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Murchs Corner BESS

Landscape and Visual Impact and Visual Assessment Report

15 December 2025

THIS REPORT HAS BEEN PREPARED FOR ROBERT LUXMOORE
PROJECT MANAGEMENT ON BEHALF OF EBARE PTY LTD

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1 INTRODUCTION

The Proponent, EBARE Pty Ltd, intend to submit a Development Application (DA) for the development of a utility-scale Battery Energy Storage System (BESS), the Murchs Corner BESS (the Project), approximately 4 kilometres (km) south-east of the small township of Darlington, Victoria.

EBARE Pty Ltd seeks to develop part of their landholding Stony Point (2977 Hamilton Highway, Darlington 3217) into a long-term renewable energy asset. This Project will likely utilise 25-35 hectares within the 1,870 hectare (ha) property.

The farming property is located in the Western District of Victoria, approximately 195km southwest of Melbourne and 70km northeast of Warrnambool, almost midway between Lismore and Mortlake and 30km north of Camperdown within the Moyne Shire (refer to **Figure 1**).

The Project involves the development of an approximately 25-35ha BESS facility on the approximately 169ha Project Area, which includes the areas to the north and south of the transmission line. The BESS and infrastructure will be wholly located on the northern side, while the southern area includes land set aside for potential additional temporary construction laydown.

The 500kV transmission line (Moorabool to Tarrone) crosses east-west through the centre of the Project Area. The transmission line does not have a formal easement on Title but is understood to have an implied easement.



Figure 1 - Project location (Source: Google Maps).

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2 METHODOLOGY

2.1 Approach

While there are no specific legislative requirements for the methodology of an assessment such as this in Victoria, the profession typically refers to the guidance offered by:

- Guidance for Landscape and Visual Impact Assessment (GLVIA), Third Edition, Landscape Institute and Institute of Environmental Management & Assessment (2013).
- Guidance Note for Landscape and Visual Assessment, Australian Institute of Landscape Architects (AILA) (2018).
- Solar Energy Facilities Design and Development Guideline (October 2022).

The methodology used for this Project, described below, conforms generally to the direction offered by the above guidelines as well as other proven assessment methodologies.

This preliminary assessment report assesses the landscape and visual impact of the Project, that is the day-to-day visual effects on people's views.

The method to measure visual impacts is based on the combination of the sensitivity of viewers to the proposed change and the magnitude of the Project on that visual setting or view.

The following study components were included as part of this assessment:

- Review the Project with regard to potential visual impacts.
- Characterisation of the existing landscape, scenic quality and visual setting.
- Qualitatively assess:
 - Visual modification at key viewpoints – How would the Project contrast with the landscape character of the surrounding setting?
 - Visual sensitivity at key viewpoints – How sensitive would viewers be to the Project?
 - Potential night-lighting impacts.
- Propose visual impact mitigation and management measures.

2.2 Assessment of landscape and visual impacts

The landscape and visual impact assessment is based on a detailed analysis of the landscape and visual setting and an assessment of the potential impacts of the Project on its viewshed.

The critical issues considered for this LVIA were:

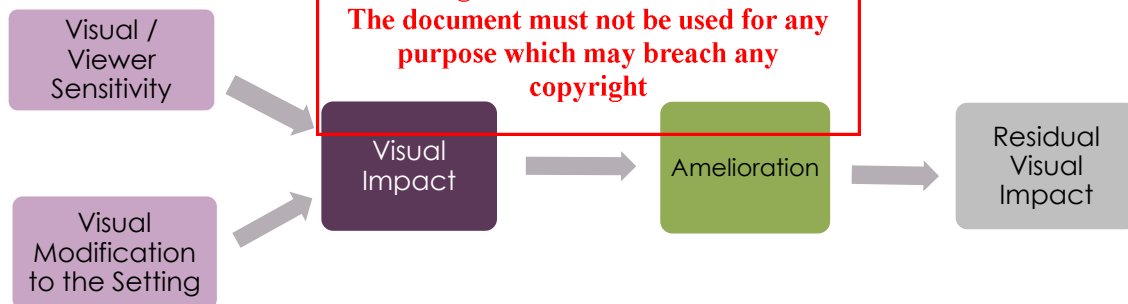
- The number and location of sensitive viewing locations;
- The duration of the view – either static (generally long term - > 1 hour) and mobile (generally short term continually moving and static for no longer than 5 minutes);
- The degree to which the proposed works would be visible;

- The quality of the landscape setting; and
- The degree to which the Project contrasts or is compatible with the visual character of the setting – the visual modification level.

The assessment method assumed that if the Project would not be seen, there is no impact (refer to **Table 1**).

VISUAL IMPACT		Visual/Viewer Sensitivity		
		High	Moderate	Low
Level of Visual Modification to the Setting	High	High	High	Moderate
	Moderate	High	Moderate	Low
	Low	Moderate	Low	Low
	Very Low	Low	Very Low	Very Low
	Not Visible	No Impact	Not Impact	No Impact
	Not Visible	No Impact	Not Impact	No Impact

Table 1 - Visual impact determination matrix



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Diagram 1 - Visual impact assessment process.

2.2.1 Visual sensitivity

In this report, the approach to the visual sensitivity is consistent with the USDAFS visual management system¹.

The visual sensitivity of development depends on a range of viewer characteristics. The primary characteristics used in this report include:

- Land use;
- Distance of the development from viewers; and

¹ Landscape Aesthetics – A Handbook for Scenery Management, Agricultural Handbook No. 701. United States Department of Agriculture Forest Service (1995).

- Visibility from sensitive land use areas.

Visual sensitivity is a measure of how critically a change to the existing environment would be viewed from various land uses (refer to **Table 2**). Different activities have different sensitivity levels. For example, tourists on holiday would generally view changes to a landscape more critically than industrial workers in the same area. Similarly, individuals would view changes to the visual setting of their homes more critically than changes to the broader area in which they travel or work.

The next critical component to rating the visual sensitivity is the distance of the development from the identified visual use area. There are three viewing situations to consider:

- foreground (0 - 1 km);
- midground (1 km – 4 km); and
- background (> 4 km).

As the distance increases from a proposed development to a sensitive land use area, the level of viewer sensitivity decreases based on a perceptual dis-association based on a reduction in relative proximity.

Visual Use Area	Foreground		Midground		Background
	Local Setting 0 - 0.5 km	0.5 - 1 km	Sub-Regional Setting 1 - 2 km	2 - 4 km	Regional Setting > 4 km
Residences/Townships	H	H	M	M	L
Tourism & Accommodation	H	H	M	M	L
"B" Category Roads (Hamilton Highway)	M	M	L	L	VL
Conservation Reserve	M	M	L	L	VL
Local Roads	L	L	L	VL	VL
Agricultural Areas	L	L	L	VL	VL
Industrial Area	VL	VL	VL	VL	VL

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Legend - H = High, M = Moderate, L = Low, VL = Very Low

Table 2 - Typical Viewer (visual) Sensitivity.

Another consideration in defining the level of sensitivity in situations where a development is proposed adjacent to an existing development of a similar form and scale, is that of de-sensitisation. In this scenario, those residing adjacent to the existing development may have become accustomed to its presence and may be less sensitive to an extension with a similar character.

Conversely, the additional development may result in a cumulative impact, with some becoming hyper-sensitised. Given the potential for varying reactions, the methodology takes a cautionary approach and defines all uses at the same sensitivity level as a "greenfields" site.

2.2.2 Visual modification to the existing setting

The level of visual modification resulting to a setting from a proposed development, or the degree to which the setting is modified, can be best measured as an expression of

the visual interaction, or the level of visual contrast between the project and the existing visual environment.

A high level of magnitude, or a high degree of visual modification, will result if the major components of the project contrast strongly with the existing landscape.

A low level of magnitude, or a low degree of visual modification, will occur if there is little or minimal visual contrast and a high level of integration of form, line, shape, pattern, colour or texture values between the proposed development and the environment in which it sits. In this situation, the proposed development may be noticeable, but does not markedly contrast with the existing, already modified landscape (refer to **Table 3**).

The degree of magnitude or modification would generally decrease as the distance from the Project to various viewing locations increases.

The presence of the existing power related infrastructure, including the Terminal Station and surrounding powerlines, provides the Project with a significant degree of visual fit within the already modified landscape setting.

Modification Level	Description
High	The proposal is highly visible and intrusive regarding the size, scale and geographical extent, and would disrupt views currently experienced from sensitive land use areas and/or strongly contrasts with the existing landscape setting which has limited capacity for change.
Moderate	The proposal partially intrudes regarding the size, scale and geographical extent or somewhat obstructs current views from sensitive land use areas and/or a noticeable compositional change to the existing landscape setting in which there is moderate capacity for change.
Low	The proposal is barely perceptible resulting in minor deterioration to the view currently experienced from sensitive land use areas; and/or results in a small change to the existing landscape setting in which change is possible without harm.
Very Low	There is minimal compositional contrast and a high level of integration of form, line, shape, pattern, colour or texture values between the proposal and the environment in which it sits. In this situation, the proposal may be noticeable but does not markedly contrast with the existing landscape setting.
Not Visible	There are no views of the proposal components and as such, there is no impact.

Table 3 - Typical scenarios for determining the visual modification level.

2.2.3 Occupied field of view – Visual prominence

To assist with the assessment of visual prominence, this report defines several viewsheds which are based on distance from the project. The methodology is based on the reduction of impact with an increase in distance between a given viewpoint and the project. The potential visual impact of the project will also, to a large extent, depend on how much of the central field of vision it occupies (refer to **Table 4**, **Table 5** and **Figure 2**).

Throughout the visual catchment, the degree of visual prominence will generally decrease as the distance from the development site to various viewing locations increases.

The quantitative assessment of visual prominence, i.e., how much is potentially visible, is intertwined with the distribution, height and density of vegetation as well as topography

throughout the visual catchment, elements which can screen views of a development from a particular viewpoint. Visual prominence helps inform the process of determining the visual modification level as previously outlined in the above section.

Degrees of Field of View Occupied	Potential Visual Prominence – Horizontal Field of View
Less than 5°	Insignificant – Low Visual Prominence The development may not be highly visible in the view unless it contrasts strongly with the background.
5° – 30°	Potentially Noticeable – Moderate Visual Prominence The development may be noticeable. The degree that it intrudes on the view will be dependent on how well it integrates with the landscape setting.
Greater than 30°	Potentially Dominant – High Visual Prominence The development will be highly noticeable.

Table 4 - Horizontal line of sight – Visual impact / visual prominence.

Degrees of Field of View Occupied	Potential Visual Prominence – Vertical Field of View
0° - 0.25°	Barely Discernible – Very Low Visual Prominence A very thin line in the landscape.
0.25° - 0.5°	Insignificant - Low Visual Prominence A thin line in the landscape.
0.5° – 2.5°	Potentially Noticeable – Moderate Visual Prominence The development may be noticeable. The degree that it intrudes on the view will be dependent on how well it integrates with the landscape setting.
Greater than 2.5°	Potentially Dominant – High Visual Prominence The development will be highly noticeable, although the degree of visual intrusion will depend on the landscape setting and the width/spread of the object.

Table 5 - Vertical line of sight – Visual impact / visual prominence.

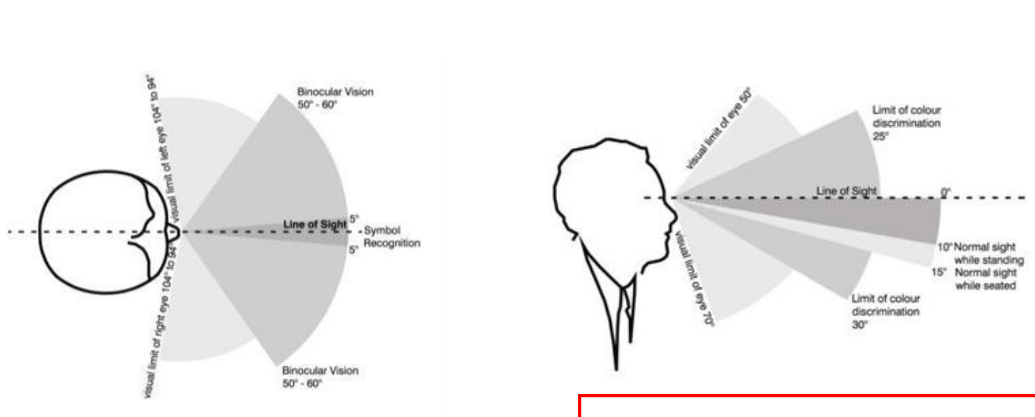


Figure 2 – Horizontal and vertical field of view.

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2.2.4 Residual impacts

The effectiveness of the measures proposed in mitigating the landscape and visual impacts resulting from the Project is demonstrated by comparing the visual impact during initial operation with the residual impact when the proposed landscape measures have mostly matured, which is typically ten (10) years following initial establishment.

Generally, residual impacts would be reduced by at least one level where landscape measures have been proposed and have matured, as a result of the filtering of, or inhibiting views to the Project.

2.2.5 Cumulative impact

2.2.5.1 Simultaneous cumulative impact

Simultaneous cumulative impact refers to occurrences where an impact may result from several potential visual intrusions being visible from an individual location at the one time.

2.2.5.2 Sequential cumulative impact

Sequential cumulative impact refers to occurrences when the viewer must move to another viewpoint to see different developments. Sequential cumulative impacts most typically apply to road users as they traverse the landscape along major roads.

2.3 Lighting impacts

AS-NZS-4282-2023 Control of the obtrusive effects of outdoor lighting provides standards for the assessment and limitation of lighting impacts. The standard identifies four environmental zones for exterior lighting which are categorised by the degree of artificial lighting within an area. For example, national parks would be categorised as an intrinsically dark landscape (Category A1), whereas a city centre with high levels of night-time activity would be categorised as a high district brightness area (Category A4).

The standard is aimed at the minimisation of light spill. Regardless of the existing brightness of a particular setting, it is a widely accepted principle that light spill, particularly upward light spill, be minimised wherever possible.

2.3.1 Lighting impact scenarios

Glow

Light glow is typically an upward projection of light that results in illumination of the night sky above a lighting source. It is intensified, or more visually apparent when foggy or cloudy as the light reflects or disperses of water droplets in the atmosphere. Glow is visible over significant distances.

Spill

Spill is light that falls on adjacent sensitive surfaces, both vertical and horizontal, and is most intrusive where it illuminates private open spaces or spills through windows.

Hot spots

Hot spots relate to concentrated areas of bright light in an otherwise less well illuminated setting. Hot spots will be most visible where are elevated.

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Kinetic / movement

Lights that change colour or flash can draw the attention of a viewer. As the speed of the colour change or blink increases in speed, so too will its prominence of ability to draw attention.

2.4 Limitations of the assessment

There are these following limitations associated with this assessment:

- The LVIA process aims to be objective and, as such, seeks to describe any changes factually. Potential changes resulting from the project have been defined. However, the significance of these changes requires qualitative (subjective) judgements to be made. Therefore, the conclusions to this assessment combine both objective measurement and subjective professional interpretation. This assessment has attempted to be objective, however, it is recognised that visual assessment can be highly subjective, and individuals are likely to associate different visual experiences to the study area;
- The impact assessment is focused on the current land uses and zoning; and
- Methodology of the construction works are currently unknown and dependent upon planning approvals. However, we have assumed that the impacts during construction would result in a similar degree of visual impact to that of the operational phase assessment findings, pre-amelioration.

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3 COMPONENTS OF THE PROJECT

3.1 Key features

The Project assumes a BESS size of 500MW / 2000MWh, with associated infrastructure including an on-site Terminal Station that will 'cut in' to the existing overhead 500kV transmission line, and associated works including access point and tracks, operations and maintenance building security fencing, fire protection equipment, earthworks and landscape planting.

The capacity of the BESS is subject to further technical analysis to allow for it to cater for the generation of current and future wind farms planned for the region. Additionally, the ultimate design of the Terminal Station is yet to be determined.

As illustrated in **Figure 3** the Project involves the development of an approximately 25-35ha BESS facility on the approximately 169ha Project Area, which includes the areas to the north and south of the transmission line. However, the BESS and infrastructure will be wholly located on the northern side, with the southern area including land set aside for potential additional temporary construction laydown (refer to **Figure 4**).

The works and components associated with the Project include:

- BESS units with a total capacity of 500MW / 2000MWh.
- Inverters
- Power conversion units.
- An on-site Terminal Station with a control and switchgear room and a harmonic filter.
- Auxiliary transformers.
- Transmission connection infrastructure to the 500kV transmission line (Moorabool to Tarrone).
- Auxiliary power supplies.
- Protection and control equipment.
- Site office.
- Operations and maintenance building.
- An access point on the Darlington-Terang Road, internal maintenance tracks and carparking.
- Water storage tank and fire-fighting infrastructure.
- Security fencing and monitoring systems.
- Earthworks/benching.
- Landscaping / screening.
- Security lighting around Terminal Station and switchgear room.

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LEGEND

Proposal	Existing
Stony Point property	500kV Transmission Line
Site	Non-associated dwelling
Project Area	Associated dwelling
Avoidance area (flood modelling)	Waterway
Development areas	Wetland
	Roads
	Cadastre

Figure 3 – Project Areas Plan (Source: Cogency).

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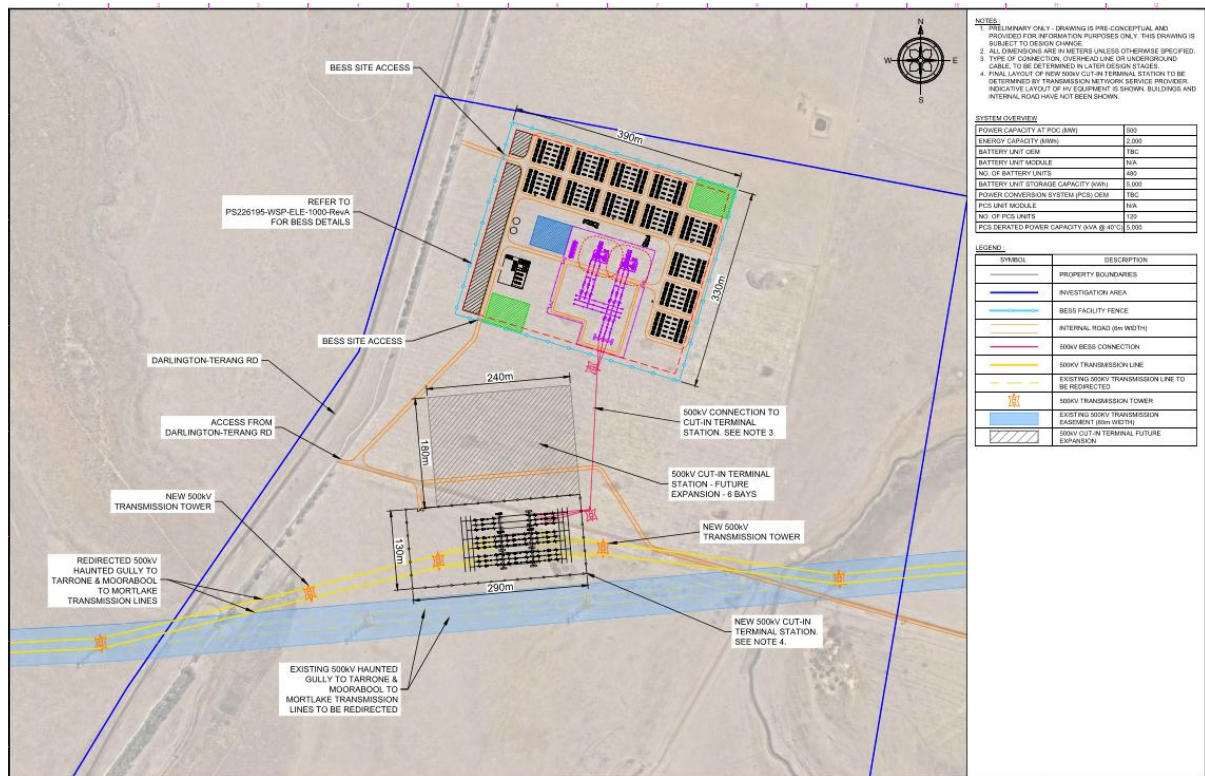


Figure 4 – Indicative Project and connection layout (Source: WSP).

3.2 Detail of project components

The most visible components of the Project that may result in visual impacts to surrounding sensitive receptors are outlined below.

3.2.1 Earthworks/benching

Earthworks will be required to create a level area for the Project to sit on.

3.2.2 BESS blocks

Installation of batteries housed inside BESS containers constructed of steel, with indicative dimensions of 6.1 metre (m) (length) x 1.7m (width) x 2.9m (height) (refer to **Figure 5**).

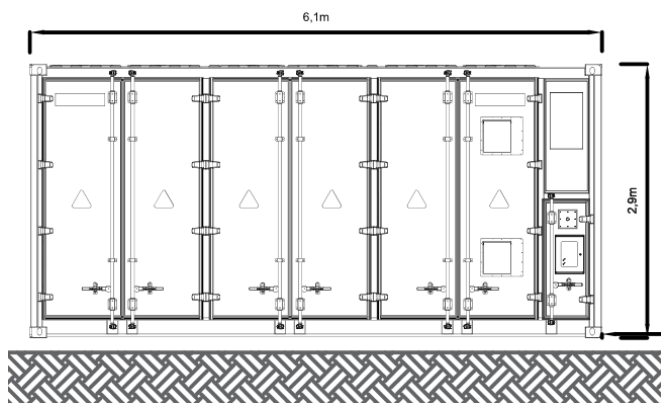


Figure 5 – Proposed BESS module.

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3.2.3 Onsite Terminal Station

Terminal Station and associated hardstand areas with a footprint of approximately 300m x 370m, an average height of 8m and a maximum height of approximately 15m (refer to **Figure 6**).



Figure 6 – Typical Terminal Station.

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3.2.4 Switchgear room

The switchgear room will have a footprint of approximately 7.5m x 3.5m and a maximum height of 2.7m (refer to **Figure 7**).



Figure 7 – Typical HV switchgear room – rear elevation (Source: T2 Energy).

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3.2.5 Connecting powerline

A section of powerline is required to connect to the 500kV transmission line (Moorabool to Tarrone).

3.2.6 Inverter

The panels generate Direct Current (DC) electricity which must be converted into Alternating Current (AC) before being fed into the local electricity grid network.



The transformer in the inverter transforms electrical energy from one circuit to another and allows for the energy generated to be fed into the local grid network.

The inverter is housed in a cabin-like structure mounted on a concrete base, and is approximately 6m long, 2.4m wide and 3m high (refer to **Figure 8**).

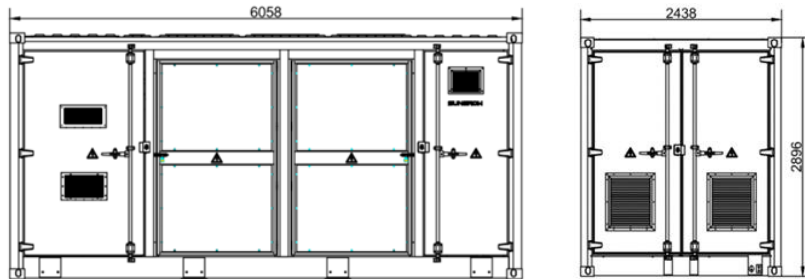


Figure 8 – Typical inverter – Side and end elevation.

3.2.7 Operations and maintenance building

The operations and maintenance building will be a relatively simple, low-profile structure, approximately 12m long, 4m wide and 3.6m high (refer to **Figure 9**).

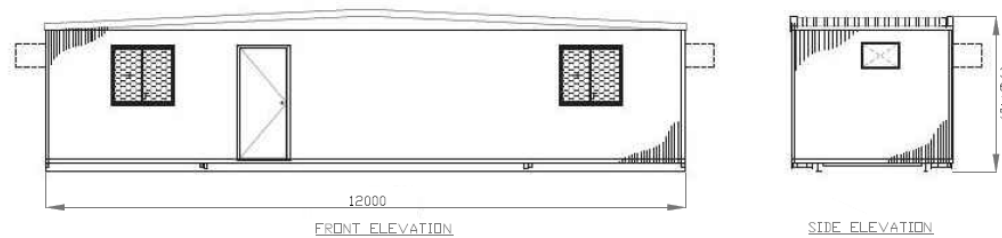


Figure 9 – Typical operations and maintenance building.

3.2.8 Perimeter Fence

A 2 m high mesh fence will be installed around the Project (refer to **Figure 10**). The purpose of the fence is to deter theft or vandalism and prevent unauthorised access to equipment.

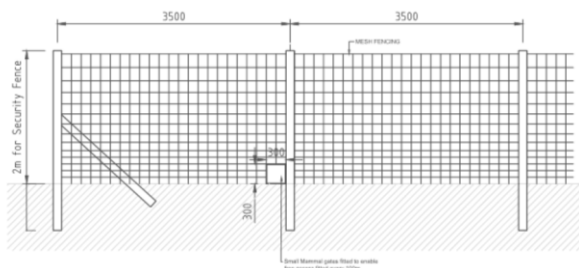


Figure 10 – Typical security fence detail.

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3.2.9 Security Camera

In order to monitor the site and detect any unauthorised access, a motion sensor CCTV camera will be erected on a pole of approximately 4.5 m in height (refer to **Figure 11**). The camera is directed into the Project area, avoiding impinging on the privacy of nearby properties, and employ infrared technology so no lighting is required.

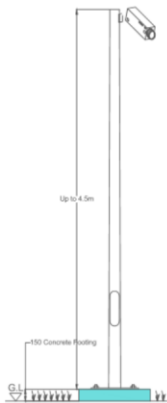


Figure 11 – Typical post mounted security camera.

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4 PROJECT CONTEXT AND SETTING APPRAISAL

4.1 Project context

The Project Area is situated within the 1,870ha Stony Point Property at 2977 Hamilton Highway, Darlington. The property is located to the south of the Hamilton Highway, southwest of Darlington. Darlington-Camperdown Road is located to the east and Darlington-Terang Road to the west (refer to **Figure 12** and **Figure 13**).

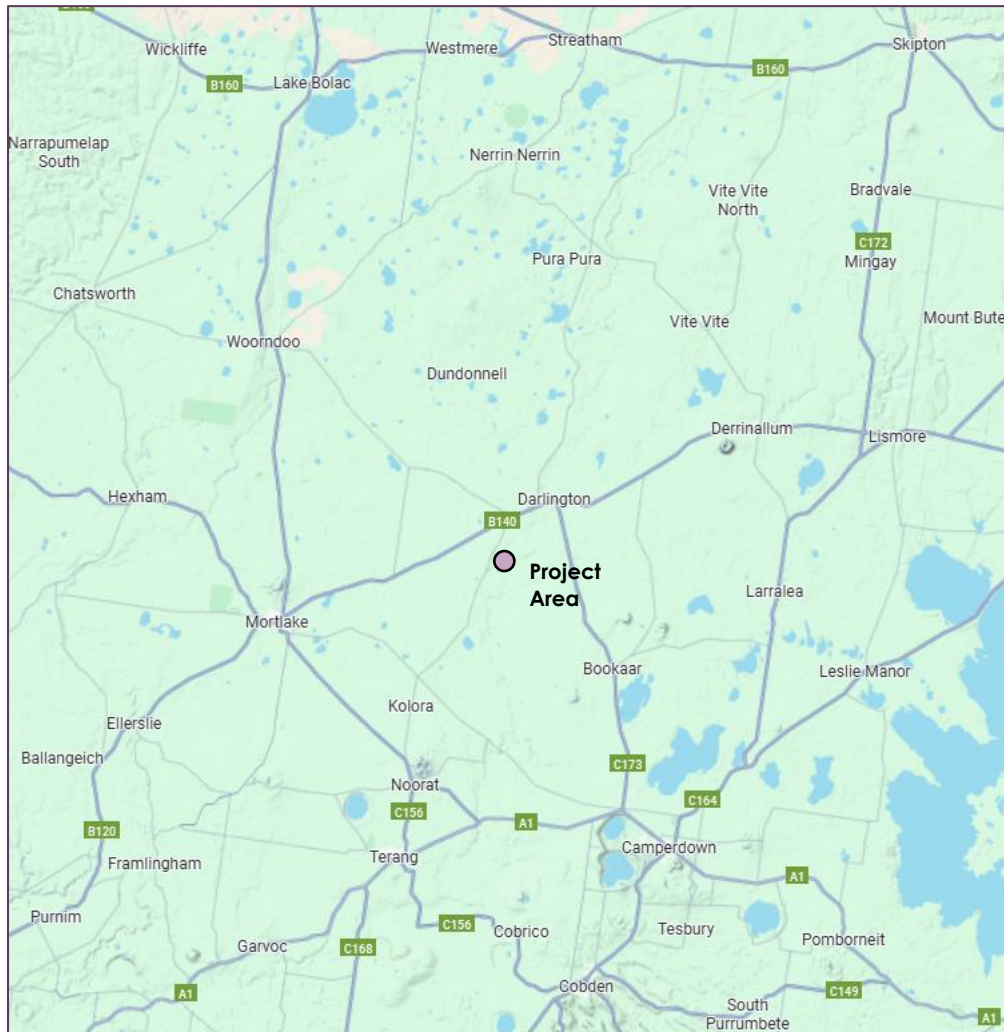


Figure 12 - Project regional context (Source: Google Maps).

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4.2 Land use and zoning

4.2.1 Land use

The Project Area currently consists of cropped and grazed land and is predominately cleared of native vegetation (refer to **Figure 13** and **Figure 14**). The surrounding area is also primarily agricultural land, with some areas of irrigated land, including an area of centre pivot irrigation immediately to the south of the Project Area.

The 500kV Moorabool to Tarrone transmission line bisects the Project Area east to west (refer to **Figure 15**).

The small township of Darlington is located approximately 4km to the northeast and comprises approximately 40 residences and the locally significant Elephant Bridge Hotel on the banks of Mount Emu Creek (refer to **Figure 16**).

The most significant road within the broader viewshed of the Project Area is the Hamilton Highway a "B" category road, approximately 900m to the north, and Darlington-Camperdown Road, a "C" category road, approximately 3.8km to the east. Darlington-Terang Road, a local road, is located along the Project Area's western boundary.

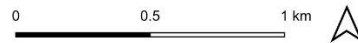
The proposed, but as yet approved, Darlington Wind Farm project boundary is located along the western road reserve of Darlington-Terang Road immediately opposite the Project Area, with the closest proposed wind turbine being located approximately 2.5km to the west northwest (refer to **Figure 13**).

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Indicative Project Areas Plan



2511 - Murchs Corner BESS

LEGEND

Proposal

-  Stony Point property
-  Site
-  Project Area
-  Avoidance area (flood modelling)
-  Development areas

Existing

-  500kV Transmission Line
-  Non-associated dwelling
-  Associated dwelling
-  Waterway
-  Wetland
-  Roads
-  Cadastre

Version: 3.0

Date: 24/11/2025

Disclaimer: This plan is preliminary and subject to detailed studies and approval.

cogency

Figure 13 – Site Context and existing and proposed infrastructure (Source: Cogency).



Figure 14 – Typical agricultural land use in the broader study area.

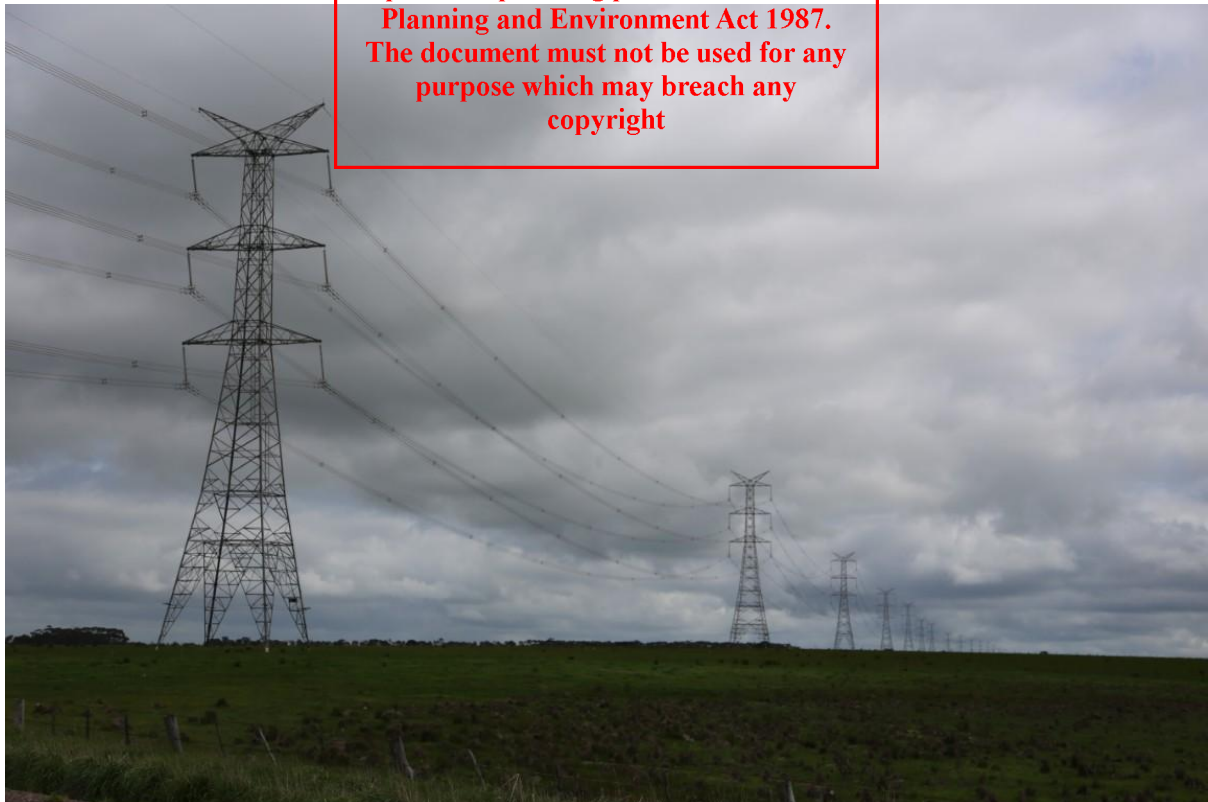


Figure 15 – The 500kV Moorabool to Tarrone powerline that bisects the Project Area as viewed from Darlington-Terang Road.

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Figure 16 – Darlington and the Elephant Bridge Hotel (far left of image).

4.2.2 Zoning

The Project is located within the Moyne Shire Council area. The entirety of the Project Area is zoned Farming Zone (FZ) (refer to **Figure 17**). There are no specific landscape and visual related objectives for the zone.

There are no overlays applicable to the site of relevance to landscape and visual matters (refer to **Figure 18**).

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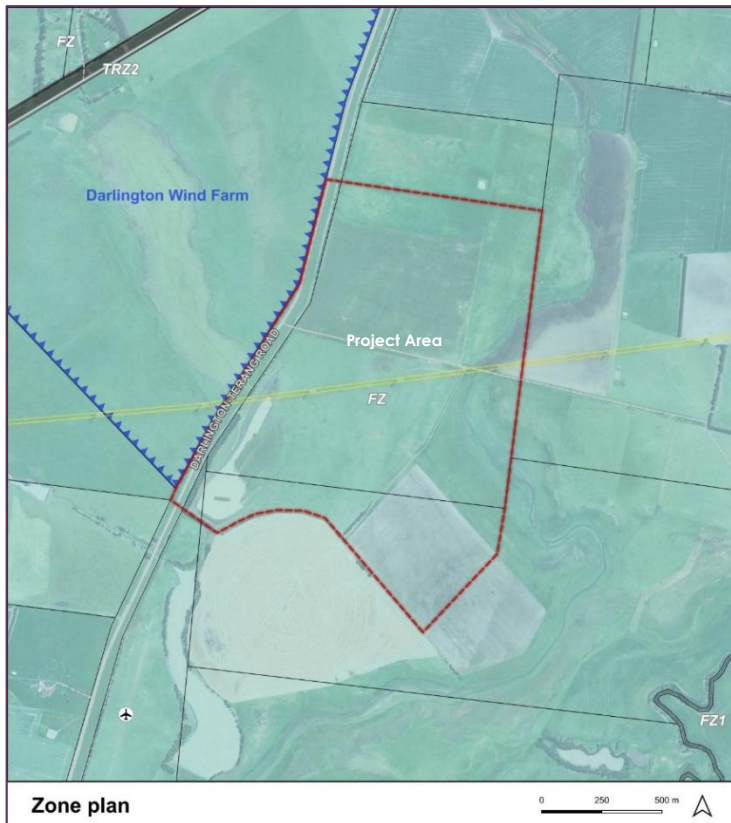


Figure 17 - Zoning plan (Source: Cogency).

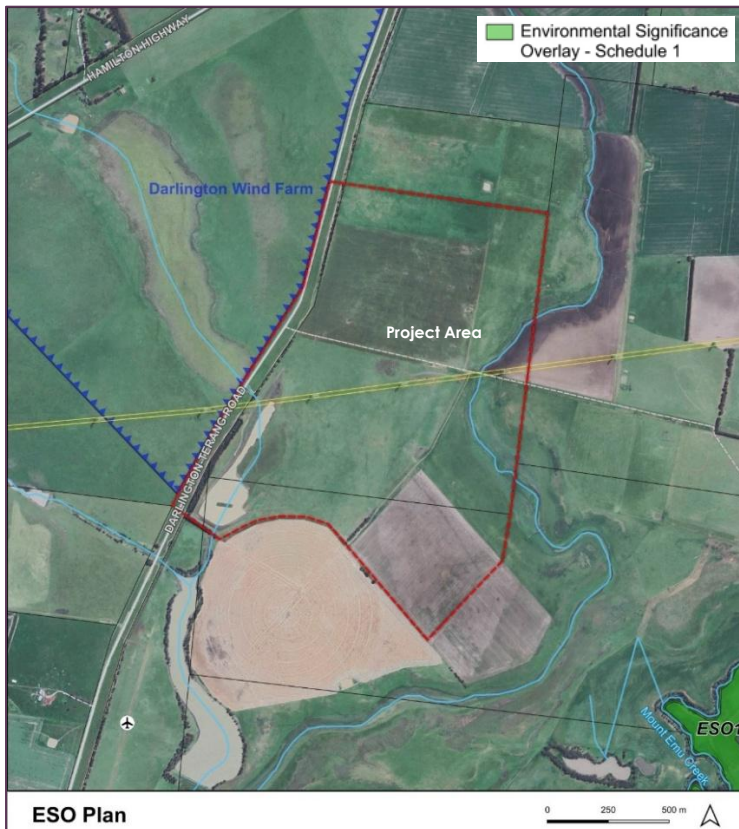


Figure 18 – Overlay zoning map (Source: Cogency).

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4.3 Vegetation and landscape form

4.3.1 Vegetation

The Project Area and the surrounding area comprise a flat landscape of open pasture or cropping land. Sections of trees and tall shrubs line some roadways and paddock boundaries (refer to **Figure 19**). Vegetation is primarily comprised of native species, predominantly Eucalyptus species however there are occasional dense wind breaks of Cypress and Pine species. Mount Emu Creek and its tributaries are lined with a thin strip of trees and shrubs.

The Project Area is cleared but has a dense Pine and Eucalypt windbreak to its southwest boundary along Darlington-Terang Road with scattered Eucalyptus located along the boundary to the north. A continuous band of vegetation lines the northern part of the Project Area's boundary with Darlington-Terang Road. The central part of the road frontage lacks any vegetation for a distance of approximately 220m (refer to **Figure 21**, **Figure 22**, **Figure 23** and **Figure 24**).

Rural residences in the area surrounding the Project Area are typically set within a well treed setting, that often contains shrubs in the "home yard" adjacent to the residence itself (refer to **Figure 25** and **Section 5.1.2**).

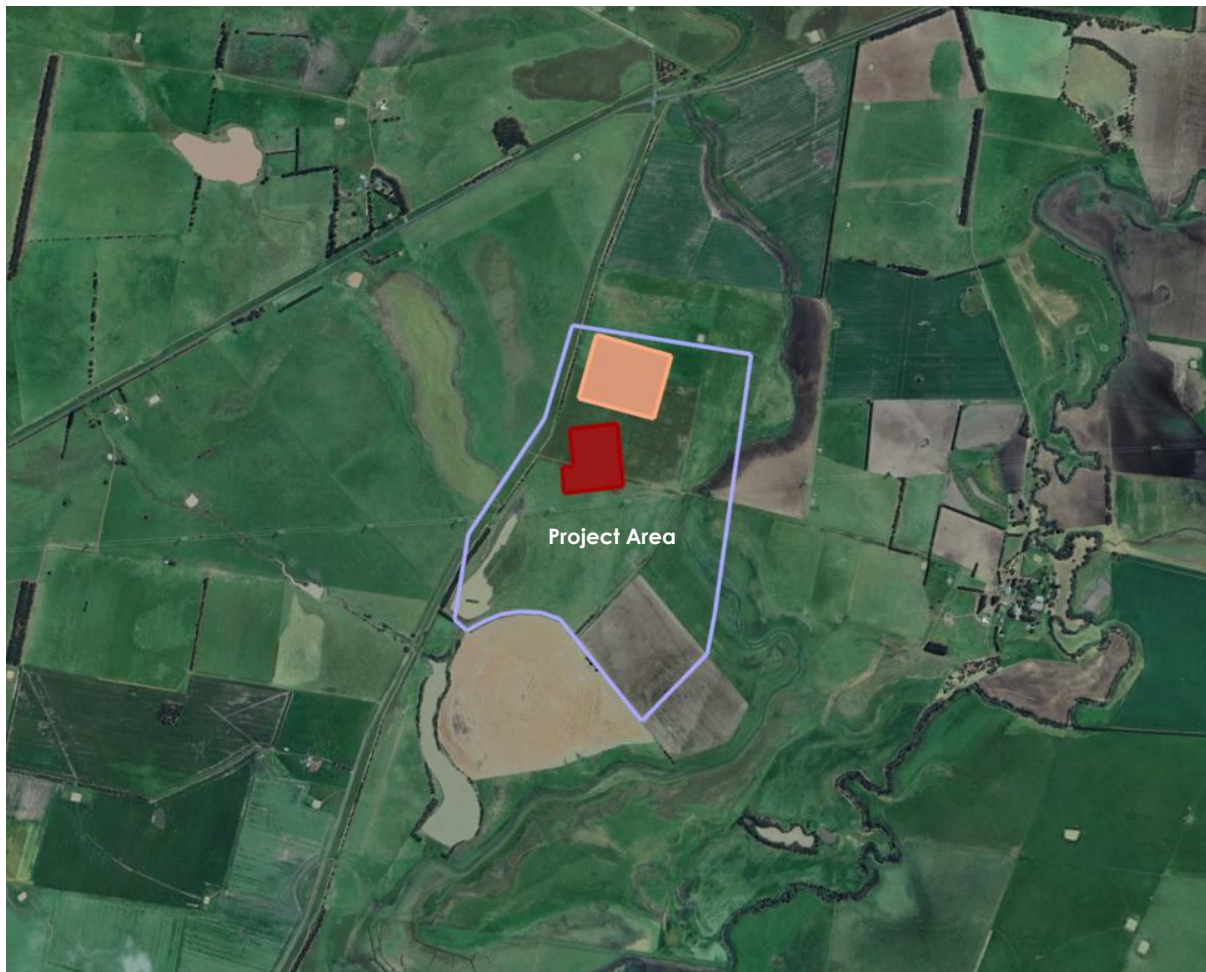


Figure 19 – Vegetation patterns of the Project Area and broader surrounds (Source: Google Earth [2023]).

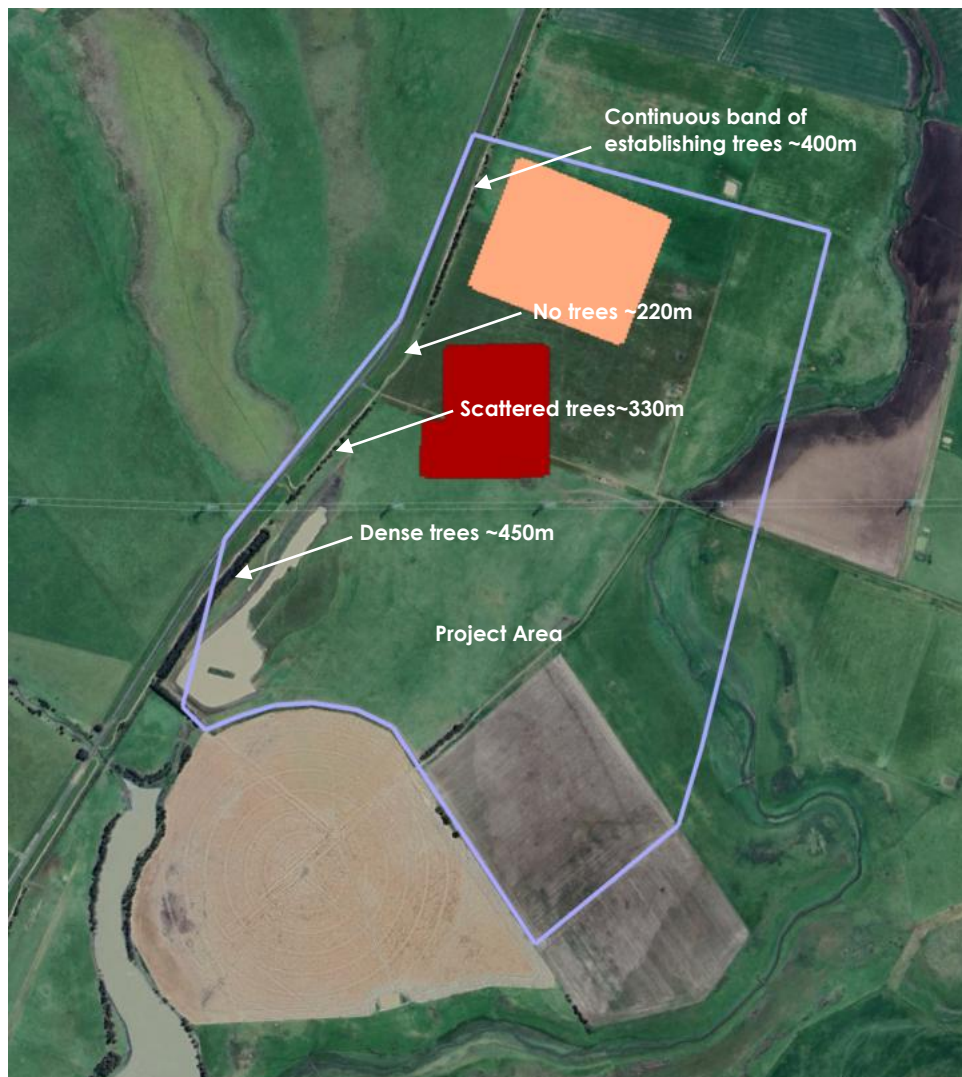


Figure 20 – Vegetation of the Project Area (Source: Google Earth [2023]).

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Figure 21 –The Project Area lacks substantial vegetation. A length of approximately 220m, located roughly centrally along the boundary with Darlington-Terang Road, lacks vegetation.



Figure 22 – Dense windbreak of Eucalypts and Pines extends for approximately 450m along the southern part of the Project Area's Darlington-Terang Road frontage.

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Figure 23 – Scattered vegetation along the central western part of the Project Area's boundary with Darlington-Terang Road.

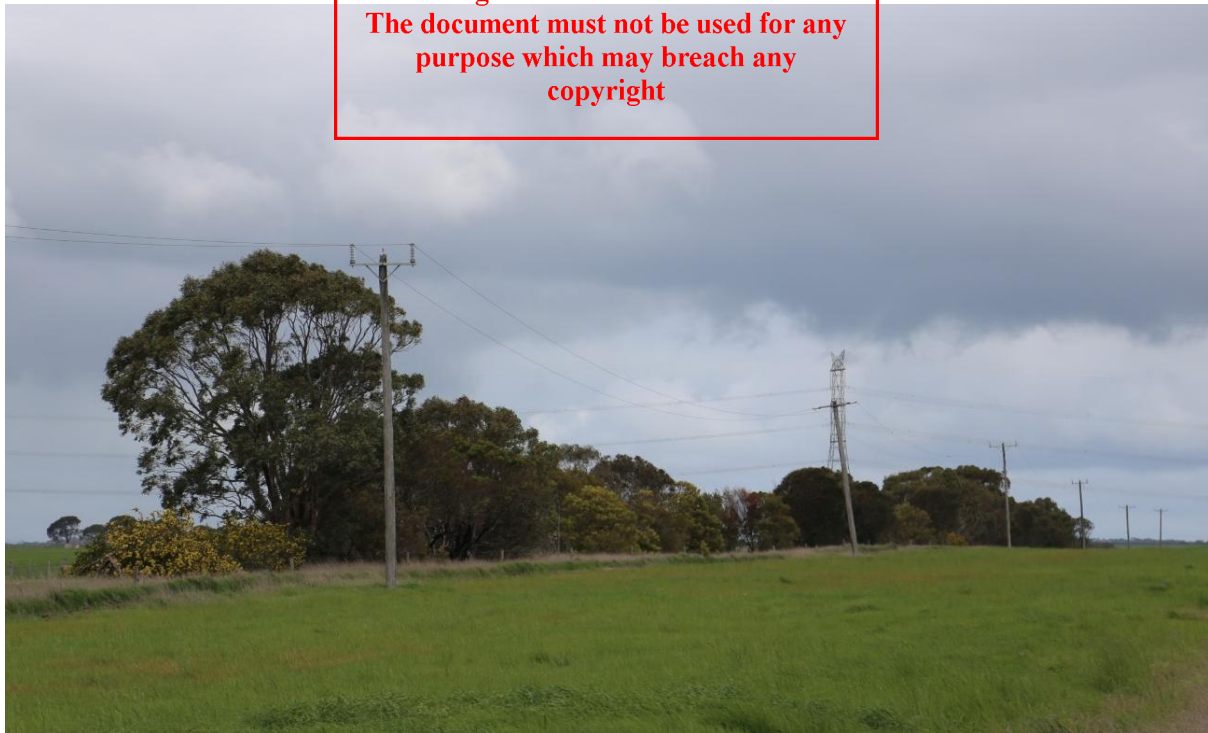


Figure 24 – A continuous band of vegetation lines the northern part of the Project Area's boundary with Darlington-Terang Road.

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Figure 25 – Typical vegetation surrounding a residence on the Hamilton Highway.

4.3.2 Landscape form

The topography of the Project Area and surrounding area is flat to slightly undulating with minor drainage lines being lightly incised and ephemeral lakes being located in broad, shallow depressions. Mount Emu Creek, the major waterway in the area is set in a moderately incised valley with regularly outcrops of exposed rock.

Elevation range in the broader surrounding area is minimal, ranging from approximately 130m AHD along the waterways, to approximately 170m AHD in more elevated areas (refer to **Figure 26**).

The elevation of the Project Area varies from 143m AHD in the southwest corner to 150m AHD in the northwest corner, and from 141m AHD in the northeast corner to 149m AHD in the southeast corner (refer to **Figure 27**).

Two small creeks run along the eastern and western boundary of the Project Area that connect to Mount Emu Creek, further south of the Project Area (refer to **Figure 28**). The land is relatively flat, sloping down along the bank of the creeks.

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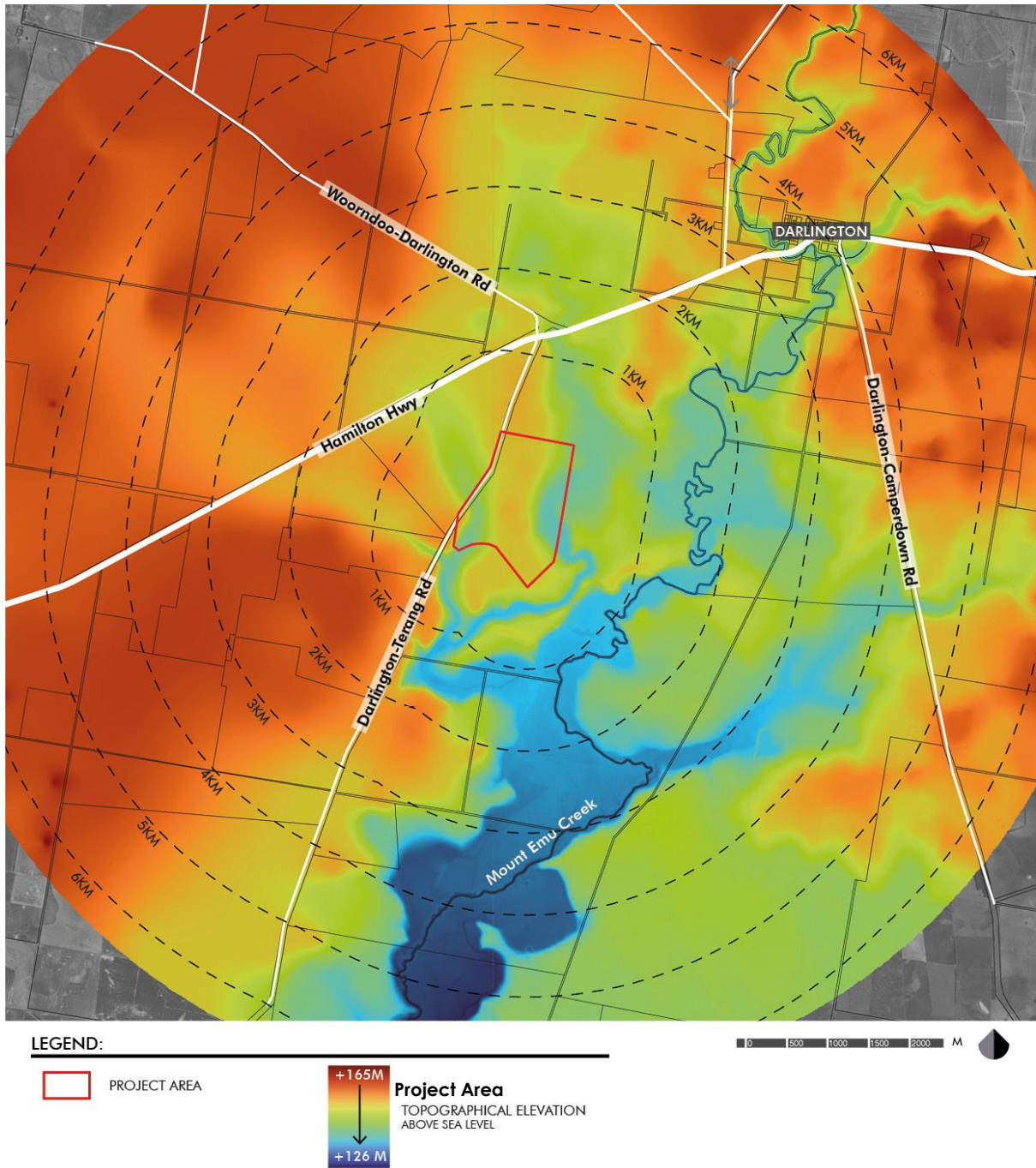


Figure 26 - Topographical elevation of broader surrounds of the Project Area.

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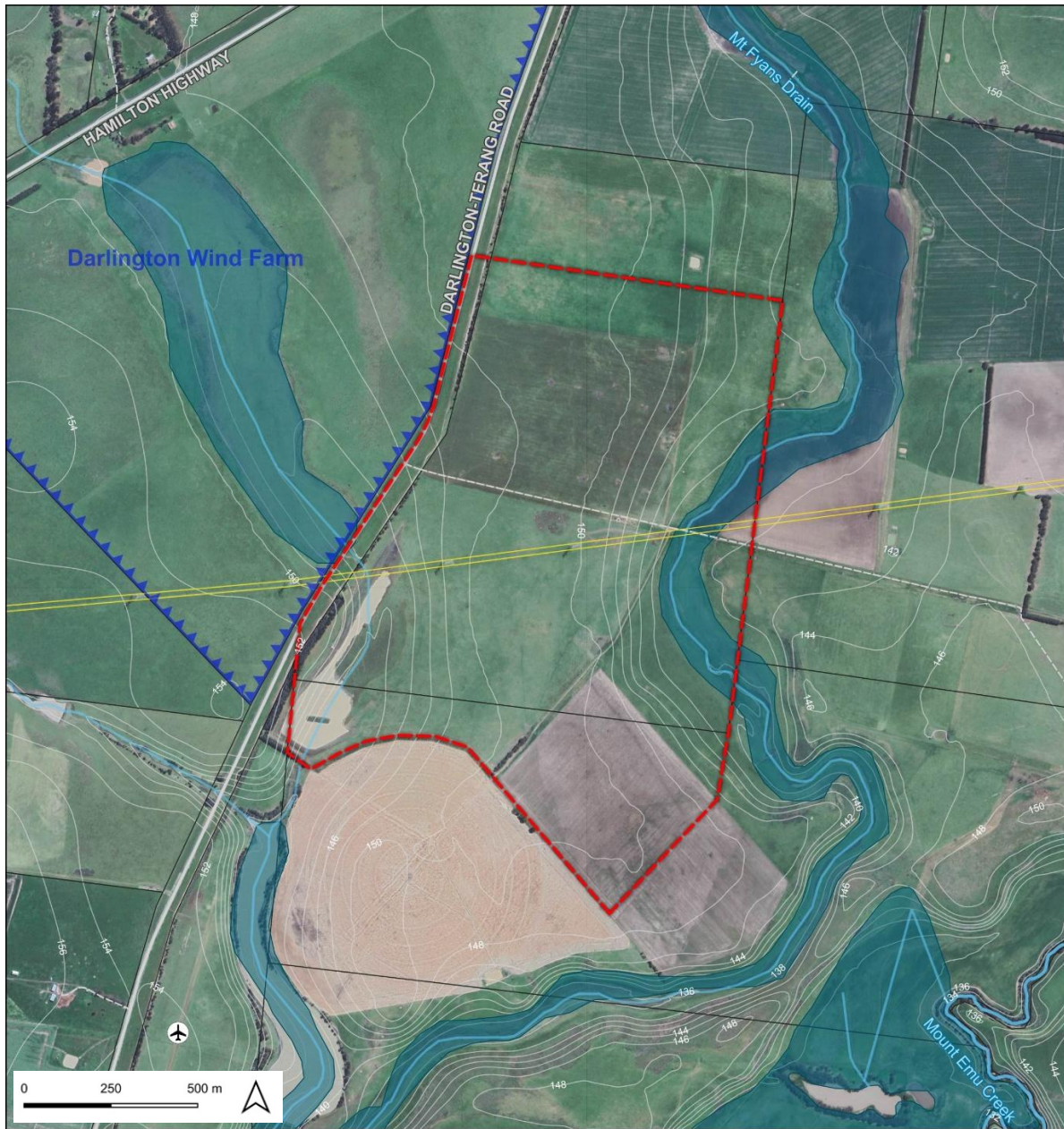


Figure 27 – Topography - Site and immediate surrounds (Source: Cogency).

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Figure 28 – Mount Emu Creek to the east of the Project Area is set within a moderately incised valley.

4.4 Landscape character type

The landscape character type of the broader region in which the study area is located, is defined by Leonard and Hammond ² as:

Western Plains - The Western Plains are a generally flat landscape with topography rising from the coast gradually to the north. Nearer to the coast to the southeast of the regional study area, the landscape becomes more undulating as it rises to the Southern Uplands – Otways Ranges landscape sub-type (refer to **Figure 29**).

Throughout the landscape of the regional setting, the remnants of past volcanic activity can be found in the numerous volcanic cones and craters of the Western Volcanic Plains, such as Mt Elephant, the low stony rises that form distinct, “fine-grained” landscapes and the lakes which are believed to have resulted from the collapse of underground caves formed through volcanic activity.

The patterning created by broad scale agriculture is the dominant human influence on the landscape in the region.

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² Leonard and Hammond (1984). Landscape Character Types of Victoria. Forests Commission of Victoria.

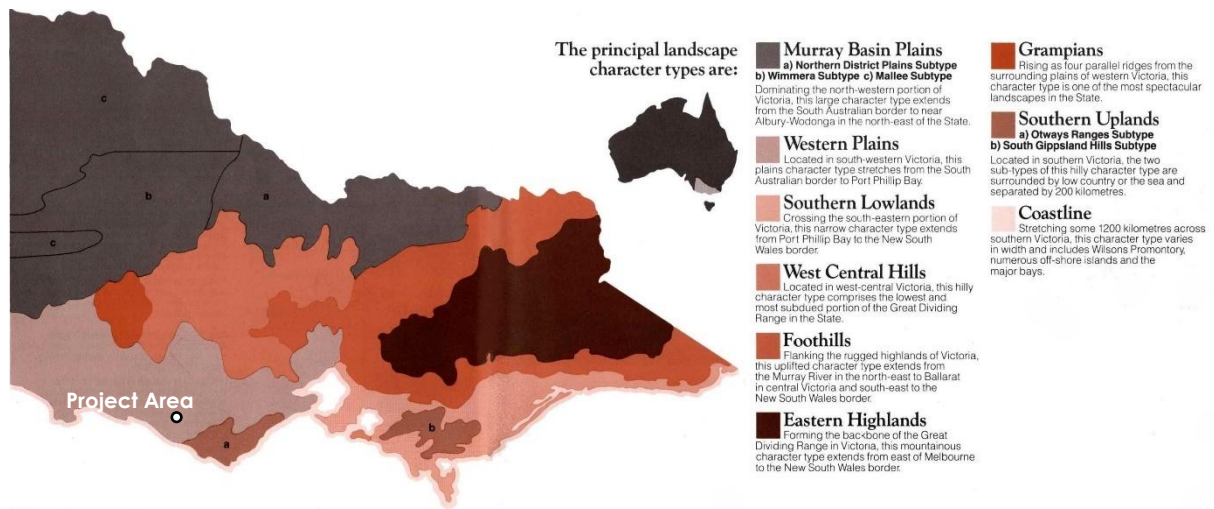


Figure 29 – Landscape Character Types of Victoria Map (Leonard and Hammond, 1984, pgs. 6 and 7).

4.5 Landscape character sub units

Based on the assessment of landscape character unit or types and scenic quality, the local and sub-regional setting of the study area can be divided into the landscape units as shown in **Table 6, Figure 30, Figure 31** and **Figure 32**):

- Western Plains Agricultural / Pastoral Areas
- Hopkins River Headwaters (Mount Emu Creek)
- Rural Townships (Darlington).



Figure 30 - Western Plains Agricultural / Pastoral Areas

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Figure 31 - Hopkins River Headwaters

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Figure 32 - Settlements – Darlington

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4.5.1 South West Victoria Landscape Assessment Study – DELWP (2013)

The South West Victoria Landscape Assessment Study assesses the landscape character of the region as well as its significance and key views and vistas.

The Project falls within Landscape Unit 1 – Western Volcanic Plains, and sits in the regional context of Sub unit 1.3 – Volcanic Agricultural (refer to **Figure 33**). It describes the key features of the landscape unit as:

- Open pastoral landscape with long distance views.
- Exotic shelterbelts.
- Stands of remnant vegetation.

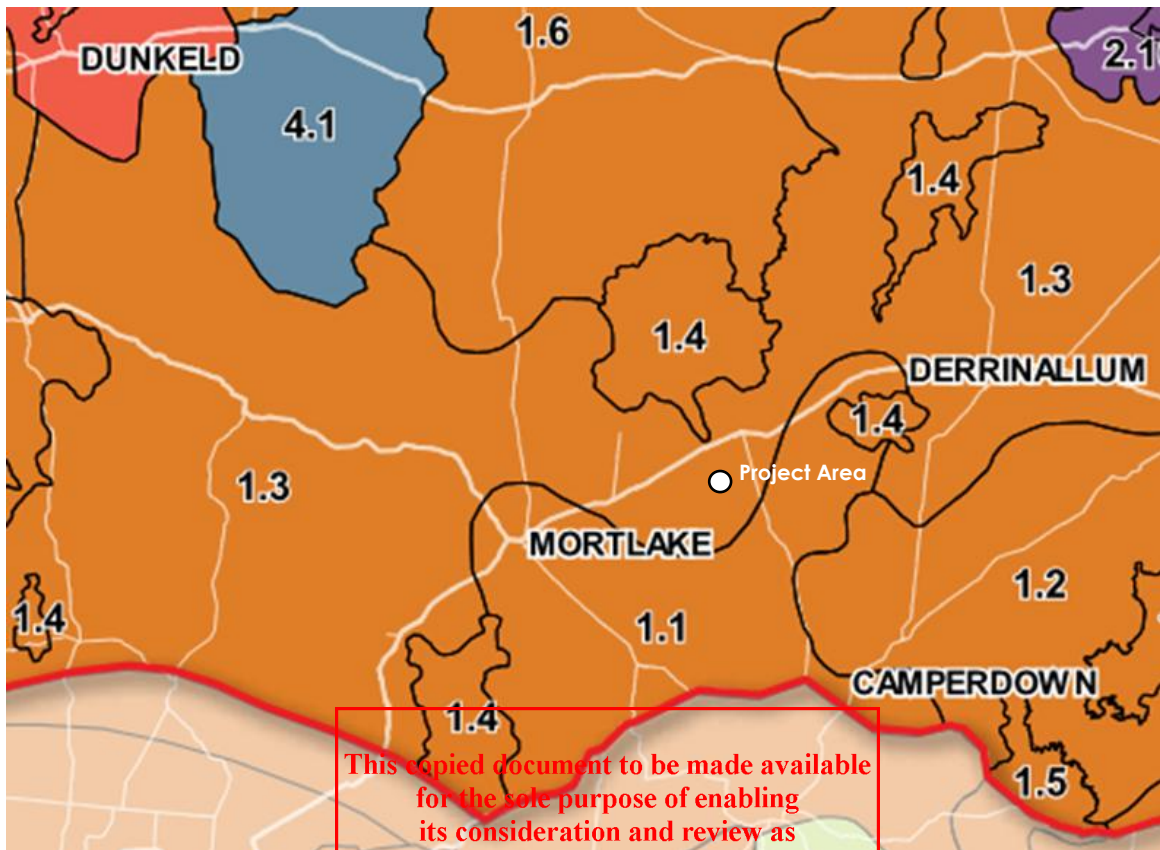


Figure 33 - Landscape sub units of the Project Area. (Source: South West Landscape Assessment Study).

The Assessment Study identifies the following landscape types and views of significance within the setting of the project area:

- The Hopkins River and significant tributaries.
- Long distance views to volcanic cones from the Hamilton Highway.

4.6 Scenic Quality

Scenic quality is somewhat subjective but typically is a combination of a range of factors that have been found to contribute to the human appreciation of landscape. These factors are:

- Topographic variation and ruggedness;
- Strong patterning of vegetation; and
- The presence of water.

Agricultural landscapes are particularly subject to divergent opinions as to what constitutes scenic values. However, basic principles relating to diversity of topography, patterning of vegetation and the presence of water remain contributing factors to a higher level of scenic quality.

Leonard and Hammond describe the scenic qualities of the Western Plains landscape character type, as found on the Project area and its immediate surrounds, as outlined

below in **Table 6**.

Landscape unit area	Scenic quality	Characteristics/use
Western Plains Agricultural / Pastoral Areas	Low	<ul style="list-style-type: none"> extensive clearing and highly altered landscapes broad plain with minimal topographic variation
Hopkins River Headwaters – (Mount Emu Creek)	Moderate	<ul style="list-style-type: none"> moderate degree of topographic relief along numerous slightly incised watercourses some remnant vegetation along water courses
Rural Townships – (Darlington)	Moderate	<ul style="list-style-type: none"> presence of mature, exotic vegetation presence of historic buildings and other built form

Table 6 – Scenic quality of the Project Area and surrounds (Source: Leonard and Hammond).

4.7 Absorptive Capability

The definition of landscape absorptive quality is closely related to that of visual modification levels. It is generally applied at a broader scale than visual modification and is an assessment of how well a landscape setting can accommodate change or a development.

The key factors considered in determining absorptive capability are topography and vegetation. In areas of flatter topography, overlooking is not possible and even a low and thin band of vegetation is able to screen views to a development from a given viewpoint. In areas of undulating or elevated topography, overlooking can occur and vegetation needs to be higher and denser to achieve effective screening. Intervening undulating topography also has the potential to block views in certain landscapes.

The landscape setting of the Project area and surrounds is very flat and, apart from the wetland and riparian landscape to west, comprised of sparse vegetation confined to a rectilinear pattern reflecting property boundaries and roads. Within this landscape, overlooking is generally not possible from most sensitive viewpoints, and even relatively low vegetation (up to eye-height) is effective at screening views.

Topography – High capability due to flat topography, with no potential for overlooking.

Existing Vegetation – Generally low for highly cleared agricultural areas. Moderate to high capability where vegetation exists, particularly roadside plantings.

The overall absorptive capability is moderate given the limited vertical scale of the Project and the mostly open landscape.

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5 VISUAL IMPACT ASSESSMENT

5.1 Visibility of the Project

5.1.1 Theoretical zone of visual influence (TZVI)

A viewshed or TZVI analysis to identify locations within 5km from where the Project may be seen, based on the potential screening effects of topography only (vegetation not considered), has been undertaken for the BESS units at 3m AGL and the Terminal Station components at an average of 8m AGL (refer to **Figure 37**).

Given the relatively flat topography, the Project components, even at a relatively short 5-8m in height, will be theoretically visible beyond 5km distant.

Therefore, the assessment process assumes that there will be theoretical visibility based on topography and focuses on the assessment of the screening effects of vegetation for higher sensitivity viewpoints within this distance. Beyond 5km distance, viewer sensitivity drops to low and visual impacts will typically not exceed low.

5.1.2 The effect of rural residential vegetation on visual screening

In order to provide protection from the influences of the environment, particularly sun and wind, Australian rural residential gardens have traditionally developed a dense band of vegetation to surround an intimate and protected home yard. The effect of this in many instances has been to effectively contain the viewshed from the house and surrounding yard itself, screening distant views. The presence of foreground vegetation has a direct impact on the visibility of the Project and the context in which it will be viewed.

Vegetation within the landscape more distant from the residence that may provide additional screening of views is not considered at this time. However, it is considered as part of the detailed viewpoint assessment.

5.1.2.1 Rural residential viewpoint landscape setting typologies

Throughout the visual catchment, the majority of residences sit within a landscape that is comprised of medium to tall vegetation, with varying levels of density depending on either the extent of clearing or extent of planting.

The height and density of vegetation has a direct relationship to the visual exposure of the residence to the proposed development.

The following three setting typologies have been developed to assist the understanding of the influence of vegetation on the screening of views from residences.

The assessment has considered the overall screening effect of vegetation as it relates to the direction of views towards the Project. For example, if the vegetation at the perimeter of the residence is sparse on the side away from the direction of views to the Project and dense on the side where there may be potential views, the effect of screening vegetation reflects the side with views. The same applies for the converse situation.

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5.1.2.1.1 *Typology 1 – Minimally screened*

Views to external areas are minimally to partially filtered by scattered vegetation.

Influence on visibility and potential impact

Partial to open views of the proposed development will be possible over open pasture or below and between tall, scattered trees. The potential exists for visual impact (refer to **Figure 34**).

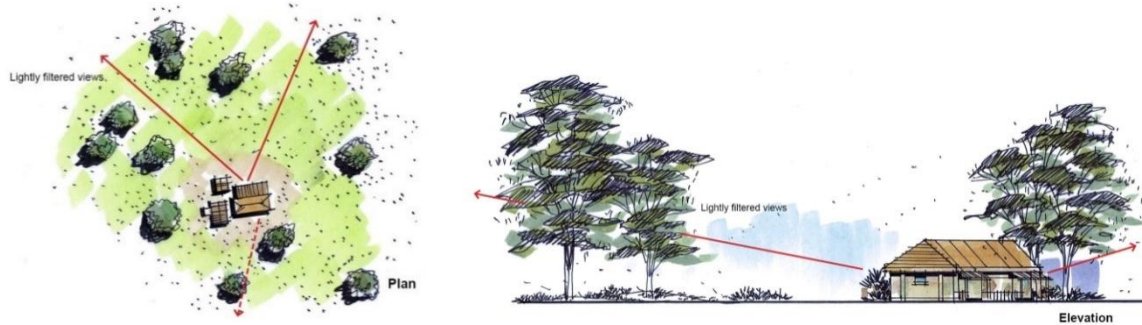


Figure 34 - Typology 1 – Minimally screened. Typical plan and elevation.

5.1.2.1.2 *Typology 2 – Partially screened*

Views to external areas are partially to heavily screened by vegetation.

Influence on visibility and potential impact

Partial to fully screened views of the proposed development will only be possible where limited breaks in vegetation occur. The potential for visual impact is significantly reduced (refer to **Figure 35**).

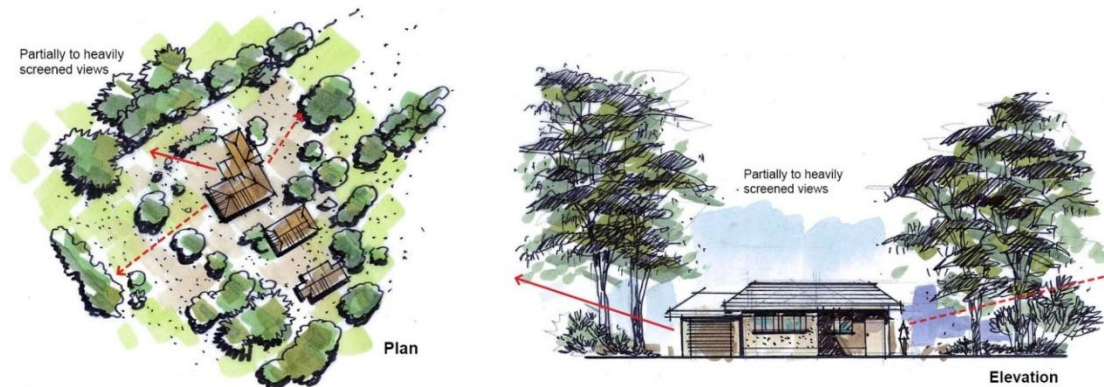


Figure 35 - Typology 2 – Partially screened. Typical plan and elevation.

5.1.2.1.3 *Typology 3 – Heavily screened*

Views to external areas heavily to fully screened by dense vegetation.

Influence on visibility and potential impact

Views of the proposed development will not be possible and therefore any impacts are highly unlikely (refer to **Figure 36**).



Figure 36 - Typology 3 – Heavily screened. Typical plan and elevation.

5.1.2.2 Overview assessment of the effects of vegetation screening on views from residences

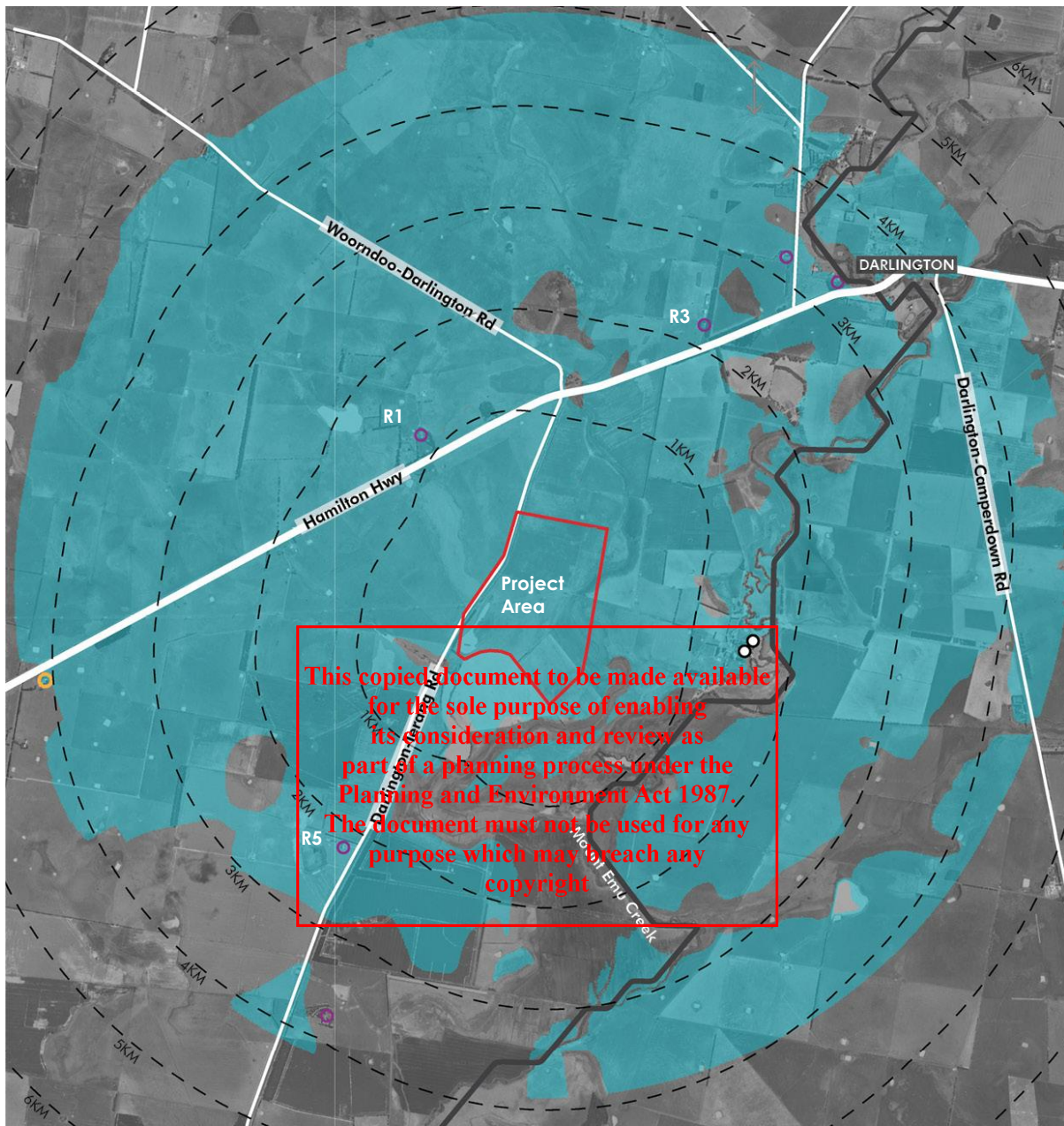
A desktop assessment was undertaken based on aerial photography and Google Streetview imagery (2024 data) as well as a field survey, of the potential degree of visibility from residences surrounding the Project, considering the following factors:

- Proximity to the Project:
 - Within 0-2 km of the Project boundary.
- Degree of vegetation present around the residence, either:
 - Heavily screened,
 - Partially screened, or
 - Minimally screening.

The effect of vegetation screening is shown in **Figure 37** and is considered in the detailed viewpoint assessments in **Section 5.3.1**.

There is an existing associated residence (Stony Point Manor) 1.7km east of the Project Area.

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LEGEND:

- | | | |
|---|--|--|
|  | PROJECT AREA | RESIDENCES:
SCREENING BY PROXIMATE VEGETATION |
|  | TZVI
VARYING COMPONENT HEIGHTS
FROM 3M TO 8M |  HEAVY |
| | |  PARTIAL |
| | |  INVOLVED |



Figure 37 – Viewshed/TZVI and assessment of the screening effect of vegetation on views from non-associated rural residences within 5km.

5.1.3 Visual prominence

In areas of flat topography, the vertical field of view of a BESS unit with a height of 3m will be less than 2.5 degrees, or of moderate visual prominence in viewing distances beyond 70m, less than 0.5 degrees, or of low visual prominence in distances beyond



approximately 350m, and less than 0.25 degrees, or of very low visual prominence in distances beyond 700m.

The vertical field of view of the typical components of the Terminal Station, with an average height of 10m, will be less than 2.5 degrees, or of moderate visual prominence in distances beyond 230m, will be less than 0.5 degrees, or of low visual prominence in distances beyond 1.1km, and less than 0.25 degrees, or of very low visual prominence in distances beyond 2.2km

The horizontal field of view is not considered relevant given the relatively small footprint of the Project, and the distance from sensitive viewpoints, resulting in an angle of less than 30 degrees, or no greater than a moderate level of visual prominence.

5.2 Sensitive viewpoints

The viewpoint (VP) locations that are included in this assessment are from uses considered to be of higher sensitivity (refer to **Table 2** and **Figure 38**). Due to the relatively low-profile form of the Project and the relatively low residential density, the detailed assessment of viewpoints has been confined to sensitive locations that are within 4km of the Project and also fall within the TZVI, the area within which the Project will be most visible.

The locations selected for photography and assessment are within the public realm and proximate to the sensitive, privately owned visual use area.

5.3 Photosimulations

Photosimulations have been prepared in accordance with the VCAT practice note, with the images being 50mm focal length on a full frame 35mm DSLR camera.

The BESS units are based on standard commercial units arranged as per the project site design. As the ultimate design of the Terminal Station is yet to be determined, this has been shown indicatively. The connecting HV towers are also shown indicatively.

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Figure 38 – Assessed viewpoint (VP) locations (Source: Google Earth).

5.4 Visual impact assessment

This section includes a detailed assessment of the Project from the selected, highest sensitivity viewpoints, with a rating given for the level of visual modification and sensitivity which, when combined, result in a determination of the degree of overall visual impact for each viewing location.

Typically, given the reduction in visual sensitivity in distances beyond 2km, as well as the visual prominence based on the vertical of view occupied reducing to very low in distances beyond 600m, the assessment for a BESS facility would only consider the most sensitive viewpoints within 2km of the Project. However, given the township of Darlington is located to the northeast of the Project area, this assessment radius has been expanded.

5.4.1 Detailed assessment of representative sensitive viewpoints

VIEWPOINT 1 – DARLINGTON – TERANG ROAD - SOUTHBOUND	
Photo Location	Eastern roadway verge (refer to Figure 39 -left).
Viewing Distance	400m to the Project (BESS) from the viewpoint.
Duration of View and Frequency of View	Duration: Dynamic. Frequency: Low.
Visual Use Area	Local Road – partially open setting (refer to Figure 39 –right and Figure 40).
Visual Sensitivity	LOW - Sensitivity of users is low based on the use.
Visual Modification	MODERATE to HIGH – From this viewpoint and locations north, the Project will be partially screened by existing planting along the eastern road reserve, both in the reserve and adjacent private properties. As the viewpoint moves further to the south near the Project, views will progressively open up as the roadside vegetation reduces in density (refer to Figure 40 and Figure 41).
Visual Impact	LOW to MODERATE – The low level of visual sensitivity combined with a moderate to high visual modification level results in a low to moderate level of visual impact.
Proposed Amelioration	Perimeter screening – Amelioration is required along the northern and western boundaries of the Project Area or the immediate vicinity of the BESS located at the Terminal Station. However, boundary planting along the roadside will be more effective given its immediate proximity to road users.
Residual Impact	LOW – Over time, the proposed amelioration would fully screen views of the lower components of the Project, while the upper parts of the Terminal Station and HV towers would remain visible. The residual impact would reduce to low (refer to Figure 42).

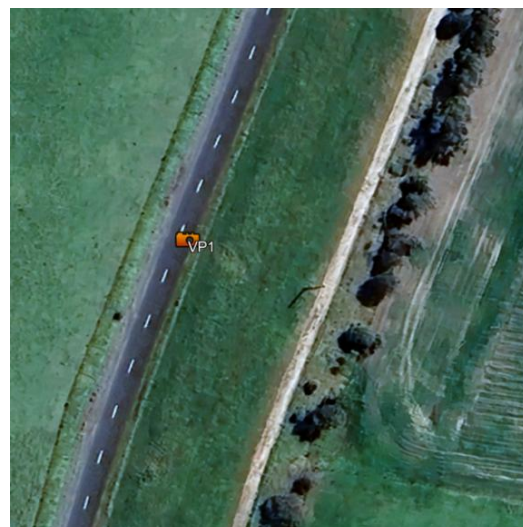


Figure 39 – Location of roadway viewpoint (VP1) in relation to Project (left aerial view) and immediate landscape setting (right aerial view) (Source: Google Earth).



Figure 40 – VP1 – View south southeast from Darlington-Terang Road to the Project Area.



Figure 41 – VP1 – Photomontage - View south southeast from Darlington-Terang Road to the Project – at completion of construction.

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Figure 42 – VP1 – Photomontage -- View south southeast from Darlington-Terang Road to the Project - 5 years post landscape amelioration.

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VIEWPOINT 2 – DARLINGTON – TERANG ROAD - NORTHBOUND	
Photo Location	Eastern roadway verge (refer to Figure 43 -left).
Viewing Distance	1.5km to the Project (Terminal Station) from the viewpoint.
Duration of View and Frequency of View	Duration: Dynamic. Frequency: Low.
Visual Use Area	Local Road – partially open setting (refer to Figure 43 -right and Figure 44).
Visual Sensitivity	LOW - Sensitivity of users is low based on the use.
Visual Modification	LOW to MODERATE – From this viewpoint and locations south, the Project will be partially to fully screened by dense, existing planting along the eastern road reserve, both in the reserve and adjacent private properties. As the viewpoint moves further to the north, views of the Project will progressively open up. The taller components of the Terminal Station would project above lower vegetation (refer to Figure 44).
Visual Impact	LOW – The low level of visual sensitivity combined with a low to moderate visual modification results in a low level of visual impact.
Proposed Amelioration	Perimeter screening – Given the low level of visual impact, amelioration is not necessarily required to mitigate views from this viewpoint. However, planting along the western and southern boundaries would fully screen glimpses of the Project.
Residual Impact	LOW to VERY LOW – Over time, the proposed amelioration would fully screen views of the lower components of the Project, while the upper parts of the Terminal Station and HV towers would remain visible. The residual impact would reduce to low to very low.



Figure 43 – Location of roadway viewpoint (VP2) in relation to Project (left aerial view) and immediate landscape setting (right aerial view) (Source: Google Earth).



Figure 44 – VP2 – View north northeast from Darlington-Terang Road to the Project Area.

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VIEWPOINT 3 – HAMILTON HIGHWAY - EASTBOUND	
Photo Location	Southern roadway verge (refer to Figure 45 -left).
Viewing Distance	1.7km to the Project (BESS) from the viewpoint.
Duration of View and Frequency of View	Duration: Dynamic. Frequency: Moderate.
Visual Use Area	“B” Category Highway – partially contained setting (refer to Figure 45 -right and Figure 46).
Visual Sensitivity	LOW - Sensitivity of users is moderate based on the distance from the Project being greater than 1km.
Visual Modification	LOW to MODERATE – This viewpoint is located at a break in the roadside vegetation and is typical of occasional glimpses of the Project that may be experienced by road users. There is little intervening vegetation to screen views but the band of vegetation along the east side of Darlington-Terang Road provides some screening of the BESS. The visual modification level is low to moderate (refer to Figure 47).
Visual Impact	LOW – The low level of visual sensitivity combined with low to moderate level of visual modification results in a low level of visual impact.
Proposed Amelioration	None Required – Given the low level of visual impact, amelioration is not required in accordance with the Planning and Environment Act 1987. However, planting along the western and southern boundaries would improve views of the lower parts of the Project.
Residual Impact	LOW to VERY LOW – Over time, the proposed amelioration would fully screen views of the lower components of the Project, while the upper parts of the terminal station and HV towers would remain visible. The residual impact would reduce to low to very low (refer to Figure 48).

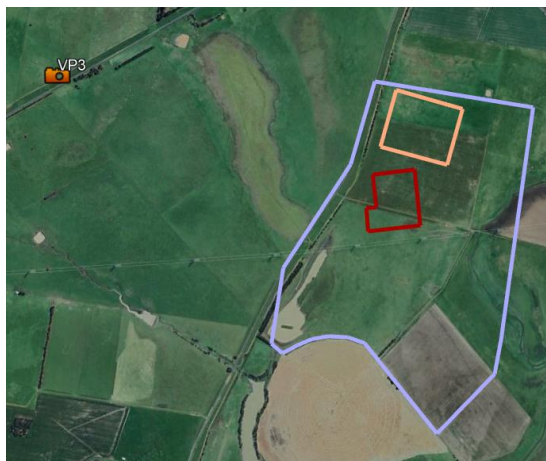


Figure 45 – Location of roadway viewpoint (VP3) in relation to Project (left aerial view) and immediate landscape setting (right aerial view) (Source: Google Earth).



Figure 46 – VP3 – View southeast from the Hamilton Highway to the Project Area.



Figure 47 – VP3 – Photomontage - View southeast from the Hamilton Highway to the Project – at completion of construction.

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Figure 48 – VP3 – Photomontage - View southeast from Hamilton Highway to the Project - 5 years post landscape amelioration.

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VIEWPOINT 4 – HAMILTON HIGHWAY - WESTBOUND	
Photo Location	Southern roadway verge (refer to Figure 49 -left).
Viewing Distance	1.8km to the Project (BESS) from the viewpoint.
Duration of View and Frequency of View	Duration: Dynamic. Frequency: Moderate.
Visual Use Area	“B” Category Highway – open to partially contained setting (refer to Figure 49 –right and Figure 50).
Visual Sensitivity	LOW - Sensitivity of users is moderate based on the distance from the project being greater than 1km.
Visual Modification	LOW to MODERATE – This viewpoint is located at a break in the roadside vegetation and is typical of occasional glimpses of the Project that may be experienced by road users. There is little intervening vegetation to screen views. However, given the distance, the visual modification level is low to moderate (refer to Figure 51).
Visual Impact	LOW – The low level of visual sensitivity combined with low to moderate level of visual modification results in a low level of visual impact.
Proposed Amelioration	None is required. Given the level of visual impact, amelioration is not a planning requirement to mitigate the views from this viewpoint. However, the Engineering Act 1987 and northern boundaries would screen glimpses of the lower components of the Project.
Residual Impact	LOW to VERY LOW – Over time, the proposed amelioration would fully screen views of the lower components of the Project, while the upper parts of the terminal station and HV towers would remain visible. The residual impact would reduce to low to very low.

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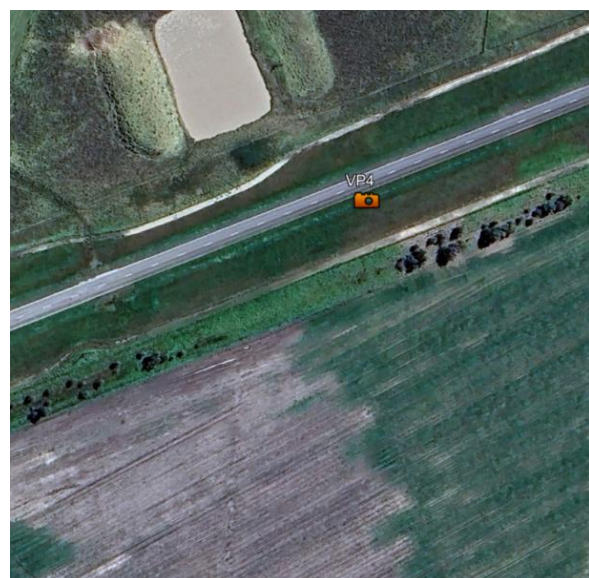


Figure 49 – Location of roadway viewpoint (VP4) in relation to Project (left aerial view) and immediate landscape setting (right aerial view) (Source: Google Earth).



Figure 50 – VP4 - Landscape character of the site.

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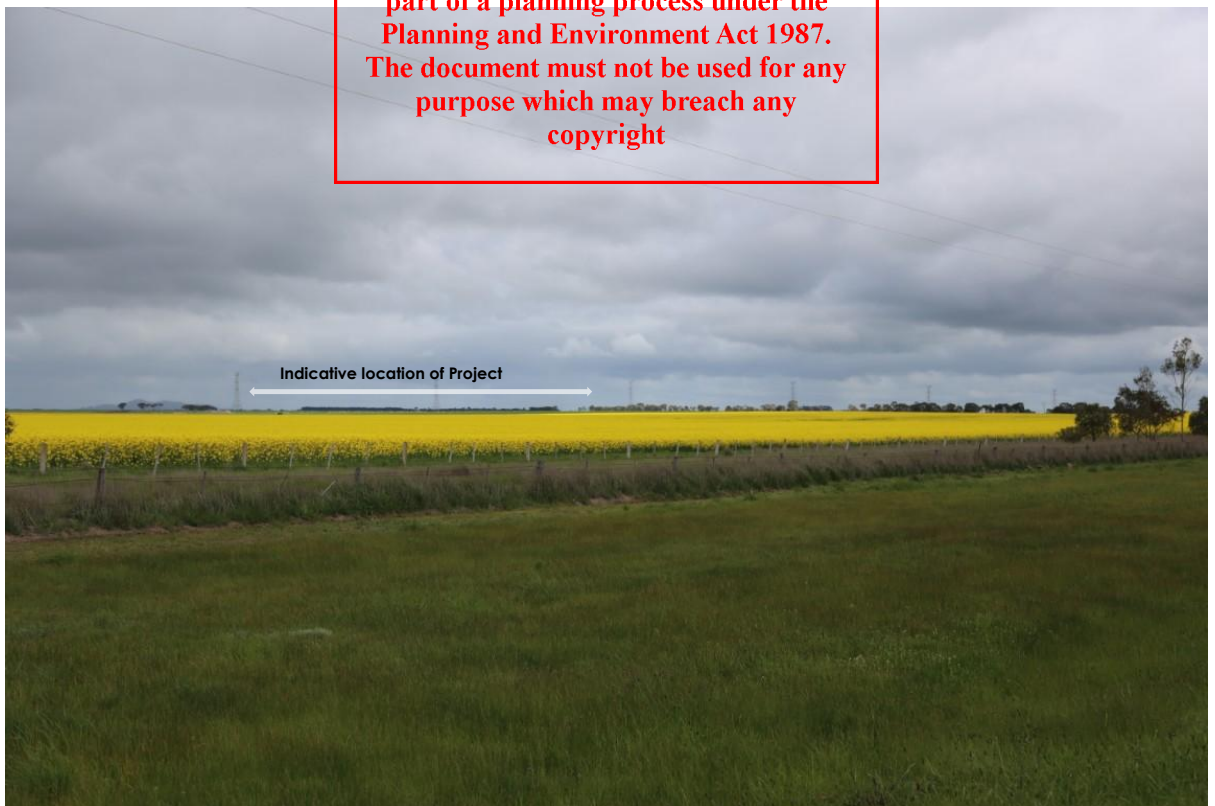


Figure 51 – VP4 – View southwest from the Hamilton Highway to the Project Area.

VIEWPOINT 5 – RESIDENCE AT 3282 HAMILTON HIGHWAY (R1)	
Photo Location	Hamilton Highway near the driveway to the property, approx. 225m south of the residence (refer to Figure 52-left)
Viewing Distance	1.2km to the Project (BESS) from the residence and the 975m from photo location B.
Duration of View and Frequency of View	Duration: Static. Frequency: Low.
Visual Use Area	Rural Residential – Heavily screened setting (refer to Figure 52– right and Figure 53).
Visual Sensitivity	HIGH - Sensitivity of users is high based on the residential use.
Visual Modification	Not Visible to VERY LOW – From this viewpoint, the Project will be heavily screened by vegetation immediately to the south of the residence, as well intervening vegetation along the western boundary of the of the Project (refer to Figure 54).
Visual Impact	No Impact to LOW – The high level of visual sensitivity combined with a not visible to very low visual modification level will result in a not visible to low visual impact.
Proposed Amelioration	None Required – Amelioration not required for this viewpoint. However, planting to the Project’s northern and western perimeters would screen any glimpses from the residence through surrounding vegetation.
Residual Impact	No Impact – Amelioration would result in the Project not being visible.

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Figure 52 – Location of residence (VP5) and photo in relation to Project (left aerial view) and immediate landscape setting (right aerial view) (Source: Google Earth).

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Figure 53 – VP5 - View of the landscape setting of the residence from the Hamilton Highway.



Figure 54 – VP5 – View southeast to the Project area from the driveway entry to the residence on the Hamilton Highway, 225m to the south of the residence.

VIEWPOINT 6 – RESIDENCE AT 490 DARLINGTON-TERANG ROAD (R5)	
Photo Location	Darlington-Terang Road approx. 130m east of the residence (refer to Figure 55 -left).
Viewing Distance	2.1km to the Project (BESS) from the residence and the photo location.
Duration of View and Frequency of View	Duration: Static. Frequency: Low.
Visual Use Area	Rural Residential – Heavily screened setting (refer to Figure 55 –right and Figure 56).
Visual Sensitivity	MODERATE - Sensitivity of users is moderate based on the residential use being located more than 2km from the Project.
Visual Modification	Not Visible – From this viewpoint, the Project will be screened by vegetation immediately to north of the residence, as well intervening vegetation to the south of the Project area as well as that lining the eastern road reserve (refer to Figure 55 -left and Figure 57).
Visual Impact	No Impact – The Project will not be visible from this viewpoint. As a result, there is no visual impact.
Proposed Amelioration	None Required – As the Project is not visible, amelioration is not required.
Residual Impact	No Impact – There is no visual impact, amelioration would not reduce the level of residual impact.

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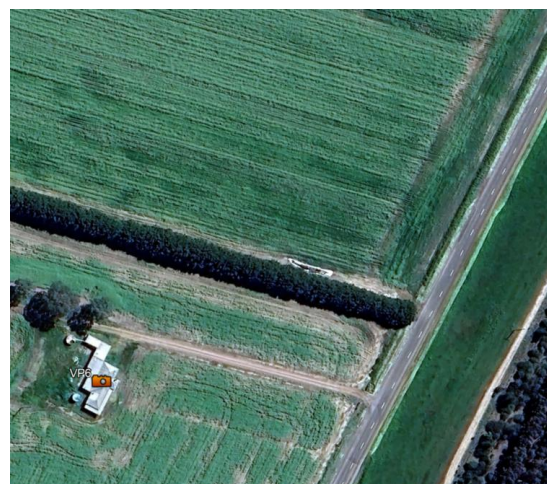
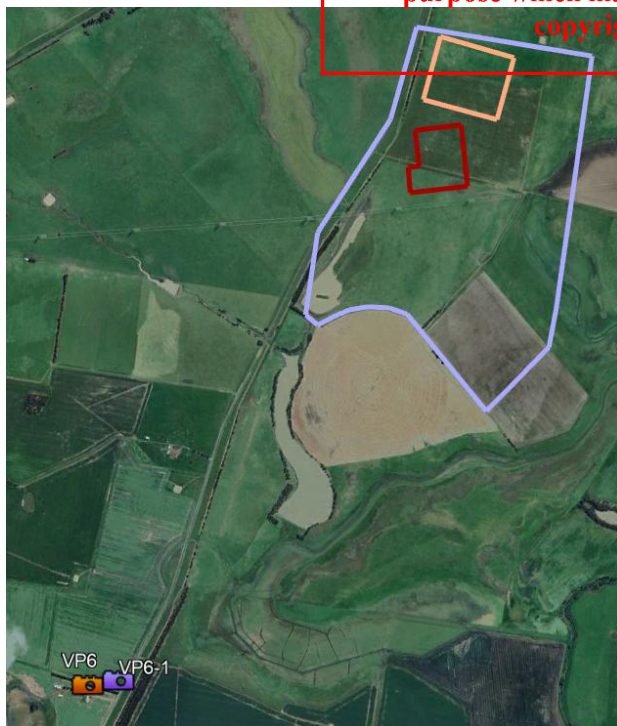


Figure 55 – Location of residence (VP6) and photos in relation to Project Area (left aerial view) and immediate landscape setting (right aerial view) (Source: Google Earth).



Figure 56 – VP6 – View of the landscape setting of the residence from Darlington-Terang Road to the east (Photo VP3A).

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Figure 57 – VP6 – View north northeast to the Project Area from the driveway entry to the east of the residence (Photo VP3B).

VIEWPOINT 7 – DARLINGTON RESIDENTIAL AREA – HALL STREET	
Photo Location	Hall Street at the intersection of the Hamilton Highway (refer to Figure 58 -left).
Viewing Distance	3.7km to the Project (BESS) from the photo location.
Duration of View and Frequency of View	Duration: Static and Dynamic. Frequency: Moderate.
Visual Use Area	Residential (township) – partially screened setting (refer to Figure 58 -right and Figure 59).
Visual Sensitivity	MODERATE - Sensitivity of users is moderate based on the residential use being located more than 2km from the Project.
Visual Modification	Not Visible – From this viewpoint, the Project will be fully screened by topography and vegetation (refer to Figure 60).
Visual Impact	No Impact – As the Project is not visible, there will be no impact.
Proposed Amelioration	None required – As the Project is not visible, amelioration is not required.
Residual Impact	No Impact – Given there is no impact, amelioration planting would not reduce the residual impact level.



Figure 58 – Location of Darlington township (VP7) and photo in relation to Project (left aerial view) and immediate landscape setting (right aerial view) (Source: Google Earth).

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Figure 59 – VP7 - View of the landscape setting of the township.

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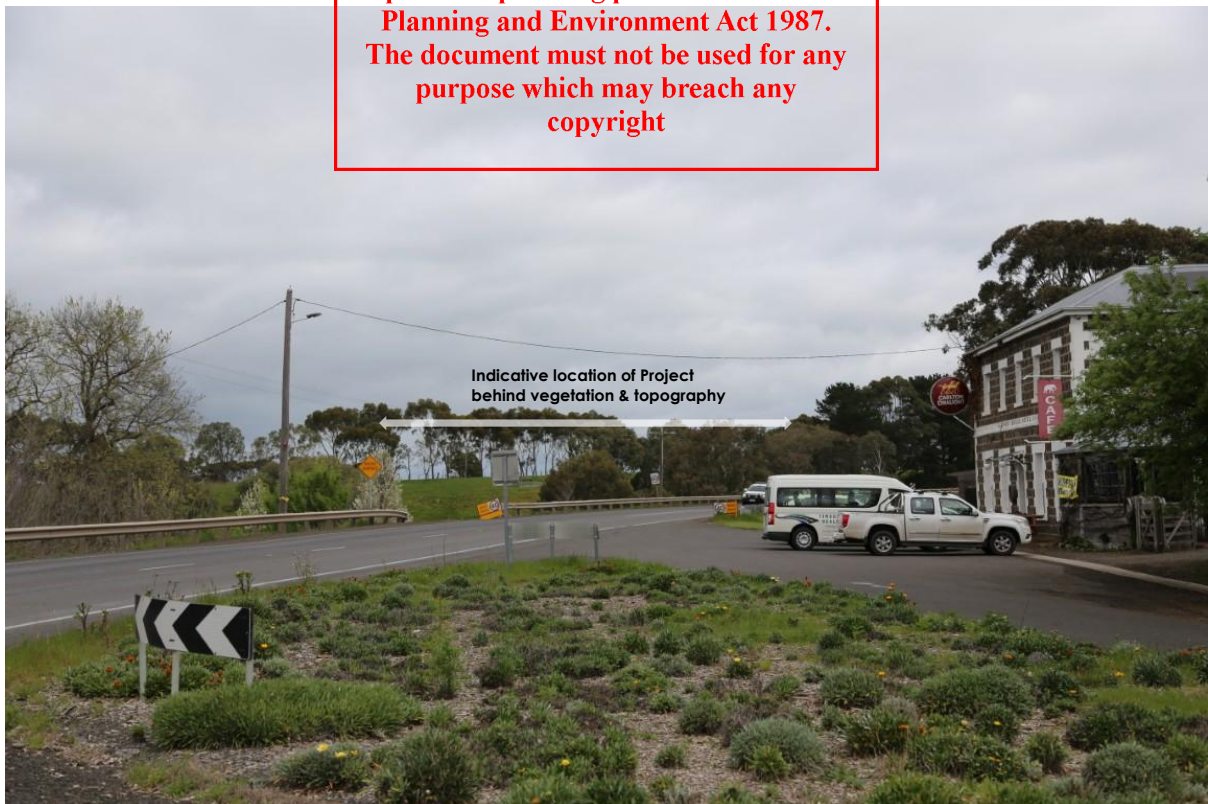


Figure 60 – VP7 – View southwest to the Project from Hall Street at the intersection with the Hamilton Highway.



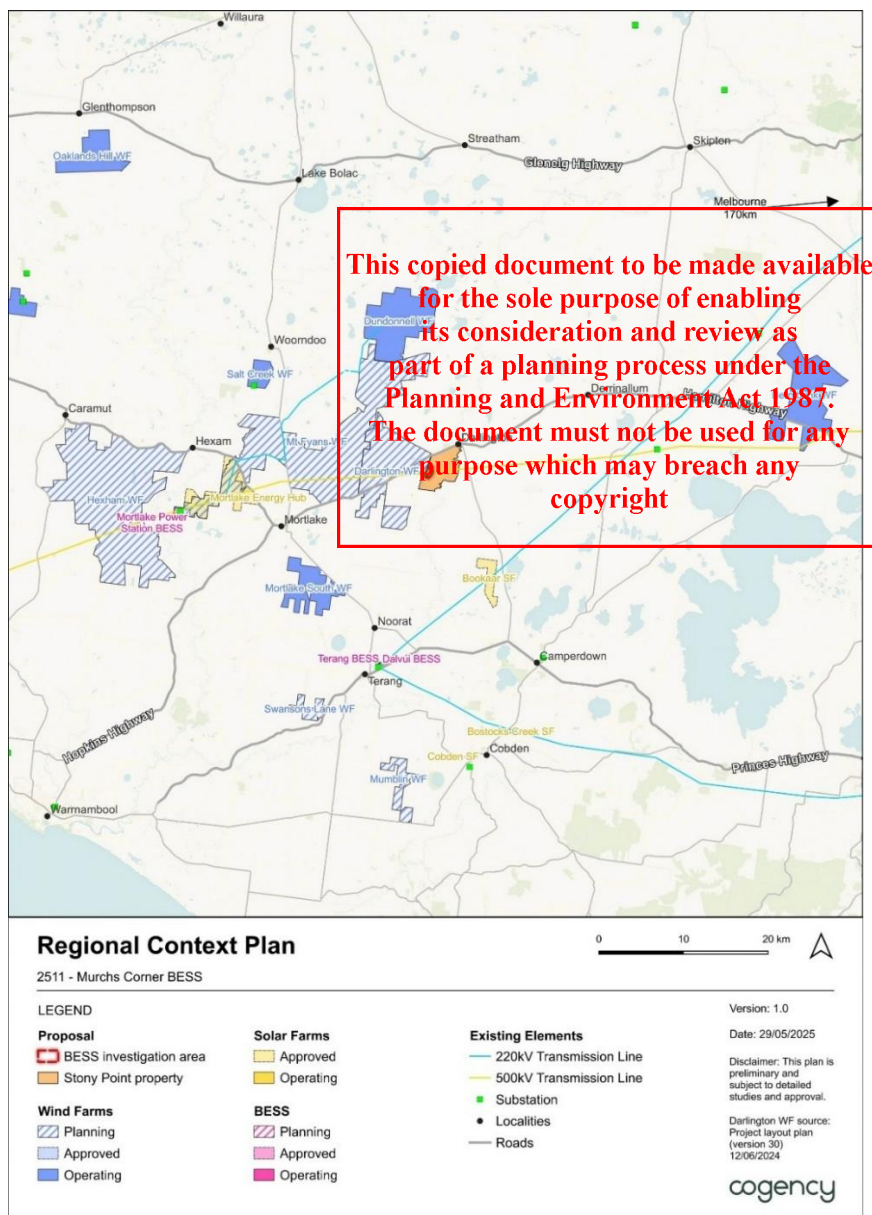
5.5 Cumulative impacts

Currently, the landscape of the Project area and broader setting has been modified by the high voltage powerlines that traverse it. As a result, the collocation of the Project on the same alignment as the powerline reduces the footprint of modifications to the setting.

Although yet to be approved, the Project will be a relative minor element in the context of the proposed Darlington Wind Farm.

Given the visual prominence of the wind turbines in the setting, the existing powerlines and the Project with its low-profile horizontal form, will be a relatively minor element by comparison.

As opposed to resulting in a cumulative impact, the Project achieves collocation of similar activities.



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Figure 61 – Cumulative impact – operating, approved and under consideration projects (Source: Cogency)



5.6 Lighting impacts

The applicable environmental lighting zone for the Project area based on AS-NZS-4282-2019 is Category A2, which is a low district lighting area, which applies to rural residential areas and areas with secondary and local roads.

The environmental lighting zone of Darlington ranges between Category A2 and Category A3, low district lighting area to medium district lighting area.

It is likely that the batteries and substation will require security lighting. However, typically this will be shielded and directional. As a result, hot spots and light spill are likely to be minimised.

Within the Category A2 area the Project will result in a localised area of increased light intensity, but this will not result in adverse impacts to surrounding residential viewpoints.

The establishment of perimeter landscaping will further ameliorate views to already low levels of lighting.

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6 AMELIORATION STRATEGIES

Actions exist to potentially ameliorate the landscape and visual impacts of the Project. These are outlined in the following sections.

6.1 On-Site Actions

On-site actions relate to initiatives which can be undertaken within the boundaries of the Project area.

6.1.1 Project layout

Arranging the components of the Project so that they respond to sensitive, visually exposed interfaces, is a proactive measure to reduce visual impacts from the outset and lessen the reliance on amelioration measures.

The siting has made effective use of existing vegetation to the west and southwest of the Project area to ensure that initial, pre-amelioration impacts are reduced for some viewpoints.

Additionally, the tallest elements of the Project (Terminal Station) are located to the south of the Project site and furthest from the Hamilton Highway.

6.1.2 Perimeter screening

6.1.2.1 Mounding/bunding

Given the surplus earthworks material on site, the opportunity exists for mounds or bunds to be established along sensitive interfaces. These could be grassed where components of a lower height require screening or planted with trees and shrubs where taller components require screening.

6.1.2.2 Vegetation

The most effective way to ameliorate views from high sensitivity viewpoints is to establish screen planting around the perimeter of the Project where existing vegetation is lacking. The proposed screen planting will comprise perimeters of varying densities, utilising a mixture of:

- tall shrubs to 4m in height; and
- trees ranging in height from 6m-20m in height.

HV line clearances will be maintained through the use vegetation of the required maximum height. Additionally, the required 10m wide APZ will need to be considered in any layout.

Although the visual impacts are mostly low, the Project has its most exposed boundaries to the Hamilton Highway and Darlington-Terang Road. Planting to the southern boundary is not considered necessary (refer to **Figure 62**).

The relatively low-profile form of the BESS component of the Project will ensure that planting will be able to provide screening within a relatively short period of time.

Being a taller element, it will take longer for planting to ameliorate the impacts of the Terminal Station.

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Figure 62 – Landscape amelioration framework.

6.1.3 Material selection

The BESS units and buildings that result in an aggregated visual mass should be ameliorated through the use of a natural or neutral colour, as found in the landscape of the setting. There is also a preference for non-reflective finishes.

The more slender and articulated form of the components of the Terminal Station do not require amelioration through the use of non-standard colours, as the standard “grey” finish is visually recessive against sky backdrops and is readily integrated through the use of only tall, sparse planting (refer to **Figure 63**).

6.2 Off-Site Actions

These actions relate to initiatives which can be undertaken outside of the Project area and would require the consent of relevant landowners, utilities or authorities. However, given the relatively low levels of impact, and the extensive size of the Project area, it is apparent that all required amelioration can be achieved on-site, and that no off-site actions will be required.



Figure 63 - Example of canopy vegetation providing visual integration of taller substation infrastructure.

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7 CONCLUSION

7.1 Landscape character impacts

The existing agricultural landscape character of the Project area and surrounding areas is of relatively low scenic quality and currently contains a number of electrical infrastructure elements such as the HV transmission lines that bisect the Subject Land.

The mostly horizontal form of many of the components of the Project would not result in a significant visual change to the existing character. The collocation of the taller components of the Project proximate to the existing HV lines is in accordance with best practice, constraining the cumulative visual impact of the infrastructure to a reasonably limited area.

The landscape of the Project setting has a generally moderate landscape absorptive capacity, with flat topography and vegetation that is scattered and occasionally arranged in dense bands. Within this landscape, overlooking is generally not possible from most sensitive viewpoints, and even relatively low vegetation (up to eye-height) is effective at screening views.

7.2 Visual impacts

Visual prominence

In areas of flat topography, the vertical field of view of the 3m high BESS units will be less than 2.5 degrees, or of moderate visual prominence in viewing distances beyond 120m, less than 0.5 degrees, or of low visual prominence in distances beyond approximately 500m, and less than 0.25 degrees, or of very low visual prominence in distances beyond 1,100m.

The vertical field of view of the typical components of the Terminal Station, with an average height of 8 to 10m, will be less than 2.5 degrees, or of moderate visual prominence in distances beyond 230m, will be less than 0.5 degrees, or of low visual prominence in distances beyond 1.1km, and less than 0.25 degrees, or of very low visual prominence in distances beyond 2.2km

The horizontal field of view is not considered relevant given the relatively small footprint of the Project, and the distance from closest sensitive residential viewpoints, resulting in an angle of less than 30 degrees, or no greater than a moderate level of visual prominence.

Consideration of visual fit within the setting

The presence of the existing HV pylons and powerlines provide the taller components of the Project a degree of visual fit within the landscape setting.

Initial visual impact

Prior to amelioration, limited sensitive uses proximate to the Project will result in higher initial levels of impact. These are:

- Viewpoint 1 – Darlington-Terang Road southbound with a low to moderate visual impact; and
- Viewpoint 2 – Darlington-Terang Road northbound with a low to moderate visual impact.

While the Project will be visible from these viewpoints, the flat topography means that amelioration planting is likely to be highly effective in visually screening the Project.

Apart from the above, overall, the Project is assessed as having a low level of visual impact or not being visible at all due to being well screened by existing vegetation, particularly that located around the rural residences.

Residual impact

The residual visual impact for all viewpoints will typically not be visible or reduce to a very low impact after the establishment of amelioration measures.

Cumulative impact

Although yet to be approved, the Project will be a relative minor element in the context of the proposed Darlington Wind Farm.

Given the visual prominence of the wind turbines in the setting, the existing powerlines and the Project with its low-profile horizontal form, will be a relatively minor element by comparison.

As opposed to resulting in a cumulative impact, the Project achieves collocation of similar activities.

7.3 Lighting impacts

Within the Category A2 area the Project will result in a localised area of increased light intensity. However, this will not result in adverse impacts to surrounding residential viewpoints given the extent of screening vegetation surrounding them.

The establishment of perimeter landscaping will further ameliorate views to already low levels of lighting for road users.

7.4 Amelioration

The analysis indicates that given the lower-level visual impacts, amelioration is not required. However, the vegetation along the western boundary on Darlington-Terang Road could be infilled, and vegetation could be located to the north of the Project to screen views from the Hamilton Highway. This approach would ensure that the Project has been treated in accordance with best-practice principles to integrate infrastructure within the landscape setting.

Additionally, the BESS units and buildings that result in an aggregated visual mass, should be ameliorated through the use of an appropriate choice of recessive surface colour.

The more slender and articulated form of the components of the Terminal Station do not require amelioration through the use of non-standard colours.

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CONSULTING**

APPENDIX A – Photomontages

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VP1 - Photosimulation view towards the Project from Darlington – Terang Road.

Murchs Corner BESS



VP1 - Photosimulation view towards the Project from Darlington – Terang Road with ameliorative landscape at 5 years.



VP1 – 3D model wireframe overlay view towards the Project from Darlington – Terang Road.



VP3 – Photosimulation view towards the Project from the Hamilton Highway.



VP3 – Photosimulation view towards the Project from the Hamilton Highway with ameliorative landscape at 5 years.



VP3 – 3D model wireframe overlay view towards the Project from the Hamilton Highway.

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