emissions as identified in the Framework through the development and use of the land for a solar farm that has the potential to reduce carbon dioxide emissions by approximately 558,000 tonnes per year. The Project will support economic prosperity while simultaneously introducing a cleaner supply of energy to the Region.

### 5.1.4 Water for Victoria

*Water for Victoria* is the Victorian Government's strategic plan for management of water resources. The plan recognises agriculture's significant contribution to the State and national economy. Water and its management are vital to the development of the agricultural sector. The Victorian Government aims to (among others):

- *'Support regional development and change'*
- *'Invest in rural infrastructure'*

**Project Response*****Water for Victoria***

The Project recognises that water management and quality is vital to the agricultural sector. The Project supports the objectives of the plan whereby the solar farm has been designed to sufficiently set back infrastructure from watercourses. Subsequently this will assist to reduce the risk of surface water contamination during the construction phase and to minimise impediment to flood flows during the Project's operation. In addition, where security fencing crosses over the watercourse, the fencing will be designed such that it does not obstruct flood flows.

**5.1.5 Agriculture Victoria Strategy (2017)**

The *Agriculture Victoria Strategy (2017)* (the Strategy) recognises the sector's importance to economic growth and its potential for enhancing social and economic wellbeing across Victoria. The Strategy recognises a number of challenges for Victorian farmers including adaptation to climate change and *'responding to the potential for increased land use conflict'*.

The vision set out by Department of Economic Development, Jobs, Transport and Resources in the Strategy seeks to ensure *'a productive, competitive and sustainable Victorian economy that contributes to a prosperous and inclusive society'*. The short to intermediate outcomes for agricultural in Victoria include *'collective long-term planning by regional stakeholders seeking agreed agricultural land uses'* and *'government, industry and community engage in conversations about future regional land use planning, including strategic agriculture land use'*.

**Project Response*****Agriculture Victoria Strategy (2017)***

The Project recognises the value of productive agricultural land whereby the site is located on land that has been deemed suitable for alternative uses other than for agricultural purposes (refer **Appendix J** for the Agricultural Report). The site has no irrigation capability due to the absence of irrigation supply and lack of soil suitability to irrigation. The site is not in a declared irrigation district. The proposed solar farm is considered compatible with cropping and grazing land uses and will not adversely affect the operation or expansion of local or regional agricultural land uses.

The design of the Project ensures that the subject site can still be used for the grazing of livestock (sheep) for maintenance purposes further enhancing the productive quality of the site.

A Site Management and Integration of Agriculture Report has been prepared by AgriSci Pty Ltd (refer **Appendix D**). Neoen is investigating options to develop an integrated approach whereby *'the land can be sustainably used for both food/fibre and energy production'*. This report outlines the benefits for developing an 'agrivoltaic system' and details a range of options for the provision of integrated solar and agricultural production. As previously mentioned Neoen has implemented grazing as a site management strategy at several solar farms and is committed to exploring options for the co-location of agricultural activities and solar energy generation at the Project site.

**5.1.6 Solar Energy Facilities – Design and Development Guideline (July 2019)**

The Victorian Government has published the final release of the *Solar Energy Facilities - Design and Development Guideline (July 2019)* (the Guidelines) to support the siting, design and assessment of large-scale solar energy facilities in Victoria.

The Guidelines will come into effect by a future amendment to the Victoria Planning Provisions and all planning schemes and has no force or effect until this occurs. However introduction of the Guidelines is imminent and they must be considered as part of the overall planning policy setting.

The Guidelines provide information and direction about the policy, legislative and statutory planning requirements related to the siting and design of solar energy facilities across Victoria.

The Guidelines aim to ensure that new solar energy facilities are built in appropriate locations which are easily accessible to the electricity transmission network; avoid and/or minimise impacts on the local environments; and that issues such as impacts on productive agricultural areas and irrigated areas or impacts on sensitive uses within their proximity are considered.

**Project Response*****Solar Energy Facilities – Design and Development Guideline (July 2019)***

An assessment has been undertaken against the Guidelines to ensure that the Project complies with the best practice standards to further support this planning permit application.

The Project is consistent with the Guidelines for the following reasons:

- The Project is appropriately situated within an area that is highly accessible to the National Energy Market and subsequently, will make use of the existing electricity network and infrastructure where practicable. The site has direct access to the existing 220kV overhead transmission line which will be utilised for connecting in to the grid (subject to detailed design and consultation with AusNet).
- The Project can co-exist with agricultural production by not diminishing the productive quality of the site, nor will it cause disturbances to surrounding agricultural activity.
- The site does not contain any registered heritage or Aboriginal cultural heritage values.
- The design and layout of the proposed solar farm has sought to avoid and minimise impacts on native vegetation and retains native vegetation on the site where practicable.
- The proposed landscaping is considered to contribute to the biodiversity values of the area.
- The Preliminary LVIA (refer **Appendix K**) indicates that given the height of the solar panels, on-site mitigation can mitigate any possible impact. Buffer planting plant is proposed along the boundary of the site, roadways and sections of railway alignment to provide a visual buffer from surrounding areas ensuring minimal impacts on visual amenity for nearby sensitive receptors including the Goorambat Township.
- The proposed land use of a Renewable Energy Facility (solar) is consistent with the Planning Policy Framework and zoning of the land and will not result in the removal of high- quality agricultural land that would conflict with relevant planning policies.
- There is only one known proposed solar energy facility in the immediate area of the Project. This proposal is on land south of Goorambat-Thoona Road and is immediately adjacent to the project. This proposal received planning approval in 2019. It is not known when construction will commence. Clustering of the Project and this approved proposal will result in efficiencies through the sharing of existing electrical infrastructure and the consolidation of a similar land use in the same area. Importantly, there are no other operating or known proposed developments in the immediate vicinity, meaning even if these two projects come to fruition, there would still be a blend of land uses in the area including agriculture.
- Cumulative impacts resulting from solar farm development can occur when multiple solar farms develop in an area at a proximity close enough to result in views of solar panels in many directions from individual viewing points. In terms of visual impact, the cumulative impacts of the adjoining approved (but not constructed) solar farm are not considered to exacerbate or worsen the proposed condition whereby the adjoining solar farm generally integrates with the proposed development (refer **Appendix K** for further information).

Table 5 (below) outlines each section of the Guidelines and provides the relevant section of this report in which the section is discussed.

**Table 5 Response to Solar Energy Facilities – Design and Development Guideline (July 2019)**

<b>Page # Guidelines</b>	<b>Guidelines Section Title</b>	<b>Relevant Section of Report</b>
12	<i>Protecting Environmental Values</i>	Section 6.1 of this report <b>Appendix E</b> (Flora and Fauna Assessment Report)
14	<i>Protecting Cultural Heritage</i>	Section 6.7 of this report <b>Appendix F</b> (Cultural Heritage Assessment)
15	<i>Avoiding Loss of High-Value Agricultural Land</i>	Section 6.2 of this report <b>Appendix D</b> (Agricultural Assessment)
17	<i>Minimising impacts on Landscape Values</i>	Section 6.1, 6.2, 6.6, 6.8 and 6.10 of this report <b>Appendix D</b> (Agricultural Assessment) <b>Appendix E</b> (Flora and Fauna Assessment Report) <b>Appendix H</b> (Surface Water Assessment) <b>Appendix K</b> (Preliminary Landscape and Visual Impact Assessment Memo) <b>Appendix M</b> (Geotechnical Interpretive Report)
18	<i>Natural Hazard Management</i>	Section 6.11 of this report Section 6.8 of this report <b>Appendix H</b> (Surface Water Assessment)
19, 20, 21	<i>Engaging the Community</i>	Section 2.0 of this report <b>Appendix B</b> (Community Relations Plan)
<b>Design Stage</b>		
22	<i>Siting Facility Components</i>	Section 4.0 of this report <b>Appendix C</b> (Application Plans)
22	<i>Landscape Screening</i>	Section 4.0 of this report Section 6.6 of this report <b>Appendix K</b> (Preliminary Landscape and Visual Impact Assessment Memo)
23	<i>Glint and Glare Management</i>	Section 6.3 of this report <b>Appendix G</b> (Glint and Glare Assessment)
24	<i>Security Measures</i>	Section 4.0 of this report
24	<i>Traffic Management</i>	Section 6.9 of this report <b>Appendix I</b> (Traffic Impact Assessment)
24	<i>Noise</i>	Section 6.11 of this report
25	<i>Earthworks and Dust Management</i>	Section 6.12 of this report <b>Appendix L</b> (Framework CEMP)
25	<i>Bushfire</i>	Section 6.10 of this report
25	<i>Flooding</i>	Section 6.8 of this report <b>Appendix H</b> (Surface Water Assessment)
26	<i>Electromagnetic radiation and interference</i>	Section 6.5 of this report
26	<i>Heat Island Effect</i>	Section 6.4 of this report
<b>Construction and Operation Stage</b>		
27	<i>Environmental Management Plan</i>	Section 6.12 of this report <b>Appendix L</b> (Framework CEMP)
27	<i>Risk and Emergency Management Plan</i>	Section 6.12 of this report
27	<i>Site Access and Traffic</i>	Section 6.9 of this report

Page # Guidelines	Guidelines Section Title	Relevant Section of Report
	<i>Management</i>	<b>Appendix I</b> (Traffic Impact Assessment)
28	<i>Construction Noise and Dust Management</i>	<b>Appendix L</b> (Framework CEMP)
28	<i>Decommissioning</i>	Section 4.3.3 of this report

## 5.2 Regional Policy

### 5.2.1 Hume Regional Growth Plan, Victorian Government (2014)

The *Hume Regional Growth Plan* (2014) (the RGP) is an identified policy guideline at **Clause 11.01-1S** of the Planning Scheme. The RGP is relevant to the Project as the subject site is situated in Hume Region.

The RGP outlines that the Region is supported by the larger regional cities of Shepparton, Wangaratta and Wodonga and has an economy that is based on access to natural resources, environmental assets, heritage assets and the Hume and Goulburn Valley corridors. The economy of the Region is largely reliant on agriculture and manufacturing, but tourism is also a major employer.

Relevant key drivers for change and challenges for growth within the Region include:

- *'Preparing for the potential impact and opportunities arising from climate change and understanding how to assist agricultural industries to remain competitive in the face of climate change, and pressure from non-agricultural uses, among other things.*
- *Changes in economic sectors, particularly agriculture and manufacturing.*
- *Economic adjustments to initiatives that support national and global action to reduce greenhouse gas emissions, such as a price on carbon.'*

The RGP also acknowledges that *'infrastructure will also be needed to support renewable energy initiatives, such as solar energy generation'* and the importance of *'developing alternative energy sources such as solar'*.

#### Project Response

##### *Hume Growth Plan (2014)*

The Project assists the Region in preparing for the impact of climate change by providing a renewable energy facility that generates energy for use within Benalla and the Region. The subject site only represents a small percentage of farmland and is not used for intensive agricultural production which ensures that there is minimal impact to agricultural industries because of the Project. In addition, it is noted that long term losses to farmland are negligible as the land can be rehabilitated for farming uses following decommissioning.

As a renewable energy facility, the Project supports the economy of the Region by supporting changes to economic sectors while also contributing to reducing greenhouse gas emissions and the generation of sustainable energy.

### 5.2.2 Victoria's Regional Statement (2015)

Victoria's Regional Statement (2015) (the Statement) identifies the diverse aspects of Victoria's regional economy, including food, fibre, tourism, manufacturing and natural resources. The Statement recognises the major benefits renewable energy developments have for regional Victoria to reduce emissions, create jobs and put downward pressure on energy prices.

The Statement identifies that Government supports *'sustainable enterprises such as nature-based tourism, resource recovery / recycling industries and clean and innovative industries that have a natural home in the regions, such as new energy technology'*.

Further the Statement identifies that the Victorian Government is committed to:

- \$20 million fund (New Energy Jobs Fund) to support Victorian-based new energy technology projects that create or preserve long term sustainable jobs.

- An initiative to use our energy purchasing power to source renewable energy certificates from new projects in Victoria, bringing forward around \$200 million of new investments in renewables.

#### Project Response

##### **Victoria's Regional Statement (2015)**

The proposed Goorambat East Solar Farm is consistent with Victoria's Regional Statement as it contributes to supporting a diverse regional economy. The Project will provide a net community benefit and will support the reduction in carbon emissions, create jobs and support the reduction of energy prices by providing an additional energy source.

## 5.3 Local Policy

### 5.3.1 Benalla Rural City Council Plan 2017-2021

The *Benalla Rural City Council Plan 2017-2021* (the Council Plan) is structured around five key themes as follows:

1. 'Connected and Vibrant Community.
2. Engaging and Accessible Places and Spaces.
3. Thriving and Progressive Economy.
4. High Performing Organisation.
5. Sustainable Environment.'

The objectives of the Council Plan of relevance to the Project include:

- *'Supporting, promoting and encouraging the long-term growth, diversification and strengthening of the Benalla economy as a key contributor to a healthier and more sustainable community.'*
- *'Being proactive and strategic in the approach to protect the Benalla natural environment and safeguard its ability to support our community into the future.'*

#### Project Response

##### **Benalla Rural City Council Plan 2017-2021**

The Project is consistent with the Council Plan by presenting an opportunity to create new jobs in the renewable energy sector further diversifying the economy of Benalla. Through the provision of clean energy, the Project offers a sustainable and proactive solution that will support the community into the future.

### 5.3.2 Benalla Rural City Environment Strategy 2016-2020

The purpose of the *Benalla Rural City Environment Strategy 2016-2020* (the Environment Strategy) is to enable the strategic management of environmental impacts and obligations of Council. The strategic directions within the Strategy include:

- *'Appropriate land-use, development and biodiversity management.'*
- *'Acting to mitigate climate emissions and adapt to climate change impacts.'*
- *'Efficient waste management and resource recovery.'*
- *'Strategic and collaborative water management.'*
- *'Supporting building community resilience and capacity.'*

#### Project Response

##### **Benalla Rural City Environment Strategy 2019-2020**

The Project aligns with the strategic directions outlined in the Environment Strategy by contributing to the increase in renewable energy facilities within Benalla aiding in the mitigation of climate change impacts. Furthermore, the development and use of the land for a solar farm is considered as suitable both from a suitability perspective and its siting within the Farming Zone. A solar farm is considered compatible with surrounding agricultural activities and the neighbouring solar farm.

### 5.3.3 Benalla Community Plan 2016-2036

The *Benalla Community Plan 2016-2036* (the Community Plan) outlines how, over the next 20 years the community, the Council and other relevant organisations and stakeholders will work in partnership to achieve maximum health and wellbeing for the community. Key themes of the Community Plan include:

- *Community wellbeing and sense of place.*
- *A well connected and accessible community.*
- *A vibrant, thriving and progressive economy.*
- *Planned population growth.*
- *A sustainable environment.*
- *Benalla Rural City, a destination of choice.*
- *Leadership and community spirit.*

By 2036, Benalla seeks to have:

- *'Quality, well-maintained and utilised infrastructure, including integrated transport and advanced telecommunications,*
- *A diverse, robust and resilient economy attracts ongoing investment, providing a destination of choice for new industries and job opportunities in a culture of innovation and entrepreneurship.*
- *A beautiful scenic landscapes and open spaces while responsibly managing our valued natural resources with innovative practices and planning.'*

#### Project Response

##### *Benalla Community Plan 2016-2036*

The Project is consistent with the Community Plan as it introduces quality infrastructure to Goorambat that will locally produce renewable energy supporting the Council's desire to have a progressive economy and sustainable community.

The Project will create a local sustainable energy source while creating jobs for the Rural City of Benalla residents with knock-on benefits to the wider community contributing to the diversification and strength of the local economy.

## 5.4 Planning Policy Framework

The Planning Scheme includes the Planning Policy Framework (PPF). The PPF provides a context for spatial planning and decision making by planning and responsible authorities in Victoria and identifies aspects of planning policy which are to be taken into account and given effect in planning in their respective areas.

Table 6 (below) identifies key policies and objectives within the PPF that are relevant to the Project.

**Table 6 Planning Policy Framework and Project Policy responses**

Relevant Policy	Response
<p><b>Clause 11 – Settlement</b> identifies that <i>'planning is to anticipate and respond to the needs of existing and future communities through provision of zoned and serviced land for housing, employment, recreation and open space, commercial and community facilities and infrastructure'</i>.</p> <p><b>Clause 11.01-1S - Settlement</b> identifies the Hume Regional Growth Plan (2014).</p>	<p>The Project is consistent with <b>Clause 11</b> and will respond to the needs of existing and future communities and is consistent with regional planning policies as:</p> <ul style="list-style-type: none"> <li>• The Project will generate renewable energy and respond to the electricity needs of existing and future communities that will provide renewable energy to Benalla and the Region.</li> <li>• The Project will assist Benalla in creating a strong identity as an environmentally sustainable region</li> </ul>

Relevant Policy	Response
<p><b>Clause 11.01-1R – Hume</b> seeks to ‘facilitate growth and development specifically in the regional cities of Shepparton, Wangaratta, Wodonga and Benalla’ and ‘support improved access to a range of employment and education opportunities, particularly in key urban locations such as Benalla, Seymour, Shepparton, Wangaratta and Wodonga.’</p>	<p>that supports sustainable policies and actively seeks to reduce greenhouse gas emissions.</p> <ul style="list-style-type: none"> <li>The Project supports objectives to diversify employment opportunities and will facilitate agricultural diversification of the regional economy and take advantage of the good levels of solar irradiation in the Region.</li> <li>The Project responds to the RGP as discussed in Section 5.2.1.</li> </ul>
<p><b>Clause 12 – Environmental and Landscape Values</b> identifies that ‘planning should help to protect the health of ecological systems and the biodiversity they support and conserve areas with identified environmental and landscape values’.</p> <p><b>Clause 12.01-1S Protection of biodiversity</b> seeks to ‘assist the protection and conservation of Victoria’s biodiversity.’</p> <p><b>Clause 12.01-2S Native Vegetation management</b> aims to ‘ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation.’</p> <p><b>Clause 12.05-2S – Landscapes</b> seeks to ‘protect and enhance significant landscapes and open spaces that contribute to character, identity and sustainable environments.’</p>	<p>The Project is consistent with the objectives and strategies of <b>Clause 12</b> as follows:</p> <ul style="list-style-type: none"> <li>The proposed site layout has been designed to protect and avoid areas of ecological value where possible.</li> <li>The landscape in which the subject site sits is not a significant landscape. Nevertheless, views of the proposed infrastructure will be mitigated through landscaping which will minimise the visual impact of the Project on landscape values, on the views of sensitive receptors.</li> </ul> <p>For additional information refer to the Flora and Fauna Assessment Report, Glint and Glare Assessment and Landscape Plan at <b>Appendix E, Appendix G</b> and <b>Appendix K</b>. In addition, Section 6.1, 6.3 and 6.6 of this report.</p>
<p><b>Clause 13 – Environmental Risks and Amenity</b> acknowledges that ‘planning should identify and manage the potential for the environment and environmental changes to impact on the economic, environmental or social wellbeing of society.’</p> <p><b>Clause 13.02-1S – Bushfire Planning</b> contains objectives and strategies ‘to strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.’</p> <p><b>Clause 13.05-1S – Noise Abatement</b> seeks to ‘assist the control of noise effects on sensitive land uses’ and ‘ensure that development is not prejudiced and community amenity is not reduced by noise emissions.’</p> <p><b>Clause 13.07-1S - Land Use Compatibility</b> seeks ‘to safeguard community amenity while facilitating appropriate commercial, industrial or other users with potential off-site effects.’</p>	<p>The Project is consistent with <b>Clause 13</b> given:</p> <ul style="list-style-type: none"> <li>The proposed site layout is resilient and defensible in the case of a bushfire and does not increase bushfire risks to human life. This is achieved by: <ul style="list-style-type: none"> <li>Ensuring that the Solar Farm is surrounded by internal tracks that enable the site to be safely accessed and defended in the event of a fire.</li> </ul> </li> <li>The subject site is within a Designated Bushfire Prone Area however it is not included within the Bushfire Management Overlay and the use of a renewable energy facility is not included in those required to be assessed under Clause 13.02 Bushfire.</li> <li>To mitigate environmental risks, a Framework CEMP has been prepared to manage environmental impacts and hazards.</li> <li>It is anticipated that noise emanating from the operation of the Project will be negligible (Solar Farms are a virtually silent producer of energy).</li> </ul> <p>The Framework CEMP is provided at <b>Appendix L</b> and discussed at Section 6.12 of this report. The Framework CEMP has been developed to management mitigate construction and operational amenity issues during the development and use of the solar farm.</p>



Relevant Policy	Response
<p><b>Clause 14 – Natural Resource Management</b> identifies that <i>‘planning is to assist in the conservation and wise use of natural resources including energy, water, land, stone and minerals to support both environmental quality and sustainable development.’</i></p> <p><b>Clause 14.01-1S – Protection of Agricultural Land</b> aims <i>‘to protect productive farmland which is of strategic significance in the local or regional context’</i> and identifies several key strategies including:</p> <ul style="list-style-type: none"> <li>• <i>‘In considering a proposal to develop agricultural land, consider the:</i> <ul style="list-style-type: none"> <li>- <i>Desirability and impacts of removing the land from primary production, given its agricultural productivity.</i></li> <li>- <i>Impacts of the proposal on the continuation of primary production on adjacent land.</i></li> <li>- <i>Compatibility between the proposed or likely development and the existing uses of the surrounding land.</i></li> <li>- <i>Land capability.’</i></li> </ul> </li> </ul> <p><b>Clause 14.01-2S – Sustainable Agricultural land use</b> seeks to <i>‘encourage sustainable agricultural land use.’</i></p>	<p>The Project is consistent with <b>Clause 14</b> as:</p> <ul style="list-style-type: none"> <li>• Impacts to agricultural productivity are considered minimal as the Project: <ul style="list-style-type: none"> <li>- Only represents an extremely small percentage of productive agricultural land within the Region.</li> <li>- The proponent is proposing to utilise the land holdings under the solar panels for sheep grazing and return the land back to agricultural production after the decommissioning stage of the solar farm.</li> </ul> </li> <li>• The Agricultural Assessment (refer <b>Appendix D</b>) concluded the Goorambat Soil Association is classified as average agricultural land quality and participating land owners would view the Project as a means of providing income diversification and reducing agricultural risk.</li> <li>• The use of the site for a renewable energy facility will not have an impact on the uses of the adjoining land. A solar farm is not considered a high impact activity whereby it has minimal to no noise impacts and visual impacts will be mitigated through landscape screening.</li> <li>• The Project will allow for the sustainable use of farmland and facilitate agricultural diversification that will support the regional economy and take advantage of the good levels of solar radiation.</li> </ul> <p>The Landscape Plan is included in the Visual and Landscape Impact Assessment (refer <b>Appendix K</b>) and discussed at Section 6.6 of this report.</p>
<p><b>Clause 15 – Built Environment and Heritage</b> Identifies that <i>‘planning should ensure all new land use and development appropriately responds to its surrounding landscape and character, valued built form and cultural context’</i> and <i>‘protect places and sites with significant heritage, architectural, aesthetic, scientific and cultural value.’</i></p> <p><b>Clause 15.01-6S - Design for Rural Areas</b> aims to <i>‘ensure development respects valued areas of rural character.’</i></p> <p><b>Clause 15.02-1S – Energy and resource efficiency</b> aims to <i>‘encourage land use and development that is consistent with the efficient use of energy and the minimisation of greenhouse gas emissions.’</i> A key strategy aims to <i>‘improve efficiency in energy use through greater use of renewable energy.’</i></p> <p><b>Clause 15.03-2S - Aboriginal Cultural Heritage</b> aims <i>‘to ensure the protection and conservation of places of Aboriginal cultural heritage significance.’</i></p>	<p>The Project is considered consistent with <b>Clause 15</b> given that:</p> <ul style="list-style-type: none"> <li>• The Project responds appropriately to its landscape and protects visual amenity by providing screen planting in strategic locations that will screen views of sensitive receptors.</li> <li>• The Project is not located within proximity to any registered heritage areas or areas of Aboriginal Cultural Heritage Sensitivity.</li> <li>• The Project is not expected to have detrimental impacts on amenity, the natural or built environment or on the safety and efficiency of roads given its setback and proposed screening.</li> <li>• Where possible, native vegetation is proposed to be retained.</li> <li>• The Project provides renewable energy infrastructure to be used for the efficient and renewable production of energy.</li> </ul> <p>Refer <b>Appendix K</b> for the Visual and Landscape Impact Assessment, and <b>Appendix E</b> for the Flora and Fauna Assessment Report, and Sections 6.6 and 6.1 of this report respectively.</p>

Relevant Policy	Response
<p><b>Clause 17 – Economic Development</b> acknowledges that <i>‘planning is to provide for a strong and innovative economy, where all sectors of the economy are critical to economic prosperity’</i> and <i>‘to contribute to the economic well-being of the State and foster economic growth.’</i></p> <p><b>Clause 17.02-1S – Business</b> encourages development which <i>‘meets the communities’ needs for retail, entertainment, office and other commercial services.’</i></p>	<p>The Project is consistent with <b>Clause 17</b> whereby it meets the community needs by capitalising on the emerging renewable energy market. Specifically:</p> <ul style="list-style-type: none"> <li>• The Project will support direct and indirect full-time employees over the construction and operation of the Project.</li> <li>• Construction workers are likely to inject spending into the regional economy and support jobs in the service sector.</li> </ul> <p>There is a good match of skills and resources available in the region creating significant opportunities for businesses and the local labour force.</p>
<p><b>Clause 19 – Infrastructure</b> identifies that <i>‘growth and redevelopment of settlements should be planned in a manner that allows for the logical and efficient provision and maintenance of infrastructure’.</i></p> <p><b>Clause 19.01-2S – Renewable energy</b> seeks to <i>‘promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met’.</i> Key strategies seek to:</p> <ul style="list-style-type: none"> <li>• <i>‘Facilitate renewable energy development in appropriate locations.’</i></li> <li>• <i>‘Develop appropriate infrastructure to meet community demand for energy services and setting aside suitable land for future energy infrastructure.’</i></li> <li>• <i>‘Consider the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effect of a proposal on local community and environment.’</i></li> </ul> <p><b>Clause 19.01-1R – Renewable Energy – Hume</b> seeks to <i>‘create renewable energy hubs that support co-location of industries to maximise resource use efficiency and minimise waste generation.’</i></p>	<p>The Project is consistent with <b>Clause 19</b> and will ensure the provision of renewable energy infrastructure. The proposed Project is consistent with objectives and key policies as follows:</p> <ul style="list-style-type: none"> <li>• The location of the Project has been selected based on its proximity to existing transmission line infrastructure that has capacity for renewably sourced energy.</li> <li>• The Project is in a zone where renewable energy facilities are an acceptable development and the site is currently surrounded by farmland.</li> <li>• The Project has the capacity to supply renewable and sustainable energy to Benalla and the Region, in the process, to reduce CO2 emissions. This will support Victoria’s renewable energy target of 5,400MW of additional installed capacity by 2025.</li> <li>• The Project will deliver economic and environmental benefits to the broader community and Region.</li> <li>• The addition of this Project among many other solar farm proposals in the Region will contribute to a renewable energy hub within Benalla which will maximise resource efficiency and minimise waste generation.</li> </ul> <p>Refer <b>Appendix K</b> for the Visual and Landscape Impact Assessment, and <b>Appendix E</b> for the Flora and Fauna Assessment Report, and Sections 6.6 and 6.1 of this report respectively.</p>

## 5.5 Local Planning Policy Framework

The Benalla Planning Scheme contains a Local Planning Policy Framework (LPPF) including the Municipal Strategic Statement (MSS) at **Clause 21**. The MSS is a concise statement of the key strategic planning, land use and development objectives for the municipality. The LPPF seeks to further the objectives of planning in Victoria and provide a local context to further LPPF objectives and strategies.

Table 7 (below) identifies key policies and objectives within the LPPF that are relevant to the Project.

**Table 7 Local Planning Policy Framework and Project Policy responses**

Relevant Policy	Response
<b>Municipal Strategic Statement</b>	
<p><b>Clause 21.01-3 Vision</b> The Council Plan 2013-2017 identifies that ‘a sustainable, thriving and cohesive community where lifestyle, culture, health and wellbeing are important’ is the vision for Council.</p>	<p>The Project is consistent with <b>Clause 21.01-3</b> and will enable an ecologically sustainable renewable energy facility to connect to the national electricity network and support Benalla Rural City to create a sustainable and vibrant future. The Project provides and facilitates benefits which are consistent with the municipal vision:</p> <ul style="list-style-type: none"> <li>• The Project will produce zero emissions during operation.</li> <li>• The Project will reduce carbon emissions from electricity consumption.</li> <li>• The Project will allow for a diversification of the local area’s economy.</li> </ul>
<p><b>Clause 21.03 Environmental, Landscape and heritage Values</b> provides local support to <b>Clause 12</b> and <b>15</b>.</p> <p><b>Clause 21.03-1 Flora and Fauna</b> seeks to ‘conserve and protect native vegetation and fauna’. Key strategies include:</p> <ul style="list-style-type: none"> <li>• ‘Minimise vegetation removal for new development and infrastructure, including roads and drainage’.</li> <li>• ‘Encourage the linking and protection of remnant native vegetation to improve habitat.’</li> </ul> <p><b>Clause 21.03-2 Landscape Character</b> seeks to ‘manage and protect the landscape character of the municipality’.</p>	<p>The Project is consistent with <b>Clause 21.03</b> as:</p> <ul style="list-style-type: none"> <li>• The layout design seeks to protect and avoid of areas of ecological value where possible.</li> <li>• Sensitive views have been responded to through a landscape design response ensuring local aesthetic value are protected.</li> </ul> <p>Refer <b>Appendix K</b> for the Visual and Landscape Impact Assessment (and Section 6.6 of this report), <b>Appendix E</b> for the Flora and Fauna Assessment Report (and Section 6.1 of this report) and <b>Appendix G</b> for the Glint and Glare Assessment (and Section 6.3 of this report).</p>
<p><b>Clause 21.04 Environmental Risks</b> provides local support to <b>Clause 13</b>.</p> <p><b>Clause 21.04-1 Bushfire</b> seeks to ‘discourage development in areas at risk of bushfire’ by ensuring ‘the protection of human life over all other considerations’ and locating ‘new development on the most suitable site to minimise the threat from bushfire’.</p> <p><b>Clause 21.04-3 Climate change</b> seeks to ‘ensure future development is protected from the impacts of climate change.’</p>	<p>The Project is consistent with <b>Clause 21.04</b> as:</p> <ul style="list-style-type: none"> <li>• The proposed layout is resilient and defensible in the case of a bushfire and does not increase bushfire risks to human life. This is specifically achieved by: <ul style="list-style-type: none"> <li>- Surrounding the solar farm by internal access tracks that enable the site to be safely accessed and protected in the event of a fire.</li> <li>- Static water may be provided on-site.</li> </ul> </li> <li>• The project responds to climate change given its contribution to reducing greenhouse gas emissions and the generation of sustainable renewable energy.</li> </ul>

Relevant Policy	Response
<b>Municipal Strategic Statement</b>	
<p><b>Clause 21.04-4 Land use conflict</b> seeks to 'minimise the potential for land use conflicts.'</p>	<ul style="list-style-type: none"> <li>• The proposed use will not result in land use conflict with adjacent uses as solar farms are not high impact activities, generally have no noise impacts and limited visual impacts.</li> <li>• The project is also located adjacent to neighbouring solar farm proposal that has been recently supported through the Council planning process.</li> </ul> <p>Refer <b>Appendix K</b> for the Visual and Landscape Impact Assessment (including the Landscape Plan and Visualisations) and Section 6.6 of this report.</p>
<p><b>Clause 21.05 Natural Resource Management</b> provides local support to <b>Clause 14</b>.</p> <p><b>Clause 21.05-1 Agriculture</b> seeks to 'protect agricultural areas from inappropriate and unsustainable development' among other things.</p>	<p>The Project is consistent with <b>Clause 21.05</b> as follows:</p> <ul style="list-style-type: none"> <li>• An Agricultural Assessment has been undertaken to consider the agricultural value of the site investigation area (refer <b>Appendix D</b>).</li> <li>• The agricultural quality of the Goorambat soil association is classed as average (Class 3) because of its soil profile characteristics, lack of irrigation capability and therefore limitation to broadacre cropping as its best and most productive use.</li> <li>• Impacts to agricultural productivity are considered minimal as the Project: <ul style="list-style-type: none"> <li>- Represents a small percentage of productive agricultural land within the Region.</li> <li>- The subject site is not used for commercial farming purposes and is not expected to affect the regional agricultural economy.</li> <li>- This proposed change of land-use does not prevent the potential ongoing production of agriculture (e.g. sheep grazing). Grazing will be encouraged as a shared land use for the solar farm.</li> <li>- The proposed solar farm is considered compatible with cropping and grazing land uses and will not adversely affect the operation or expansion of local or regional agricultural land uses.</li> </ul> </li> <li>• The Project will facilitate agricultural diversification and allow for the sustainable use of farmland that will support the regional economy.</li> <li>• The Project will enable further diversification in an area that has already been identified as appropriate for the proposed use.</li> <li>• Furthermore, as concluded in the Agricultural Assessment (refer <b>Appendix D</b>), the Project will provide income diversification and reduce agricultural risk for participating landowners.</li> </ul>

## 5.6 Zoning and Overlay Provisions

### 5.6.1 Farming Zone

The site is located in the Farming Zone (FZ) (refer Figure 7 below). The purpose of the FZ is:

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

In accordance with **Clause 35.07-1** (Table of Uses), a *renewable energy facility* is a Section 2 Use (Permit required) and must meet the requirements of **Clause 53.13** (Renewable Energy Facility (Other Than Wind Energy Facility and Geothermal Energy Extraction)). Furthermore, a *utility installation other than Minor utility installation and Telecommunications facility* is a Section 2 Use (Permit required). Refer Section 5.10 of this report for the definition of the land use terms.

Pursuant to **Clause 35.07-4** (Buildings and Works), a permit is required to construct or carry out building or works associated with a use in Section 2 of **Clause 35.07-1**.

**Clause 35.07-7** (Signs) specifies signage requirements are at **Clause 52.05** and Category 4 signage provisions apply to the FZ.

#### Project Response

#### **Clause 35.07 Farming Zone – Purpose and Decision Guidelines**

The proposal is considered consistent with the purpose of **Clause 35.07** for the following reasons:

- The Project has been assessed against the PPF, LPPF and the MSS of the Planning Scheme in Section 5.4 and Section 5.5.
- The Project supports renewable energy generation and diverse farming practices and is therefore consistent with *Planning Practice Note 42* which identifies that *‘the Farming Zone is designed to encourage diverse farming practices’*.
- The use of the project site for the use of a solar farm will not detrimentally impact on nearby or adjoining land being used for farming.
- During construction and operation, the Project will support direct and indirect full- time employees and subsequently support the local community.
- The site has been chosen for the Project based on sustainable land management practices that include an assessment of amenity, heritage, topography and ecological values, and the proximity to local infrastructure, specifically the existing 220kV overhead transmission line.

It is considered that the Project is consistent with the decision guidelines of **Clause 35.07** as follows:

- A Notice of Decision had been issued at the time of writing this application for a solar farm directly adjoining the project site which supports the proposed development in relation to the suitability of the site for a renewable energy facility.
- The decommissioning of the Project will rehabilitate the project site to ensure that it continues to be viable for agricultural purposes following the completion of the Project.

**Project Response****Clause 35.07 Farming Zone – Purpose and Decision Guidelines**

- The Project will not impact on the natural existing physical features or resources within the site and surrounding area. All infrastructure associated with the Project has been setback from waterways in accordance with the Catchment Management Authority (CMA) setback requirements. In addition, the permeability of any laydown areas within the site will limit impacts to water quality.
- The Project will consider erosion and sediment control (soil quality) devices as a part of the proposed Environment Management Plan (EMP).
- The proposed site layout has been designed to protect all remnant patches of vegetation, and where possible, avoid the removal of existing trees. Appropriate offsets will ensure no net loss in the contribution made by native vegetation to Victoria's biodiversity (refer to Section 6.1 and **Appendix E**).
- The impact of the Project on surrounding sensitive receptors will be mitigated through buffer planting belt along the boundary of the Project, roadways and sections of the railway alignment. Further planting is proposed to the south-western boundary to mitigate impacts from the south along Benalla-Tocumwal Road. Refer **Appendix K** for information in relation to the type and height of the proposed buffer planting.
- The site has adequate physical separation from sensitive uses. It is anticipated that adjoining and nearby land uses will retain acceptable levels of amenity for dwellings within the Farming Zone.
- Whilst the final location and details of the proposed signage will be determined at a later date, it is noted the business identification signage will be limited to the extent necessary for required identification and will not exceed three square metres in accordance with **Clause 52.05**. The proposed signage will be minor in nature and will not be obtrusive in the natural landscape.

**Legend**

- ▭ Site Investigation Area
- Roads
- Railway
- Watercourses
- Cadastre
- Planning Zones**
- FZ - Farming
- ▭ LRDZ - Low Density Residential
- ▭ PUZ4 - Public Use - Transport
- ▭ RDZ1 - Road - Category 1
- ▭ RDZ2 - Road - Category 2
- ▭ TZ - Township

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**Goorambat East Solar Farm**

**PLANNING ZONES**

PROJECT #:	60591336	<b>Figure 7</b>
CREATED BY:	JB	
LAST MODIFIED:	brierej; 15/08/2019	
VERSION:	1	

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### 5.6.2 Overlays

A small section of the site to the west of the site is subject to the Floodway Overlay (RFO) (refer Figure 8 below). Pursuant to **Clause 44.03**, the purpose of the RFO is:

- *'To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To identify waterways, major floodpaths, drainage depressions and high hazard areas which have the greatest risk and frequency of being affected by flooding.*
- *To ensure that any development maintains the free passage and temporary storage of floodwater, minimises flood damage and is compatible with flood hazard, local drainage conditions and the minimisation of soil erosion, sedimentation and silting.*
- *To reflect any declarations under Division 4 of Part 10 of the Water Act, 1989 if a declaration has been made.*
- *To protect water quality and waterways as natural resources in accordance with the provisions of relevant State Environment Protection Policies, and particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria).*
- *To ensure that development maintains or improves river and wetland health, waterway protection and flood plain health.'*

In accordance with **Clause 44.03-2** (Buildings and Works), a permit is required to construct a building or to construct or carry out works including a fence.

Pursuant to **Clause 44.03-6** (Referral of Applications), an application must be referred to the relevant floodplain management authority under Section 55 of the P&E Act unless in the opinion of the responsible authority the proposal satisfies requirements or conditions previously agreed in writing between the responsible authority and the floodplain management authority.

#### Project Response

##### **Clause 44.03 Floodway Overlay – Purpose and Decision Guidelines**

The overlay only applies to a small section of the project site and the positioning of solar panels and associated infrastructure has been avoided in this area. A fence is proposed to be located on land affected by the RFO. In accordance with **Clause 44.03-2**, a permit is required for the construction of a fence. The grid connection including the terminal substation is not located within the RFO, and subsequently a permit is not required for buildings and works of a utility installation.

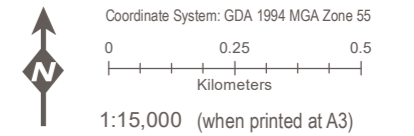
The type of fencing proposed will ensure negligible impact on water quality and river health. Fencing is designed such that it does not obstruct flood flows.

### 5.6.3 Bushfire Prone Area

The site is located within a Designated Bushfire Prone Area (refer Figure 9 below). It is anticipated that the highest fire risk is likely to be due from grass fires. The proposed solar farm land use is not a listed land use at **Clause 13.02** of the Planning Scheme. Notwithstanding, it is anticipated that a Bushfire Management Plan will be prepared prior to development of the site as a condition of planning permit. The Bushfire Management Plan will be prepared in consultation with the CFA to ensure that appropriate fire risk assessments are undertaken and measures are implemented during development and operation to minimise the risk to life and property from fire.



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**Legend**

- ▭ Site Investigation Area
- Roads
- + Railway
- Watercourses
- Cadastre
- Planning Overlay**
- ▭ RFO - Rural Floodway

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**Goorambat East Solar Farm**

**PLANNING OVERLAYS**

PROJECT #: 60591336  
 CREATED BY: JB  
 LAST MODIFIED: brierej; 15/08/2019  
 VERSION: 1

**Figure 8**

**Legend**

- Site Investigation Area
- Roads
- Railway
- Watercourses
- Cadastre
- Bushfire Prone Areas

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**Goorambat East Solar Farm**  
**BUSHFIRE PRONE AREAS**

PROJECT #:	60591336	<b>Figure 9</b>
CREATED BY:	JB	
LAST MODIFIED:	brierej; 15/08/2019	
VERSION:	1	

## 5.7 Particular Provisions

### 5.7.1 Clause 52.05 (Signs)

The purpose of **Clause 52.05** (Signs) is to:

- *'Regulate the development of land for signs and associated structures.'*
- *Ensure signs are compatible with the amenity and visual appearance of an area, including the existing or desired future character.*
- *Ensure signs do not contribute to excessive visual clutter or visual disorder.*
- *Ensure that signs do not cause loss of amenity or adversely affect the natural or built environment or the safety, appearance or efficiency of a road.'*

In accordance with **Clause 35.07-7**, Category 4 signage provisions apply to the FZ. Category 4 signage provisions (Sensitive Areas) applies the maximum limitation. Pursuant to **Clause 52.05-14** (Category 4 – Sensitive areas), the purpose is to *'provide for unobtrusive signs in areas requiring strong amenity control'*.

In accordance with **Clause 52.05-14**, a *business identification sign* requires a permit under Section 2 given the *'total display area to each premises must not exceed 3 sqm'*. In accordance with **Clause 73.02** (Sign terms), a *business identification sign* is defined as:

*'A sign that provides business identification information about a business or industry on the land where it is displayed. The information may include the name of the business or building, the street number of the business premises, the nature of the business, a business logo or other business identification information.'*

Furthermore, pursuant to **Clause 52.05-14**, a *direction sign* does not require a permit under Section 1. In accordance with **Clause 73.02** (Sign Terms), a *direction sign* is defined as:

*'A sign not exceeding 0.3 square metre that directs vehicles or pedestrians. It does not include a sign that contains commercial information.'*

#### Project Response Clause 52.05 Signs

At this stage, details of the signage required are not confirmed. The signage will be limited to the extent necessary for identification and will not exceed three square metres. Therefore, the signage will be minor in nature and will not appear obtrusive in the natural landscape.

The signage will be designed with consideration given to the decision guidelines of **Clause 52.05-8** and to the satisfaction of the responsible authority. This will ensure the signage has no undue impact on the amenity of the area in accordance with the objectives of **Clause 52.05**.

It is anticipated that full details of all business identification signage will form a requirement of a planning permit condition.

### 5.7.2 Clause 52.06 (Car Parking)

The purpose of **Clause 52.06** (Car Parking) is:

- *'To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.'*
- *To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.*
- *To support sustainable transport alternatives to the motor car.*
- *To promote the efficient use of car parking spaces through the consolidation of car parking facilities.*
- *To ensure that car parking does not adversely affect the amenity of the locality.*

- *To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.'*

In accordance with **Clause 52.06-2** (Provision of car parking spaces), before a new use commences the number of car parking spaces required under **Clause 52.06-5** must be provided to the satisfaction of the responsible authority.

Pursuant to **Clause 52.06-6** (Number of car parking spaces required for other uses) states *'where a use of land is not specified in Table 1 or where a car parking requirement is not specified for the use in another provision of the planning scheme or in a schedule to the Parking Overlay, before a new use commences or the floor area or site area of an existing use is increased, car parking spaces must be provided to the satisfaction of the responsible authority'*.

#### Project Response

##### Clause 52.06 Car Parking

Car parking for the Project will be addressed in a Construction Environment Management Plan or Traffic Management Plan during construction.

During operation, car parking will comply with relevant car parking design standards and ensure that there will be no demand generated for on-street parking as a result of the Project's operation.

### 5.7.3 Clause 52.17 (Native Vegetation)

The purpose of **Clause 52.17** (Native Vegetation) is to:

- *'To ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. This is achieved by applying the following three step approach in accordance with the Guidelines for the removal, destruction or lopping of native vegetation (Department of Environment, Land, Water and Planning, 2017) (the Guidelines):*
  1. *Avoid the removal, destruction or lopping of native vegetation.*
  2. *Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.*
  3. *Provide an offset to compensate for the biodiversity impact if a permit is granted to remove, destroy or lop native vegetation.*

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

In accordance with **Clause 52.17-1** (Permit Requirement), a permit is required to remove, destroy or lop native vegetation, including dead native vegetation.

#### Project Response

##### Clause 52.17 Native Vegetation

Solar arrays are composed of panels that are connected to form strings which are then grouped into rows and connected to a power conversion unit. Shadowing has a greater effect than simply reducing the output of any single shaded panel as it will reduce the output of the entire string to which it forms a part meaning that the output of the lowest generating panel determines the output of the whole string.

Subsequently, 67 scattered trees (including 66 large scattered trees) within the paddock are required to be removed as they impede the efficient layout of the Project and overshadow surrounding panels.

The Flora and Fauna Assessment (refer **Appendix E** and Section 6.1 of this report) contains a Native Vegetation Removal Report which confirms 67 scattered trees (including 66 large trees) and as a result 0.796 general habitat units of offset will be required within a minimum strategic biodiversity score of 0.170.

In addition, please refer to **Appendix E** of this report for discussion regarding the mapped wetland. As previously mentioned, whilst the area of the site is mapped as a current wetlands on DELWP's MapshareVic platform, and is not covered by a manmade surface, it does not meet the definition of a wetland within Victoria and are not considered in this application to be wetlands

#### 5.7.4 Clause 53.13 (Renewable Energy Facility (Other Than Wind Energy Facility and Geothermal Energy Extraction))

The purpose of **Clause 53.13** is to 'to facilitate the establishment and expansion of renewable energy facilities, in appropriate locations, with minimal impact on the amenity of the area'. This clause applies to land used and developed or proposed to be used and developed for a renewable energy facility.

**Clause 53.13-2** (Application requirements) specifies the information an application must be accompanied by (as applicable).

The application requirements set out in **Clause 53.13-2** are addressed in Table 8 (below).

**Table 8 Application Requirements of Clause 53.13-2**

Policy Requirement	Section of Report
<p><i>A site and context analysis, including:</i></p> <ul style="list-style-type: none"> <li><i>A site plan, photographs or other techniques to accurately describe the site and the surrounding area.</i></li> <li><i>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.</i></li> </ul>	<p>Refer to:</p> <ul style="list-style-type: none"> <li>Section 3.0 (Site Investigation Area and Surrounds) of this report</li> <li>Application Plans (<b>Appendix C</b>)</li> </ul>
<p><i>A design response, including:</i></p> <ul style="list-style-type: none"> <li><i>Detailed plans of the proposal 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.</i></li> <li><i>Accurate visual simulations illustrating the Project in the context of the surrounding area and from key public view points.</i></li> <li><i>The extent of vegetation removal and a rehabilitation plan for the site.</i></li> </ul>	<p>Refer to:</p> <ul style="list-style-type: none"> <li>Application Plans (<b>Appendix C</b>)</li> <li>Landscape and Visual Impact Assessment (<b>Appendix K</b> and Section 6.6 of this report)</li> <li>Section 4.0 (Proposal) of this report.</li> <li>Flora and Fauna Assessment Report (<b>Appendix E</b> and Section 6.1 of this report).</li> </ul>
<p><i>A written report(s), including:</i></p> <ul style="list-style-type: none"> <li><i>An explanation of how the proposed design derives from and responds to the site analysis.</i></li> <li><i>A description of the proposal, including the types of process to be utilised, materials to be stored and the treatment of waste.</i></li> <li><i>Whether a Works Approval or Licence is required from the Environment Protection Authority.</i></li> </ul>	<p>Refer to:</p> <ul style="list-style-type: none"> <li>Section 3.0 (Site Investigation Area and Surrounds) of this report</li> <li>Section 4.0 (Proposal) of this report</li> <li>Section 5.0 (Legislation and Policy) of this report</li> <li>Section 6.0 (Impact Assessment) of this report</li> </ul>
<p><i>An assessment of:</i></p> <ul style="list-style-type: none"> <li><i>The potential amenity impacts such as noise, glint, light spill, emissions to air, land or water, vibration, smell and electromagnetic interference.</i></li> <li><i>The effect of traffic to be generated on roads.</i></li> <li><i>The impact upon Aboriginal or non-Aboriginal cultural heritage.</i></li> </ul>	<p>Refer to:</p> <ul style="list-style-type: none"> <li>Certificate of Titles (<b>Appendix A</b>)</li> <li>Application Plans (<b>Appendix C</b>)</li> <li>Flora and Fauna Assessment Report (<b>Appendix E</b> and Section 6.1)</li> <li>Glint and Glare Assessment (<b>Appendix G</b> and Section 6.3 of this report)</li> <li>Landscape and Visual Impact Assessment (<b>Appendix K</b> and Section 6.6 of this report)</li> </ul>

Policy Requirement	Section of Report
<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>A statement of why the site is suitable for a Renewable Energy Facility including, a calculation of the greenhouse benefits.</i></li> <li><i>An environmental management plan including, a construction management plan, any rehabilitation and monitoring.</i></li> </ul>	<ul style="list-style-type: none"> <li>Framework Environmental Management Plan (<b>Appendix L</b> and Section 6.13 of this report)</li> <li>Geotechnical Investigation (<b>Appendix M</b> and Section 6.10 of this report).</li> <li>Traffic Impact Assessment (<b>Appendix I</b> and Section 6.9)</li> <li>Cultural Heritage Assessment (<b>Appendix F</b> and Section 6.7 of this report)</li> <li><b>Section 3.4</b> (Site Selection) of this report</li> </ul>

## 5.8 General Provisions

### 5.8.1 Clause 66 (Referral and Notice)

Clause 66 (Referral and Notice Provisions) sets out the types of applications which must be referred under Section 55 of the P&E Act or for which notice must be given under Section 52(1)(c) of the P&E Act. The following identifies the referrals applicable to this application:

- **Clause 66.2-2** (Native Vegetation) requires the application to be referred to the Secretary to the DELWP to *'remove, destroy or lop native vegetation in the Detailed Assessment Pathway as defined in the Guidelines for the removal, destruction or lopping of native vegetation (DELWP, 2017)'*. DELWP is a recommending referral authority.
- **Clause 66.02-4** (Major Electricity Line or Easement) requires the application to be referred to the relevant electricity transmission authority to *'construct a building or construct or carry out works on land within 60 metres of a major electricity transmission line (220 Kilovolts or more) or an electricity transmission easement'*. The relevant electricity transmission authority is a determining referral authority.
- The table to **Clause 66.03** specifies the Referral of Permit Application under other State Standard Provisions (and of relevance to the Project) as follows:
  - **Clause 44.03-6** (FO): An application under the overlay outside the waterway management district of Melbourne Water Corporation is to be referred to the relevant floodplain management authority, of whom are a recommending referral authority.
  - **Clause 52.29** (Land adjacent to a Road Zone, Category 1, or a Public Acquisition Overlay for a Category 1 Road): An application to create or alter access to, Roads Corporation or to subdivide land adjacent to, a road declared as a freeway or an arterial road under the Road Management Act 2004, land owned by the Roads Corporation for the purpose of a road, or land in a PAO if the Roads Corporation is the acquiring authority for the land, subject to exemptions specified in the clause is to be referred to the Roads Corporation, of whom are a determining referral authority.

## 5.9 Operational Provisions

### 5.9.1 Clause 72.04 (Documents Incorporated in this Planning Scheme)

Pursuant to **Clause 72.04**, Incorporated Documents of relevance to the Project include:

- *Building in bushfire-prone areas - CSIRO & Standards Australia (SAA HB36-1993), NPS1 May 1993*
- *Guidelines for the removal, destruction or lopping of native vegetation (Department VC138 of Environment, Land, Water and Planning 2017)*

### 5.9.2 Clause 73.03 (Land Use Terms)

In accordance with **Clause 73.03** (Land Use Terms) of the Planning Scheme, the Project is categorised within the definition of *'renewable energy facility'*. A *'renewable energy facility'* is defined as:

*'Land used to generate energy using resources that can be rapidly replaced by an ongoing natural process. Renewable energy resources include the sun, wind, the ocean, water flows, organic matter and the earth's heat. It includes any building or other structure or thing used in or in connection with the generation of energy by a renewable resource. It does not include a renewable energy facility principally used to supply energy for an existing use of the land.'*

A *'renewable energy facility'* is nested under the definition of *'energy generation facility'*, of which is defined as:

*'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.'*

The Project also includes the grid connection, of which falls under the definition of *'Utility Installation'* pursuant to **Clause 73.03** (Land Use Terms) of the Planning Scheme. The definition is:

*'Land used:*

- for telecommunications;*
- to transmit or distribute gas, oil, or power;*
- to collect, treat, transmit, store, or distribute water; or*
- to collect, treat, or dispose of storm or flood water, sewage, or sullage.*

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

## 6.0 Impact Assessment

This section provides a summary of the Project impacts and should be read in conjunction with the following specialist assessments (enclosed in the Appendices) that were undertaken in support of the Project.

### 6.1 Flora and Fauna Assessment Report

A Flora and Fauna Assessment Report of the site has been prepared by AECOM (refer **Appendix E**). The purpose of the assessment report was to identify and quantify flora and fauna values in line with Victorian and Commonwealth policy and legislation. The assessment report provides the results of the flora and fauna assessment and discusses the relevant legislation and approvals associated with any proposed impacts to flora and fauna values.

The assessment report concluded the following:

- The following flora and fauna values were identified:
  - 22 'Habitat Zones' of EVC 803 Plains Woodland equating to 7.87 hectares (2.61 habitat hectares);
  - 203 'Scattered Trees' including Grey Box, White Box, Yellow Box and Buloke (194 large trees and nine small trees);
  - The presence of one FFG Act-listed flora species (Buloke);
  - An FFG Act listed ecological community was considered present – Victorian Temperate Woodland Bird Community;
  - No EPBC Act listed species and communities are considered likely to have a greater than 'possible' likelihood of occurrence within the site.
- An Avoid and Minimise Statement has been included in **Appendix E** to demonstrate how the Project has avoided the removal of native vegetation and the minimisation of impacts of the removal that cannot be avoided.
- Through sensitive design of the Project, no patches of native vegetation are proposed for removal, and 136 of the 203 scattered trees are proposed to be retained with no valuable habitat for significant flora and fauna species to be impacted.
- In accordance with **Clause 52.17** of the Planning Scheme, it is proposed to remove 67 scattered trees (including 66 large trees). Furthermore, it is required to offset native vegetation proposed to be impacted (refer Appendix D of the Flora and Fauna Assessment Report for a copy of an offset statement from an accredited provider).
- It is required the proponent much comply with the requirements of the *Catchment and Land Protection Act 1994* (CaLP Act) during development to limit the spread and growth of declared noxious weeds within and outside of the site through vehicle hygiene procedures to be outlined in the CEMP and OEMP to be prepared at a later date.
- It was concluded a potential requirement for salvage works under the *Wildlife Act 1975*.
- The recommendations of the assessment report include (but not limited to) wildlife friendly fencing, priority for species for revegetation representative of the dominant EVC that exists across the local area and works undertaken in accordance with a detailed CEMP.



## 6.2 Agricultural Assessment

An Agricultural Assessment for the Project has been prepared by Phillips AgriBusiness (refer **Appendix D**).

The assessment considered the agricultural value of the site investigation area, and includes consideration of **Clause 14.01** of the Planning Scheme, which seeks to protect strategically important agricultural and primary production land.

The report at **Appendix D** assessed the quality and productivity of the agricultural land within and around the site investigation area.

The site investigation area (study area for the purposes of the assessment at **Appendix D**) lies north of Benalla within the district of Goorambat. The Broken River serves as a major physiographic feature and forms the southern boundary of the investigation area.

The climate provides a growing season under dryland conditions that commences with the autumn break, normally mid to late April and continues through until mid to late October. These climatic features conditions suit winter cropping, annual pastures and perennial pastures where suitable species have been established.

Most of the landform in the study area is flat to gentle and moderate slopes. The arable land has been cleared for cropping while the steeper country remains open vegetation and used for either grazing or conservation.

The study area is outside of the irrigation district and possesses no irrigation capability other than the irrigation licenses from Broken River. Stock and domestic water supply is catchment based or diversions from local streams. Some holdings have town water supply. Surface drainage is based on slope and some low-lying areas are subject to waterlogging under extended or high rainfall events.

The assessment concluded the following:

- The site has three soil associations that form distinct land classes including Alluvial Plains, Goorambat fine sandy clay loams (most frequently occurring) and skeletal hills. The Goorambat Soil Association is classed as 3 or average agricultural land quality. There is no irrigation supply and because of soil profile characteristics, the land is generally unsuited to irrigation.
- The agricultural quality of the Goorambat soil association is classed as average (Class 3) because of its soil profile characteristics, lack of irrigation capability and therefore limitation to broadacre cropping as its best and most productive use.
- Other soils in the region, particularly those within the GMID are more productive because of their soil profile characteristics, suitability to irrigation and capacity to support horticultural and intensive grazing farming systems. These soils vary between Class 1 and Class 3 (as per Table 1).
- Broad acre cropping is the major land use using techniques to avoid deterioration in soil structure, retain soil fertility levels and avoid erosion risk. Continuous cropping is possible alternating between cereals and oilseeds. Under this system, livestock are only used as a management tool for stubble grazing.
- Under Best Management Practice, the site would be directed to broad acre cropping with a complementary livestock enterprise for stubble and vegetation control. An average gross margin for crop and stock is estimated to be \$400 per hectare. For the total land area contributing to the project, this represents a total gross margin of \$252,000.
- Land holders contributing to the proposal view this Project as a means of increasing per hectare income, providing income diversification and reducing agricultural risk. There are some landholders nearing retirement age who view the proposal as a better income alternative to renting or share-farming while still retaining ownership of their land holding.

An Overview of consideration of strategically important agricultural land in the site selection and design response process is set out in Table 10. In summary, the site investigation area is not recognised in any document as strategically significant agricultural land and is not in a declared

irrigation district. The Project would be compatible with cropping and grazing land uses and would not adversely impact on ongoing operation or expansion of agricultural land uses in the region.

The proposed change in land use to a solar facility helps to realise the opportunities outlined in a number of State and Federal policies, including Victoria's Renewable Energy Action Plan (2017) by investing in the renewable energy sector through the development of a solar farm producing a reliable supply of energy to the Region.

**Table 9 Overview of consideration of strategically important agricultural land in the site selection and design response process**

Strategically important agricultural land considerations	Applicability to the site investigation area (site)
The impact on the loss of the site if it has high quality soils, particularly soils that are niche to a type of crop or other agricultural activity	The site has varying quality agricultural soils classed as "Average" or Class 3 on a land capability basis.
The potential loss of reliable, accessible water (such as irrigated areas) and its impact at a local or regional scale	<p>The site has no irrigation capability due to the absence of irrigation supply and lack of soil suitability to irrigation.</p> <p>The site is not in a declared irrigation district.</p> <p>Net inflows, outflows and deep drainage are not expected to change with the introduction of solar farming. All filled dams will be retained for the introduction of sheep grazing post construction.</p>
The impact of fragmentation and a change of land use to non-agriculture activity on local and regional productivity and output	<p>This proposed change of land-use does not prevent the potential ongoing production of agriculture (e.g. sheep grazing). Grazing will be encouraged as a shared land use for the solar farm.</p> <p>The proposed solar farm is considered compatible with cropping and grazing land uses and will not adversely affect the operation or expansion of local or regional agricultural land uses.</p> <p>The site is fragmented by an existing railway and electricity transmission infrastructure. The introduction of the proposed solar farm would not result in further fragmentation of agricultural land as the existing road network provides for connectivity between landholdings.</p> <p>Regional and local productivity and output is therefore unlikely to be affected by the proposal.</p>
The impact of a change of land use on recent and/or current efforts to modernise and reform agricultural activity in the area	Land use on the site already represents the most intensive rural use. Land owners, contributing some of their land to the solar farm, see it as a form of diversification away from rural activity
Whether the land has specifically been set aside or defined for agricultural use and development in a planning scheme or other strategic document	<p>The site is zoned Farming Zone under the Benalla Planning Scheme. The purpose of this zone includes to provide for the use of land for agriculture and to ensure that non-agricultural uses do not adversely affect the use of land for agriculture.</p> <p>The use of the land for a renewable energy facility (including solar farms) is a permissible use under the Farming Zone subject to meeting the</p>

Strategically important agricultural land considerations	Applicability to the site investigation area (site)
	<p>requirements of Clause 53.13 of the Planning Scheme.</p> <p>The site is not recognised in any document as strategically significant agricultural land.</p>
<p>Whether the change in land use is to the detriment of a government's previous or existing investment and support for the site or the area</p>	<p>There has been no Government interest or intervention in the site that could be considered detriment by the change in land use.</p> <p>The proposed change in land use to a solar facility helps to realise the opportunities outlined in a number of State and Federal policies, including Victoria's Renewable Energy Action Plan (2017) by investing in the renewable energy sector through the development of a solar farm producing a reliable supply of energy to the Region. The Project will be strengthening the skills and capabilities of the sector by creating approximately 250 jobs during the construction phase and offering up to 11 full time staff on a long-term or permanent basis for the operation and maintenance of the proposed solar farm.</p>
<p>Whether the proposed solar energy facility can co-locate with other agricultural activity, to help diversify farm' income without reducing productivity</p>	<p>Neoen have an own-to-operate business plan for Goorambat East Solar Farm involving good land stewardship for the life of the project. Neoen currently operate six solar farms including one in the Hume Region – Numurkah Solar Farm – all of which currently have sheep grazing as part of their vegetation management plans.</p> <p>Farming income will be increased via lease agreements alone. Farming income from continued productivity can be realised post construction phase.</p> <p>There is a potential opportunity of continuing to use the land for agriculture while operating as a solar farm. Refer to Appendix D for this independent assessment.</p> <p>Neoen is investigating co-location of agricultural activities and solar energy generation. Neoen has implemented grazing as a site management strategy at several solar farms and is investigating further trials of agrivoltaic systems at the Project site, including the co-location of agricultural activities and solar energy generation.</p>

### 6.3 Glint and Glare Assessment

A Glint and Glare Assessment has been prepared by AECOM (refer **Appendix G**).

The purpose of the study is to conduct a glare potential analysis of the Project and identify potential glare impacts at nominated observation points in the vicinity of the subject site. The report also recommends improvements or mitigation options to reduce glare issues that may impact the public.

The Glint and Glare Assessment concluded the following:

- Glare with low to moderate potential for after-image in the viewer's vision is predicted to occur. After-image is a lingering image of the glare in the field of view.
- The proposed development area is considered a potential glare source based on conservative assumptions (and does not consider any vegetation, buildings or topographical features that may exist between the solar panel arrays and the identified observation points).
- The site is relatively flat with no steep slopes and therefore, there would be minimal glare risks from oncoming traffic travelling along a nearby road from an elevated area.
- The nearest airstrip to the site is Benalla Airport approximately 17.1 kilometres to the southeast. The assessment concluded given the physical distance between the airport and the site, it is unlikely the Project will cause any significant glare issues for pilots on approach or on departure from the airstrip.
- The assessment concluded all identified receptors to experience 'yellow glare' (meaning moderate potential for after-image) were predicted to also experience some duration of 'green glare' (meaning low potential for after-image).
- As previously mentioned, a Notice of Decision had been issued at the time of writing this application for a solar farm directly adjoining the project site which supports the proposed development in relation to the suitability of the site for a renewable energy facility. It is anticipated that the cumulative intensity of glare should not exceed beyond 'yellow glare', meaning a moderate potential for after-image. However, the cumulative duration of glare for selected observation points and route receptors may increase beyond the results noted in the Glint and Glare Assessment.
- Mitigation strategies included the installation of screening or planting of additional vegetation along the border of the proposed solar panel areas means glare impacts at sensitive receptors should not be unacceptable. Buffer planting belt is proposed along the boundary of the solar farm, roadways and sections of the railway alignment. Further planting is proposed to the south-western boundary to mitigate impacts from the south along Benalla-Tocumwal Road (refer **Appendix K**).

### 6.4 Heat Island Effect

It is anticipated that the Project will not generate an unacceptable heat island effect.

In accordance with the Guidelines and as identified in the recent panel hearing for the Greater Shepparton Solar Farm, it is been identified temperature increases will not occur beyond 30 metres from a photovoltaic array. It was also noted that the temperature increases within 30 metres would be negligible.

The Guidelines state a minimum 30 metre setback from the property boundary to any part of the physical structure of the facility is appropriate where a solar energy facility is proposed adjacent to existing horticultural or cropping activities (road reserves, irrigation channels and existing vegetation could be included in this calculation). Whilst the proposed solar panels will be setback a minimum of 20 metres from the road reserve boundaries, it is considered that the proposed setbacks are appropriate at this location as there are no dwellings within close proximity of the property boundaries. Furthermore, buffer planting along the boundary of the solar farm, roadways and sections of the railway alignment along with further planting along the south-western boundary will reduce the potential increase in temperature from the photovoltaic array and the proposed reinstatement of grass within the solar farm will provide an extra heat removal mechanism through transpiration.

Further, it is anticipated that the solar panels will shade a portion of the ground at any given time during the day and therefore reduce heat absorption in surface soils.

## 6.5 Electromagnetic Radiation and Interference

The *Solar Energy Facilities Design and Development Guidelines* (July 2019) (page 26) provides information on electromagnetic radiation and interference.

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) advises that the strength of this radiation will decrease with distance from the source and it will become indistinguishable from background radiation within 50m of a high voltage power line and within 5 to 10m of a substation.

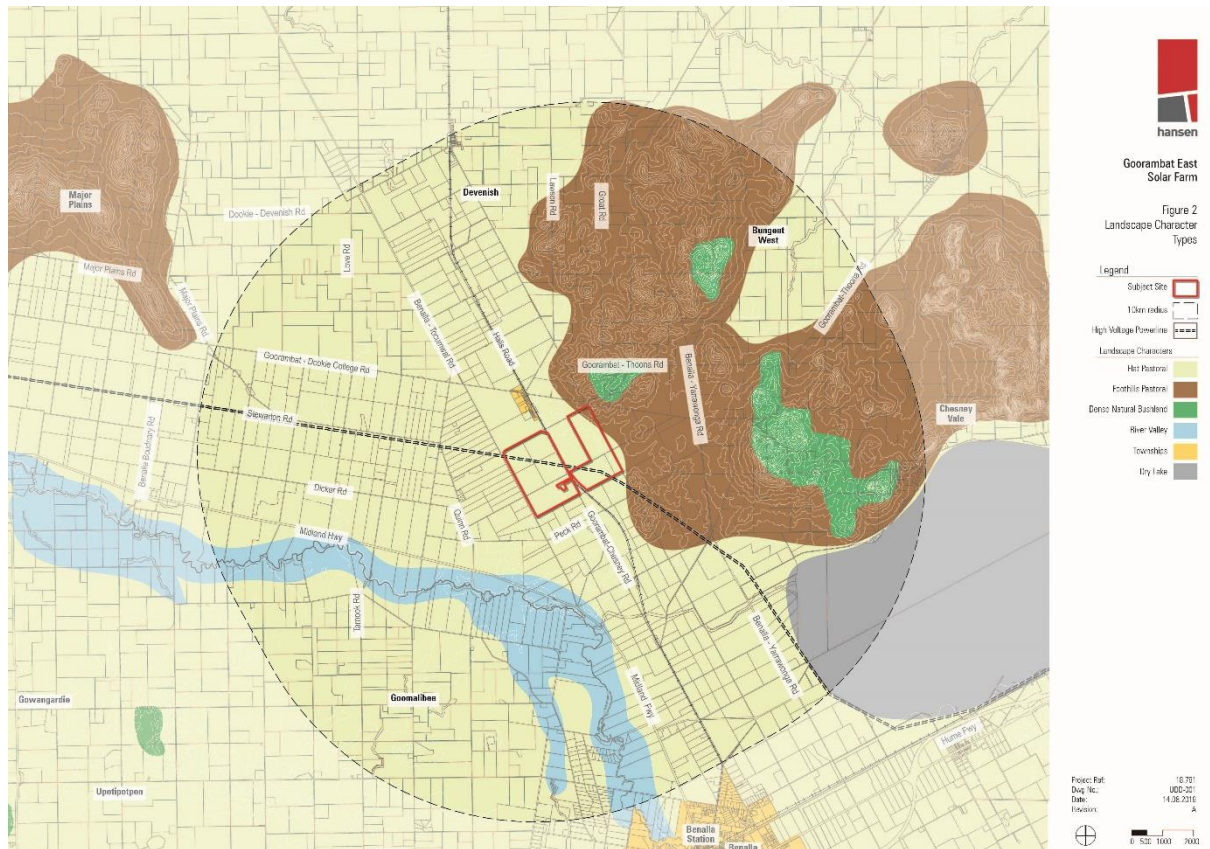
All potential sensitive receptors (residences) are located at significantly greater distances than 5 to 10m from the proposed substation and will not be adversely impacted by radiation effects based on the ARPANSA advice.

The Project seeks to connect into the existing 220kV overhead transmission line, and therefore, there will be no change to the current conditions. However, there is no dwelling to be retained on the site which is within 50 metres of the existing 220kV overhead transmission line. As such, there are no sensitive receptors which would be affected by radiation effects from the existing transmission line based on the ARPANSA advice.

## 6.6 Preliminary Landscape and Visual Assessment Memo

A Preliminary LVIA Memo has been prepared by Hansen Partnership for the Project (refer **Appendix K**). The memo is a summary of the key findings of an assessment of landscape values and an assessment of potential impacts which could occur as a result of the Project, when viewed from key vantage points. The memo provides a series of photomontage images that demonstrate the visual presence of the Project from a series of representative viewpoints in the public domain. Subsequently, this provides a basis for any appropriate measures to assist in ameliorating any resultant visual impacts, where they are considered either necessary or desirable.

A baseline desktop analysis and fieldwork was carried out in the preparation of the Preliminary LVIA Memo. Landscape character areas were defined as a result of these investigations. These are shown in Plate 17.



**Plate 17 Landscape Character Types (Appendix K - Figure 2)**

The Preliminary LVIA Memo identified six representative public viewpoints for the preparation of photomontage images to demonstrate the visibility and visual impact of the Project (refer Figure 4 of **Appendix K**). Of the six photomontages prepared the overall visual impact was considered to be negligible or limited at four public viewpoints, and moderate at two public viewpoints.

The highest category of the grading system of visual impact was moderate, of which mitigation measures are generally not necessary. However, the Preliminary LVIA Memo suggests mitigation could be readily provided in the form of screen planting. As previously mentioned, buffer planting is proposed along the boundary of the site, roadways and sections of the railway alignment.

Further planting is proposed to the south-western boundary to mitigate impacts from the south along Benalla-Tocumwal Road. Two types of buffer plantings are proposed with an approximate total height of up to ten metres to mitigate visual impacts. In accordance with the Guidelines and to maximise the growth of the proposed plantings, all species are indigenous and consistent with the EVC (refer Appendix C of the Preliminary LVIA Memo for proposed landscape plan and typical sections).

The Preliminary LVIA Memo identifies the potential for consultation to be undertaken with the nine identified non-stakeholder residences to determine the extent of mitigation.

The assessment concluded in terms of visual impact, the cumulative impacts of the adjoining approved (but not constructed) solar farm are not considered to exacerbate or worsen the proposed condition whereby the adjoining solar farm generally integrates with the proposed development. There were no other known, approved or operating developments in the vicinity with the potential to result in cumulative impacts.

## 6.7 Cultural Heritage Assessment

A Cultural Heritage Assessment for the Project has been prepared by Andrew Long and Associates (refer **Appendix F**). The purpose of the assessment was to assess whether construction of the Project will require the preparation of a mandatory cultural heritage management plan (CHMP).

The assessment concluded the following:

- The site does not contain an area of cultural heritage sensitivity as defined under the *Aboriginal Heritage Regulations 2018* (Vic).
- Whilst the proposed activity is a high impact activity in accordance with the *Aboriginal Heritage Regulations 2018* (Vic), the fact that the site does not contain areas of cultural heritage sensitivity and subsequently, means a mandatory CHMP is not required for the Project.

## 6.8 Surface Water Assessment

A Surface Water Assessment has been prepared by AECOM for the Project (refer **Appendix H**).

The purpose of the assessment was to identify existing conditions and environmental values within and surrounding the site. In addition, assess the baseline characteristics of the surface water environment and qualitative potential impacts from the Project. Lastly, the assessment sought to identify strategies to minimise and manage any adverse impacts resulting from the discharge of stormwater from the site.

The assessment concluded the following:

- The site is not at risk of major flooding based on flood maps available from the Goulburn Broken Catchment Management Authority (GBCMA).
- There are two designated waterways located within the site and a permit will be required from the GBCMA to undertake works that impact the waterway.
- It is not anticipated that the solar farm will have an impact on existing flood levels, water quality or waterway condition.
- The assessment advised that the largest risk to the external surface water environment will be during the construction period, however, these can be managed through the Construction Environmental Management Plan (to be prepared at a later date) requiring use of well - established construction techniques and environmental controls for protection of surface water from sediments and other construction impacts .
- As previously mentioned, a Notice of Decision had been issued at the time of writing this application for a solar farm directly adjoining the project site. It is anticipated that there will not be any significant accumulated impacts to water quality. However, there is potential for some accumulated impacts associated with ground disturbance and potential spills. It is suggested these should be mitigated by implementing appropriate design and operation controls outlined in the Surface Water Assessment report.

## 6.9 Traffic Impact Assessment

A Traffic Impact Assessment (TIA) has been prepared by AECOM for the Project (refer **Appendix I**).

The purpose of the assessment was to assess the operational capability of the local road network to facilitate the additional traffic associated with the construction of the Project and the potential impacts of the Project on traffic and transport conditions within the region.

The TIA concluded the following:

- There is unlikely to be a material impact on the operation or safety of the local road network during the construction or operation of the Project.
- The condition and likely construction works of the proposed site access points to the site are identified in the TIA and can be summarised as follows:
  - There is no road laydown on **Goorambat-Chesney Road** and the access location will therefore require construction to accommodate vehicle access for the Project.
  - There is no road laydown on **Spinks Lane** and the road will likely need construction to accommodate heavy vehicle access.
  - The sight distances are unrestricted as the road's alignment is straight at **Saunders Road**.
- At this stage of the Project, it is anticipated the following potential routes will be used by construction vehicles coming from Melbourne and Port Melbourne:
  - Hume Freeway exit onto Mansfield Road, and travel via the Benalla CBD, before coming onto the Midland Highway and Benalla-Tocumwal Road.
  - Hume Freeway exit onto Cowslip Street to travel via Violet Town before coming onto Dookie-Violet Town Road and Midland Highway.

These will be confirmed as part of the development of the Traffic Management Plan (TMP).

- It is noted any operators of B-Double vehicles will need to obtain permits from Benalla Rural City Council to operate on any roads, which are not part of the approved B-Double network. At this stage Goorambat-Chesney Road, Spinks Lane and Saunders Road may require B-Double permits as they are not part of the approved network.
- Mitigation measures are provided in relation to the abovementioned key local roads to be utilised during construction and operation that may be considered to facilitate safe vehicle access to the site. These mitigation measures can be reviewed and consideration further when a TMP is developed for the Project. A TMP will be a likely condition of permit and will be developed when a contractor is commissioned.

In accordance with the Guidelines, please refer **Appendix I** for further information in relation construction timelines and traffic volumes, and specific details in relation to intersection upgrades and potential road works.



## 6.10 Bushfire

The site is located within a Designated Bushfire Prone Area. It is anticipated that the highest fire risk is likely to be due from grass fires. The project has been designed and sited to meet the *Guidelines for Renewable Energy Installations* prepared by the CFA (February 2019).

**Table 10 Project Response to Guidelines for Renewable Energy Installations**

Section	Guidelines	Project Response
<b>3. Site Infrastructure</b>		
3.1	<p><b>Access</b> <i>Adequate access to and within the facility will assist CFA in responding to and managing fires on-site.</i></p>	<p>The proposed internal road network emergency services to access all areas of the facility. Provision has been allowed for a four metre perimeter road to be constructed within the site with four access points to the site.</p> <p>Specific details (including the grade, treatment and dips) of the road will be addressed at the detailed design stage.</p>
3.2	<p><b>Firefighting Water Supply</b> <i>The location of firefighting water access points and the quantity of water supply is to be established through a comprehensive risk management process that considers the credible hazards. In the event of a fire (either structural fire or bushfire), sufficient water must be available and accessible to fire trucks to ensure that fire suppression activities are not hindered in any way. Water access points must be clearly identifiable and unobstructed to ensure efficient access.</i></p>	<p>The location and details of the firefighting water access points and water supply will be determined during the detailed design stage and will be located in accordance with the requirements of the CFA guidelines.</p>
3.3	<p><b>Dangerous Goods Storage and Handling</b></p>	<p>Refer <b>Appendix L</b> for a Framework Environmental Management Plan which outlines risk management measures for the management of fuels, oils and chemicals. In addition, the storage and handling of all dangerous goods on-site will be addressed in a Construction Environmental Management Plan (CEMP) and Operational Environmental Management Plan (OEMP) to be prepared at a later date.</p>
<b>4. Site Operation</b>		
4.1	<p><b>Operation and Maintenance of Facilities</b></p>	<p>Any maintenance and repair activities that involve flame cutting, grinding, welding or soldering (hot works) will be performed under a 'hot work permit' system or equivalent hazard or risk management process.</p>
4.2	<p><b>Fuel / Vegetation Management</b> <i>All renewable energy installations that are constructed within the Bushfire Management Overlay or a Bushfire Prone Area must maintain the vegetation to the</i></p>	<p>Fuel management measures will be outlined in the CEMP and OEMP to be prepared at a later date.</p>

Section	Guidelines	Project Response
	<i>prescriptions listed within the planning permit conditions.</i>	
<b>6. Solar Facilities</b>		
6.1	<b>Siting for Solar Facilities</b>	It is proposed the row spacing between solar panels will be between 5.5 and 13 metres between solar panel banks/rows to enable fire vehicle access.
6.2	<b>Operation and Maintenance of Solar Facilities</b>	Neoen will provide specifications for safe operating conditions for temperature and safety in the event of a fire at the site. These will be outlined in the Emergency Management Plan to be prepared at a later date.
6.3	<b>Fuel / Vegetation Management at Solar Facilities</b>	Grass vegetation under the solar panels will be maintained to a height of less than 100 millimetres.

It is anticipated that a Bushfire Management Plan will be prepared prior to the development of the site as a condition of a planning permit.

The CFA requires a solar energy facility to have an Emergency Management Plan, incorporating a fire management plan, consistent with the requirements of *AS 3745-2010 Planning for Emergencies in Facilities*.

An Emergency Management Plan will be prepared consistent with *AS 3745-2010* in consultation with the CFA to ensure that appropriate fire risk assessments are undertaken, and measures are implemented during development and operation, to minimise the risk to life and property from fire.

This plan will include:

- emergency prevention, preparedness and mitigation activities;
- activities to prepare for and prevent emergencies (such as training and maintenance);
- control and coordination arrangements for emergency response (such as evacuation procedures, emergency assembly areas and procedures for responding to hazards); and
- the agreed roles and responsibilities of onsite personnel (such as equipment isolation, fire brigade liaison and evacuation management).

A Fire Management Plan will form part of the Emergency Management Plan; to identify hazards, risks and controls ensure fire risk is managed so far as is reasonably practicable.

## 6.11 Noise

Construction activities are likely to generate some noise and vibration. Potential noise sources during construction include normal operation of plant and equipment and heavy and light vehicle movements to and from the site. Standard daytime construction hours would generally be applied, except in instances where works cannot be interrupted (i.e. during a substantial concrete pour). In these instances, the works will be concluded as quickly as is reasonably practical to minimise potential noise impacts on nearby sensitive receptors.

Neoen will ensure that nearby residents are given suitable notice in advance of any out of hours works where feasible. This commitment is set out in the Framework EMP for the project included with this application (see **Appendix L**) and will be further detailed in the CEMP that will be prepared for the project.

The solar farm infrastructure including the terminal station, inverters and PV panels will operate in accordance with manufacturer's specifications and are not anticipated to result in adverse noise or vibration impacts at nearby sensitive receptors. Some audible noise is expected from major pieces of

electrical infrastructure such as the terminal station, however given the separation distance to the nearest dwelling (about 1.2 kilometres), low- level noise associated with this facility is not expected to result in adverse impacts.

## 6.12 Framework Environmental Management Plan (EMP)

In accordance with the Planning Scheme and the Guidelines, a Framework EMP has been prepared by AECOM which outlines the environmental management framework to be implemented for the detailed design; construction, operation and decommissioning of the Project (refer **Appendix L**).

The environmental management framework for the Project outlines:

- The legislation and regulatory context.
- The environmental aspects and objectives.
- The roles and responsibilities.
- The environmental awareness and training.
- Communication and consultation.
- Contractor management.
- Monitoring and auditing.
- Record keeping and reporting.
- Complaint and incident investigation and response.
- Corrective action.
- Emergency preparedness and response.

The Framework EMP provides key content and a structure for the detailed EMP(s) that will be developed prior to the site construction works.

## 7.0 Conclusion

This report describes the proposed Neoen Goorambat East Solar Farm and assesses the potential environmental and amenity impacts of the proposal. The proposal, as outlined in the application for a Planning Permit and supporting documents, is consistent with the purpose of the relevant zones and overlays and the objectives of the relevant planning policies of the Benalla Planning Scheme.

The proposed Project has been designed in consideration of the surrounding community, environment and other land uses and is considered appropriate for the following reasons:

- It is consistent with State policy in that it is in accordance with Section 47 of the P&E Act, has regard to the *Hume Regional Growth Plan*, considers the Planning Policy Framework of the Planning Scheme in relation to settlement and the Region, the environment, the use of land, the built environment, economic development and infrastructure and specifically, renewable energy infrastructure (as discussed in Section 5.2 and 5.4 of this report).
- It is consistent with local policy by seeking to facilitate investment and diversification of the economy, protect biodiversity and native vegetation and protect the landscape character of the area, as discussed in Section 5.5 of this report.
- It is consistent with the Farming Zone of the Planning Scheme as a Renewable Energy Facility (solar) and a Utility Installation are Section 2 Uses (permit required) within the Zone and the Project is consistent with the purpose and decision guidelines of the Zone, as discussed in Section 5.6.1 of this report.
- It will be developed in accordance with relevant objectives, strategies and requirements of the Particular Provisions of the Planning Scheme as discussed in Section 5.7 of this report.
- The surrounding community have been overall supportive of the proposal with particular interest in generation of local jobs, investment in regional areas, community benefit-sharing and support for Australia's transition to renewable energy.
- It is expected to have negligible impacts on existing agricultural industries given the proposal will not impact the continued use of surrounding farmland and is not located on high quality agricultural land. The site has no irrigation capability due to the absence of irrigation supply and lack of soil suitability to irrigation.
- It is compatible with cropping and grazing land uses and will not adversely affect the operation or expansion of local or regional agricultural land uses.
- It does not prevent the potential ongoing production of agriculture (e.g. sheep grazing). Grazing will be encouraged as a shared land use for the solar farm.
- The site is away from existing sensitive receptors including the Goorambat Township. The changes to visual amenity for nearby sensitive receptors because of the Project have been assessed as being negligible or limited at four of the six assessed public viewpoints, and moderate at the two remaining public viewpoints. Although mitigation has not been identified as necessary, potential adverse changes to visual amenity would be appropriately managed with the implementation of buffer planting at select locations.
- The potential cumulative visual impacts of the adjoining approved (but not constructed) solar farm are not considered to exacerbate or worsen the proposed visual impact whereby the adjoining solar farm would generally integrate with the proposed development.
- Other cumulative impacts are unlikely. There is only one known solar energy facility in the immediate area of the Project. This proposal received planning approval in 2019. Clustering of the Project and this approved proposal will result in efficiencies through the sharing of existing electrical infrastructure and the consolidation of a similar land use in the same area.
- There is suitable road access for heavy and light vehicles via the classified road network and a generally well-maintained local road network in the immediate vicinity of the site.

- It will have minimal impacts on amenity. Solar farms emit minimal noise and the design is compliant with the EPA Victoria's *Noise from Industry in Regional Victoria Guidelines* with the nearest sensitive receptor (residence) being approximately 1.2 kilometres from the facility substation. The facility will not generate odours.
- The application appropriately responds to the loss of vegetation to ensure that native vegetation is protected where possible and that the necessary offsets are provided.
- It anticipates the future needs of the community by providing a renewable source of energy to the Region.
- The construction and operation of the Project will mitigate possible environmental risks by implementing a Framework EMP that has been prepared.

For the reasons discussed within this report, it is requested that Council grant a Planning Permit for the development and use of a Renewable Energy Facility (solar) and utility installation, removal of native vegetation, construction and display of business identification signage and car parking associated with the Goorambat East Solar Farm.