



Landscape and Visual Impact Assessment

Proposed Molong BESS:

*1 Deight Street & 19 Back Saleyards Road, Molong
NSW 2866*

FOR: StorEnergy 3 Pty Limited

SLR PROJECT No: 620.041615.00021

Revision: 0.5

28 October 2025



Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
0.1	16 July 2025	N.Chow	D.Dharmaraj	Melissa Thomas
0.2	7 August 2025	N.Chow	D.Dharmaraj	Melissa Thomas
0.3	28 August 2025	N.Chow	D.Dharmaraj	Melissa Thomas
0.4	23 September 2025	N.Chow	D.Dharmaraj	Melissa Thomas
0.5	28 October 2025	N.Chow	D.Dharmaraj	Kate Wheeler

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with StorEnergy 3 Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.



Executive Summary

SLR Consulting Australia Pty Ltd (SLR) was engaged by StorEnergy 3 Pty Ltd (Stor) to prepare a Landscape and Visual Impact Assessment (LVIA) of the proposed Battery Energy Storage System (BESS) facility in Molong, New South Wales (the Project). The Project is located across two Lots, 1 Deight Street, legally described as Lot 99 DP 1020247, and 19 Back Saleyards Road, legally described as Lot 1 DP 542283. The LVIA will form part of a suite of technical studies to support the approvals process for the Project.

The LVIA focussed on a range of publicly accessible locations within the study area, with no visits to private property. The daytime impact of the Project components on visual amenity have been considered, with a focus on key landscape and visual values and viewpoints. Elements of the Project that were considered include noise walls, inverter units, battery units, transformers, a substation, transmission poles and other ancillary infrastructure within the Development Footprint.

The LVIA has been informed by a review of the legislation and policy context, that contain several clauses relating to the protection of landscape and visual amenity at the federal, state, regional and local levels.

Key landscape and visual values within the study area include the rural township environment, including the low-density setting, agricultural landscape and undulating topography.

Views from Molong township of the Project are not possible due to the township being located at a lower elevation, hilly terrain and intervening trees and buildings obscuring long range views toward the Project.

Of the 16 Viewpoints that were assessed, two were rated as having a Very Low visual impact. 14 viewpoints were assessed as having a Low visual impact. This is because the visual elements of the Project would be visually absorbed by the landscape or screened by existing vegetation to a significant degree. Visual impact may be further reduced through adoption of the proposed mitigation measures.

The addition of the Project would not detract from any key view lines of significant visual amenity given the existing rural environment and its capacity to visually absorb the permanent elements of the Project.

The Project has a marginal cumulative impact due to its compact footprint and low-profile built form. Its limited public visibility and placement away from prominent view corridors further reduces its contribution to broader landscape change. As a result, the BESS does not significantly increase cumulative visual impact beyond that which has been introduced by the existing solar farm to the northeast.

Residual visual effects associated with the Molong BESS would be minimal following the application of targeted mitigation measures. The primary visual element (a noise wall) would be treated with a recessive green colour to maximise integration of the Project into the existing landscape.

Given the above reasons, the Project is well sited to minimise impact to landscape and visual amenity of the site and surrounding area.



Table of Contents

Basis of Report	i
Executive Summary	ii
1.0 Introduction	1
2.0 Methodology	1
2.1 Site visit.....	1
2.2 LVIA approach	3
2.3 Determining Key Viewpoints.....	3
2.4 Photography.....	4
2.5 Photomontages	4
2.6 Landscape Character Zones	5
3.0 Project Description	6
3.1 Batteries and Inverters	9
3.2 Lightning Masts	10
3.3 Substation	10
3.4 Operations and Maintenance (O&M) Building.....	10
3.5 Noise Walls	11
3.6 Overhead Poles and 132 kV Transmission Lines	11
4.0 Study Area	12
5.0 Viewshed Analysis	14
5.1 Method.....	14
5.2 Assumptions.....	14
5.3 LiDAR Metadata	14
6.0 Legislation and Policy Context	16
6.1 Assessment Guidelines	16
6.2 Native Title Act 1993	18
6.3 Environmental Planning and Assessment Act 1979.....	18
6.4 National Parks and Wildlife Act 1974.....	19
6.5 Central West and Orana Regional Plan 2041	19
6.6 Secretary's Environmental Assessment Requirements (SEARS)	19
6.7 Agency SEARs Comments.....	20
6.8 Local Planning Scheme.....	20
6.9 Future Nearby Residential Development	20
6.10 Potential On-site Residential Development.....	22
6.11 Summary of Legislation and Policy Context.....	22
7.0 Existing Landscape and Visual Environment.....	22
7.1 Baseline Conditions.....	23



7.2	Landscape Character Zones	25
7.2.1	Township LCZ	27
7.2.2	Rural Residential LCZ	27
7.2.3	Future Residential LCZ.....	27
7.2.4	Creek Corridor LCZ	27
7.2.5	Agricultural LCZ.....	28
7.3	Existing Heritage Items.....	28
7.4	Impact Significance to the Landscape Character Zones	31
7.5	Summary of Landscape and Visual Environment	32
8.0	Visual Impact Assessment	33
8.1	Viewpoint 1 – Bank Street Molong Township.....	41
8.2	Viewpoint 2 – Rotary Park	42
8.3	Viewpoint 3 – Marsden Street #1	43
8.4	Viewpoint 4 – Marsden Street #2.....	44
8.5	Viewpoint 5 – Back Saleyards Road #1	45
8.6	Viewpoint 6 – Back Saleyards Road #2.....	46
8.7	Viewpoint 7 – Molong Golf Course #1	47
8.8	Viewpoint 8 – Molong Golf Course #2	48
8.9	Viewpoint 9 – Back Saleyards Road #3.....	49
8.10	Viewpoint 10 – Euchareena Road #1	50
8.11	Viewpoint 11 – Euchareena Road #2	51
8.12	Viewpoint 12 – Belgravia Road.....	52
8.13	Viewpoint 13 – Deight Street	53
8.14	Viewpoint 14 – Mitchell Highway #1	54
8.15	Viewpoint 15 – Yuranigh Road	55
8.16	Viewpoint 16 – Mitchell Highway #2	56
8.17	Summary of Visual Impact Assessment	57
9.0	Construction Impacts.....	59
10.0	Mitigation Measures	59
10.1	Performance Objectives	59
10.2	Construction Mitigation Measures	60
10.3	Operation Mitigation Measures	60
11.0	Cumulative Impacts	61
12.0	Conclusion.....	65
13.0	References.....	66



Tables in Text

Table 1	PCTs identified within the subject land	24
Table 2	Heritage Items.....	28
Table 3	Landscape character impact significance matrix	31
Table 4	Landscape Character Assessment.....	31
Table 5	Sensitivity of LCZ to visual changes	33
Table 6	Visual Magnitude	33
Table 7	Viewpoint sensitivity	35
Table 8	Scenic quality.....	36
Table 9	Visual Sensitivity Matrix	37
Table 10	Impact significance rating.....	38
Table 11	Summary of Visual Impact	57
Table 12	Performance Objectives.....	59
Table 13	Cumulative Effects	62

Figures in Text

Figure 1	Photography locations.....	2
Figure 2	Project location	7
Figure 3	Project layout	8
Figure 4	Computer rendered view of BESS unit (source: Stor).....	9
Figure 5	Computer rendered view of PCS (inverters, transformer and switchgear (source: Stor)	9
Figure 6	Image of lightning masts (source: Stor).....	10
Figure 7	Image of switchroom (source: Stor).....	10
Figure 8	Image of noise walls (source: Stor)	11
Figure 9	Image of 132kV overhead poles (source: Stor)	12
Figure 10	Study area	13
Figure 11	Viewshed Analysis of BESS Noise Wall.....	15
Figure 12	'Golf Course Heights Estate' Subdivision Layout.....	21
Figure 13	Landscape Character Zones (LCZs) within the study area	26
Figure 14	Location of nearby heritage items	30
Figure 15	Viewpoint Locations	39
Figure 16	Solar and wind farms in project vicinity	64

Appendices

Appendix A Photomontages

Appendix B Viewshed Analyses



1.0 Introduction

SLR Consulting Australia Pty Ltd (SLR) was engaged by StorEnergy 3 Pty Ltd (Stor) to prepare a Landscape and Visual Impact Assessment (LVIA) of the proposed Battery Energy Storage System (BESS) facility in Molong, New South Wales (the Project).

The Project is located across two Lots, 1 Deight Street, legally described as Lot 99 DP 1020247, and 19 Back Saleyards Road, legally described as Lot 1 DP 542283. The Project will be accessed by a new driveway and crossover from Back Saleyards Road. The LVIA will form part of a suite of technical studies to support the approvals process for the Project.

The LVIA focussed on the key visually prominent components of the Project including noise walls, battery units, inverters, transformers, a substation, a 132kV Transmission Line and ancillary infrastructure.

The assessment was undertaken from publicly accessible locations within the surrounding area, with no visits to private property. The LVIA considered the daytime impact of the Project components on the visual amenity of the site and surrounding area focussing on key landscape values and viewpoints.

Mitigation measures have also been recommended to reduce visual impact. This report has been based primarily on-site observations with photography, photomontages and desktop research to support the findings as appropriate.

2.0 Methodology

The methodology for carrying out this LVIA was drawn from, and is generally in accordance with the following best practice guidelines:

- The Landscape Institute and Institute for Environmental Management and Assessment LIIEMA, (2013), Guidelines for Landscape and Visual Impact Assessment, Routledge 3rd Edition (GLVIA).
- Department of Planning and Environment (DPIE 2022a), Large-Scale Solar Energy Guideline, NSW Government, Sydney.
- Department of Planning, Housing and Infrastructure (DPHI 2022b), Technical Supplement for Landscape Character and Visual Impact Assessment for Large-Scale Solar Projects, NSW Government, Sydney.

The methodology has been adapted from these guidelines to address the scoping requirements and to relate to the specific issues of this Project. Further details on the methodology adopted is described in the following sections.

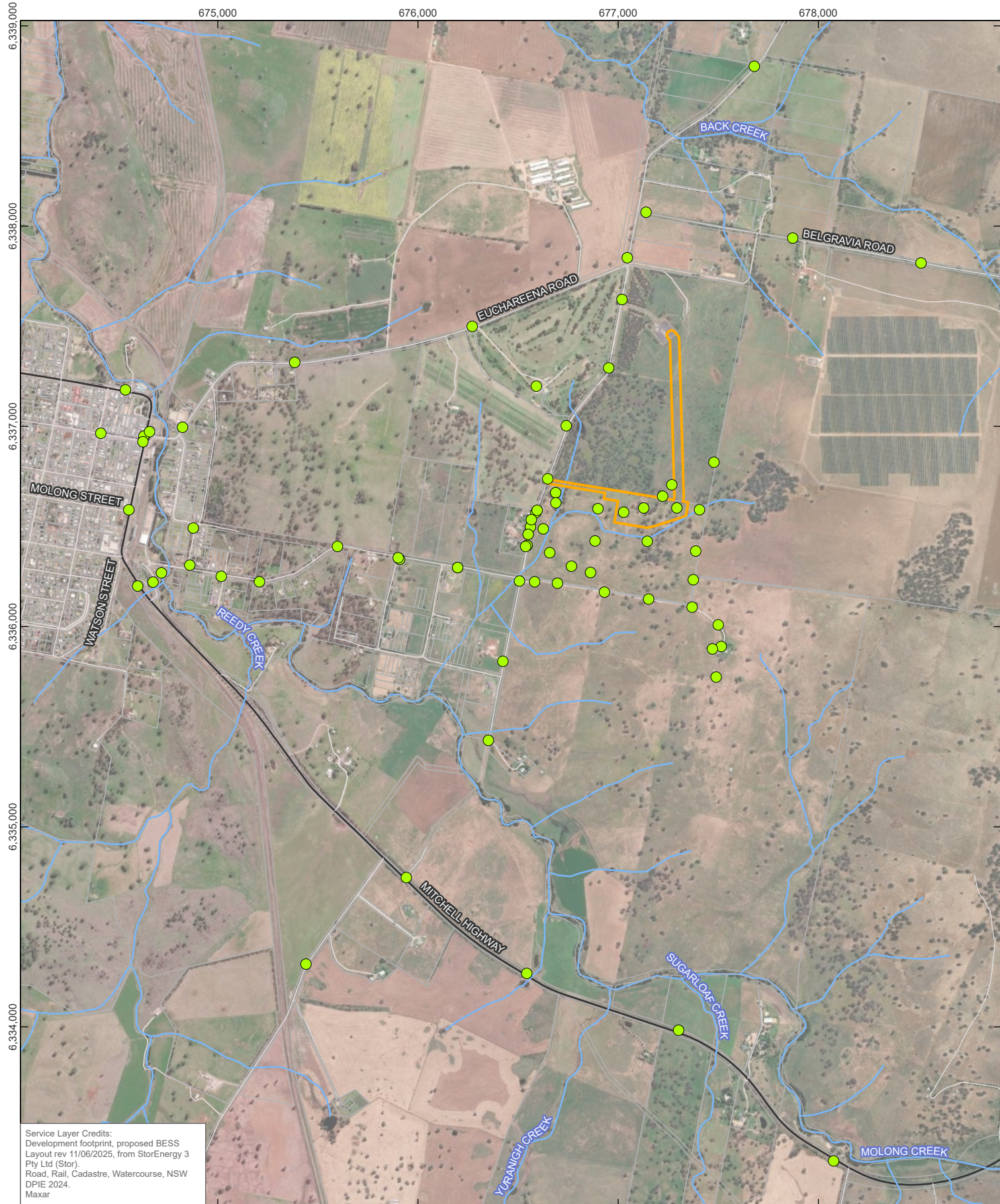
2.1 Site visit

A site visit was undertaken on 4 April 2025 to observe and photograph the Development Footprint and surrounding area from public locations during daytime. The key purpose of the visits was to establish a firsthand account of the existing landscape and visual conditions and views toward the Project from a representative range of locations. The observations, notes and photographs from these visits were used to inform the assessment.

Weather conditions were mostly sunny with occasional cloudy periods. There were clear views toward the Project and surrounding environment from all locations visited.

Figure 1 shows the locations that were observed and photographed during the site visit. A selection of these locations was used in the assessment, typically those representing a worst-case scenario in terms of visual impact or from a representative range of viewing locations within the study area.





Service Layer Credits:
 Development footprint, proposed BESS
 Layout rev 11/06/2025, from StorEnergy 3
 Pty Ltd (Stor).
 Road, Rail, Cadastre, Watercourse, NSW
 DPIE 2024.
 Maxar

 0 250 500 m

Coordinate System: GDA2020 MGA Zone 55

Scale: 1:25,000 at A4

Project Number: 620.041615

Date Drawn: 30-Jul-2025

Drawn by: NT

LEGEND

-  Photo Location
-  Watercourse
-  Primary Road
-  Road
-  Cadastre
-  Development Footprint (9.56 ha)

**STOR ENERGY
 MOLONG BESS**

PHOTO LOCATIONS



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 1

2.2 LVIA approach

The approach and structure of the LVIA is described as follows:

Project description. Identifies and describes the main visually prominent Project components that are likely to affect landscape and visual amenity.

Study area. Nominates the extent to which the addition of the Project may bring about a discernible visual change to the landscape. Locations outside this extent are not considered, as the Project would not be discernible, therefore, would not have a visual impact.

Viewshed analysis. Using the GIS model the Theoretical Zone of Visibility was mapped of the preferred layout to guide to assist in determining the visual catchment, potential vantage points and sensitive receivers.

Legislative and planning context. Provides a summary of relevant planning scheme provisions and policies which has informed the assessment.

Existing landscape and visual context. The existing landscape was analysed in terms of topography, vegetation, settlement patterns, existing infrastructure, human made modifications and other key characteristics to determine its capacity to visually absorb the Project. Landscape Character Zones (LCZs) were mapped and their sensitivity to visual changes were nominated. This information was used in the assessment of visual impact.

Visual impact assessment. The visual impact assessment was undertaken from a range of publicly accessible locations within the study area, at different distances and directions from the Development Footprint. 16 Viewpoints toward the Project were selected as a basis to assess the magnitude of change as well as the sensitivity of the landscape to visual changes. These representative sample of locations were then used to assess the visual impact of the Project as a whole. Two photomontages were prepared and used to inform the assessment. The two photomontage locations were selected as they were identified as being the 'worst case' potential impact.

Construction impacts. The assessment of visual impact during the construction phase of the Project was undertaken in a qualitative manner.

Mitigation measures. A range of mitigation measures were nominated to assist in reducing visual impact.

Conclusion.

2.3 Determining Key Viewpoints

The Viewpoints have been selected by first analysing aerial photography to identify areas that may have impact significance. These include evaluating numerous viewpoints that are located within a 3km radius from the Project. Depending on the bulk, height, and scale of the development generally, sensitive receivers beyond 3km are unlikely to result in a high level of impact. Typically distances of vantage points within the 3km radius can vary depending on site conditions such as undulating topography and established vegetation.

A number of proposed viewpoints are selected with the prospect of being impacted by the Project. The site visit was undertaken, and photographs taken at each point in the direction of the Project. These Viewpoints were analysed to ascertain the potential view of the Project and its likelihood of it to be absorbed into the surrounding context. For completeness, images were taken at all the selected key viewpoints.

Visual receptors are people or groups of people that may be visually impacted by the Project. Potential visual receptors that are often identified based on several key parameters. Depending on the site, proposed use, and future anticipated impacts, not all of these may be selected as receptors:



- Proximity of the receptor – most affected visual receptors are anticipated to be located closer to the Project (Greater consideration if proposed development is located in an elevated position).
- Drivers or passengers of vehicles travelling past, through or alongside the Project.
- Workers on or near the site that visit or work in nearby buildings.
- Members of the general public accessing adjoining public areas (parks, open spaces, streets and waterways) for recreation or visual purposes.
- Permanent residents living near the Project.

Public receptors (views visible by the general public) are accepted as the most suitable for visual impact and amenity assessments, because they represent the highest number of visitations or views to the nominated site in question. Private receptors (namely from private residences) can be selected if the views are unique, significant or the combined effects on a few residents are considered high.

The inspection of the Project site and its contextual surrounds provided a range of viewpoints from which the proposed development could potentially be visible.

Consideration for selecting vantage points were from within the public realm and were chosen based on the ability (wherever possible) to:

- View the site unencumbered.
- View the site from varying locations within the local context.
- View the site for a range of receptor groups from public locations.
- Demonstrate the proposed development height within the local context.

16 view points were chosen following this process for this LVIA report.

2.4 Photography

A Nikon D810 digital camera was used together with a 50 millimetre (mm) lens in accordance with typical industry standards for LVIA photography. For locations further away from the Project a 70 mm lens was used, which has a telephoto effect. With the latter configuration, objects and features have a greater apparent size, and distant objects can be seen more easily as compared with photos taken with a 50 mm lens. Thus, a more conservative representation of the view has been taken from further locations. In either case, firsthand observations made during the site visits are more important in the assessment of visual impact, and photos taken during the site visit serving as supporting evidence.

Photographs were taken with the camera was held approximately 1.5 metres (m) above ground level. Global Positioning System (GPS) positions and site observations were also recorded on a separate handheld device at the locations from which the photographs were taken.

2.5 Photomontages

Photomontages have been used to assist in the assessment by illustrating the bulk, scale, form, materials, colours and location of the Project over base photographs. The Photomontages have been included in Appendix A. Topographical and surface feature data as well as the Project are modelled within a computer program (3DS Max). A virtual camera is set up in the 3D model at the GPS coordinates where the photograph was taken. Using geo-referenced markers, aerial photos, terrain, roads and property boundaries as a guide, a computer rendered image was overlain and incorporated within the photograph to produce a spatially accurate, visual representation of the Project.



The photomontages and viewpoint photos have been displayed as panoramic images. These were constructed from four photographs arranged horizontally with 1/3 overlap to capture the extents of the project and surrounding landscape. Photomontages have been arranged to show both the existing view and view post construction as a basis of comparison to support the assessment.

In addition to these views, a view post construction was overlain with a grid comprised of 10° horizontal increments and 1° vertical increments as specified in Technical Supplement for Landscape Character and Visual Impact Assessment (DPHI 2022b). This grid assists in the assessment of visual impact by quantifying the number of cells that a Project would occupy. The corresponding magnitude ratings are defined by the number of occupied cells as follows:

- 1-7 cells: Very Low
- 8-14 cells: Low
- 15-25 cells: Moderate
- 26-36 cells: High
- 37+ cells: Very High

The grid was applied to the two worst case Viewpoints, Viewpoint 4 and Viewpoint 5. Given the result confirmed a very low magnitude (1 cell) at these worst-case viewpoints, the grid was not applied to other Viewpoints as the impact / magnitude will be even less significant. A rating of low was nevertheless applied to magnitude of change at Viewpoint 4 and Viewpoint 5 to represent a conservative assessment.

A Photomontage was also prepared showing the application of a muted green colour to the noise walls, in line with the proposed mitigation strategy. This illustrated a further reduction in visual impact post treatment.

An additional photomontage was prepared from Viewpoint 14 to demonstrate the Low impact from this location. Viewpoint 14 may also be used as a proxy for the level of visual impact that may be experienced from Gamboola Cabonne Homestead, which is of heritage significance.

2.6 Landscape Character Zones

The methodology for developing the landscape character zones within the study area has been derived from the following sources:

- Learmonth, Nancy and Andrew (1971), Regional Landscape of Australia: Form, Function and Change, Angus and Robertson Publishers, Sydney.
- Mitchell, Peter (2022), Descriptions for NSW (Mitchell) Landscapes Version 2, NSW National Parks and Wildlife Service.
- Tudor, C (2019), An approach to landscape sensitivity assessment – to inform spatial planning and land management, Natural England.
- Australia's bioregional framework as delineated via the Interim Biogeographic Regionalisation for Australia (IBRA).
- eSPADE spatial viewer for soil landscape mapping, NSW Environment, Energy and Science.



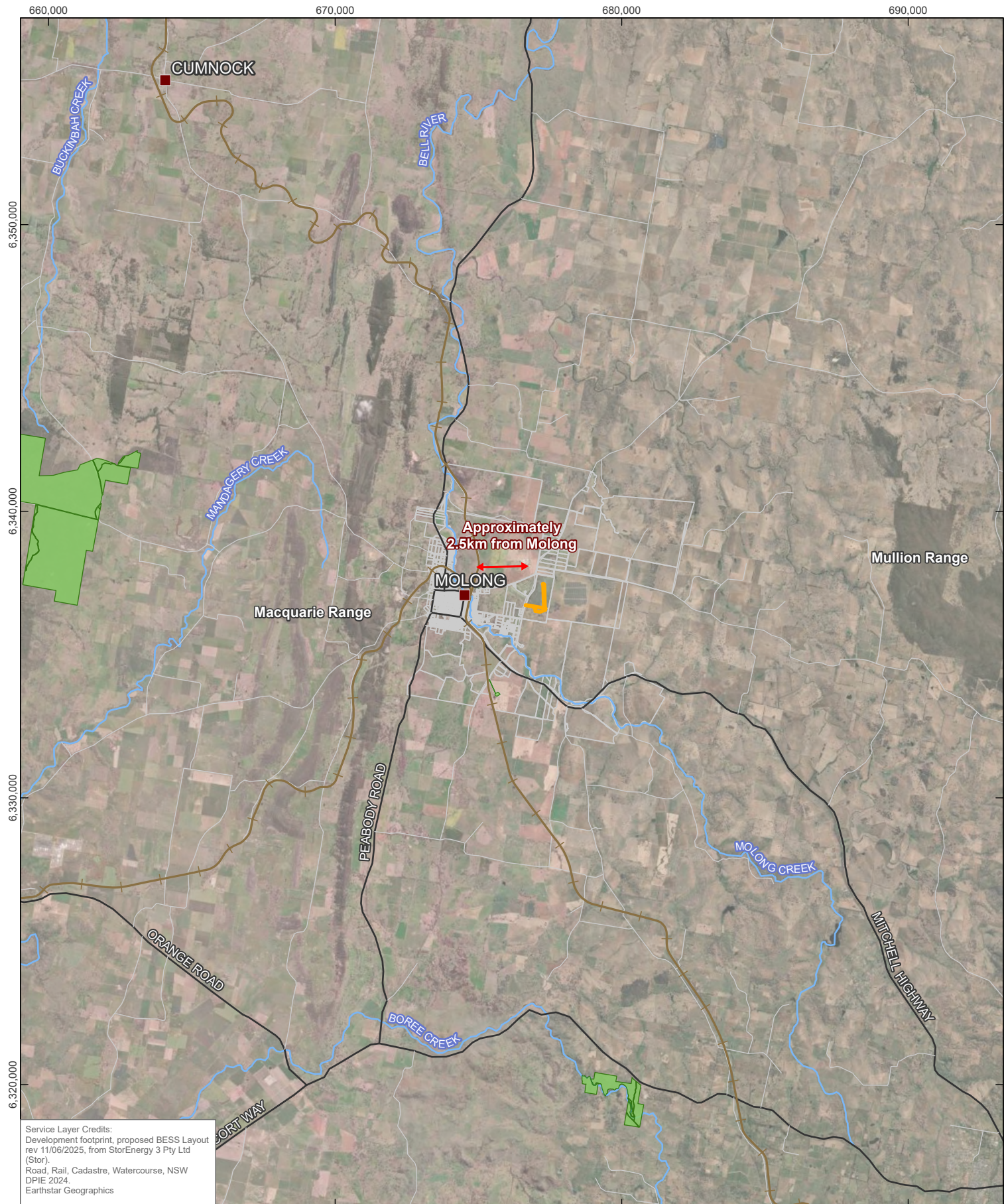
3.0 Project Description

The Project would involve the development, construction, operation, and eventual decommissioning of a BESS with a capacity of 150 Megawatt (MW)/ 730 Megawatt hour (MWh) connecting via an overhead 132kV transmission line directly to the existing Molong 132/66 kilovolt (kV) substation operated by Transgrid with an estimated length of 900m.

The Project is located on land in the northeast periphery of the township of Molong, within the Cabonne Shire Council Local Government Area (LGA). The land is zoned RU1 Primary Production in accordance with the Cabonne Local Environment Plan 2012 (Cabonne LEP). Figure 2 shows the Project location.

The proposed Development Footprint will be approximately 9.56 hectares (Ha), with an estimated 0.564 Ha for the road access, 5.06 Ha for the BESS footprint, and 3.918 Ha for the transmission line corridor. An easement of 45 m for the final transmission line route and associated poles will be required. Road access requires a 20 m width and will require limited clearing of native vegetation. The proposed Development Footprint will also require limited clearing of native vegetation. Figure 3 shows the Project layout and proposed development footprint.





Service Layer Credits:
 Development footprint, proposed BESS Layout
 rev 11/06/2025, from StorEnergy 3 Pty Ltd
 (Stor).
 Road, Rail, Cadastre, Watercourse, NSW
 DPIE 2024.
 Earthstar Geographics

	0 2.5 5 km
Coordinate System:	GDA2020 MGA Zone 55
Scale:	1:175,000 at A4
Project Number:	620.041615
Date Drawn:	30-Jul-2025
Drawn by:	NT

LEGEND

- Town/City
- Watercourse
- Rail
- Primary Road
- Road
- Cadastre
- NPWS Reserve
- Development Footprint (9.56 ha)

MOLONG BESS

PROJECT LOCATION



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 2



Service Layer Credits:
Development footprint, proposed BESS
Layout rev 11/06/2025, from StorEnergy 3
Pty Ltd (Stor).
Road, Rail, Cadastre, Watercourse, NSW
DPIE 2024.

	0 100 200 m
Coordinate System:	GDA2020 MGA Zone 55
Scale:	1:7,500 at A4
Project Number:	620.041615
Date Drawn:	29-Oct-2025
Drawn by:	NT

LEGEND

- Watercourse
- Noisewall
- Primary Road
- - - Proposed Electricity Transmission Line
- Road
- BESS Footprint (5.06 ha)
- Development Footprint (9.56 ha)
- Transgrid Line**
- - - 132kV
- Cadastre

MOLONG BESS

PROJECT LAYOUT



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 3

The following sections provide a description of the main visually prominent components of the Project.

3.1 Batteries and Inverters

The proposed BESS comprises a maximum of 264 batteries, each contained individually within a shipping container, the dimensions of these containers are approximately 6 m x 2.4 m x 2.9 m each. The battery units will generally be in a linear arrangement with some minor changes anticipated as detailed design progresses. Figure 4 shows a computer rendered view of a BESS unit.

A total of 50 inverters (as part of 25 Power Conversion Systems (PCS)), that measure 3 m x 2.1 m x 2.3 m each, will be located externally to the modular enclosures. The batteries and inverters are connected to each other with underground cables and are fixed via foundations to a level development pad. Figure 5 shows a view of inverter units.



Figure 4 Computer rendered view of BESS unit (source: Stor)



Figure 5 Computer rendered view of PCS (inverters, transformer and switchgear (source: Stor)



3.2 Lightning Masts

Four lightning masts of 20 m in height and 44 lightning masts of 10 m in height would be dispersed across the BESS Footprint. Figure 6 shows a view of a lightning mast.



Figure 6 Image of lightning masts
(source: Stor)

3.3 Substation

The substation area will include the following components:

- One Switchroom
- One backup diesel generator
- 132kV switchgear and busbars
- Two harmonic filters
- One main transformer
- Main transformer bunds



Figure 7 Image of switchroom
(source: Stor)

3.4 Operations and Maintenance (O&M) Building

One Operations and Maintenance Building would be installed which measures 20 m x 13.5 m x 5 m.



3.5 Noise Walls

Six sections of noise walls would be constructed to 4 m in height. However, the LVIA assumes a conservative height of 5m to demonstrate a worst-case scenario and to cover any potential height increase due to acoustic requirements. Figure 8 shows an image of the noise walls.



Figure 8 Image of noise walls (source: Stor)

3.6 Overhead Poles and 132 kV Transmission Lines

An overhead transmission line will be constructed to connect the BESS substation, to the existing Transgrid Molong 132/66 kV substation. The overhead transmission line will be approximately 900 m in length within a 45 m wide easement. The transmission line route will run north from the eastern side of the BESS Footprint in Lot 99, before connecting to the Molong substation.

The overhead transmission line poles will be up to 18 m in height above ground with a minimum ground clearance of 7.5 m, located within the proposed 45 m wide transmission line easement. Approximately eight transmission line poles are proposed to connect the BESS to the Molong substation. Figure 9 shows a view of the overhead transmission line poles.





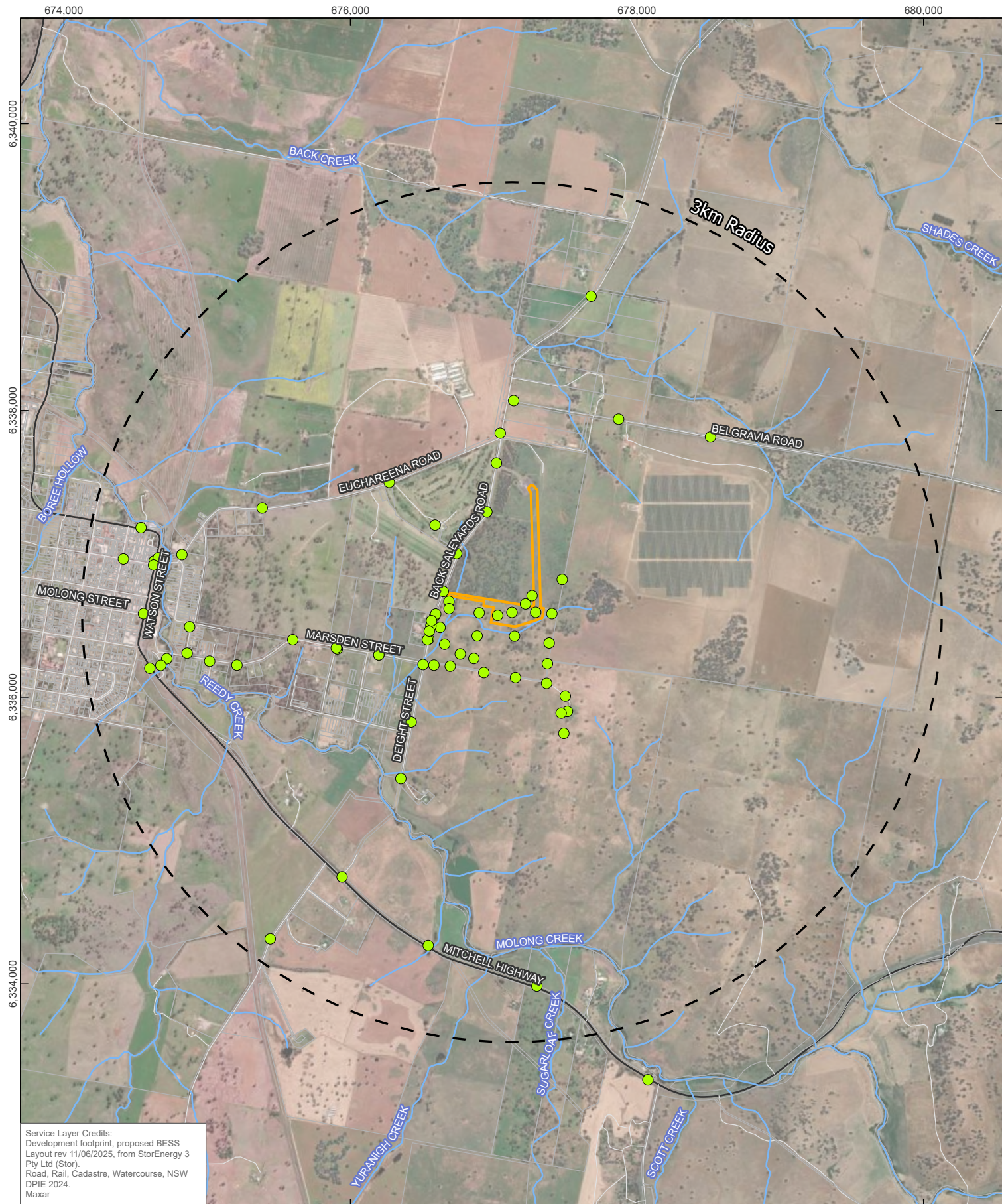
Figure 9 Image of 132kV overhead poles (source: Stor)

4.0 Study Area

The study area has been based on the limit of discernibility of the most visually prominent Project elements as described in Section 3.0. Beyond this limit, the Project is not likely to be discernible therefore the visual impact would be negligible. The most prominent component would be the lightning masts that would be approximately 20 m in height. The study area for the Project has therefore been defined as those locations within a 3 km radius of the Development Footprint boundary as shown in Figure 10.

This distance has been derived from site observations and has been informed by other projects with a similar visual profile.





Service Layer Credits:
 Development footprint, proposed BESS
 Layout rev 11/06/2025, from StorEnergy 3
 Pty Ltd (Stor).
 Road, Rail, Cadastre, Watercourse, NSW
 DPIE 2024.
 Maxar

 0 0.5 1 km

Coordinate System: GDA2020 MGA Zone 55

Scale: 1:35,000 at A4

Project Number: 620.041615

Date Drawn: 30-Jul-2025

Drawn by: NT

LEGEND

-  Photo Location
-  Watercourse
-  Primary Road
-  Road
-  Cadastre
-  Development Footprint (9.56 ha)
-  3km Radius

**STOR ENERGY
 MOLONG BESS**

STUDY AREA



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 10

5.0 Viewshed Analysis

A viewshed analysis was undertaken for the Project to assist with identifying areas within the surrounding landscape which may theoretically have views of the Project. The following sections outline the way in which this was undertaken.

5.1 Method

Elevation data in the form of LiDAR point cloud was obtained from the Department of Finance, Services and Innovation NSW and was captured 10/3/2014. This was the most recent publicly available data suitable for undertaking the visible assessment. The point cloud was filtered to create a digital elevation (DEM) and digital surface model (DSM) to represent the topography of the surrounding land, structures (buildings) and vegetation at the time of capture. Due to the capture date there are likely to be differences to structures and vegetation between the capture and the present date however majority of the surrounding features and topography are assumed to be relatively unchanged. The proposed earthworks, BESS, associated infrastructure footprints and heights were supplied by the client and used in the viewshed analysis by incorporating into the digital elevation model. Viewpoints were selected around the proposed development to run the viewshed analysis to assess the degree of potential visibility including the proposed noise wall.

5.2 Assumptions

The following assumptions apply to the viewshed analyses that were undertaken:

- Availability of data is limited to 2014 LiDAR which only captures vegetation, buildings, and topography at the time of capture (accuracy in metadata below).
- BESS and associated infrastructure supplied by the client are correct at the time of analysis.
- Noise wall provided by SLR Noise team is approximate.

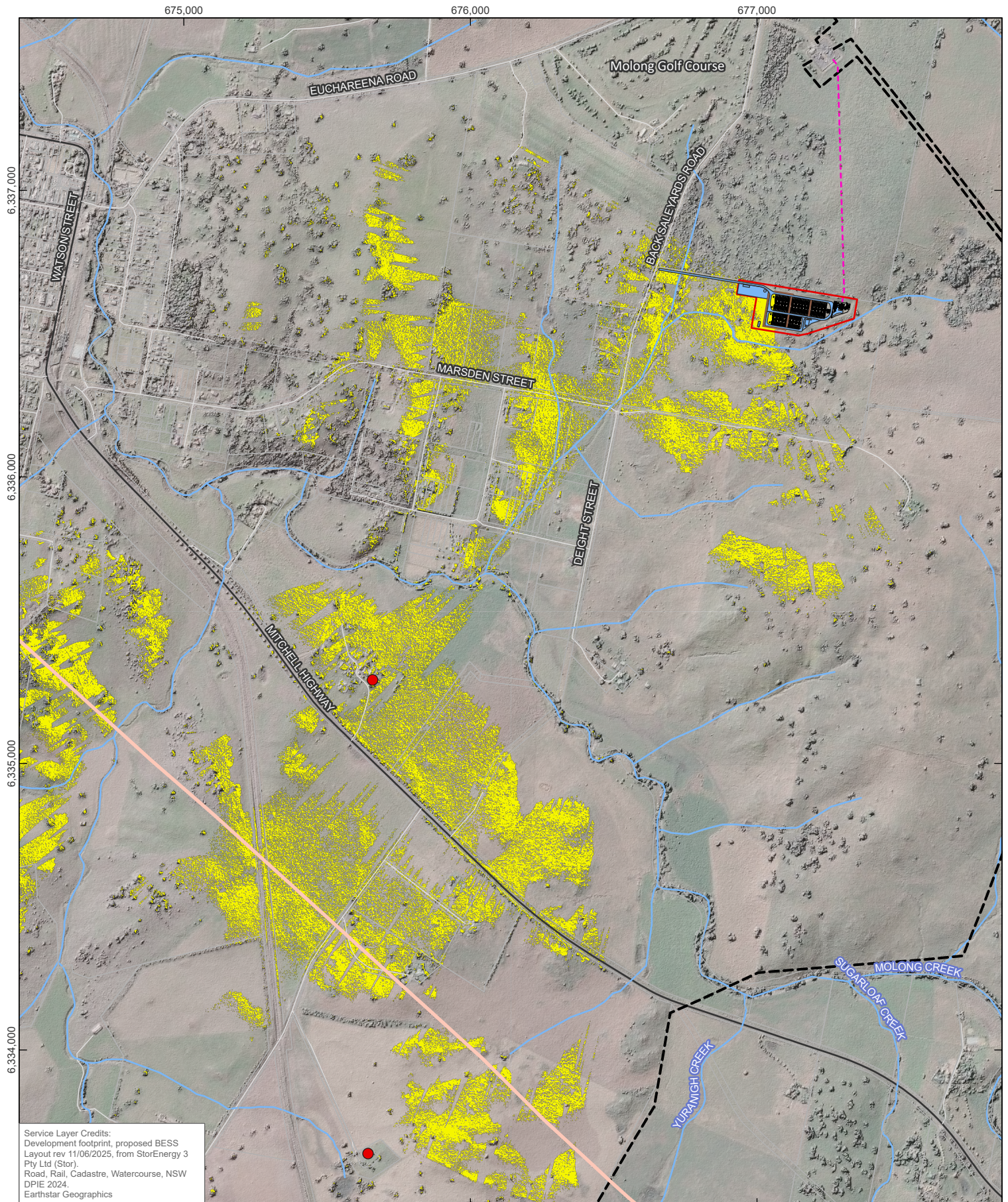
5.3 LiDAR Metadata

The following metadata applies to the viewshed analyses that were undertaken:

- A Division of Department of Finance, Services and Innovation.
- MOLONG, 2014-03-10, 2kmx2km Point Cloud Metadata.
- The coverage of this dataset is over the MOLONG 1:100,000 mapsheet. The C0 LAS data set contains point data in LAS 1.2 format sourced from a Leica-Geosystems Airborne Digital Sensor(ADS). The processed data has been manually edited to achieve ICSM standard level 3 whereby the ground class contains minimal non-ground points such as vegetation, water, bridges, temporary features, jetties etc. This data has a vertical accuracy of (+/-) 0.9 metre on bare open ground (95% Confidence Interval 1.96xRMSE) and horizontal accuracy of (+/-)1.25 metre (95% Confidence Interval 1.96xRMSE) on bare open ground.

Figure 11 shows the viewshed analysis of the BESS noise wall.





Service Layer Credits:
Development footprint, proposed BESS
Layout rev 11/06/2025, from StorEnergy 3
Pty Ltd (Stor).
Road, Rail, Cadastre, Watercourse, NSW
DPIE 2024.
Earthstar Geographics

Coordinate System: GDA2020 MGA Zone 55
Scale: 1:17,500 at A4
Project Number: 620.041615
Date Drawn: 29-Oct-2025
Drawn by: NT

LEGEND

- Heritage Site
- Watercourse
- Primary Road
- Road
- Transgrid Line
- 132kV
- 66kV
- Cadastre
- Noisewall
- Proposed Electricity Transmission Line
- Transmission Tower
- BESS Footprint (5.06 ha)
- Viewshed

MOLONG BESS

**VIEWSHED FROM BESS
NOISE WALL**



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 11

6.0 Legislation and Policy Context

An overview of the key planning provisions with respect to landscape and visual amenity has been provided in the following sections.

6.1 Assessment Guidelines

Large-Scale Solar Energy Guideline

The Large-Scale Solar Energy Guideline addresses visual impacts by outlining the principles for assessing and mitigating the visual effects of solar projects including associated infrastructure, such as Battery Energy Storage Systems (BESS).

Although the Project does not include a solar component (i.e. standalone BESS), the Guideline provides an appropriate and comprehensive methodology to evaluate the visual impacts associated with the BESS that is suitable for SSD applications. Key considerations include:

1. Baseline landscape character:

The guideline stresses the importance of understanding the baseline landscape character, with input from local communities, to identify sensitivities and values early in the planning process.

2. Site selection and design:

To minimise visual impacts, projects should be designed and sited in areas where the topography naturally screens the development, avoiding visually prominent locations.

3. Visual impact assessment:

It mandates that developers assess visual impacts from key viewpoints, especially from residential areas or public spaces that may experience moderate to high visual changes.

4. Mitigation strategies:

When moderate or high visual impacts are identified, the guideline recommends implementing mitigation measures such as planting vegetation or altering the project layout to reduce visual effects.



(DPE 2022a, p.24)

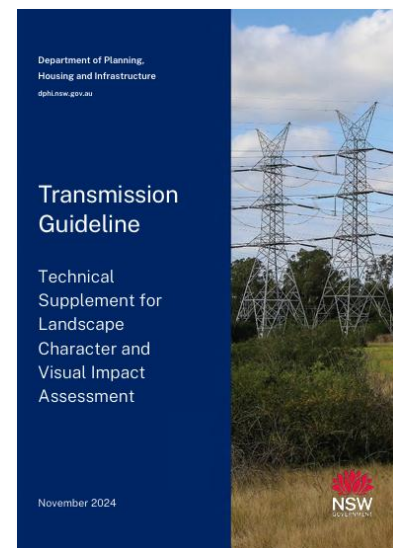


Technical Supplement – Landscape and Visual Impact Assessment

The Technical Supplement for Landscape Character and Visual Impact Assessment provides a comprehensive guidance for conducting Landscape and Visual Impact Assessment (LVIA) for large-scale solar and infrastructure projects in New South Wales.

This document offers a structured approach to assessing both landscape character and visual impacts, with an emphasis on identifying key receptors, evaluating visual sensitivity, and applying mitigation strategies. It integrates best practice from both international and national standards, ensuring that developments are assessed in a transparent and consistent manner.

The supplement is particularly relevant for projects that have significant visual impacts on rural, peri-urban, and urban landscapes, supporting decision-makers in understanding the visual implications of development proposals. (DPHI 2022b).

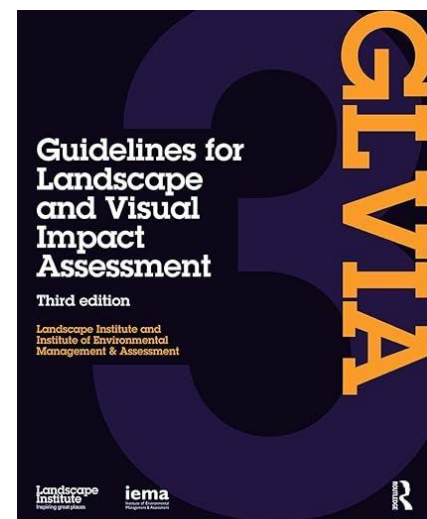


Guidelines for Landscape and Visual Impact Assessment

The Guideline for Landscape and Visual Impact Assessment, 3rd edition (GLVIA3) is a comprehensive guide that details methodologies for assessing the landscape and visual impact of development projects.

GLVIA3 outlines best practices for conducting both Landscape Character Assessment (LCAs) and Visual Impact Assessment (VIAs) emphasising professional judgement, transparency, and clear reporting.

The guideline is designed to ensure consistency and thoroughness in evaluating how developments may alter the visual and landscape character of an area. (IEMA 2013)



Visual Representation of Development Proposals

The visual representation of development proposals is a technical guidance note provided by the Landscape Institute. It provides comprehensive detail on the best practices for accurately depicting proposed development in visual assessment. This document sets out standards for the preparation of visual materials such as photomontages, wirelines, and 3D models, ensuring consistency, accuracy, and transparency.



These visual representations help stakeholders, decision-makers, and the public understand the visual impact of a development from key viewpoints, supporting informed planning decisions. (LI 2019b).

6.2 Native Title Act 1993

The *Native Title Act 1993* recognises the traditional 'rights and interests' that certain groups of Aboriginal or Torres Strait Islander People have rights and interests to certain areas of land. These rights and interests may include:

- The right to build shelters, live and camp on the area.
- The right to hunt, fish or collect food.
- The right to visit and protect places of cultural importance.
- The right to conduct ceremonies.

Impacts to these rights and interests from Landscapes and Visual Amenity impacts may stem from:

- Direct loss of mythological sites associated with specific or rare landforms (rock pools, outcrops etc).
- Loss of a sense of enjoyment or fulfilment when practicing Native Title rights or interests (access restrictions to high value areas, loss of camp sites etc).

Native Title can exist alongside the rights of other land holders (eg, pastoral lessees, Mining Act 1978 tenure). As Native Title is a legal recognition of traditional lands, it is important that the needs of Claimants and Determinants are considered when assessing visual and landscape impact.

A search of the Register of Native Title Claims (4 March 2025) shows there are no active claims within the Cabonne Shire Council LGA.

6.3 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (NSW) (the EP&A Act) provides the legal framework for land use planning and development assessment in New South Wales, Australia. It establishes processes for environmental impact assessment, strategic planning, and regulation of development to ensure sustainable land use. The Act promotes ecologically sustainable development, public participation, and transparency, guiding decision-making on major projects like State Significant Developments (SSD). It is critical for balancing environmental protection with economic and social objectives in the planning and development process.

Section 1.3 of the EP&A Act outlines its primary objectives, which include promoting ecologically sustainable development, facilitating economic, environmental, and social well-being, and ensuring the protection and conservation of natural and built environments. The Act also aims to provide transparency and public participation in planning decisions, promote orderly and sustainable land use, and balance development needs with environmental management. These objectives underpin all planning and assessment processes under the Act.

The LVIA aligns with **section 1.3(g)** of the Act, which seeks to promote good design and amenity of the built environment. By evaluating the project's impact on landscape character and visual amenity, the LVIA ensures that the development integrates harmoniously with its surroundings. It identifies sensitive areas, mitigates visual and aesthetic impacts, and enhances design outcomes, supporting the creation of a built environment that is both functional and visually appealing for the community.



Under the EP&A Act the approval pathway for the proposed development is a State Significant Development (SSD), projects are assessed under Part 4, Division 4.7, which includes preparing an Environmental Impact Statement (EIS) to address the Secretary's Environmental Assessment Requirements (SEARs). The proposal is then exhibited for public consultation before being evaluated by the Department of Planning, Housing and Infrastructure (DPHI).

6.4 National Parks and Wildlife Act 1974

The NPWS Act provides for the protection of Aboriginal objects (sites, objects and cultural material) and Aboriginal places.

The National Parks and Wildlife Act 1974 (NPW Act) provide for the protection of Aboriginal objects (sites, objects and cultural material) and Aboriginal places. Under the Act (Part 6), an Aboriginal object is defined as:

“any deposit, object or material evidence (not being a handicraft for sale) relating to indigenous and non-European habitation of the area that comprises NSW, being habitation both prior to and concurrent with the occupation of that area by persons of European extraction, and includes Aboriginal remains”.

An Aboriginal place is defined under the NPW Act as an area which has been declared by the Minister administering the Act as a place of special significance for Aboriginal culture. It may or may not contain physical Aboriginal objects.

Identified Aboriginal items and sites are registered on Aboriginal Heritage Information Management System (AHIMS).

6.5 Central West and Orana Regional Plan 2041

This regional level strategic document identifies key priorities in housing, jobs, infrastructure, environment up to 2041. The scenic landscapes of the region have been described by this document as part of the identity and character of the region. The document addresses concerns about renewable energy projects impacting the rural landscape and visual catchment values of the regional cities.

This LVIA will assess and mitigate potential visual impacts of the Project to ensure alignment with 'Objective 9: Ensure site selection and design embraces and respects the region's landscapes, character and cultural heritage'. The document sets a long-term vision for the region's growth and development.

6.6 Secretary's Environmental Assessment Requirements (SEARS)

The proposal is a State Significant Development, and the Department of Planning, Housing and Infrastructure (DPHI) has issued Secretary's Environmental Assessment Requirements (SEARs) for the Project. These guidelines require the EIS for SSDs to address all likely environmental impacts, including those related to visual amenity and landscape character. The relevant Agency comments received in conjunction with the SEARs are listed in 6.7, and below:

Visual – including:

- *a detailed assessment of the likely visual impacts of all components of the project on surrounding residences (including approved developments, lodged development applications and dwelling entitlements), and key locations, scenic of significant vistas and road corridors in the public domain.*



- *details of measures to mitigate and/or manage potential impacts (including a draft landscaping plan for on-site perimeter planting, with evidence it has been developed in consultation with affected landowners).*

6.7 Agency SEARs Comments

Heritage NSW provided the following comment in relation to landscape and visual amenity.

'A suitably qualified heritage consultant is to:

- a) Identify all heritage items within the site and its vicinity including built heritage, landscapes and archaeology, map these items, and assess why the items and site(s) are of heritage significance.*
- b) Assess the impacts of the proposal on any identified heritage items in accordance with the Guidelines for preparing Statements of Heritage Impact. Discuss the attempts to avoid and/or mitigate the impact on the heritage significance of the site and the surrounding heritage items including any options analysis.*
- c) Assess the visual impacts of the proposal on any heritage item(s) within the view catchment of the proposal.'*

This LVIA has considered heritage items within the view catchment of the proposal.

6.8 Local Planning Scheme

Pursuant to the Cabonne Local Environmental Plan (LEP) 2012 the land is zoned RU1 Primary Production. The objectives of the RU1 zone are:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To encourage diversity in primary industry enterprises and systems appropriate for the area.
- To minimise the fragmentation and alienation of resource lands.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.
- To enable function centres, restaurants or cafes and appropriate forms of tourist and visitor accommodation to be developed in conjunction with agricultural uses.

6.9 Future Nearby Residential Development

A 635-lot residential subdivision, Golf Course Heights Estate, is currently in planning stage and located north-west of the Project Lots. The subdivision covers an area of 118 ha and would transform the rural and agricultural lots between the Golf Course and Molong township into a residential area. Viewpoints 5 and 6 capture views from along the eastern boundary of Golf Course Heights Estate along Back Saleyards Road.



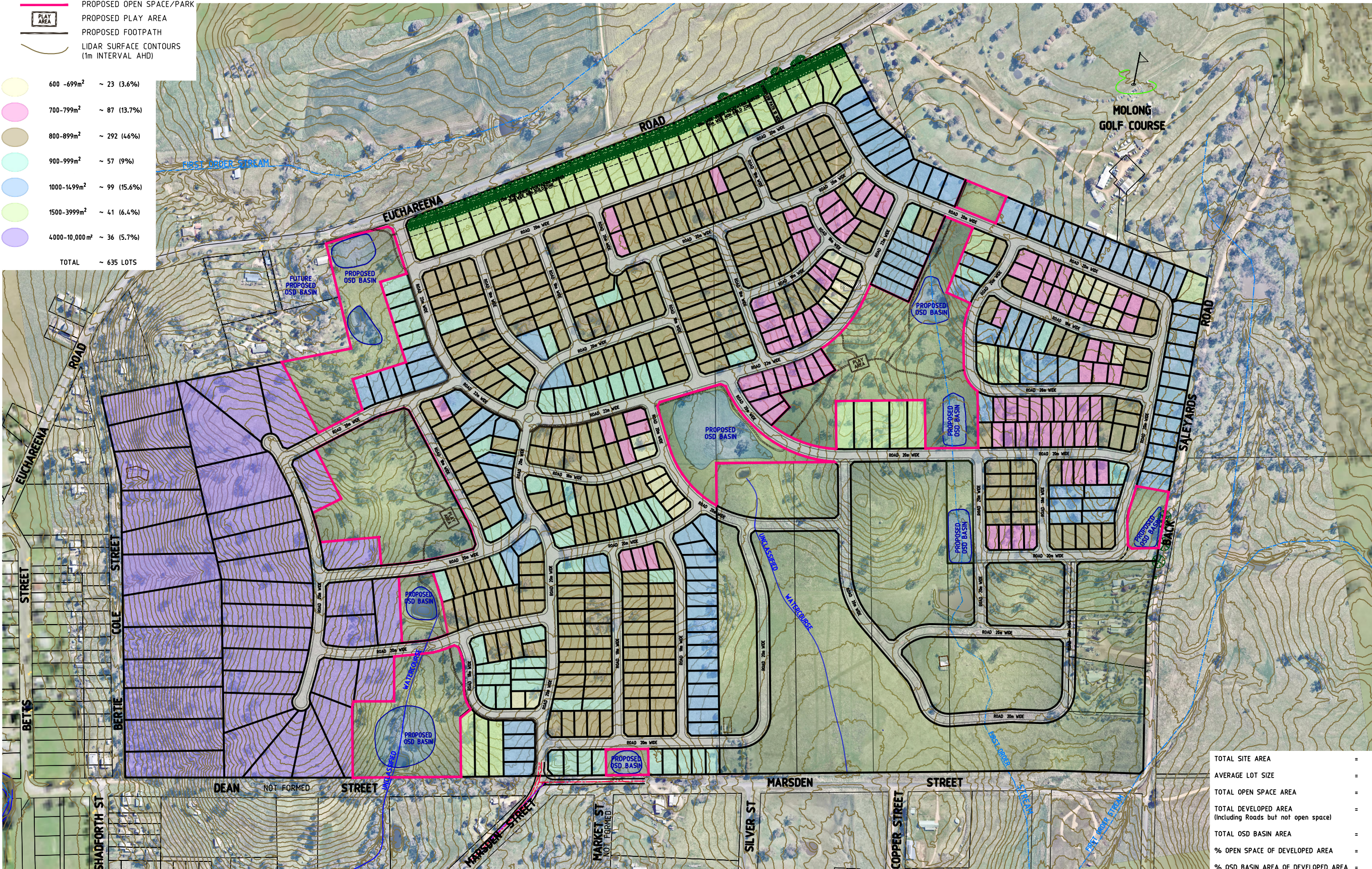
'Golf Course Heights Estate'



LEGEND

- PROPOSED OSD BASIN
- PROPOSED OPEN SPACE/PARK
- PROPOSED PLAY AREA
- PROPOSED FOOTPATH
- LIDAR SURFACE CONTOURS (1m INTERVAL AHD)

600 - 699m ²	~ 23 (3.6%)
700 - 799m ²	~ 87 (13.7%)
800 - 899m ²	~ 292 (46%)
900 - 999m ²	~ 57 (9%)
1000 - 1499m ²	~ 99 (15.6%)
1500 - 3999m ²	~ 41 (6.4%)
4000 - 10,000m ²	~ 36 (5.7%)
TOTAL	~ 635 LOTS



TOTAL SITE AREA	=	118.79ha
AVERAGE LOT SIZE	=	1188 m ²
TOTAL OPEN SPACE AREA	=	18.8Ha
TOTAL DEVELOPED AREA (Including Roads but not open space)	=	99.99Ha
TOTAL OSD BASIN AREA	=	6.73Ha
% OPEN SPACE OF DEVELOPED AREA	=	18.8%
% OSD BASIN AREA OF DEVELOPED AREA	=	6.73%
% OSD BASIN AREA OF OPEN SPACE	=	35.8%

06023-Base July 2024.Dwg - 08/08/2024

HEATH
CONSULTING
ENGINEERS

40 0 40 80 120 160 200m
SCALE 1:6000 (A3)

CONCEPTUAL LAYOUT
EUCHAREENA ROAD, MOLONG

6.10 Potential On-site Residential Development

There is an approved subdivision to create three rural residential lots on Lot 99 DP 1020247. However, as these lots are associated with the host receiver and their establishment is at the discretion of the landowner (who has provided approval for this Project), further assessment of the visual impacts on these potential lots is not appropriate and therefore has not been considered.

6.11 Summary of Legislation and Policy Context

The review of the legislation and policy context indicated several clauses relating to the protection of landscape and visual amenity at the federal, state, regional and local levels. These include the protection and promotion of:

- The qualities and characteristics of locations, places, and areas.
- Specific or rare landforms (associated with mythological sites).
- Visual amenity and sense of place.
- High-value, distinctive and quality landscapes.
- Integration of buildings and landscapes, whilst preserving landscape integrity.
- Character and amenity of the cultural environment.

These considerations have informed the existing conditions and assessment stages as described in Sections 7.0 and 8.0.

7.0 Existing Landscape and Visual Environment

The methodology for landscape character assessment as outlined within (DPHI 2022b) states the following key steps. These include:

1 Describe baseline conditions

A comprehensive baseline study is undertaken to establish the current landscape character and sensitivity. This involves both desktop analysis and field visits to assess physical influences such as landform, drainage, and vegetation, along with human activities and key landscape features. (e.g. forested mountain ranges or distinctive peaks or cultural sites). (DPHI 2022b p.8)

2 Identify landscape character zones

The landscape is divided into distinct character zones based on common visual characteristics like landform, land use patterns and vegetation. These landscape character zones are identified within a 5 km radius of this development. (DPHI 2022b p.10)

3 Assess the landscape character impact

The magnitude and sensitivity of the proposed development as assessed for each zone. This includes evaluating to what degree the project will affect landscape character by assigning a sensitivity and magnitude rating to determine the overall landscape character impact on the relevant character zones. (DPHI 2022b p.10)

The outlined methodology provides a structured approach to landscape character assessment, ensuring a thorough evaluation of baseline conditions, the delineation of distinct character zones, and a systematic assessment of potential impacts, enabling informed decision-making for the proposed development.



7.1 Baseline Conditions

The following baseline conditions provide an overview of the existing environment and infrastructure, serving as a reference point for assessing future changes or impacts.

Geology

The surface geology of the area is characterised by Ordovician to Devonian folded and faulted sedimentary sequences with inter-bedded volcanic rocks and large areas of intrusive granites. These includes a variety of mafic rocks (magnesium and iron rich), such as basalt, basaltic andesite and latite lavas and intrusions. Associated sedimentary rocks include volcaniclastic breccia and conglomerate, and minor limestone and calcareous sandstone. These rocks are distributed around Orange and central NSW and host significant gold and copper deposits, such as Cadia.

The Development Footprint and study area do not contain any karst, caves, crevices, or cliffs.

Soils

The Development Footprint contains predominantly Euchrozems soils with Alluvial soils adjacent to Molong Creek approximately 1.2km from the Development Footprint. Euchrozems soils are red, strongly-structured clay soils with a somewhat lower clay content near the surface.

The Development Footprint is classified by the NSW DPE eSPADE mapping as having 'moderate limitations' and is rated as Land & Soil Capability Class 3. Class 3 land has agricultural limitations that must be managed to prevent soil and land degradation. However, the limitations can be overcome by a range of widely available and readily implemented land management practices.

The Development Footprint is identified as Biophysical Strategic Agricultural Land (BSAL) on the NSW Planning Spatial Viewer as regulated under the State Environmental Planning Policy (Resources and Energy) 2021.

Contaminated land is not recorded on or in the general vicinity of the project. Two contaminated land sites are recorded in the Cabonne LGA, being BP Cabonne and Former Gasworks which are located in the Molong Township.

The Development Footprint is not identified as having an acid sulfate soil (ASS) risk according to the available data.

Landform

The Project lies within the NSW South Western Slopes IBRA Region on the lower inland slopes of the Great Dividing Range. This region occupies 10% of NSW and extends from north of Cowra through southern NSW into western Victoria (NPWS 2003). The region is dominated by sub-humid climate characterised by hot summers with no dry season.

The Project lies wholly within the Upper Slopes (Inland Slopes) IBRA Subregion, which is characterised by Ordovician to Devonian folded and faulted sedimentary sequences, interbedded volcanic rocks and large areas of intrusive granites.

The Project is located within the Mullion Slopes NSW (Mitchell) landscape, which generally occurs between elevation of 500 to 830 m, local relief of 200 m. This landscape typically supports open forest to woodland and is associated with a mixture of granite and sedimentary substrates.



Natural Drainage and Waterbodies

An unnamed first order ephemeral creek is located within the Development Footprint, with a portion of the creek intercepting with the proposed access track footprint in the southwestern corner. The creek is a tributary to Molong Creek, located approximately 1.2 km south of the Development Footprint. During surveys in 2024 and 2025, the creek has been dry.

Stormwater runoff from the land to be included in the Development Footprint currently drains to an unnamed tributary of Molong Creek located more than 40m from the southern boundary of the Development Footprint. This tributary then discharges from Lot 99 at the south-west of the property boundary at the southern end of Back Saleyards Road. Molong Creek drains into the Bell River, which ultimately flows into the Darling River.

Ecological Characteristics

The Development Footprint is approximately 9.56 ha and the native vegetation extent within the subject land is approximately 5.89 ha or 61%.

This landscape is characterised by open forest to woodland, generally aligned with slope position:

- Woodland species such as *Eucalyptus rossii* (White Gum), *E. mannifera* (Brittle Gum), *E. dives* (Broad-leaved Peppermint), *E. polyanthemos* (Red Box), *E. cypellocarpa* (Mountain Grey Gum), and *E. albens* (White Box) occur broadly across slopes.
- *E. melliodora* (Yellow Box) occurs on lower slopes.
- *Casuarina cunninghamiana* (River Oak) occurs along the streams (DECC 2002).

Vegetation within the subject land has been assessed as aligning with the BioNet Vegetation Classification PCTs identified within Table 1. Detailed descriptions of each PCT are provided in the following subsections.

Table 1 PCTs identified within the subject land

PCT ID	PCT name	Subject land area (ha)
PCT 277	Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion	5.89
PCT 0	Non-native vegetation	3.67
Total area		9.56

Key topographical features

The Molong region's landscape, shaped by diverse topographical features, plays a key role in defining its landscape character. The key topographical features are:

- **Low-lying, undulating terrain.** Topographically, the Project Lots are low lying and undulating.
- **Moderate elevation.** The elevation of the Project Lots ranges from 581 to 598 m above sea level.
- **Position within the Mullion Slopes landscape.** The project is located in the Mullion Slopes NSW (Mitchell) landscape. The Mullion Slopes landscapes generally occur between elevation of 500 to 830 m, local relief of 200 m.



These baseline topographical features contribute to the physical setting of the subject land and provide context for its land capability, drainage, and development suitability.

Aboriginal cultural heritage

The Project is proposed within the traditional lands of the Wiradjuri people, a large language group of inter-related tribes that cover a large portion of central New South Wales, stretching from the Murray River in the south, to Lithgow and Dubbo in the north. Within the Wiradjuri language, there are many smaller familial groups that exist (NSW Heritage Office 2003).

An Aboriginal Cultural Heritage Assessment has been undertaken as part of the EIS by Virtus Heritage and provides further information on Aboriginal cultural heritage.

Adjacent Land Use

Lot 99 has been substantially modified by its current and past land use, which has primarily been agriculture including grazing modified pastures and cropping. The Study Area is largely suited to grazing and improved pastures. A significant proportion of the land is considered highly productive agricultural land as defined in *The Land and Soil Capability Assessment Scheme; Second Approximation* (OEH 2012). In addition to agricultural uses, part of the study area is used for the TransGrid Terminal Station.

7.2 Landscape Character Zones

Landscape Character Zones (LCZs) are distinct areas within a broader landscape that share similar patterns of physical, natural, and cultural features such as landform, vegetation, land use, and settlement patterns. The inclusion of these zones in this LVIA methodology helps to organise and focus the analysis by recognising the unique qualities and sensitivities of different parts of the landscape. By assessing each zone individually, the potential impacts of a proposed development can be more accurately understood, ensuring that appropriate measures are taken to preserve or enhance the specific character and visual integrity of each zone. This approach ensures a comprehensive evaluation that supports informed decision-making and sustainable landscape management.

Molong is an example of a rural Australian town with a historical urban centre featuring colonial architecture with the Molong Creek running through the township. The majority of the parks and recreational spaces of the town are located along Molong Creek. Vegetation within the township is comprised of established mature exotic tree species occurring along roadsides and in private allotments. The area surrounding the township is of a rural setting with undulating farmland, bounded by the Macquarie Range to the west.

Figure 13 shows the configuration of Landscape Character Zones (LCZs) within the study area. Note, the map extent displays only those LCZs that are relevant to the viewpoints assessed in the Visual Impact Assessment in Section 8.0. Furthermore, there are many occurrences of Parks and Reserves LCZ within the township that are too small and numerous to be readable at this scale.



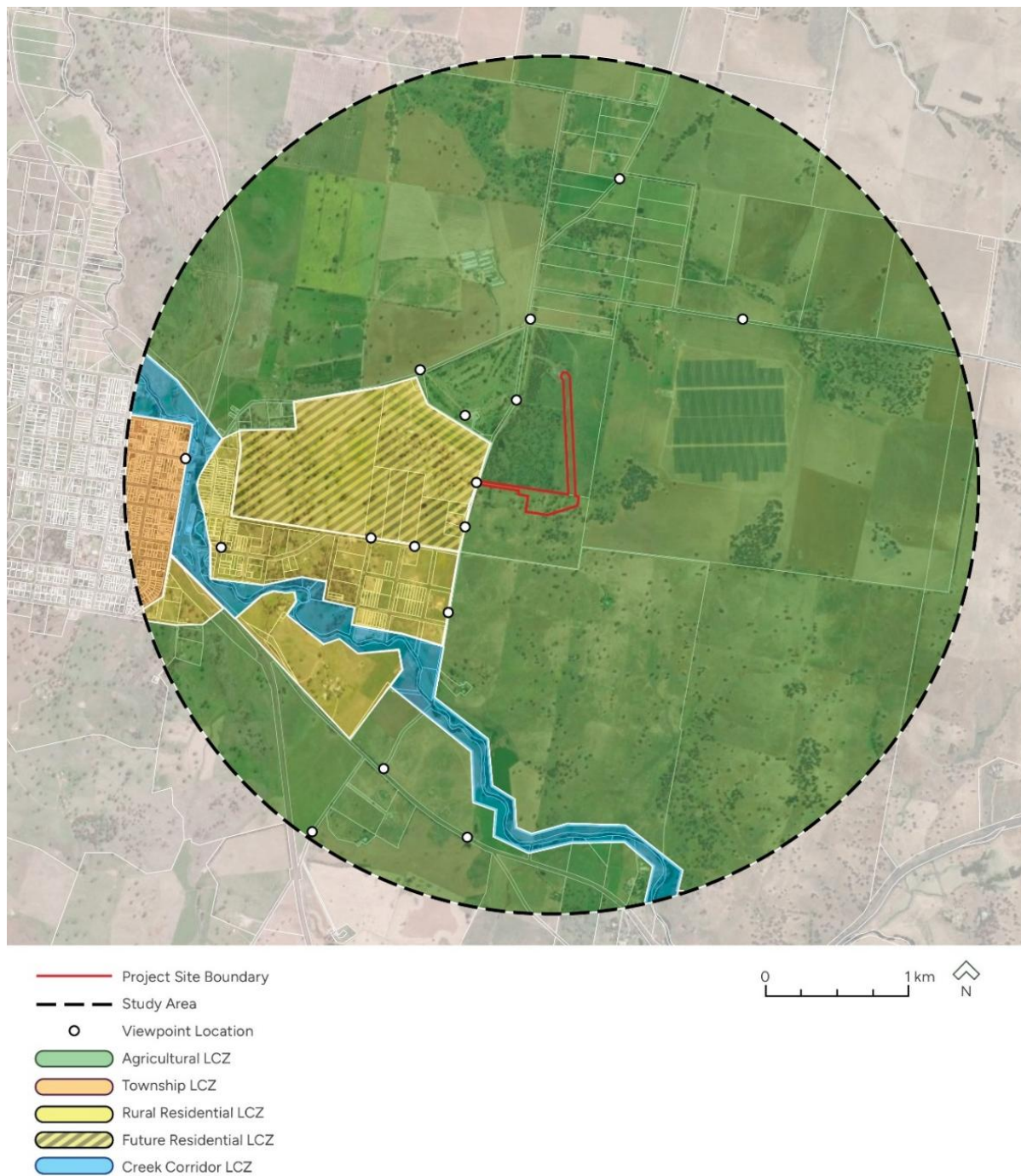


Figure 13 Landscape Character Zones (LCZs) within the study area



The following sections provide further details on the LCZs within the study area.

7.2.1 Township LCZ

This LCZ is characterised by a flat to gently undulating landscape with the collection of heritage style buildings that are a key visual feature of the town. The main thoroughfare, Bank Street, is characterised by one to two storey commercial buildings, wide footpaths and mature street trees. Molong Creek runs adjacent to the town centre, providing a natural landscape element that complements the township with a range of green open spaces and recreational public open spaces, such as the Molong bowling club and Hunter Caldwell Park.

Development within the township is typified by a blend of single and double storey buildings of fine to medium grain blocks. Locations away from Bank Street are majority single storey residential buildings, with some commercial and cultural buildings.

As the commercial centre town is located at a lower elevation in relation to the rest of the township, the surrounding topography limit views out towards the surrounding area and towards the Project.

7.2.2 Rural Residential LCZ

The Rural Residential LCZ of Molong is characterised by a gently undulating landscape associated with agricultural and pastoral land uses. These areas sit beyond the Township LCZ and are composed of large residential lots with modest dwellings set in an open, spacious setting.

Buildings are detached and vary in architectural style and age. Often sheds, water tanks and other ancillary structures are also located within the lots. Most properties feature generous setbacks from roads with low or open fencing. Boundary treatments tend to be minimal, reinforcing the sense of openness and visual cohesion of the broader rural setting.

Vegetation plays an important role in defining the character of the Rural Residential LCZ. Majority of the lots feature scattered remnant native trees or patches of isolated vegetation. Some properties have screen planting, shelter breaks or windbreak planting along their driveways or dwellings.

Overall, the Rural Residential LCZ has a well-defined character with both privacy of dwellings and a connection to the broader landscape of the agricultural LCZ beyond.

7.2.3 Future Residential LCZ

The Golf Course Heights Estate would transform the existing rural and agricultural character of the area to a more developed, higher density residential environment. The development proposal includes 635 lots with majority of the lot sizes between 700 m² to 1500 m². This is relatively high density in comparison to existing Rural Residential LCZ.

The subdivision will comprise a structured but curvilinear residential street layout. The built form will likely include single-storey and double-storey detached homes on medium lots with contemporary architectural styles. The streetscape character is expected to be relatively uniform as the lot sizes and building types have little variation within the estate. The vegetation and public realm design will likely be suburban in appearance with street trees, playgrounds, several bio basins and pocket parks.

7.2.4 Creek Corridor LCZ

The Creek Corridor LCZ is defined by the appearance and character of Molong Creek and its associated riparian environment. It forms a distinctive landscape element that weaves through the township and surrounding rural landscape, acting as a visual, ecological and recreational spine. The creek corridor retains a more natural and densely vegetated



appearance compared to the surrounding built areas. Vegetation in this zone is a mix of native and exotic riparian species along with grasses, reeds and understorey species.

The character of this zone is shaped by the landform of the creek, and types of uses along the edges. Adjacent to the Molong township, the creek corridor has been integrated into the urban fabric, featuring parks and recreational amenities.

7.2.5 Agricultural LCZ

Agricultural LCZ comprises a significant portion of the study area. This LCZ is characterised by flat to gently undulating farmland. The flatter terrain affords broad open views across large fields to distant hills. While in hillier regions, the topography creates a sense of enclosure with views out across the landscape limited in some cases.

The agricultural vegetation generally presents as open fields with scattered trees or isolated patches of vegetation. These landscapes are characterised by open and long-range views. The built form predominantly consists of homesteads and sheds that are located intermittently across the landscape with occasional other built form elements (e.g. golf course).

7.3 Existing Heritage Items

Six heritage items listed under Cabonne Local Environmental Plan 2012 (LEP 2012) have been identified nearby to the Project. These items are described in Table 2 including their distances from the Development Footprint and Closest Viewpoints (refer Section 8.0). The locations of these heritage features are shown in Figure 14.

Viewshed analyses specific to heritage items have been prepared to illustrate any potential visibility of the Project when viewed from these items (refer Appendix B). These viewshed analyses have been undertaken to understand the impacts on historic heritage, as directed by the SEARs, which have been addressed in Chapter 6 of the EIS.

Table 2 Heritage Items

Item	Statement of Significance	Distance from Development Footprint	Closest Viewpoint(s)
Gamboola Cabonne Homestead (I198)	<i>'Large well known significant country home with a distinctive tower dominating its elevation from the road.'</i>	1.4km south	VP14 and VP16
Gamboola Homestead, Woolshed & Historic Wire Fence (I202)	<i>'A fine example of one of the grandest homesteads in the Cabonne shire, constructed in the Edwardian architectural style, with a tower included as an unusual and interesting architectural folly. It remains largely intact with original features throughout the interiors. The intact original outbuildings include woolshed and stables, pump house, worker's cottage, boiler house and meat safe are significant as evidence of the historic agricultural use of the property...'</i>	1.2km southeast	VP2
'House' 11 Marsden Street, Molong (I198)	<i>Classic 19th century residence in East Molong contributing to streetscape. One of a number of similar brick houses with brick corbelling at soffit level. High pitched iron</i>	1.7km southwest	VP2



Item	Statement of Significance	Distance from Development Footprint	Closest Viewpoint(s)
(Identified as 28 Marsden Street, Molong)	<i>clad roof and bull nosed verandah to front and return.</i>		
House' 2 Betts Street, Molong (I183)	<i>Victorian villa, built by Pedro Kinna, c.1887, and in 1957 owned by Mr Dick Starr, a member of the legal fraternity, alderman and Mayor of Molong. S. Double brick single storey with iron roof in Victorian 'Gothic' style with detached iron clad verandah. Bay window to asymmetrical gable and side elevation. 2 brick chimneys. A pair with next door house.</i>	1.6km west	VP1
'House' 11 Euchareena Road, Molong (I192)	<i>Victorian villa, built by Pedro Kinna, stuccoed, galvanised iron roofs, cast iron palisade fence, cast iron trim to verandahs, c1887. Double brick single storey with iron roof in Victorian 'Gothic' style with detached iron clad verandah. Bay window to asymmetrical gable and side elevation. 2 brick chimneys. Set well back on lot from front boundary metal palisade fence, which is on masonry plinth and has gate piers. Pair with Cole House.</i>	1.6km west	VP1
Yuranighs Grave (#I217)	<i>Yuranighs grave is an excellent example of culture contact. The presence of carved trees around the grave demonstrates commemoration by Aboriginal people while the inscribed headstone indicates the honour bestowed on Yuranigh by Major Mitchell, to whom he acted as guide on his famous last north west exploratory venture. The carved trees are also, as far as is known, the longest remaining, number of carved trees around a grave</i>	3.2km south	VP15

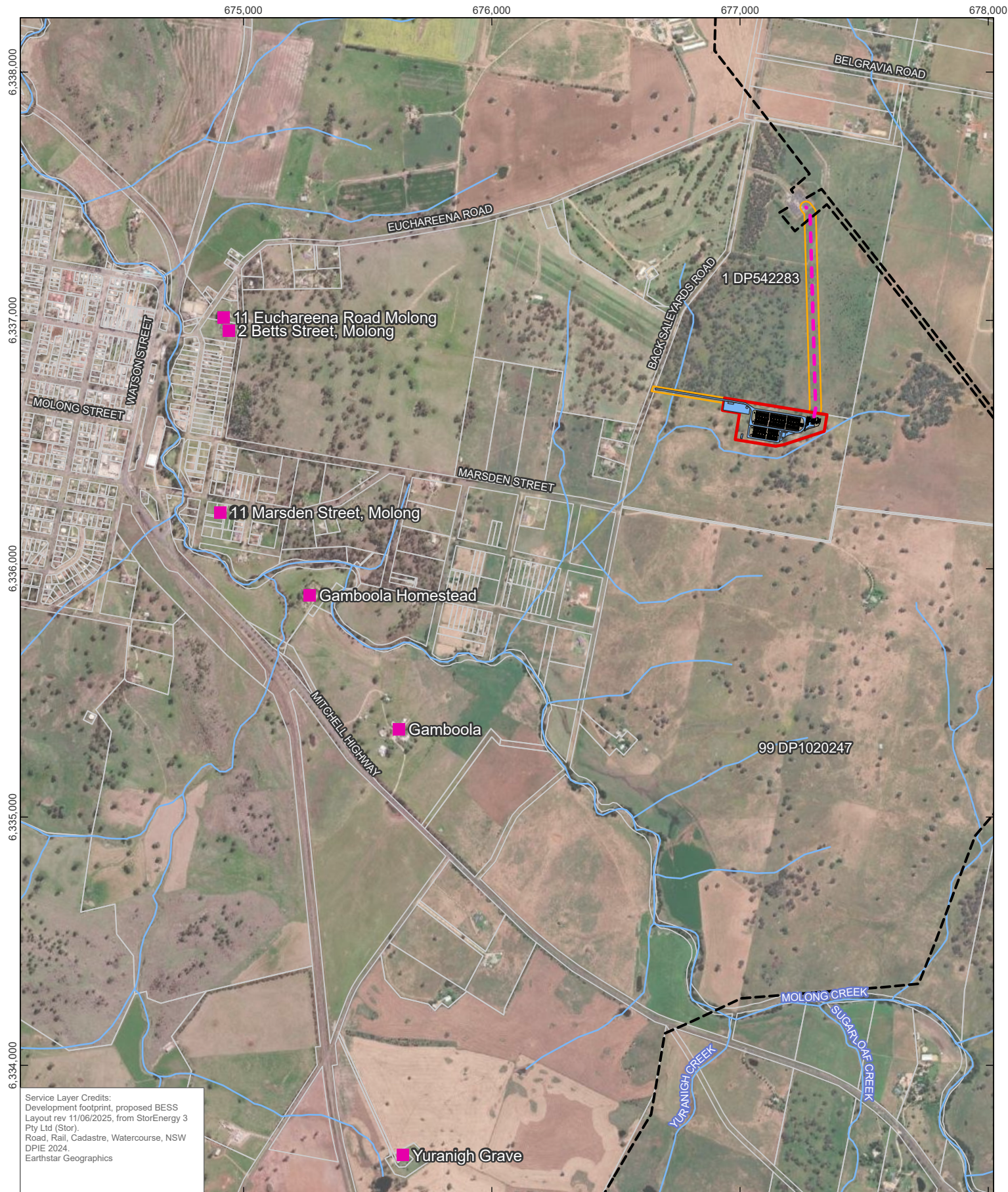
The viewshed analyses illustrate that the Project will not be visible from the following five heritage items:

- Yuranighs Aboriginal Grave Site.
- 2 Betts Street, Molong.
- 11 Euchareena Road, Molong.
- 11 Marsden St, Molong (28 Marsden St, Molong).
- Gamboola Homestead, Woolshed & Historic Wire Fence.

The viewshed for the 'Gamboola Cabonne Homestead' item illustrates the Project may be visible from this item. Consideration of the nearest viewpoints being VP14 and VP16 were used to ground truth the viewshed. Both viewpoints identified little to no view to the BESS due to vegetation, distance and topography.

In summary, the Project will have limited to no visibility from all heritage items.





Service Layer Credits:
Development footprint, proposed BESS
Layout rev 11/06/2025, from StorEnergy 3
Pty Ltd (Stor).
Road, Rail, Cadastre, Watercourse, NSW
DPIE 2024.
Earthstar Geographics

Coordinate System: GDA2020 MGA Zone 55
Scale: 1:20,000 at A4
Project Number: 620.041615
Date Drawn: 29-Oct-2025
Drawn by: NT

LEGEND

- Heritage Site
- Watercourse
- Transgrid Line**
- 132kV
- Cadastre
- Proposed Electricity Transmission Line
- BESS Footprint (5.06 ha)
- Development Footprint (9.56 ha)

MOLONG BESS

EUROPEAN HERITAGE



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 14

7.4 Impact Significance to the Landscape Character Zones

The significance of impact is determined by evaluating the sensitivity of the landscape character and the magnitude of change it will undergo. Sensitivity is rated on a scale from very high to very low, reflecting the landscape's ability to accommodate change without having adverse effects on its character. The magnitude of change rating, also from very high to very low, considers the scale, duration, and nature of the proposed development's influence on the landscape. These two factors are combined using a look-up matrix, which systematically grades the interactions between sensitivity and magnitude of change to produce an overall impact significance rating for each landscape character zone. This rating helps assess the degree to which the proposed development will affect the landscape's quality and integrity.

Table 3 Landscape character impact significance matrix

Receptor Sensitivity	Magnitude of change in the landscape					
		Very High (Dominant Change)	High (Considerable Change)	Moderate (Noticeable Change)	Low (Limited Change)	Very Low (Barely Perceptible Change)
	Very high	V High	V High - High	High	Moderate - High	Moderate
	High	V High - High	High	Moderate - High	Moderate	Minor-Moderate
	Moderate	High	Moderate - High	Moderate	Minor-Moderate	Minor
	Low	Moderate - High	Moderate	Minor-Moderate	Minor	Minor - Negligible
	Very low	Moderate	Minor-Moderate	Minor	Minor - Negligible	Negligible

The landscape character zones impact summary is outlined in Table 4 below.

Table 4 Landscape Character Assessment

LCZ	Sensitivity	Magnitude	Landscape character impact summary
Township	Moderate Modest residential lots and small-scale commercial buildings that are oriented toward the main central street. The sensitivity to changes in the character of towns tends to be moderately sensitive due to frequency and numbers of people visiting and cultural associations with the character of the town. This is mitigated by the process of continuous change that townships are undergoing.	Very Low The Project would not be visible from anywhere in the town so will not result in any changes to the character of the town.	Minor



LCZ	Sensitivity	Magnitude	Landscape character impact summary
Rural Residential	Moderate These areas sit beyond the Township LCZ and are composed of large residential lots with modest dwellings set in an open, spacious setting. The sensitivity of the rural residential LCZ is mitigated by the highly modified nature of the landscape since European settlement.	Very Low The Project would not be easily discernible from most locations within this LCZ so will not result in significant changes to its character.	Minor
Future Residential	Low The built form will likely include single-storey and double-storey detached homes on medium lots with contemporary architectural styles. The future residential LCZ would have a low sensitivity to change given it represents a dramatic change to the current landscape character	Very Low The Project would not be easily discernible from most locations within this LCZ so will not result in significant changes to its character.	Minor
Creek Corridor	Low The Creek Corridor LCZ is defined by the presence and influence of Molong Creek and its associated riparian environment. However it is a minor waterway and is filtered from view from most locations within the study area.	Very Low The Project would not be easily discernible from most locations within this LCZ so will not result in significant changes to its character.	Minor
Agricultural	Low This LCZ is characterised by undulating farmland. The flatter terrain affords broad open views across large fields to distant hills. Its sensitivity is mitigated by the highly modified nature of the landscape since European settlement.	Low The Project would not be easily discernible from most locations in this LCZ so will not result in significant changes to its character.	Minor

7.5 Summary of Landscape and Visual Environment

The key landscape and visual values within the study area include the undulating agricultural and rural landscape, creek corridor and historical township. Up close, the Molong Solar Farm potentially contrasts with the dominant landscape character of Molong, as the scale and visual pattern of the infrastructure differ from the surrounding landscape character. However, this is mitigated by the setback of the infrastructure from public roads and the low profiles of the infrastructure that follows the topography.

The Township LCZ would be moderately sensitive to visual changes given it is a modified urban environment with a broad range of building typologies and higher visitation. The adjacent Rural Residential and Future Residential LCZ is also undergoing a process of continual change. While observers and residents may have a sense of attachment to the visual character of the area and how it may change in the future, the views of the Project from within the township and existing residential areas are limited due to the existing terrain and vegetation that obscures long range views.



Table 5 shows the sensitivity of each LCZ to visual changes.

Table 5 Sensitivity of LCZ to visual changes

LCZ	Sensitivity
Township LCZ	Moderate
Rural Residential LCZ	Moderate
Future Residential LCZ	Low
Creek Corridor LCZ	Low
Agricultural LCZ	Low

8.0 Visual Impact Assessment

The assessment of visual impact follows a process of evaluating a range of publicly accessible locations with a potential view of the Project. By assessing a representative range of viewpoints that are at different distances and directions from the Project and from a range of LCZs, one can evaluate the visual impact of the Project on the broader landscape within the study area. Further, additional locations with nearby residential areas and the town centre were chosen to ground truth the results founded in the view sheds undertaken for the Heritage sites.

Each viewpoint has been assessed using combined ratings of:

- The Sensitivity of the landscape to visual changes from the viewpoint. This is derived from combining the viewpoint sensitivity and scenic quality ratings.
- The Magnitude of visual changes that would be brought about by the development.

Using the process, professional judgement was applied, based on the rating system and on a case-by-case basis to rate the level of visual impact for that viewpoint.

Visual Magnitude

The Visual Magnitude of change to the landscape character depends on the nature, scale, intensity, extent, and duration of the impacts / change due to the development proposal. The magnitude of change also depends on the loss, change or addition of any features to the existing landscape and is based on the landscape character type that is most likely to be impacted by the project prior to the addition of any mitigation measures.

The Visual Magnitude of change is rated as Very High, High, Medium, Low or Very Low and is defined in Table 6.

Table 6 Visual Magnitude

Magnitude	Description
Very High	Dominant and Permanent Change: • Significant change in view, affecting substantial parts of the view continuously visible for long durations. • Obstruction of a significant part of or primary elements of the view. • Overwhelming loss of key features or introduction of additional features in the view, resulting in the character of the view or landscape to fundamentally change. • Views to key landscape features are significantly impacted, affected or diminished.



Magnitude	Description
	- Visual contrast of any new feature(s) in the view such that the nature of the view or local character is changed. - Visual amenity of local residents or sensitive receivers is substantially impacted or diminished. - Substantial change to the landscape due to loss of and / or change to elements, features or characteristics of the landscape, creating an overall worsening of landscape quality.
High	Considerable Change: - Change in view, affecting part of the view continuously visible for a moderate duration or obstructing a substantial part or important elements of the view. - Loss of key features or introduction of additional features in the view, resulting in a change of character of the view or landscape. - Views to key landscape features are impacted, affected or diminished. - Visual contrast of any new feature(s) in the view that represents change but character remains the same. - Visual amenity of local residents or sensitive receivers is impacted or diminished. - Change to the landscape due to loss of and / or change to elements, features or characteristics of the landscape, creating a worsening of landscape quality of specific elements.
Moderate	Moderate Change: - Perceptible change impacting parts of the view or a moderate change across a specific area. - Minor Loss of key features or introduction of additional features in the view, resulting in a minor change to the overall character view. - Visually contrasted with existing site and surrounding features but the character of the view does not fundamentally change. - Views to key landscapes partially obstructed but views remain intact.
Low	Minimal Change: - Minor change to the landscape or views. - Temporary or reversible impact. - Existing elements are retained as dominant within the view and built form / development is either well integrated within it or does not significantly diminish them. - Minimal contrast of any new elements such that the nature of the view or local character remains relatively unchanged. - Little permanent change or no fundamental change to local character.
Very Low	- Barely perceptible change or not evident. - No memorable or rarely perceptible change to local character or key views.

Visual Sensitivity

Visual sensitivity refers to the quality of the view and how sensitive it is to the proposed change. The determination of visual sensitivity is undertaken by averaging ratings for viewpoint sensitivity and scenic quality. These are discussed in more detail in the following sections.



Viewpoint Sensitivity

Viewpoint sensitivity relates to the relative importance of viewpoints and the value the community or visitors may place on landscapes viewed from public use areas, public travel ways and public receivers such as dwellings. Table 7 provides further information on how the ratings have been applied.

Table 7 Viewpoint sensitivity

Rating	Description
Very High	- Site has visual, cultural, historical or landscape values, which are identified as being of international / national significance. - Site is in a unique location. - Site is a highly prominent element within its surrounds. - Site is highly significant that define local and regional character of its surrounds. - Adjacent uses are highly sensitive, have equally high visual, cultural, historical or landscape values as those of the site. - Adjacent uses are highly dependent on character of the site.
High	- Site has visual, cultural, historical or landscape values of state significance. - Site makes a significant contribution to local character. - Site is a prominent element within its surrounds. - Adjacent uses are highly sensitive and have high visual or landscape values in their own right. - Adjacent uses are visually influenced by the character of the site.
Moderate	- Site has visual, cultural, historical or landscape values which are of local significance / relevance. - Site is not distinguished from, nor prominent within its surrounds. - Site contributes to the local character of its immediate surrounds. - Adjacent uses are moderately sensitive and have moderate visual and landscape local values. - Adjacent uses are not visually dependent on character of the site.
Low	- Site has visual, or landscape values, of minimal local significance. - Adjacent uses are not sensitive, and generally have low visual or landscape values. - Adjacent uses are visually independent of the character of the site.
Very Low	- Site has no local significance and has very low visual landscape values. - Character of the site is typical of the surrounding area and cannot be distinguished between adjoining areas. - Site reinforces the low visual values of its surrounds. - Adjacent uses detract from the character of the site.

Scenic Quality

Scenic quality refers to the holistic and relative scenic, cultural or aesthetic value of the landscape within the study area based on the presence or absence of key landscape features known to be associated with community perceptions of very low, low, moderate, high or very high scenic quality.



Table 8 Scenic quality

Viewpoint Type	Very Low Scenic Quality	Low Scenic Quality	Moderate Scenic Quality	High Scenic Quality	Very High Scenic Quality
Landform	Large expanses of flat or gently undulating terrain Indistinct, dissected or broken landforms that provide little illusion of spatial definition or landmarks with which to orient	Mostly flat or gently undulating terrain with isolated areas of undulating topography	Steep, hilly and undulating ranges that are not visually dominant Broad, shallow valleys Moderately deep gorges or moderately steep valley walls Minor rock outcrops	Isolated peaks, steep rocky ridges, cones or escarpments with distinctive form and colour contrast that become focal points Large areas of distinctive rock outcrops or boulders Well-defined, steep valley gorges	Extremely high value landforms Unique and iconic features that are culturally valued at a national scale
Vegetation	Extensively cleared and cropped areas with very limited variation in colour and texture Pastoral areas, human-created paddocks, pastures or grasslands and associated buildings typical of grazing lands	Predominantly cleared and cropped areas with small areas of variation in colour and texture Most pastures or grasslands with small blocks of distinct native vegetation	Predominantly open forest or woodland combined with some natural openings in patterns that offer some visual relief Vegetative stands ranging in size, form, colour, texture and spacing, including human-influenced vegetation (for example, vineyards, plantation forests and orchards)	Strongly defined natural patterns with combinations of native forest, naturally appearing openings, streamside vegetation and scattered exotics Distinctive stands of vegetation that may create unusual forms, colours or textures compared with surrounding vegetation	Pristine remnant vegetation that has not undergone any visual change since European settlement
Waterbodies	Absence of natural waterbody Farm dams, irrigation canals or stormwater infrastructure	Minor water forms, such as creeks and streams	Intermittent streams, lakes, rivers, swamps and reservoirs	Visually prominent lakes, reservoirs, rivers, streams, wetlands and swamps Presence of harbour inlet, bay or open ocean	Natural water feature such as a waterfall which is iconic and a culturally valued asset on a national scale



Viewpoint Type	Very Low Scenic Quality	Low Scenic Quality	Moderate Scenic Quality	High Scenic Quality	Very High Scenic Quality
Social and Cultural	Places of worship, cemeteries, memorial parks, private open spaces	Places of worship, cemeteries, memorial parks, private open spaces Local heritage sites	Local or state heritage sites Distinguishable entry ways to a regional city identified in the State Environmental Planning Policy (Transport and Infrastructure) 2021	Culturally important sites, wilderness, world heritage areas and protected areas World, national and state heritage sites	Culturally important sites which are recognised at an international level
Human presence	Dominating presence of infrastructure, human settlements, highly modified landscapes and higher density populations, such as regional cities, industrial areas, agricultural transport or electricity infrastructure	Highly modified landscapes with visible infrastructure, such as transmission lines and railway corridors	Dispersed yet evident presence of human settlement, such as villages, small towns, isolated pockets of production and industry, lower scale and trafficked transport infrastructure	Natural, undisturbed landscape Minimal evidence of human presence and production	Pristine landscape with no evidence of human habitation

Once the viewpoint sensitivity and scenic quality are determined, these can be combined using the visual sensitivity matrix, as shown in Table 9.

Table 9 Visual Sensitivity Matrix

Viewpoint Sensitivity	Scenic Quality					
		Very High	High	Moderate	Low	Very Low
Very high	Very High	Very High	High	Moderate	Low	
High	Very High	High	High	Moderate	Low	
Moderate	High	High	Moderate	Moderate	Low	
Low	Moderate	Moderate	Low	Low	Very Low	
Very low	Low	Very Low	Very Low	Very Low	Very Low	

Visual impact

Once the visual magnitude and visual sensitivity have been determined, the visual impact can be determined using Table 10.

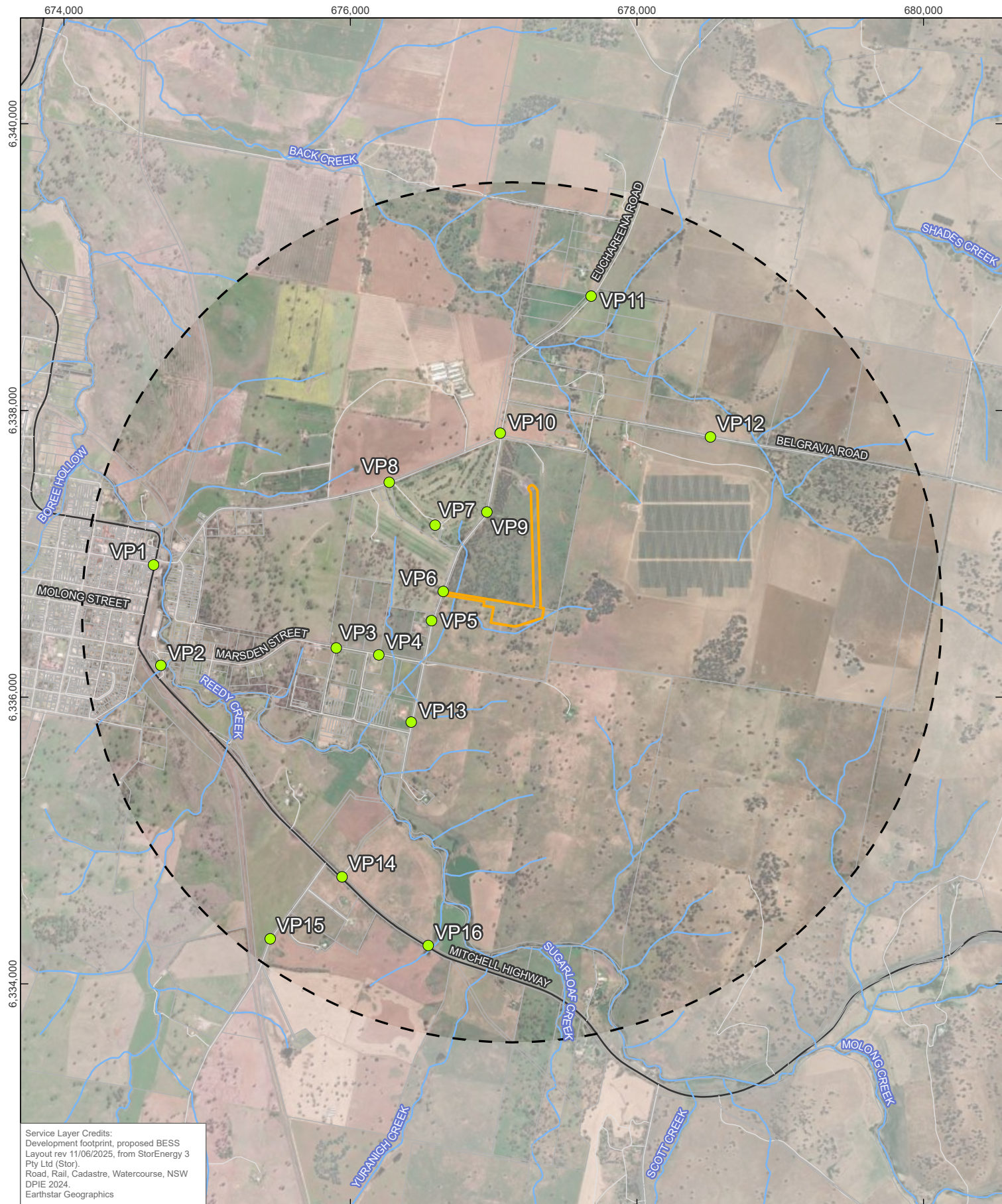


Table 10 Impact significance rating

Visual Magnitude	Visual Sensitivity					
		Very High	High	Moderate	Low	Very Low
	Very high	Very High	High	High	Moderate	Moderate
	High	High	High	Moderate	Moderate	Low
	Moderate	High	Moderate	Moderate	Low	Low
	Low	Moderate	Moderate	Low	Low	Very Low
	Very low	Low	Low	Low	Very Low	Very Low

Figure 15 shows the Viewpoint (VP) locations that were assessed for visual impact as a representative sample of all those documented during the site visit. These locations have been selected to represent a range of distances and directions from the Project, or to show a worst-case scenario or key viewing areas.





0 0.5 1 km

Coordinate System:	GDA2020 MGA Zone 55
Scale:	1:35,000 at A4
Project Number:	620.041615
Date Drawn:	30-Jul-2025
Drawn by:	NT

LEGEND

- Viewpoint Location
- Watercourse
- Primary Road
- Road
- Cadastre
- Development Footprint (9.56 ha)
- 3km Radius

**STOR ENERGY
MOLONG BESS**

VIEWPOINT LOCATION



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

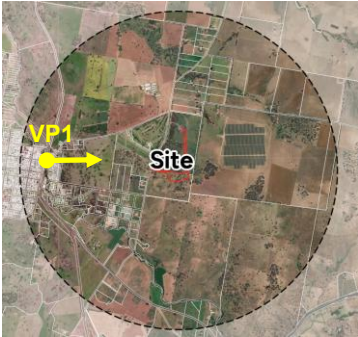
FIGURE 15

The following sections provide an assessment of visual impact of the Project (all elements included in Section 3.0 including the BESS, PCS, access road and transmission lines) from a selection of 16 Viewpoints, including detailed location maps and information. Photomontages were prepared from Viewpoint 4 and 5 and have been included in Appendix A.



8.1 Viewpoint 1 – Bank Street Molong Township



Location Details		Viewpoint Key Plan 
Location description	Intersection of Bank Street and Watson Street, approximately 2.4 km from the Project.	
Coordinates (DMS)	33° 5' 32.4132" S, 148° 52' 16.1364" E	
View direction	East	
Description of view		
Description of viewpoint	This viewpoint is taken from a Township LCZ, from Bank Street the main street of the Molong township, facing the historic Molong Railway Station. The view is of a paved car park and the heritage railway station building, with dense vegetation and mature trees in the background.	
Description of visual change	The Project would be concealed from this location due to vegetation.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	The sensitivity of the Township LCZ is mitigated by the presence of existing structures and vegetation. In addition, the key views from Bank Street are of the historical architecture.
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Very Low	The Project would be concealed from view by existing structures, terrain and vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Very Low change from the Project.



8.2 Viewpoint 2 – Rotary Park



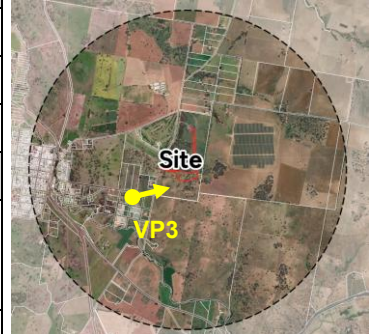
Location Details		Viewpoint Key Plan 
Location description	Rotary Park and rest stop, intersection of Marsden Street and Mitchell Highway, approximately 2.3 km from the Project.	
Coordinates (DMS)	33° 5' 54.6" S, 148° 52' 19.2" E	
View direction	East	
Description of view		
Description of viewpoint	This viewpoint is taken from a Creek Corridor LCZ, located on the edge of the Molong township. The foreground of the view is dominated by paved car park and road. There are no prominent buildings aside from park shelters and a toilet. Dense, mature vegetation along Molong Creek dominate the view.	
Description of visual change	The Project would be concealed from this location due to intervening terrain and vegetation.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	The scenic quality of this viewpoint is mitigated by the presence of existing structures and vegetation.
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Very Low	The Project would be concealed from view by terrain and vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Very Low change from the Project.



8.3 Viewpoint 3 – Marsden Street #1

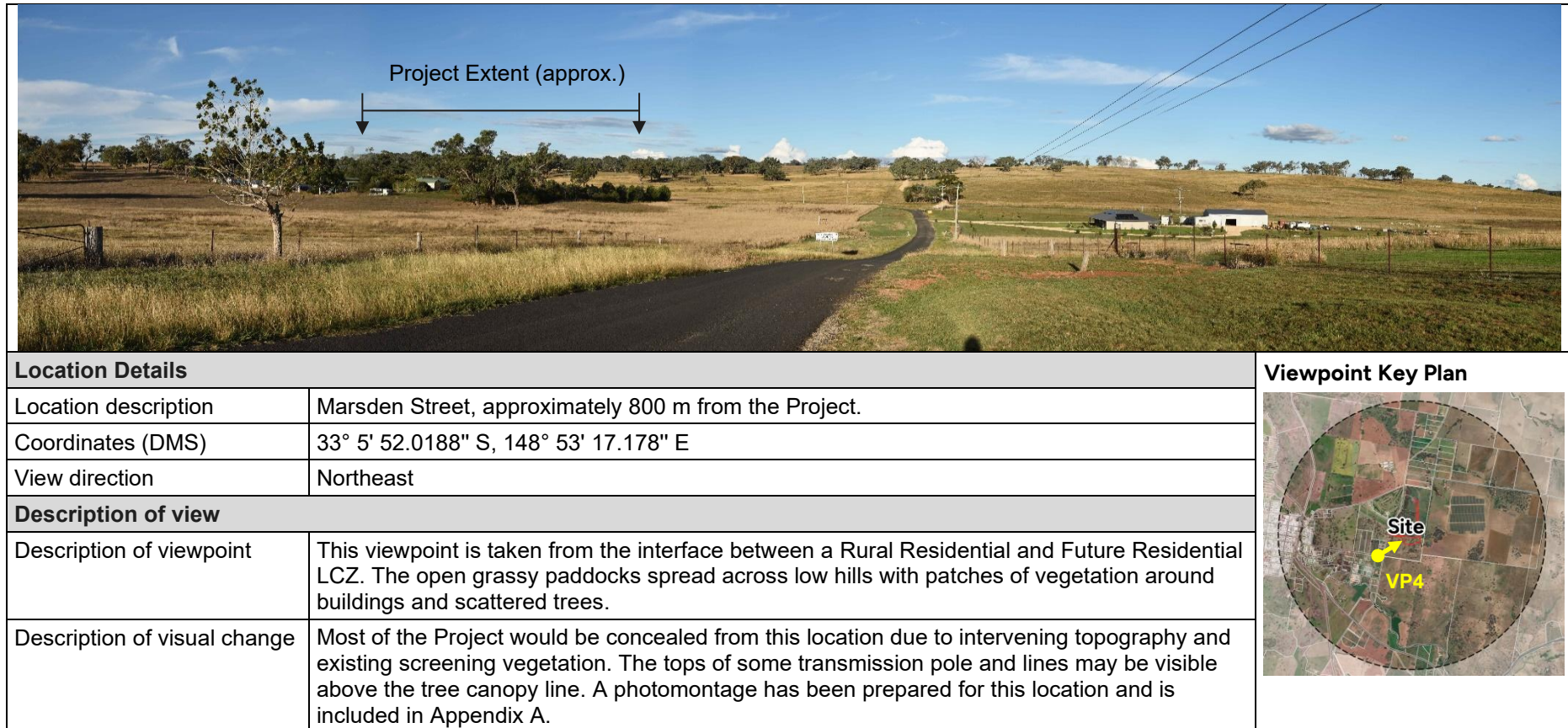


Location Details		Viewpoint Key Plan 
Location description	Intersection of Marsden Street and Silver Street, approximately 1 km from the Project.	
Coordinates (DMS)	33° 5' 50.3592" S, 148° 53' 5.694" E	
View direction	Northeast	
Description of view		
Description of viewpoint	This viewpoint is taken from the interface between a Rural Residential and Future Residential LCZ. The middle and background consist of low hills with patches of vegetation around buildings and scattered trees.	
Description of visual change	The Project would be mostly concealed from this location due to intervening topography, existing screening vegetation and windbreaks.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Low	The Project would be mostly concealed from view by intervening topography and existing vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Low visual change from the Project.



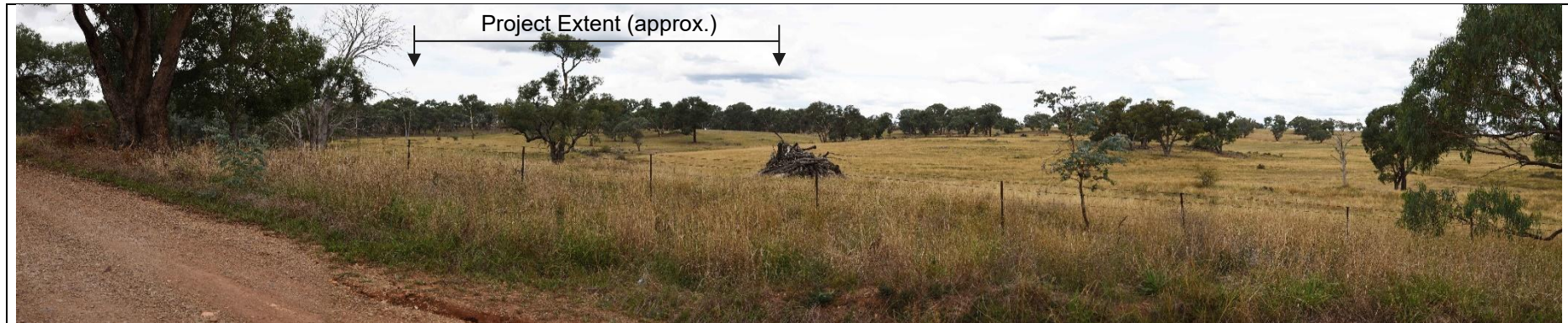
8.4 Viewpoint 4 – Marsden Street #2

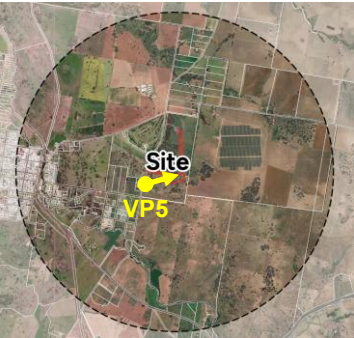


Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Low	The Project would be mostly concealed from view by intervening topography and existing vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Low visual change from the Project.



8.5 Viewpoint 5 – Back Saleyards Road #1



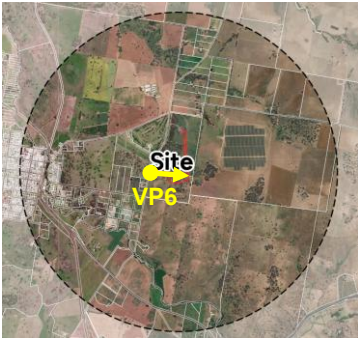
Location Details		Viewpoint Key Plan 
Location description	134 Back Saleyards Road, approximately 400 m southwest from the Project.	
Coordinates (DMS)	33° 5' 43.551" S, 148° 53' 30.9546"E	
View direction	Northeast	
Description of view		
Description of viewpoint	This viewpoint is taken from the road frontage of an existing rural residential property. The area is a Future Residential LCZ, and there will be more residential frontages along Back Saleyards Road in the future. The key feature of the view is on the undulating hills covered in grasses and scattered native trees.	
Description of visual change	Partial views of the access road and the Project would be visible from this location at a distance. The existing vegetation and intervening topography would conceal most of the Project. The tops of some transmission poles and lines are likely to be visible. A photomontage has been prepared for this location and is included in Appendix A.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Low	The Project would be mostly concealed from view by intervening topography and existing vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Low visual change from the Project.



8.6 Viewpoint 6 – Back Saleyards Road #2



Location Details		Viewpoint Key Plan 
Location description	19 Back Saleyards Road, adjacent to proposed site access road.	
Coordinates (DMS)	33° 5' 36.78" S, 148° 53' 33.3846" E	
View direction	East	
Description of view		
Description of viewpoint	This viewpoint is taken from the interface between a Future Residential and Agricultural LCZ, looking towards the proposed site access road to the Project. The key feature of the view is on the undulating hills covered in grasses and scattered native trees.	
Description of visual change	The visual changes due to the Project includes the removal of existing vegetation for the vehicular access road. Parts of the Project, such as fencing, noise walls and BESS units, would be visible approximately 300-400 m from this viewpoint. The tops of some transmission pole and lines may be visible above the tree line at a distance.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Low	The Project would be mostly concealed from view by intervening topography and existing vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Low visual change from the Project.



8.7 Viewpoint 7 – Molong Golf Course #1



Location Details		Viewpoint Key Plan 
Location description	Within the Molong Golf Course and Showgrounds along Back Saleyards Road interface, approximately 0.6 km from the Project.	
Coordinates (DMS)	33° 5' 22.1526" S, 148° 53' 31.7322" E	
View direction	Southeast	
Description of view		
Description of viewpoint	This viewpoint is taken from a publicly accessible area of the Showgrounds, closest to the Project. The area has been categorised as an Agricultural LCZ, due to the openness of the golf course and paddock fields and the shed-like and scattered appearance of the built form.	
Description of visual change	The Project would be concealed from this location due to existing buildings, intervening topography and vegetation.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Very Low	The Project would be concealed from view by existing structures, terrain and vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Very Low change from the Project.



8.8 Viewpoint 8 – Molong Golf Course #2



Location Details		Viewpoint Key Plan 
Location description	Euchareena Road, approximately 1 km from the Project.	
Coordinates (DMS)	33° 5' 12.8394" S, 148° 53' 19.2402" E	
View direction	Southeast	
Description of view		
Description of viewpoint	This viewpoint is dominated by established windbreak planting and scattered mature exotic tree species within the Golf Course and Showgrounds area.	
Description of visual change	The Project would be concealed from this location due to intervening vegetation and terrain.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Very Low	The Project would be concealed from view by existing structures, terrain and vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Very Low change from the Project.



8.9 Viewpoint 9 – Back Saleyards Road #3



Location Details		Viewpoint Key Plan 
Location description	Back Saleyards Road near Transgrid Molong 132/66kV Terminal Station, approximately 600 m from the Project.	
Coordinates (DMS)	33° 5' 18.8232" S, 148° 53' 45.5562" E	
View direction	Southeast	
Description of view		
Description of viewpoint	This viewpoint is taken from an Agricultural LCZ, where native vegetation has been densely planted on the lot between this viewpoint and the Project.	
Description of visual change	The Project would be concealed from this location due to existing vegetation. The tops of transmission pole and lines will likely be concealed by the treeline and not be visible.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Low	Adjacent uses are not sensitive to visual changes and it is located on a minor road
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Low	Given the moderate scenic quality ratings and low viewpoint sensitivity rating
Magnitude of change	Very Low	The Project would be concealed from view by existing terrain and vegetation
Overall Visual Impact	Very Low	Given the Low sensitivity of the view and Very Low change from the Project



8.10 Viewpoint 10 – Euchareena Road #1



Location Details		Viewpoint Key Plan
Location description	Intersection of Euchareena Road and Back Saleyards Road, approximately 1.2 km from the Project.	
Coordinates (DMS)	-33° 5' 1.032" S, 148° 53' 49.056" E	
View direction	South	
Description of view		
Description of viewpoint	This viewpoint is dominated by established windbreak planting with transmission poles and lines observable in the middle distance. This viewpoint is taken from an Agricultural LCZ.	
Description of visual change	The Project would be concealed from this location due to existing screening vegetation and distance to the Project.	

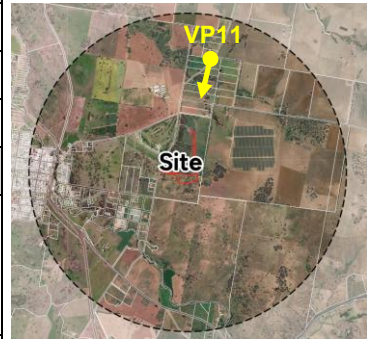
Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Low	Adjacent uses are not sensitive to visual changes and it is located on a minor road
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Low	Given the moderate scenic quality ratings and low viewpoint sensitivity rating
Magnitude of change	Very Low	The Project would be concealed from view by existing terrain and vegetation
Overall Visual Impact	Very Low	Given the Moderate sensitivity of the view and Very Low change from the Project



8.11 Viewpoint 11 – Euchareena Road #2

	
Location Details	
Location description	332 Euchareena Road, approximately 2.2 km from the Project.
Coordinates (DMS)	33° 4' 29.6394" S, 148° 54' 12.7362" E
View direction	South
Description of view	
Description of viewpoint	This viewpoint is taken from an Agricultural LCZ at the entry to a rural residential property 'Rumarlyn Grove'. The foreground features grassy open fields, and an established area of native trees appears in the middle distance. A transmission pole, transmission lines and road signage can also be seen in the foreground and middle distance.
Description of visual change	The Project would be concealed due to intervening topography and existing screening vegetation.

Viewpoint Key Plan



Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Very Low	The Project would be concealed from view by existing structures, terrain and vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Very Low change from the Project.



8.12 Viewpoint 12 – Belgravia Road



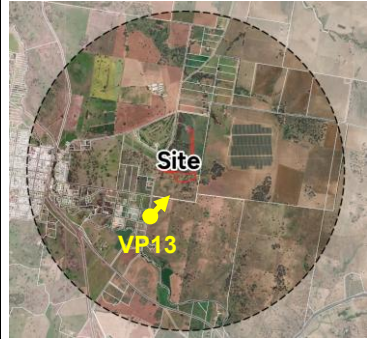
Location Details		Viewpoint Key Plan
Location description	Belgravia Road, approximately 1.7 km from the Project.	
Coordinates (DMS)	33° 5' 1.2186" S, 148° 54' 45.2118" E	
View direction	Southwest	
Description of view		
Description of viewpoint	Solar panels are visible from this point when viewing towards the southwest on the lot boundary of the Molong Solar Farm. While the presence of Molong Solar Farm contrasts with the agricultural use of the area, the character of the Agricultural LCZ is preserved by the distance of the solar panels from the lot boundary and that the solar panels follow the profile of the topography.	
Description of visual change	The Project would be concealed from this location due to intervening topography and distance from the project.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Very Low	The Project would be concealed from view by existing structures, terrain and vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Very Low change from the Project.



8.13 Viewpoint 13 – Deight Street

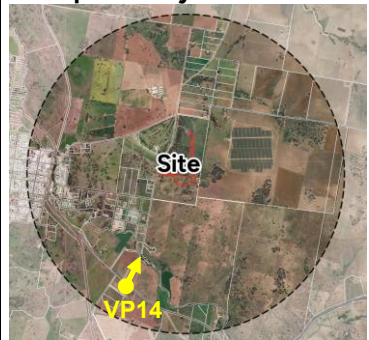


Location Details		Viewpoint Key Plan 
Location description	17 Deight Street, approximately 900 m from the Project.	
Coordinates (DMS)	33° 6' 6.6594" S, 148° 53' 26.5446" E	
View direction	Northeast	
Description of view		
Description of viewpoint	This viewpoint is taken from the road frontage of a rural residential property. The foreground features open grassy paddocks with scattered trees. The horizon line is formed by a distant ridgeline interspersed with groups of scattered trees. A residential dwelling and sheds can be seen in the middle distance. A transmission pole and lines and farm fencing stand out from this landscape.	
Description of visual change	Most of the Project would be concealed from this location due to intervening topography and vegetation.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Very Low	The Project would be concealed from view by existing structures, terrain and vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Very Low change from the Project.



8.14 Viewpoint 14 – Mitchell Highway #1

		
Location Details		
Location description	Intersection of Mitchell Highway and Deight Street Road Reserve, approximately 2 km from the Project.	
Coordinates (DMS)	33° 6' 42.1122" S, 148° 53' 8.2746" E	
View direction	Northeast	
Description of view		
Description of viewpoint	This viewpoint is taken along the road shoulder of Mitchell Highway in an Agricultural LCZ, looking across the Deight Street Road Reserve. The road reserve currently presents as a grassed paddock in the foreground. In the middle ground, there is a dip in the elevation where Molong Creek runs parallel to Mitchell Highway. The background is formed by a distant ridgeline interspersed with groups of scattered trees.	
Description of visual change	The Project would be mostly concealed from this location due to intervening topography and distance from the project. A photomontage for this location has been prepared and is included in Appendix A.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Low	The Project would be mostly concealed from view by intervening topography and existing vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Low visual change from the Project.



8.15 Viewpoint 15 – Yuranigh Road

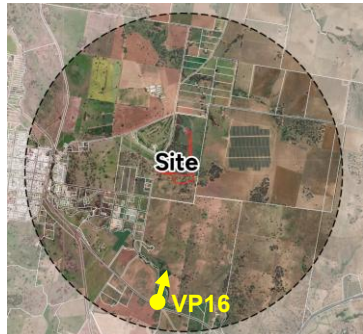


Location Details		Viewpoint Key Plan
Location description	Yuranigh Road, approximately 2.7 km from the Project.	
Coordinates (DMS)	33° 6' 56.3724" S, 148° 52' 49.3458"E	
View direction	East	
Description of view		
Description of viewpoint	This viewpoint is taken near the entry to the Yuranighs Aboriginal Grave Historic Site, along Yuranigh Road. The foreground features open grassy paddocks with scattered trees. The horizon line is formed by distant hills interspersed with groups of scattered trees. Existing transmission poles and lines are just visible on the horizon, along the tops of the trees.	
Description of visual change	The Project would be mostly concealed from this location due to intervening topography, vegetation and distance from the project. The site access road and parts of the Project may be visible as structures at a distance.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Low	The Project would be mostly concealed from view by intervening topography and existing vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Low visual change from the Project.



8.16 Viewpoint 16 – Mitchell Highway #2

		
Location Details		
Location description	Mitchell Highway, approximately 2.3 km from the Project.	
Coordinates (DMS)	33° 6' 57.5784"S, 148° 53' 31.6248"E	
View direction	Northeast	
Description of view		
Description of viewpoint	This viewpoint is taken from an Agricultural LCZ. The foreground features open grassy paddocks on a hillside. The undulating hills continue into the middle and background with groups of scattered trees observable in the middle to far distance.	
Description of visual change	The Project would be concealed from this location due to intervening topography and vegetation.	

Assessment of Impact	Value	Supporting Comments
Viewpoint Sensitivity	Moderate	The viewpoint has visual, cultural, historical or landscape values which are of local significance
Scenic Quality	Moderate	Has a moderate value in terms of landform, vegetation, social and cultural values
Visual Sensitivity	Moderate	Given the moderate viewpoint sensitivity and scenic quality ratings.
Magnitude of change	Very Low	The Project would be concealed from view by existing structures, terrain and vegetation.
Overall Visual Impact	Low	Given the Moderate sensitivity of the view and Very Low change from the Project.



8.17 Summary of Visual Impact Assessment

As noted in Section 4, the study area considered for the LVIA was a 3 km radius of the Project. This distance has been derived from site observations and has been informed by other projects with a similar visual profile. Ground truthing was undertaken to consideration of the potential visibility of the Project and numerous locations were considered as part of this exercise. Subsequently, 16 viewpoint locations were analysed in further detail, ensuring consideration of all the identified Landscape Character Zones (LCZs) in proximity to the Project.

The likelihood of potential impacts varies considerably due to:

- The location / orientation of the viewpoint relative to the Project.
- Existing tree canopy and screening vegetation.
- Site location and orientation.
- Topography on and surrounding the Project.

Private receptor locations were captured in proximity to private residence usually adjacent to the property boundary.

Table 11 provides a summary of Visual Impact of the Project from the Viewpoint locations assessed, that have been considered in detailed in Section 7.

Table 11 Summary of Visual Impact

Viewpoint	Visual Impact	Closest Sensitive Receiver
Viewpoint 1 – Bank Street Molong Township	Low	R66
Viewpoint 2 – Mitchell Highway Rest Stop	Low	R94
Viewpoint 3 – Marsden Street #1	Low	R37
Viewpoint 4 – Marsden Street #2	Low	R8
Viewpoint 5 – Back Saleyards Road #1	Low	R1
Viewpoint 6 – Back Saleyards Road #2	Low	R1
Viewpoint 7 – Molong Golf Course #1	Low	R10
Viewpoint 8 – Molong Golf Course #2	Low	R9
Viewpoint 9 – Back Saleyards Road #3	Very Low	R10
Viewpoint 10 – Euchareena Road #1	Very Low	R11, R19
Viewpoint 11 – Euchareena Road #2	Low	R58
Viewpoint 12 – Belgravia Road	Low	R12
Viewpoint 13 – Deight Street	Low	R7
Viewpoint 14 – Mitchell Highway #1	Low	R46
Viewpoint 15 – Yuranigh Road	Low	R46
Viewpoint 16 – Mitchell Highway #2	Low	R5



Of the 16 Viewpoints that were assessed, two were rated as having a Very Low visual impact. 14 viewpoints were assessed as having a Low visual impact. This is because the visual elements of the Project would be visually absorbed by the landscape or screened by existing vegetation to a significant degree from most viewpoints.

Viewpoint 4 and 5 were considered to have the 'worst case' potential impacts, due to their location and aspect in relation to the site. Accordingly, photomontages were prepared for these locations (refer to Appendix A of this report).

As demonstrated in the photomontages, the modelled visual impact of the Project would be low, predominantly given the intervening topography, setback of the Project from the road and existing vegetation.

All Viewpoints would have experience similar or less visual impact than Viewpoint 4 and 5.

The Technical Supplement outlines a methodology for ensuring that a LVIA is proportionate to the Project and its likely impacts. Applicants can begin by carrying out a simple assessment using desktop data and high-level assumptions, and subsequently conduct further assessment if impacts are likely to be moderate or higher. The three levels of assessment are:



Simple assessment

Conduct a basic assessment using worst-case assumptions about the likely magnitude and visual sensitivity. Proceed to undertake an intermediate assessment if impacts could be moderate or higher.



Intermediate assessment

Produce wireframes to more accurately determine the magnitude rating. Proceed to undertake a detailed assessment if impacts continue to be moderate or higher.



Detailed assessment

Prepare photomontages and undertake field visits to more accurately assess scenic quality and determine the effectiveness of existing or proposed screening in mitigating potential impacts.

The Technical Supplement outlines that the Simple Assessment criteria provide a relatively streamlined way to eliminate the need for detailed assessment of public viewpoints and private receivers that are likely to experience low and very low impacts. The simple assessment can generally be undertaken at a desktop level using the approach below. If the simple assessment indicates that a moderate or high impact is likely, then applicants must conduct an intermediate assessment.

As part of the initial assessment of the viewpoints, it was determined that public viewpoints and private receivers that are likely to experience low and very low impacts, and accordingly the Simple Assessment Criteria was a proportionate level of assessment. Notwithstanding, 2 view points were analysed via photo montages to enable further context of the visual impact from these 'worst case' locations.



9.0 Construction Impacts

Construction of the Project will require heavy vehicles, plant, and equipment for the transportation and installation of components. The Project is likely to require earth-moving equipment for civil and road works, cable trenching equipment, forklifts, and cranes subject to detailed design to install the BESS and complete ancillary works. It is anticipated that the construction duration will be 14 months with an 8 month commissioning phase.

Visual impact from construction would include the sight of machinery and vehicles involved in construction activities. Other impacts may include views of stockpiled materials, dust in the atmosphere. These visual impacts would be temporary and limited to the duration of the construction works. Once construction has completed, impacts would be limited to those described in Section 8.0.

10.0 Mitigation Measures

The following performance objectives and mitigation measures may assist in reducing visual impact during the construction and operational phases of the project.

10.1 Performance Objectives

Performance objectives apply to minimise landscape and visual impact are described in Table 12.

Table 12 Performance Objectives

Impact Level	Performance Objectives
High Visual Impact	This level of impact should be avoided unless the applicant has a negotiated agreement with the affected landholder or can justify that: • All reasonable efforts have been made to avoid the impact and alternative project designs are not feasible or would be unlikely to materially reduce the impact, • All reasonable mitigation options have been considered, • The proposed mitigation measures would effectively mitigate the impact and would not result in a significant obstruction of views, • The project site is strategically important because of its location, and • The project is in the public interest.
Moderate Visual Impact	<u>Public road viewpoints</u> As far as reasonable and feasible, the applicant should seek to reduce moderate visual impacts to road users. Appropriate mitigation options include vegetation or other screening. Mitigation should only be considered if it would not obstruct important views and sightlines, could be confined to a relatively small area (for example, vegetation screening would not be required for several hundred meters along a transport corridor) and where agreed with the relevant road authority. <u>All other private receivers and public viewpoints</u> Visual impact mitigation is required in consultation with the affected landowner and should be proportionate to the scale of impact. There is no expectation that this mitigation should eliminate the view of the development entirely, but it must reduce the impact to an acceptable level.



Impact Level	Performance Objectives
	Appropriate mitigation options include re-siting, resizing, or re-orienting the Project as well as vegetation screening or project landscaping to reduce impacts. If the available mitigation options would not be effective in reducing impact or are unsuitable due to the nature of the impact (for example screening would result in the obstruction of views), then project redesign and/or negotiated agreements should be considered.
Low and Very Low visual impact	No mitigation required

10.2 Construction Mitigation Measures

Recommended mitigation measures to reduce visual impact during construction include:

- Rehabilitation work on disturbed areas to be undertaken as soon as possible.
- Avoiding or minimising vegetation clearing as far as practical.
- Minimising temporary hoarding of barriers, traffic management, signage and construction materials.
- Restricting lighting of compounds and worksites to low impact lighting.
- Locating storage facilities away from residential areas.
- Storing materials and machinery neatly during the works, and where possible behind solid hoardings.
- Maintaining access roads to site compounds and works areas as free of dust and mud as far as reasonably practicable.
- Removing all construction materials to a suitable location upon completion of construction. Construction equipment and infrastructure should be demobilised as soon as practicable and all unnecessary project flagging and signage should be removed and disposed of at the completion of construction.

10.3 Operation Mitigation Measures

Recommended mitigation measures to reduce visual impact during operation include:

- Considering the form and finish of structures, including minimising the size of structures where possible, using colours which match the surroundings and less reflective materials.

Noise Wall Finish and Visual Integration

To minimise visual impacts associated with the proposed noise wall, key mitigation measure includes the application of a recessive green finish to its external surface. The selected colour treatment is intended to visually integrate the wall with the surrounding landscape, particularly the adjacent canopy of mature native vegetation and the broader palette of the rural environment. Photomontages demonstrating the effect of this recessive green finish have been prepared and is included in Appendix A.

The use of a muted, non-reflective green tone reduces the potential for contrast against the vegetated backdrop, ensuring the wall remains visually unobtrusive from nearby receptors. This approach is consistent with best-practice landscape integration techniques for built



infrastructure in rural settings, where visual absorption capacity is generally high but where built form can be conspicuous if untreated.

In addition to colour treatment, the wall is sited behind an existing fence line and partially screened by existing roadside vegetation. This combination of visual softening measures assists in maintaining the open, low-density character of the road corridor and reduces the prominence of the new structure in the view corridor.

The use of recessive colouration will ensure that the noise wall is visually coherent and contextually appropriate in the setting, with minimal impact to local landscape character.

11.0 Cumulative Impacts

Cumulative and residual effects represent different ways in which the proposed development (or its activities) effect the valued landscape character and scenic rural quality of the Molong region.

Cumulative effects encompass the combined visual impact of multiple alternative energy developments over time that collectively alter the landscape character and visual experience. This refers directly to collective visual impact of Molong Solar Farm and Molong BESS, both of which are in immediate proximity to one another.

Residual effects, by contrast, are the enduring visual impacts that remain after all feasible mitigation measures have been applied to the development. These may include permanent change in the landscape character or persistent alterations in visual quality when viewed from key private and / or public key viewing locations despite attempts to minimise visibility or restore disturbed areas. Recognition of both cumulative and residual effects is important to understanding the impact of the associated projects on the landscape character and rural scenic qualities to guide effective strategies for maintaining the communities' landscape and scenic values. (IEMA 2013 & SNH 2019)

Cumulative Effects

The cumulative visual effects associated with the Molong Solar Farm, Transgrid Substation and the Project reflect a modest transformation of the rural landscape through the introduction of infrastructure. Such infrastructure includes PV arrays, battery storage units, a 132kV transmission line and substation additions and modifications. These projects are individually discreet and are not all visible from the same location, hence do not contribute materially to cumulative effects. There is renewable infrastructure in the area, however they are not in close proximity to the Molong BESS, as outlined in Table 13 and shown in Figure 16.

In isolation, the Molong BESS contributes only marginally to this cumulative effect due to its compact footprint and low-profile built form. Its limited public visibility and strategic placement away from prominent view corridors further reduces its contribution to broader landscape change. As a result, the BESS does not significantly exacerbate cumulative visual effects beyond those already introduced by the larger solar farm development.



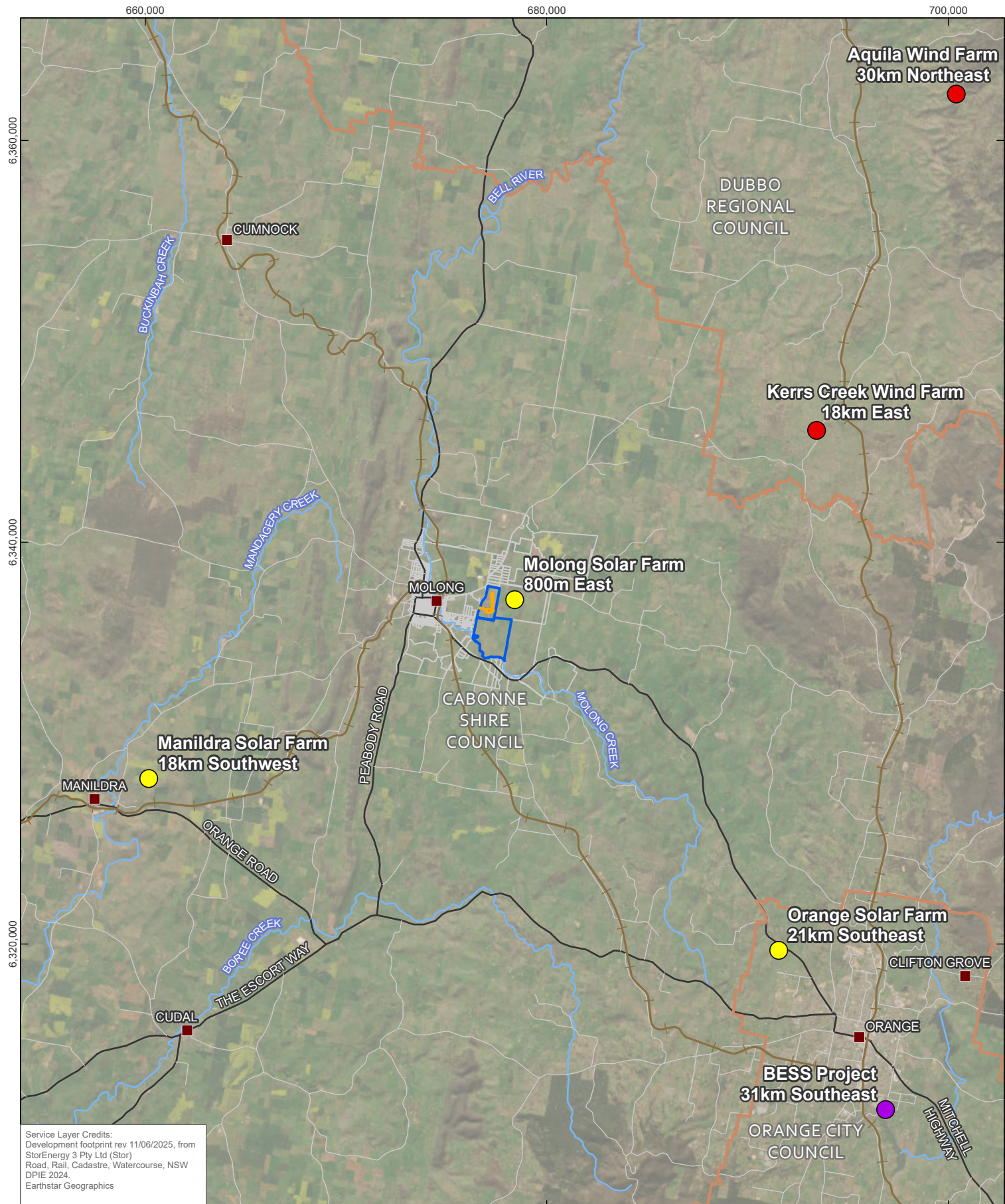
Table 13 Cumulative Effects

Project Name	LGA	Project Status	Project Summary	Approximate Distance to Project	Potential overlap between impact of project on assessment matter & impact of other project on the same assessment matter
					Visual and Landscape Character
Department of Planning, Housing and Infrastructure (SSD)					
Manildra Solar Farm SSD-9550	Cabonne	Operational: - Operational overlap - No construction overlap	50 MW solar farm	18km southwest	Visual impacts unlikely due to separation between projects.
Kerrs Creek Wind Farm SSD-62199230	Dubbo Regional	Lodged (SEARS received, EIS being prepared): No information on timing	441 MW wind farm	14km northeast	Visual impacts unlikely due to separation between projects.
Aquila Wind Farm SSD-67667971	Dubbo Regional	Lodged (SEARS received, EIS being prepared): No information on timing	300MW wind farm with BESS	26km northeast	Visual impacts unlikely due to separation between projects.
Joint Regional Planning Panels					
Molong Solar Farm (DA) 2017/155	Cabonne	Operational: - Operational overlap - No construction overlap	25MW solar farm	670m east	Potential landscape and visual impacts due to proximity to project
Electricity Generation Works (Solar Farm)	Orange	Approved (Understood currently under construction – completion expected Jun-Jul 2025): - Unlikely to have construction overlap - Likely operational overlap	5MW solar farm	22km southeast	Visual impacts unlikely due to separation between projects



Key	
Detailed Assessment	The project may result in significant impacts on the matter, including cumulative impacts. Detailed assessment will be undertaken as part of the EIS.
Standard Assessment	The project is unlikely to result in significant impacts on the matter, including cumulative impacts. Standard assessments will be undertaken as part of the EIS.
N/A	No potential overlap in impacts between a future project and the proposed project that would warrant any consideration in the cumulative impact assessment





Coordinate System: GDA2020 MGA Zone 55

Scale: 1:250,000 at A4

Project Number: 620.041615

Date Drawn: 29-Oct-2025

Drawn by: NT

LEGEND

Renewable Energy Projects

- Wind
- Solar
- BESS Project

- Town/City
- Watercourse
- Rail
- Primary Road
- Road
- Cadastre
- Local Government Area

- Development Footprint (9.56 ha)
- Project Lots

MOLONG BESS

CUMULATIVE IMPACT NEARBY RENEWABLE ENERGY PROJECTS



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 16

Residual Effects

Residual visual effects associated with the Molong BESS are minimal following the application of targeted mitigation measures. The primary visual element (a noise wall) has been treated with a recessive green colour to ensure it blends into the existing landscape and does not appear as a prominent or intrusive feature. This design approach substantially reduces visual contrast. With the remainder of the BESS infrastructure set well back from public roads and shielded by topography and existing vegetation, the residual change to landscape character is negligible. Therefore, after implementation of mitigation strategies, the Molong BESS is not anticipated to result in enduring visual impacts that would alter the scenic quality or character of the local landscape to any significant extent.

12.0 Conclusion

The LVIA considered the visual impact of the Project on publicly accessible locations within the study area. Key visually prominent components of the Project were considered for this assessment including battery units, inverters, transformers, a 132kV transmission line, a substation and ancillary infrastructure.

Key landscape and visual values within the study area include the rural environment, including the undulating agricultural landscape.

The viewpoint locations that were assessed had been selected to show a worst-case scenario wherever possible. Of the 16 Viewpoints that were assessed, two were rated as having a Very Low visual impact. 14 viewpoints were assessed as having a Low visual impact. This is because the visual elements of the Project would be visually absorbed by the landscape or screened by existing vegetation. Visual impact may be further reduced through adoption of the proposed mitigation measures.

The addition of the Project would not detract from any key view lines of significant visual amenity given the existing rural environment and its capacity to visually absorb the permanent elements of the Project.

The Project has a marginal cumulative impact due to its compact footprint and low-profile built form. Its limited public visibility and placement away from prominent view corridors further reduces its contribution to broader landscape change. As a result, the BESS does not significantly increase cumulative visual impact beyond those already introduced by the existing solar farm to the northeast.

Residual visual effects associated with the Molong BESS would be minimal following the application of targeted mitigation measures. The primary visual element (a noise wall) would be treated with a recessive green colour to help integrate the Project into the existing landscape.

Given the above reasons, the Project is well-sited to minimise impact to landscape and visual amenity of the Development Footprint and surrounding area.



13.0 References

Australia's bioregional framework, n.d. Interim Biogeographic Regionalisation for Australia (IBRA).

Department of Environment and Conservation (NSW) (DECC), 2002. Casuarina cunninghamiana (River Oak): Occurrence along streams. Available at: <https://www.environment.nsw.gov.au>.

Department of Planning and Environment (DPIE), 2022. Large-Scale Solar Energy Guideline. Sydney: NSW Government.

Department of Planning and Environment, 2022. Central West and Orana Regional Plan 2041. NSW Government.

Department of Planning, Housing and Infrastructure (DPHI), 2022. Technical Supplement for Landscape Character and Visual Impact Assessment for Large-Scale Solar Projects. Sydney: NSW Government.

Environmental Planning and Assessment Act 1979 (NSW)

eSPADE, n.d. eSPADE Spatial Viewer for Soil Landscape Mapping. NSW Environment, Energy and Science.

Landscape Institute (LI), 2019. Technical Guidance Note: Visual Representation of Development Proposals. London: Landscape Institute.

Learmonth, N. & Learmonth, A., 1971. Regional Landscape of Australia: Form, Function and Change. Sydney: Angus and Robertson Publishers.

Life of Riley, n.d. Wiradjuri People. Life of Riley. Available at: <https://lifeofriley.net.au/index.php/wiradjuri>.

Mitchell, P., 2022. Descriptions for NSW (Mitchell) Landscapes Version 2. NSW National Parks and Wildlife Service.

Narrandera Shire Council, n.d. Wiradjuri People and Country. Narrandera Shire Council. Available at: <https://www.narrandera.nsw.gov.au>.

Native Title Act 1993 (Cth)

Landscape Institute & Institute of Environmental Management and Assessment (IEMA 2013), Guidelines for Landscape and Visual Impact Assessment, 3rd edn, Routledge, London.

NSW National Parks and Wildlife Service (NPWS), 2003. Bioregions of New South Wales: Their biodiversity, conservation and history – Chapter 10: South Western Slopes. NSW Department of Environment and Conservation. Available at: <https://www.environment.nsw.gov.au/resources/nature/nswSouthWesternSlopesText.pdf>.

Office of Environment and Heritage (OEH), 2012. The Land and Soil Capability Assessment Scheme: Second Approximation. Sydney: NSW Government.

Scottish Natural Heritage (SNH), 2019. A Guide to Good Practice in Landscape Character Assessment. Inverness: SNH. Available at: <https://www.nature.scot>.

The Landscape Institute & Institute of Environmental Management and Assessment (LIEMA), 2013. Guidelines for Landscape and Visual Impact Assessment. 3rd ed. London: Routledge. (GLVIA).

Tudor, C., 2019. An Approach to Landscape Sensitivity Assessment – To Inform Spatial Planning and Land Management. Natural England





Appendix A:

Photomontages



Photomontage Viewpoint 4 - Marsden Street #2



Existing view looking northeast from Marsden Street



Photomontage of Project

Location	Marsden Street, approximately 800 m from the Project
Coordinates	33° 5' 52.0188" S, 148° 53' 17.178" E
View direction	Northeast
Panorama configuration	4 Photos @ 70mm
Date of photography	12/11/2024
Date of photomontage	18/09/2025
Sheet no	1 of 4



Viewpoint Location



Photomontage Viewpoint 4 - Marsden Street #2



Photomontage of Project - 1 cell occupied as per DPHI guidelines visual magnitude grid tool



Photomontage of Project with muted green noise walls

Location	Marsden Street, approximately 800 m from the Project
Coordinates	33° 5' 52.0188" S, 148° 53' 17.178" E
View direction	Northeast
Panorama configuration	4 Photos @ 70mm
Date of photography	12/11/2024
Date of photomontage	18/09/2025
Sheet no	2 of 4



Photomontage Viewpoint 5 - Back Saleyards Road #1



Existing view looking northeast from Back Saleyards Road



Photomontage of Project

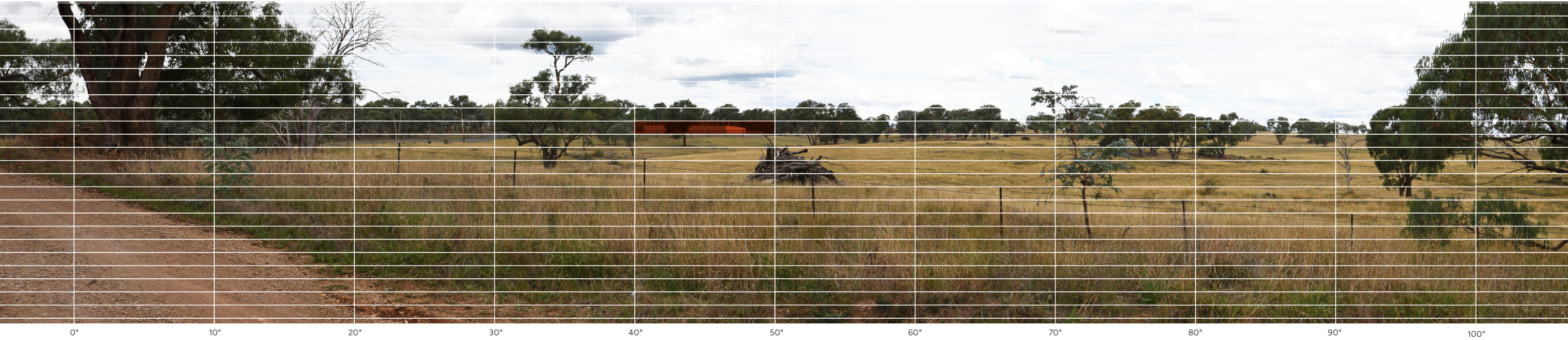
Location	Back Saleyards Road, approximately 210 m south from the Site access point
Coordinates	33° 5' 43.551" S, 148° 53' 30.9546"E
View direction	Northeast
Panorama configuration	4 Photos @ 50mm
Date of photography	03/04/2025
Date of photomontage	18/09/2025
Sheet no	3 of 4



Viewpoint Location



Photomontage Viewpoint 5 - Back Saleyards Road #1



Photomontage of Project - 1 cell occupied as per DPHI guidelines visual magnitude grid tool



Photomontage of Project with muted green noise walls

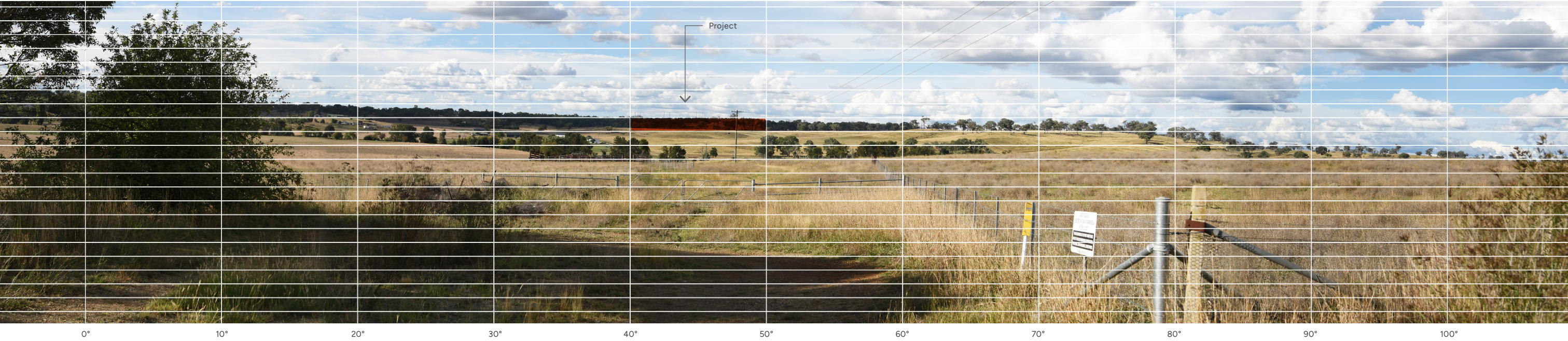
Location	Back Saleyards Road, approximately 210 m south from the Site access point
Coordinates	33° 5' 43.551" S, 148° 53' 30.9546"E
View direction	Northeast
Panorama configuration	4 Photos @ 50mm
Date of photography	03/04/2025
Date of photomontage	18/09/2025
Sheet no	4 of 4



Photomontage Viewpoint 14 - Mitchell Highway #1

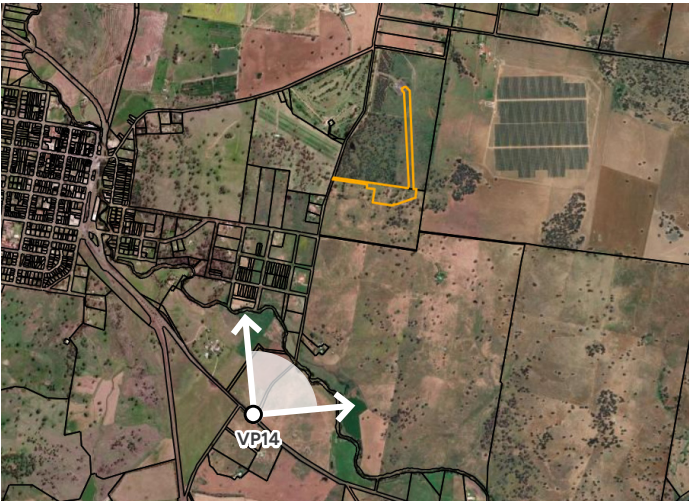


Existing view looking northeast from Mitchell Highway



Photomontage of Project - 1 cell occupied as per DPHI guidelines visual magnitude grid tool

Location	Intersection of Mitchell Highway and Deight Street Road Reserve, approximately 2 km from the Project
Coordinates	33° 6' 42.1122" S, 148° 53' 8.2746" E
View direction	Northeast
Panorama configuration	4 Photos @ 50mm
Date of photography	01/04/2025
Date of photomontage	23/10/2025
Sheet no	1 of 1



Viewpoint Location



Appendix B:

Viewshed Analyses

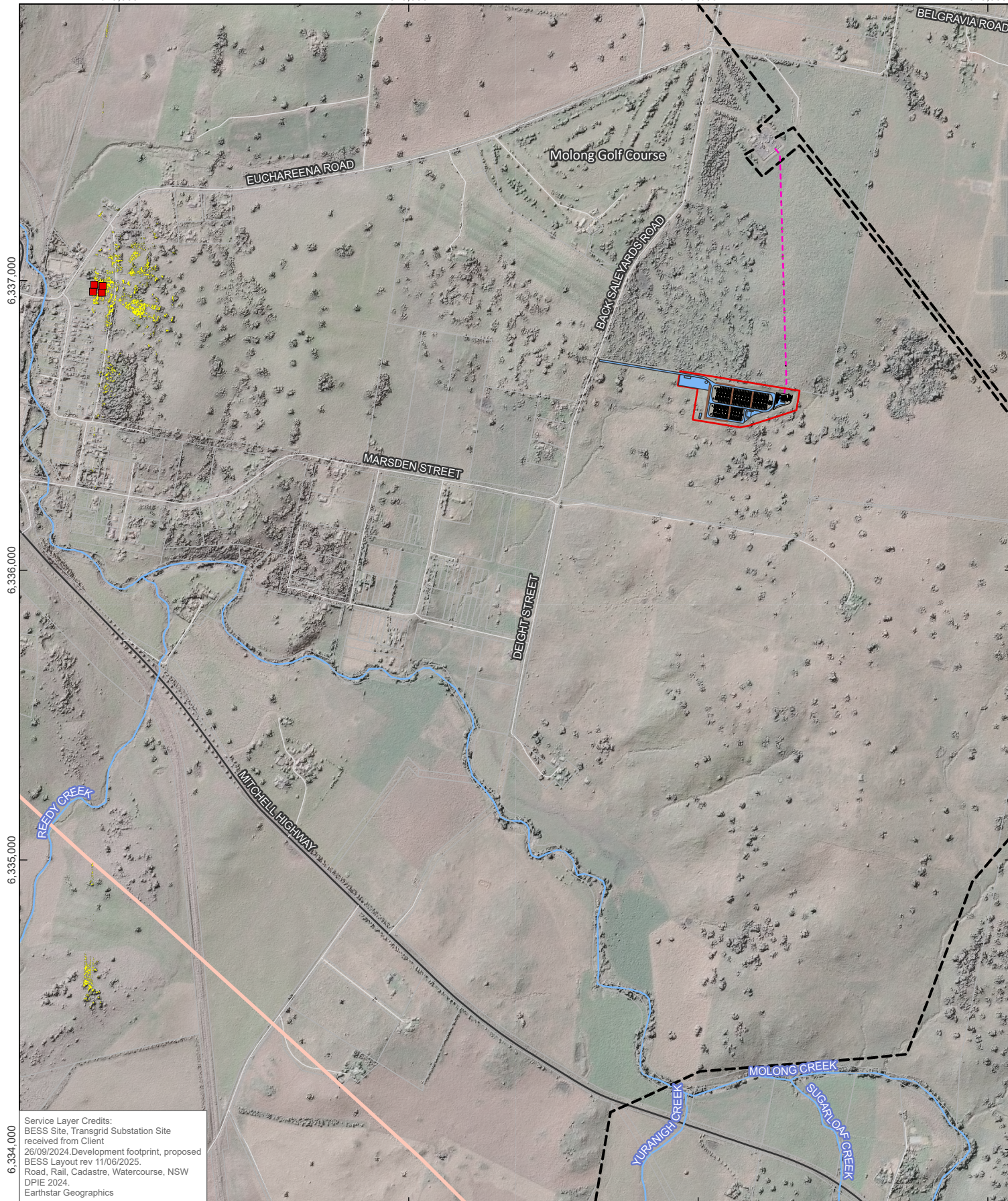


675,000

676,000

677,000

678,000



Service Layer Credits:
 Bess Site, Transgrid Substation Site
 received from Client
 26/09/2024 Development footprint, proposed
 Bess Layout rev 11/06/2025.
 Road, Rail, Cadastre, Watercourse, NSW
 DPIE 2024.
 Earthstar Geographics



Coordinate System: GDA2020 MGA Zone 55

Scale: 1:17,500 at A4

Project Number: 620.041615

Date Drawn: 16-Jul-2025

Drawn by: NT

LEGEND

- View Point
- Watercourse
- Primary Road
- Road
- Transgrid Line
- 132kV
- 66kV
- Cadastre
- Noisewall
- Proposed Electricity Transmission Line
- Transmission Tower
- Bess Footprint
- Bess Layout
- Viewshed

MOLONG BESS

VIEWSHED HERITAGE SITE 2 BETTS STREET, MOLONG



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

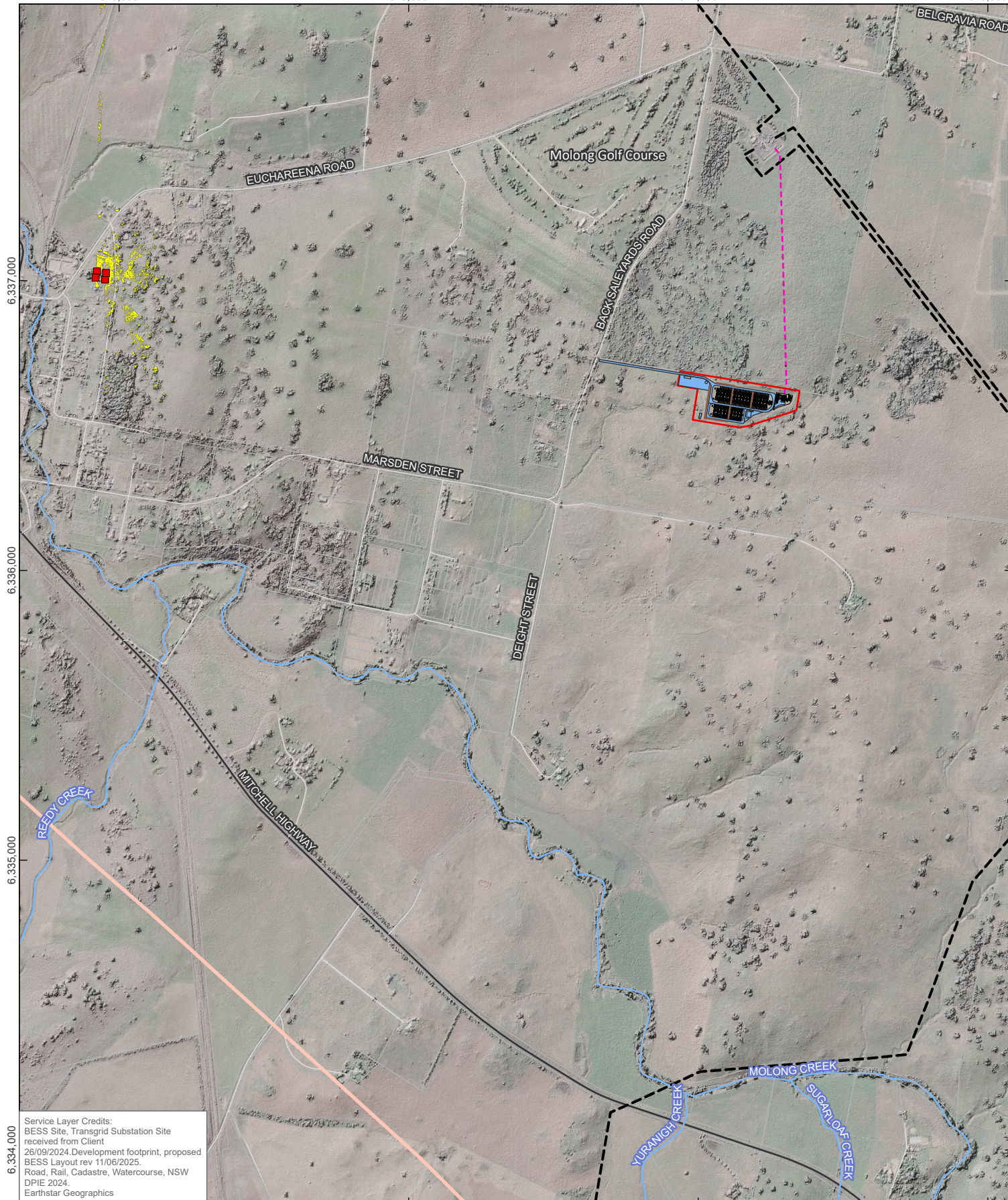
FIGURE B-1

675,000

676,000

677,000

678,000



Service Layer Credits:
 BESS Site, Transgrid Substation Site
 received from Client
 26/09/2024 Development footprint, proposed
 BESS Layout rev 11/06/2025.
 Road, Rail, Cadastre, Watercourse, NSW
 DPIE 2024.
 Earthstar Geographics



Coordinate System: GDA2020 MGA Zone 55

Scale: 1:17,500 at A4

Project Number: 620.041615

Date Drawn: 16-Jul-2025

Drawn by: NT

LEGEND

- View Point
- Watercourse
- Primary Road
- Road
- voltage**
- 132kV
- 66kV
- Cadastre
- Noisewall
- Proposed Electricity Transmission Line
- BESS Layout
- BESS Footprint
- Transmission Tower
- Viewshed

MOLONG BESS

VIEWSHED HERITAGE SITE
11 EUCHARÉENA ROAD, MOLONG



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041615.00001 Stor Energy NSW\06 SLR Data\01 GIS\GIS\NSW_Stor.aprx\620041615_LVIA_FOX_Viewshed_11 Eucharéena

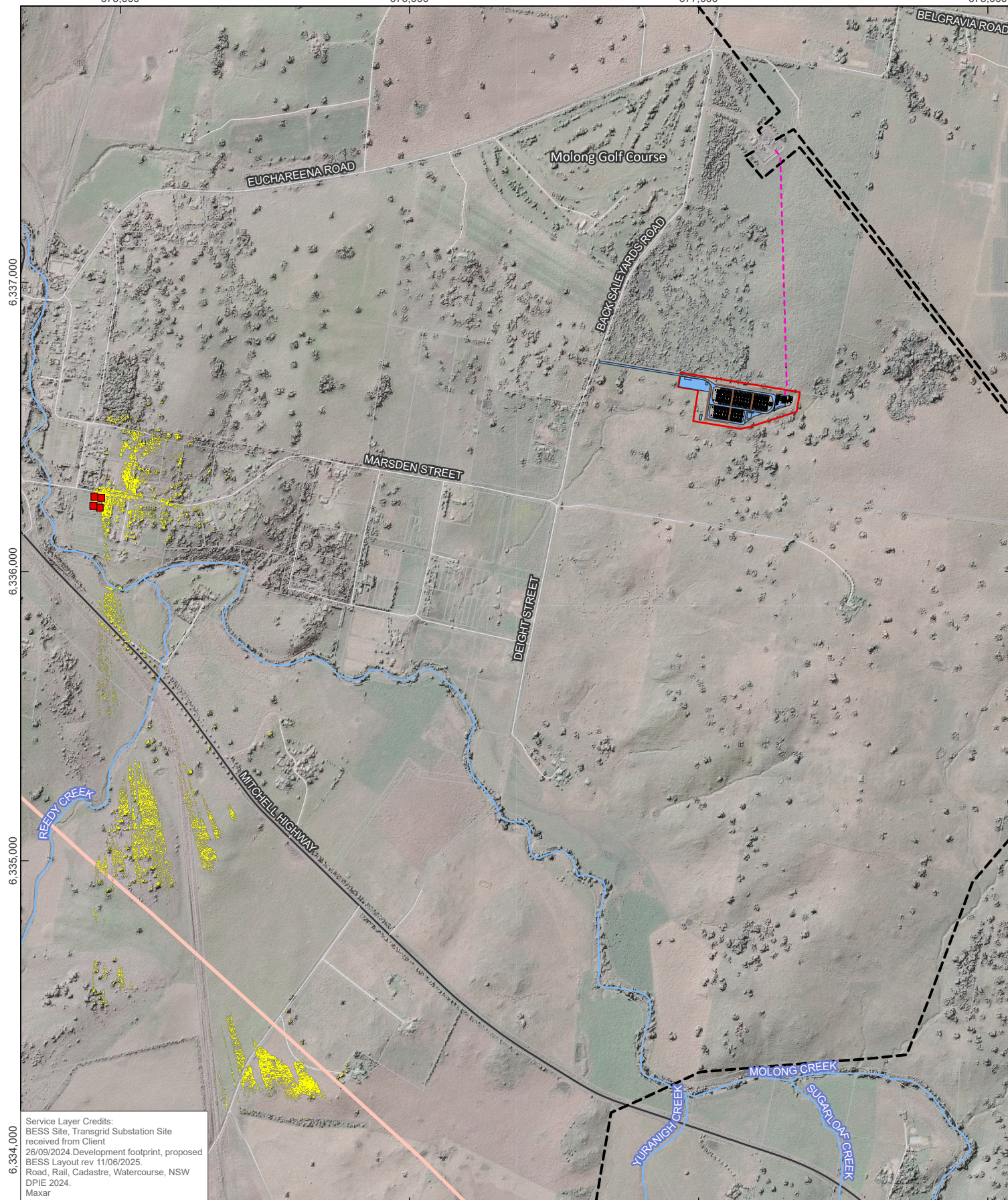
FIGURE B-2

675,000

676,000

677,000

678,000



Service Layer Credits:
 Bess Site, Transgrid Substation Site
 received from Client
 26/09/2024 Development footprint, proposed
 Bess Layout rev 11/06/2025.
 Road, Rail, Cadastre, Watercourse, NSW
 DPIE 2024.
 Maxar



Coordinate System: GDA2020 MGA Zone 55

Scale: 1:17,500 at A4

Project Number: 620.041615

Date Drawn: 16-Jul-2025

Drawn by: NT

LEGEND

- View Point
- Watercourse
- Primary Road
- Road
- Transgrid Line
- 132kV
- 66kV
- Cadastre
- Noisewall
- Proposed Electricity Transmission Line
- Transmission Tower
- Bess Footprint
- Bess Layout
- Viewshed

MOLONG BESS

VIEWSHED HERITAGE SITE
11 MARSDEN STREET, MOLONG



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

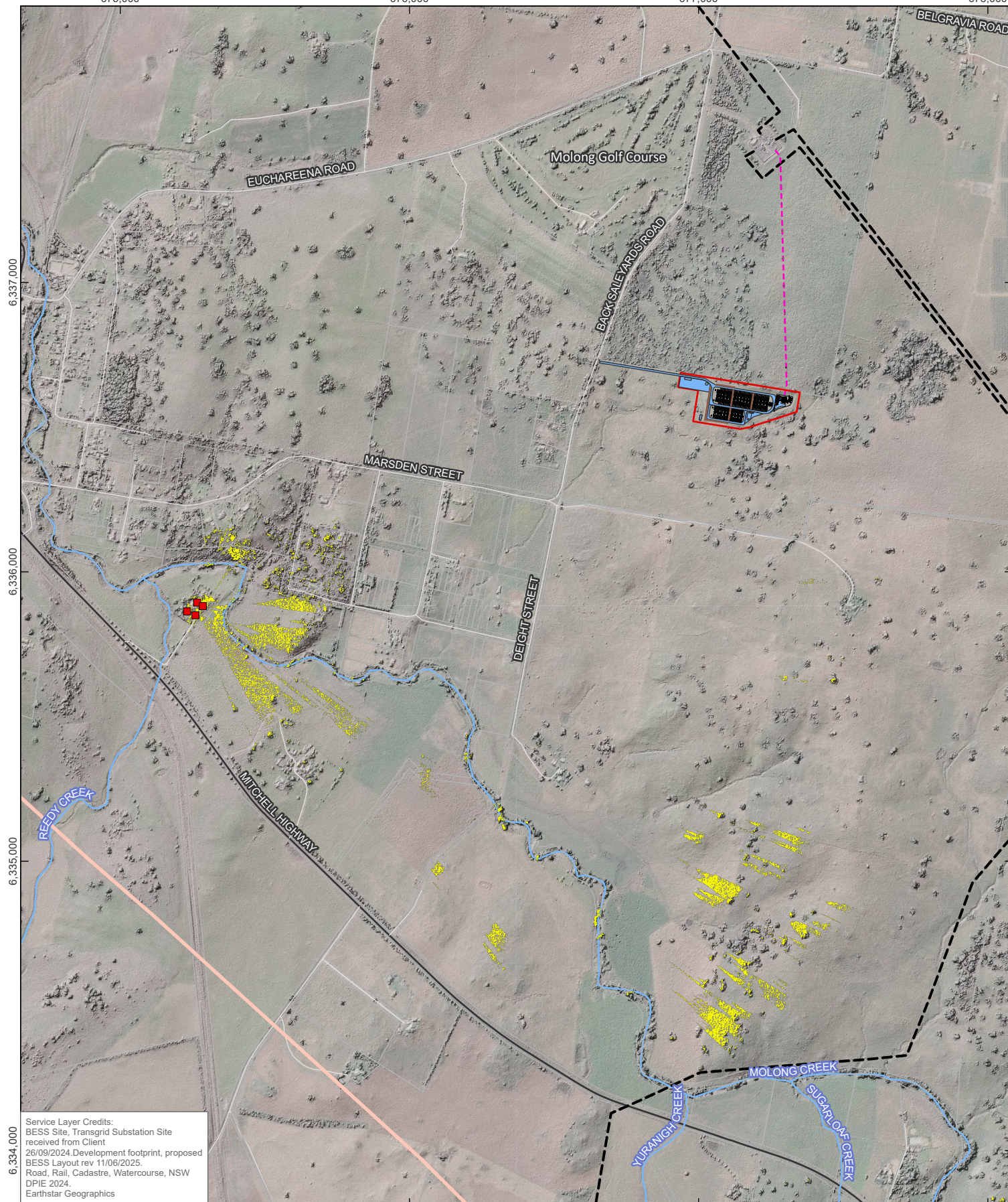
FIGURE B-3

675,000

676,000

677,000

678,000



Service Layer Credits:
 BESS Site, Transgrid Substation Site
 received from Client
 26/09/2024 Development footprint, proposed
 BESS Layout rev 11/06/2025.
 Road, Rail, Cadastre, Watercourse, NSW
 DPIE 2024.
 Earthstar Geographics



Coordinate System: GDA2020 MGA Zone 55

Scale: 1:17,500 at A4

Project Number: 620.041615

Date Drawn: 16-Jul-2025

Drawn by: NT

LEGEND

- View Point
- Watercourse
- Primary Road
- Road
- Transgrid Line
- 132kV
- 66kV
- Cadastre
- Noise wall
- Proposed Electricity Transmission Line
- Transmission Tower
- BESS Footprint
- BESS Layout
- Viewshed

MOLONG BESS

**VIEWSHED HERITAGE SITE
 GAMBOOLA HOMESTEAD,
 WOOLSHED & HISTORIC
 WIRE FENCE**



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE B-4

675,000

676,000

677,000

6.337.000

6.336.000

6.335.000

6.334.000

EUCHAREENA ROAD

Molong Golf Course

BACKSALE YARDS ROAD

MARSDEN STREET

DEIGHT STREET

MITCHELL HIGHWAY

MOLONG CREEK

SUGARLOAF CREEK

YURMICH CREEK

Service Layer Credits:
 BESS Site, Transgrid Substation Site
 received from Client
 26/09/2024 Development footprint, proposed
 BESS Layout rev 11/06/2025.
 Road, Rail, Cadastre, Watercourse, NSW
 DPIE 2024.
 Maxar



Coordinate System: GDA2020 MGA Zone 55

Scale: 1:17,500 at A4

Project Number: 620.041615

Date Drawn: 10-Jul-2025

Drawn by: NT

LEGEND

- View Point
- Watercourse
- Primary Road
- Road
- Transgrid Line
- 132kV
- 66kV
- Cadastre
- Noisewall
- Proposed Electricity Transmission Line
- Transmission Tower
- BESS Footprint
- BESS Layout
- Viewshed

MOLONG BESS**VIEWSHED HERITAGE SITE 2**

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

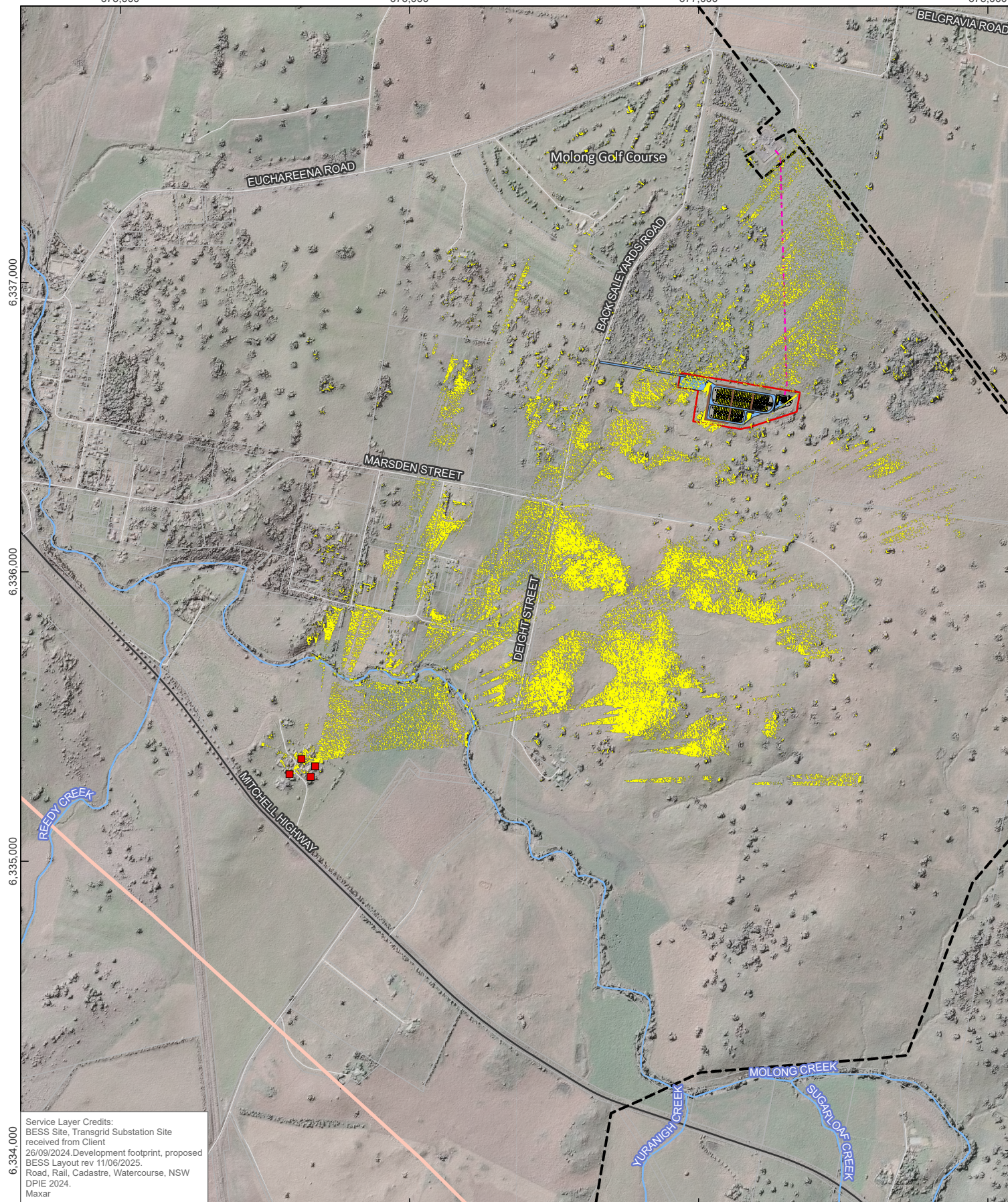
FIGURE B-5

675,000

676,000

677,000

678,000



Service Layer Credits:
 BESS Site, Transgrid Substation Site
 received from Client
 26/09/2024 Development footprint, proposed
 BESS Layout rev 11/06/2025.
 Road, Rail, Cadastre, Watercourse, NSW
 DPIE 2024.
 Maxar



Coordinate System: GDA2020 MGA Zone 55

Scale: 1:17,500 at A4

Project Number: 620.041615

Date Drawn: 10-Jul-2025

Drawn by: NT

LEGEND

- View Point
- Watercourse
- Primary Road
- Road
- Transgrid Line
- 132kV
- 66kV
- Cadastre
- Noisewall
- Proposed Electricity Transmission Line
- Transmission Tower
- BESS Footprint
- BESS Layout
- Viewshed

MOLONG BESS

VIEWSHED HERITAGE SITE 1



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE B-6



AUSTRALIA HEAD OFFICE

Tenancy 202, Submarine School
Sub Base Platypus, 120 High Street
North Sydney NSW 2060
(Registered Office)

T: 1300 434 443
sydney@slrconsulting.com

NEW ZEALAND HEAD OFFICE

201 Victoria Street West,
Auckland 1010
(Registered Office)

T: +64 9 303 0311
AotearoaNZ@slrconsulting.com

SINGAPORE HEAD OFFICE

The Work Project,
6 Battery Road,
06-617, Singapore 049909
(Registered Office)

T: +65 6822 2203
singapore@slrconsulting.com

Making
Sustainability
Happen

SLRCONSULTING.COM