BLUE MACKEREL OSWF

Blue Mackerel Offshore Wind Farm Preliminary Visual Assessment - December 2025

L A N D F O R M
ARCHITECTS

Blue Mackerel Offshore Wind Farm

Preliminary Visual Assessment

Rev0

December 2025

Blue Mackerel North Pty Ltd

Project No:	PJ00107
Document Title:	Blue Mackerel Offshore Wind Farm Preliminary Visual Assessment
Document No.:	PJ000107 Blue Mackerel WF SLVIA Review Dec A3.docx
Revision:	Rev0
Date:	December 2025
Client Name:	Blue Mackerel North Pty Ltd
Author:	Hayden Burge
File Name:	PJ000107 Blue Mackerel WF SLVIA Review Dec A3.docx

Landform Architects

ABN 90 656 219 251

T: +61 0438 677 175

Contents

Tables

Figures

1 Introduction

Blue Mackerel is an offshore wind project (The Project) being proposed by Blue Mackerel North Pty Ltd under JERA Nex BP to develop a new offshore wind farm off the coast of Brataualung and Tatungalung Country, Gippsland, approximately 10 km off Ninety Mile Beach between Seaspray and Woodside. The Project involves the construction of a new 1.0 GW offshore wind farm comprising up to 70 wind turbines, together with associated grid connection and supporting infrastructure.

The turbine array and offshore infrastructure are located within Commonwealth jurisdiction and are regulated federally under the *Offshore Electricity Infrastructure Act 2021*.

The onshore grid-connection infrastructure and subsea export cables in Victorian waters are subject to Victoria's planning and environmental framework.

This dual-jurisdiction context has been incorporated into the structure of this assessment to ensure that potential Seasscape and Landscape Visual Impacts are considered across both regulatory environments.

1.1 Purpose of this report

Landform Architects has been engaged by JBS&G Australia Pty Ltd (JBS&G), on behalf of Blue Mackerel North Pty Ltd (BMN), to review and identify considerations related to Seascape Landscape and Visual Impacts (SLVIA) associated with the Project.

This is not a detailed Seascape and Landscape Visual Impact Assessment, rather it provides an understanding of the potential visual considerations to inform the Project's environmental planning and approvals referrals and to guide subsequent assessment work as the Project design progresses.

Although the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) does not regulate visual impacts as a standalone matter, the *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance* require consideration of potential impacts on World Heritage properties and National Heritage places. DCCEEW have included 'Physical presence - Socioeconomic: seascapes and visual amenity' as an impact pathway in their guidance document *Key environmental factors for offshore windfarm environmental impact assessment under the Environment Protection and Biodiversity Conservation Act 1999* (DCCEEW 2023). As the project is located within the Commonwealth Marine Area, visual amenity should be considered in accordance with this guidance.

A high-level review undertaken for this report did not identify any Commonwealth Heritage Places or any National or World Heritage-listed places within the study area. These matters will be examined in further detail as part of the Historical Heritage Impact Assessment (HHIA).

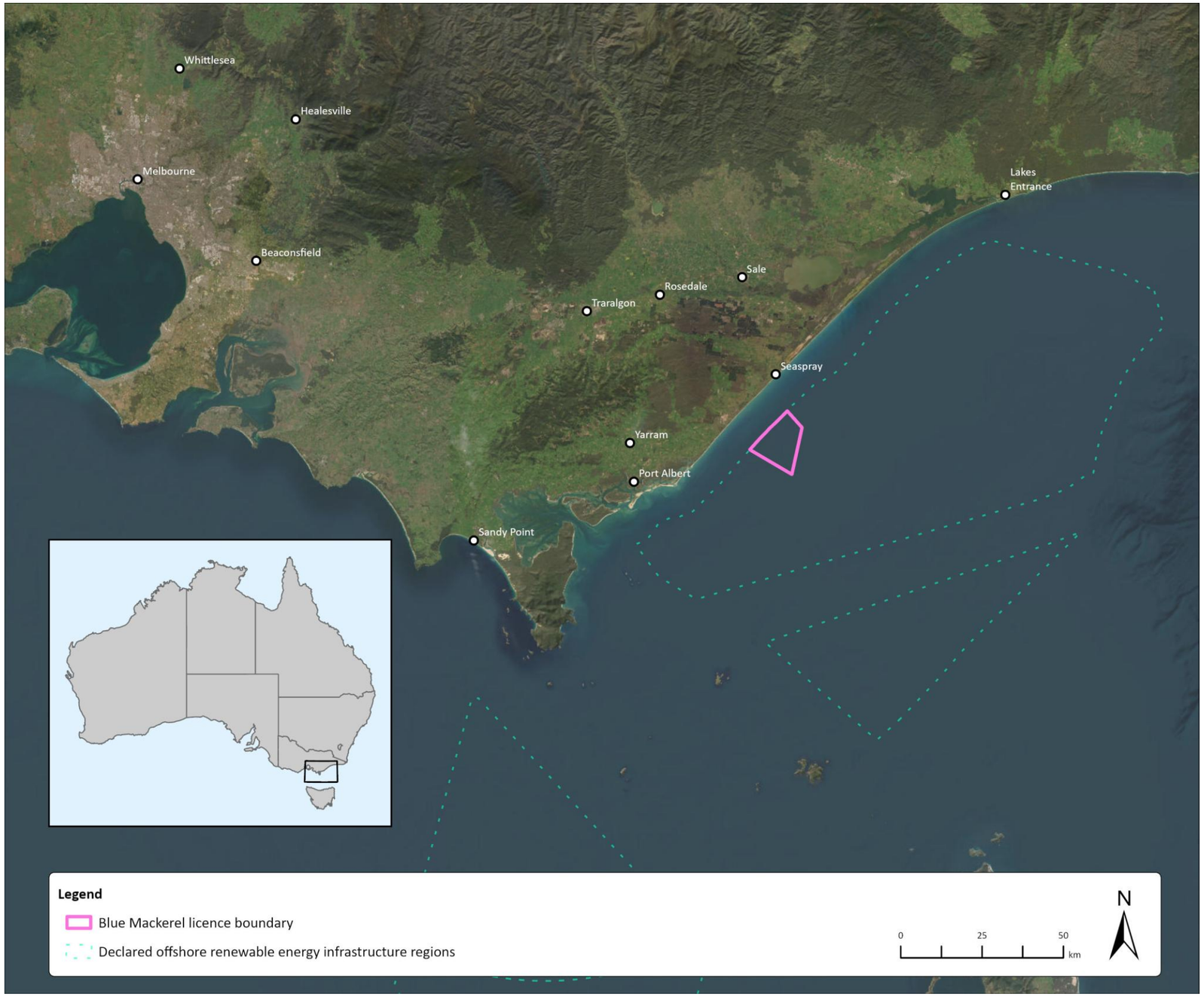


Figure 1-1 Project Area

2 Project Overview

This section outlines the key features of the Project that inform the development of a methodology appropriate for a preliminary review of its potential Seascape and Landscape visual impacts.

Given the early stage of project definition, the level of detail currently available is limited; however, the scale, height and indicative arrangement of the offshore wind turbines provide a sufficient basis for establishing an initial assessment framework.

Accordingly, the focus of this Preliminary SLVIA is to understand the nature of impacts of the proposed offshore infrastructure, and to identify potential areas of visual sensitivity, and highlighting key considerations and constraints that will require more detailed assessment as the Project design is refined.

2.1 Location and Layout

The Project proposes the a 1 GW wind farm off the coast of Brataualung and Tatungalung Country, Gippsland, approximately 10 km from Seaspray, Victoria . The Project will connect to Victoria's electricity network via VicGrid's proposed connection hub, near Giffard, Victoria.

The Project includes the following key infrastructure:

- Up to 70 Offshore wind turbine generators (WTGs) installed on foundations secured into the seabed (fixed foundations). Each turbine would have a capacity ranging from 15 megawatts (MW) up to 23MW, with 18.5 MW being the tallest turbine
- Network of subsea inter-array , and export cables, laid on the seafloor and protected by armouring or burial cables connecting the WTGs,
- Up to two offshore substation platforms installed on foundations secured into the seabed
- Shore crossing with trenchless construction (horizontal directional drilling (HDD) or direct pipe) construction method
- Onshore buried transmission cables between the shoreline and the VicGrid substation connection hub near Giffard.

The underground onshore transmission cable will be between 6 km and 10 km in length. The route will be determined by landholder access agreements and the avoidance and minimisation of impacts on environmental and heritage values. Cables will be installed in lengths and connected with sub-surface jointing bays

VicGrid is responsible for land acquisition and approvals for the connection hub. The Victorian Government is assessing the role of deepwater ports, including the Victorian Renewable Energy Terminal at the Port of Hastings, to support the construction and assembly of Victorian offshore wind projects. It is anticipated that port expansion works or upgrades would be undertaken by the Port to service multiple developments and offshore wind farm projects. The connection hub and port infrastructure are therefore outside the scope of this project.

Blue Mackerel's current indicative project design includes 69 15MW capacity turbines, which are anticipated to generate 1GW of energy, with redundancy for turbine maintenance. At the time of writing, 15MW turbines are the most likely to be used. As offshore wind technology continues to evolve, there may be potential for the Project to consider designs comprising larger-capacity turbines which would have a higher hub height and longer blades, with fewer turbines required. To be conservative, this preliminary assessment is based on an alternative turbine layout using 18.5MW turbines, the tallest turbines being considered for the project. This alternative layout shows 56 turbines (13 less than the indicative 15MW design). The visualisations of the current indicative project design, using 15MW turbines are also presented in Appendix 1.

The following section summarises the key features of the Project that will inform the methodology and preliminary review of potential Landscape and visual impacts.

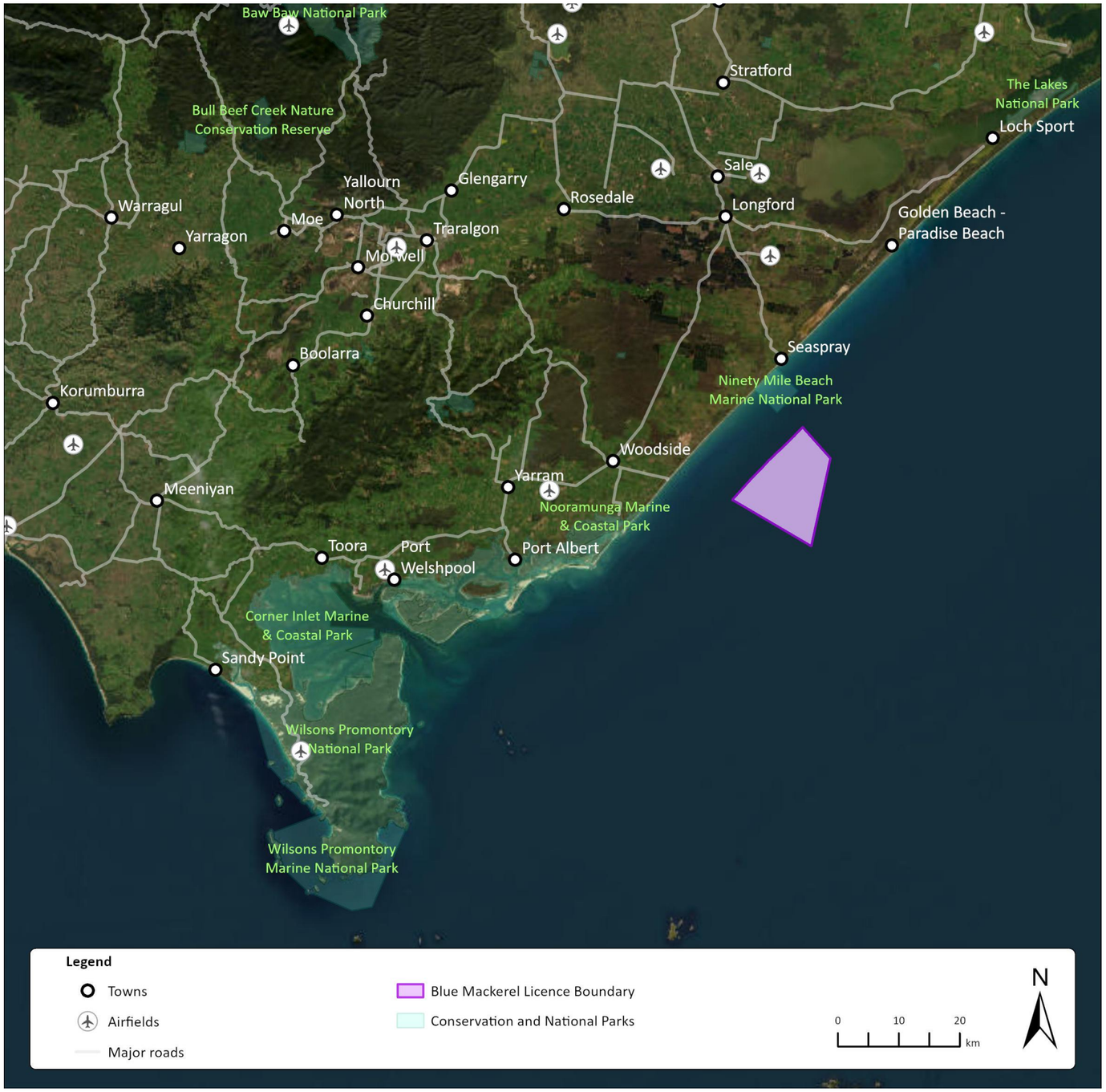


Figure 2-1 Key Project components

2.2 Turbines

Under the alternative 18M.5MW design, which considers the maximum height turbine, each turbine would have a hub height of approximately 181 m, a rotor diameter of 292 m and an overall height up to 327 m to the tip of the blade. To be conservative, this assessment is based on an overall height of up to 330 m to the tip of the blade.

Turbines are secured to the seafloor by installing fixed foundations on or into the seabed, anchoring the structure. This creates a stable, load-bearing foundation that resists waves, currents, and wind forces, ensuring the turbine remains firmly fixed and structurally sound over its operating life.

Table 1 Turbine attribute dimensions

Item	Maximum specification
Overall height	Up to 330 m above sea level
Hub height	Up to 181 m above sea level
Rotor Area/ Rotor diameter	Up to 292 m
Blade chord width	Up to 8 m
Number of turbines	Up to 70 (if 15MW used)

2.3 Grid Connection - offshore

The anticipated offshore grid connection will comprise up to two offshore substations and subsea cables. The offshore substations would also be fixed to foundations secured on or into the seabed and will comprise of a platform housing electrical equipment including transformers, generators, switchgear, batteries, fire system and facilities for operational and maintenance activities. The indicative dimensions of the offshore substation platforms will be approximately 40 m wide, 30 m long, and 36 m in height. The underside of the platform is likely to be around 17 m above mean sea level. A subsea transmission cable will connect each offshore substation to the shore crossing. The subsea cables would be approximately 0.5-2 m below the seabed.

Figure 2-2 Indicative Offshore Substation

2.4 Grid Connection - onshore

The onshore grid connection will comprise two buried 275 kV cables from the landfall to a transition pit, where the connections with the onshore cables are made. The shore-crossing is proposed to be constructed with horizontal directional drilling or another trenchless technology to avoid disturbance to the nearshore, beach and dunes, The cables will connect between a transition pit at the landfall and a new 2785 kV/500 kV substation, to be located within the proposed VicGrid connection hub at Giffard. The cables will be buried between the transition pit and the VicGrid connection hub.

The onshore substation is included in the scope of VicGrid's Gippsland Offshore Wind Transmission 2GW Project EES assessment and will not be included in Blue Mackerel's visual impact assessment.

2.5 Aviation Obstacle Lighting

The Aviation Impact Assessment will determine the likely requirement for aviation obstacle lighting. Should this be required, the lighting impacts would be assessed separately in the detailed Seascape Landscape Visual Impact Assessment.

2.6 Relevance to this assessment

As the Project remains in the early feasibility stage, only limited information is currently available to support a detailed assessment of the potential landscape and visual impacts associated with the onshore grid-connection infrastructure.

At this stage, the primary elements of the Project with the potential to alter views are the offshore wind turbines, for which a conservative value of 330 m height is used.

These structures form the basis for establishing an assessment methodology appropriate to the scale and nature of the Project, and the preliminary investigation area for the offshore turbine array.

3 Assessment Methodology

There are no Australian or Victorian government guidelines or methodologies for assessing Seascape and Landscape Visual Impacts for Offshore Wind Farms.

The methodology adopted for this Preliminary SLVIA has been adapted from previous Landscape and Visual Impact Assessments for comparable large-scale renewable energy projects, including wind developments and grid-connecting infrastructure in a similar area, and from recognised guidelines prepared in Australia and internationally, including:

- Development of Wind Energy Facilities in Victoria, Policy and planning guidelines for development of wind energy facilities in Victoria (Victorian Guidelines) November 2021
- Guidance Note for Landscape and Visual Assessment, AILA Queensland, June 2018 recognises that the "Landscape and Visual Assessment (LVA) should be scoped to reflect the project scale".
- The Guidelines for Landscape and Visual Impact Assessment, Third Edition, Landscape Institute and Institute of Environmental Management and Assessment (2013) (UK Guidelines). The UK Guidelines, widely referred to internationally, combine scale, duration and reversibility to evaluate magnitude. Viewer sensitivity and landscape character inform sensitivity. These factors are combined to assess the overall visual impact. The UK guidelines also discuss the benefit of theoretical mapping visibility or the area from which projects may be visible. These are referred to as the Zone of Theoretical Visibility (ZTV). The UK guidelines do not consider visual scale or prominence over distance. The UK Guidelines prefer professional judgement be employed in preference to the use of matrices.
- New Zealand Institute of Landscape Architects, NZ (2010) Best Practice Note: Landscape Assessment and Sustainable Management 10.1. Landscape characterisation is a process of interpreting how attributes such as geomorphology, natural ecosystems, vegetation cover and land-use history come together to distinguish landscapes. The NZ Guidelines recognise that landscapes are dynamic and continually changing and that landscape assessment should reflect project scale. Further, the NZ Guidelines seek to manage the direction and consequences of change and how to sustain landscape values and attributes over time instead of 'freezing' a landscape in a particular state.
- Environmental impact assessment practice note EIA-NO4, Roads and Maritime Services, NSW, December 2018 is an established guideline for determining landscape character and visual impact assessment for road projects in NSW. This Guideline assesses visual sensitivity, derived from an area's qualities, and the magnitude of the change derived from the scale or prominence of the Project in a matrix framework to assess the level of impact.

The methodology of all these Guidelines have overlapping similarities. However, one point of divergence is using matrices as the basis for assessment. Matrices are still referred to in the NSW RMS Guidelines but are not recommended in the more widely applied UK guidelines. The reasoning for this is set out at Section 3.34 of the UK guidelines.

The methodology adopted to assess the landscape and visual impacts of the Project is set out below.

3.1 Study area

The study area is the area that may be visually affected by Project features and is the area within which the proposed development could create a recognisable impact. It may be possible to see Project features from areas outside the study area.

The extent of the study area is established at a distance where the 330 m high turbines will occupy less than five per cent of the "Normal" vertical field of view or 0.5° in the vertical plane[1]. This anthropometric data will form the basis for determining the study area and zones of visual influence for the Project.

The vertical field of view provides a basis for calculating the extent of the viewshed.

The central field of view in human vision is approximately 10° while standing and 15° while seated. An object that takes up less than 5 per cent of this 10° cone of view may still be discernible but will not be a prominent feature in views.

A 330 m high turbine, when viewed from a distance of 37.8 km, will take up five per cent of the vertical field of view. Therefore, the landscape and visual impact study area is 40.0 km from the Project boundaries.

3.2 Landscape character and viewer sensitivity

Landscape Character Units are based on physical and natural attributes within the study area. Characteristics that assist in defining the landscape units include geology, topography, vegetation, and drainage patterns as well as modifications to areas from a natural setting, land-use, and policy considerations.

Policy and guidelines implemented within the study area also guide in recognising landscape character areas.

3.3 Policy Review

Government policies were reviewed to identify key objectives and considerations for the Project's Landscape and visual impact assessment. This review seeks to objectively characterise *the Landscape, features, and values of the project area of interest and its environs.*

The review examined relevant legislation and Policy to identify landscape features and sensitive areas or locations, such as key roads, tourist attractions, residential areas, and communities that Policy may protect. These are identified in Section 6.

3.4 Landscape Character and sensitivity

Landscape Character Units are based on physical and natural attributes within the study area. Characteristics that assist in defining the landscape units include geology, topography, vegetation, and drainage patterns as well as modifications to areas from a natural setting, land-use, and policy considerations.

Policy and guidelines implemented within the study area also guide in recognising landscape character areas.

3.5 Zones of Theoretical Visibility

Zones of Theoretical Visibility (ZTV) mapping utilises Geographical Information Systems (GIS) to illustrate land-based areas where the 330 m high WTG's have the potential to be theoretically visible.

Mapping is based solely on topography and does not consider screening or filtering provided by vegetation and buildings. This analysis is, therefore, conservative and has guided the selection of viewing locations to be inspected during site visits for this preliminar review.

This mapping will also guide viewing location areas to be considered in the detailed assessment.

3.6 Review of visual impacts

The potential visual impacts of the Project are assessed through views from locations selected within the public domain.

3.7 Publicly accessible locations

Viewpoints have been selected from sensitive areas or locations, places that the local community has identified, or locations along the public road network that represent the area's character. With the exception of sensitive viewing locations, viewpoints have been selected where it was evident during the site inspection that the Project would be visible. Although visual impact is predicated on the ability to see Project features, this is not the sole determining factor. The assessment of the overall visual impact also considers:

- **Distance:** Infrastructure visibility and dominance will decrease with distance. The ZVI indicates visual dominance and potential impact based on distance.
- **Duration:** The duration of a view is also relevant and must be considered in assessing the overall visual impact. The visual impact from viewing where people may see the Project for an extended period. From public areas, such locations may include reserves, roadside stops or lookouts. Examples of these locations in the private domain may include patios, living rooms or private open space areas. Such views are given greater weight than transient or occasional views and, therefore, are shorter in duration.
- **Landscape character and sensitivity:** The landscape character of an area, which is based upon visual features such as topography, vegetation and the use of the land, the naturalness of the area and planning provisions. Sensitivity may also be influenced by specific landscape studies and assessments within the study area. Typically, a modified landscape prevalent within the study area or the region is less sensitive than one ostensibly natural.
- **Viewer numbers:** The overall visual impact level will decrease when there are fewer people who can view the Project. Conversely, the level of visual impact may also increase where the viewing location is a recognised key vantage point or tourist route where a greater number of people may view the change.

Viewer sensitivity is based on the nature or purpose of the viewing location. For example, the sensitivity of a person viewing a project from a recreation reserve, public lookout or trail will be higher than the same viewer travelling the local road network or from a town.

[1] Julius Panero & Martin Zellnik (1979) Human Dimension and Interior Space, Witney Library of Design

The overall visual impact is not assessed numerically or through a matrix, rather, it is the examination of the qualitative aspects observed at each selected viewpoint, which is supported by the relevant quantitative (measurable) criteria listed above. These are shown in Figure 3-1.

This quantitative and qualitative approach is supported by the *UK Guidelines for Landscape and Visual Impact Assessment, Third Edition published by the* Landscape *Institute, Institute of Environmental Management and Assessment 2013 (GLVIA3)*.

The overall visual impact at each viewpoint will range from Nil to High. The definition for each scale is discussed in Section Figure 3-1 below.

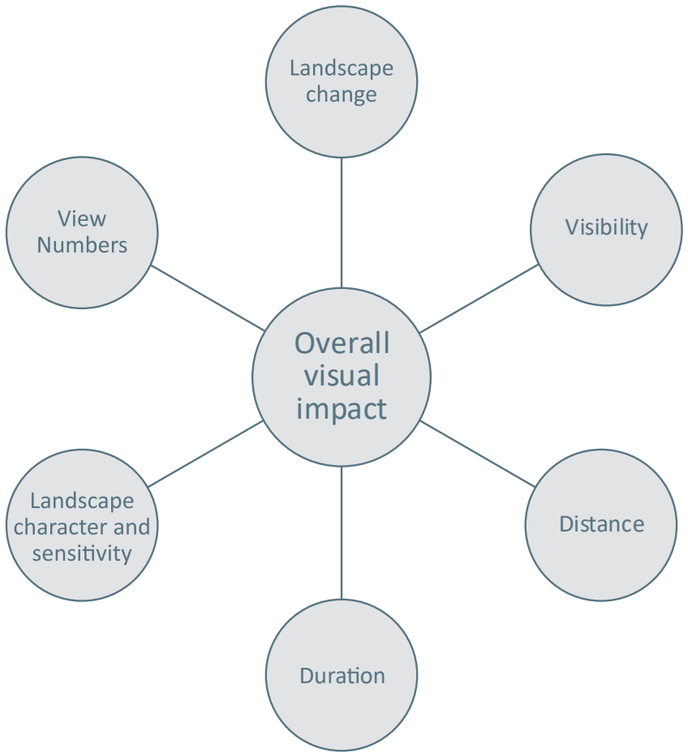


Figure 3-1 Visual impact – public realm

3.8 Photomontages

Convergen has prepared photomontages and other project imagery for use in community consultation, stakeholder engagement and Project approvals. This imagery, including selected photomontages, has informed the assessment of views and visual impacts undertaken for this Preliminary SLVIA. The assessment at each viewpoint draws in part on photomontages prepared from representative locations that illustrate the range of distances, viewing angles and landscape character types within the study area, and these have been used to support and verify observations made in the field.

The change in views is based upon a 60° horizontal field of view, which provides a consistent reference for Project visibility and prominence over varying distances. The horizontal field of view also represents the central cone of view in which symbol recognition and colour discrimination can occur. The vertical field of view is between 10 to 15°.

3.8.1 Camera data – Other imagery

All other imagery has been captured on a Nikon Z9 digital camera. The camera is held at eye level, approximately 1.75m above ground level.

3.8.2 GPS Coordinates

The Nikon Z9 records the GPS coordinates, viewing direction and image field of view, which are embedded in the image metadata via a Solmeta GMAX GPS Geotagger.

GPS coordinates are also taken based on a separate handheld GPS, and the locations from which the photographs were taken are marked on a digital map within Memory Map or Google Earth Pro.

4 Study Area and Zones of Visual Influence

The study area represents the extent within which the proposed development may create a recognisable change to views or landscape character. Importantly, the study area is not synonymous with the full extent of theoretical visibility.

4.1 Calculations

Figure 4-1 illustrates the principles of the vertical field of view and its relationship to objects of significant height within views. These principles draw on established anthropometric references from the *Human Dimension and Interior Space* (Panero & Zelnik, 1979) and *The Measure of Man and Woman* (Dreyfuss Associates, 2012).

Human vision is defined by both vertical and horizontal fields of view. The horizontal field of view does not account for the vertical scale of the Project features and is therefore less relevant for determining the extent to which tall structures contribute to visual prominence. This assessment relies on anthropometric data relating to the **vertical field of view**, which provides the most appropriate basis for establishing the study area and identifying zones of visual influence.

The central field of view in human vision is approximately 10° while standing and 15° while seated. An object that occupies less than 5% of this 10° cone (i.e., approximately 0.5°) may be discernible but will not be visually prominent.

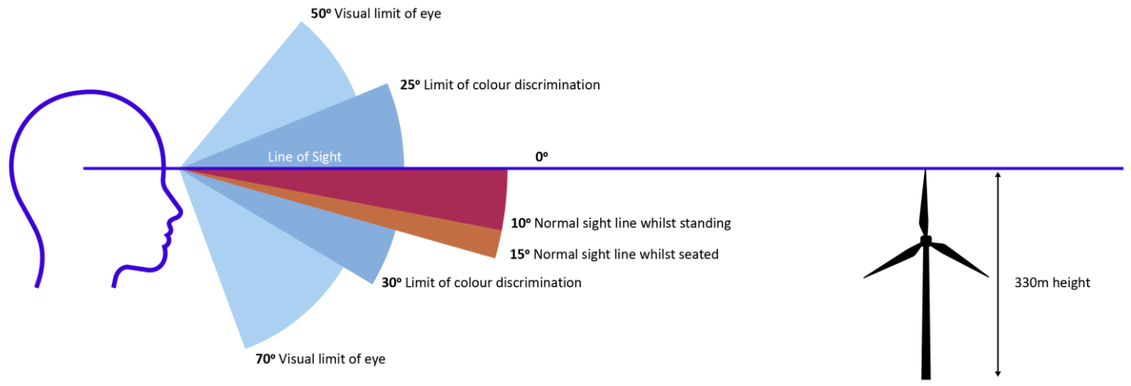


Figure 4-1: Vertical Field of View

4.1.1 Study Area

A wind turbine, approximately 330 m in height, when viewed from a distance of around 40.0 km, will occupy approximately 0.5° of the vertical field of view. While it may be possible to see the Project from locations beyond the study area, the turbines would be a small element in views and would not result in impacts greater than low. For this reason, 40.0 km has been adopted as the extent of the study area for assessment of the offshore wind turbines.

4.1.2 Zones of visual influence

The prominence of vertical elements diminishes with increasing distance. Zones of Visual Influence (ZVIs) assist in considering the prominence of a 330m high turbine across various distances. The ZVIs and associated distance thresholds for a 330 m turbine are outlined in Figure 4-2. The ZVIs are not determinative of the Project's visual impacts; rather, they form one of several criteria considered when evaluating the overall magnitude of visual effects. It is also recognised that perceived visual scale does not fundamentally alter at the boundaries between distance bands. For example, there is no meaningful change in apparent prominence when moving from 19.9 km to 20.1 km. There are also no land areas within the 7.5km distance band.

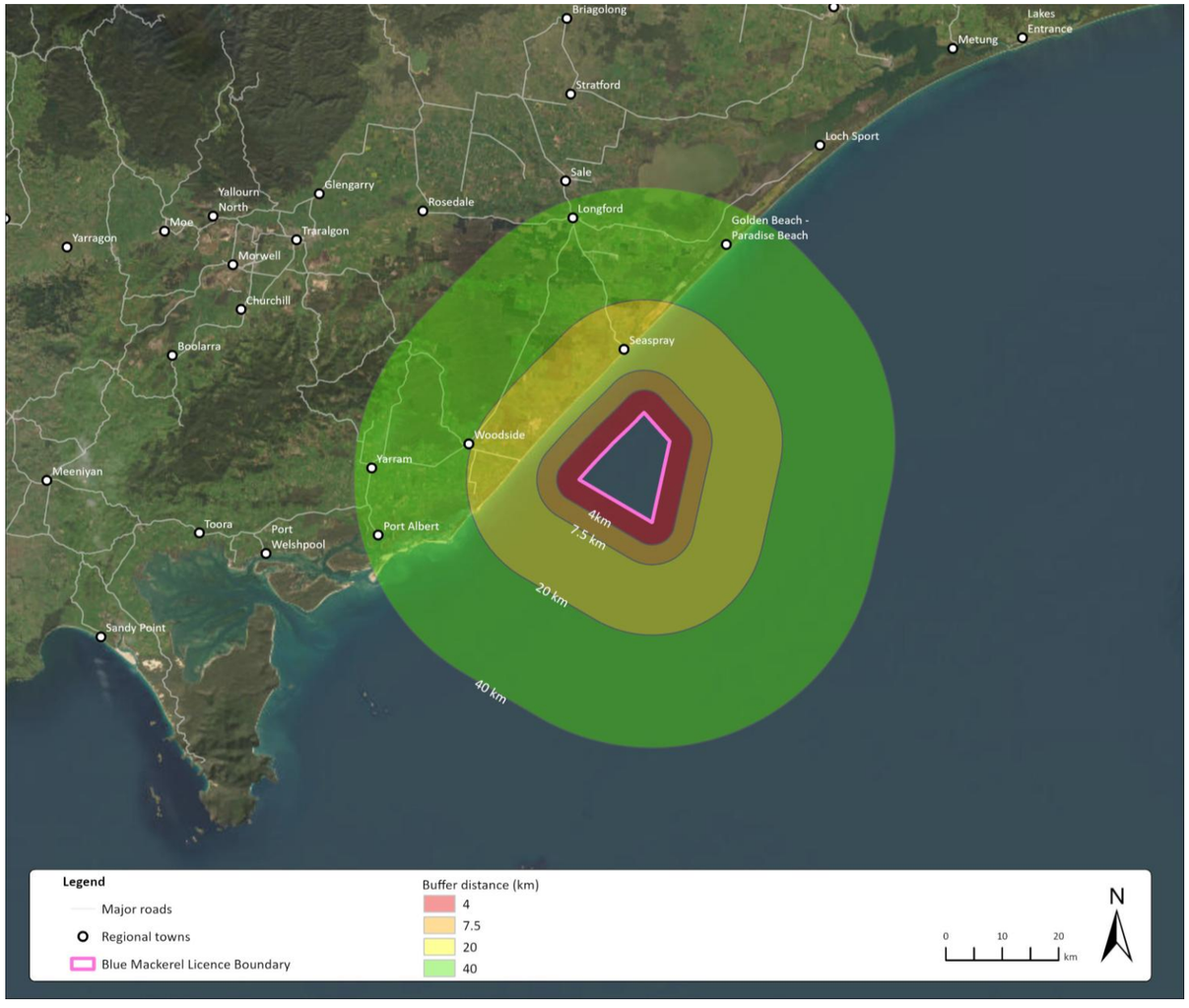


Figure 4-2 40.0km Study Area / Table 4-1: Study area and Zones of Visual Influence

Vertical angle	Distance Calculations	Distance	Zones of Visual Influence
<0.5	> 37.8km	>40km	**Visually insignificant – the extent of the Project study area -** The Project will be a small element in views, difficult to discern, and invisible in some lighting and weather.
0.5-1.0	$D = \frac{300m}{Tan0.5^0}$ = 37.8km	20 to 40km	**Discernible, but will not be dominant in views -** The Project will be visible, however, will not be a dominant feature in views.
1.0-2.5	$D = \frac{300m}{Tan1.0^0}$ = 18.9km	7.5 to 20.0km	**Noticeable and can potentially dominate -** Where visible, the Project has the potential to be noticeable in views.
2.5-5.0	$D = \frac{300m}{Tan2.5^0}$ = 7.55km	4.0 to 7.5km	**Highly visible and dominant -** There are no land-based locations within this distance band.
>5.0	$D = \frac{300m}{Tan5.0^0}$ =3.7km	<4.0m	**Visually dominant -** There are no land-based locations within this distance band.

5 Policy review

The purpose of this section is to provide a high-level review of legislation and government policy relevant to the assessment of landscape and visual impacts for the Project. The review considers applicable legislation and policy to identify recognised landscapes, significant landforms, residential areas and communities within the 40.0 km Study Area.

This is not a technical assessment of the Project against the planning scheme. Rather, its purpose is to objectively describe the Landscape, its key features and the values attributed to it through planning policy. This includes consideration of schedules to planning overlays that identify landscapes and areas of environmental, scenic, cultural or heritage significance.

The findings of this high-level review have informed an objective understanding of landscape character, features and values within the Study Area. A more detailed assessment of legislation and policy will be undertaken as the Project progresses. A summary of the key findings is provided below.

5.1 Guidelines

Coastal Landscape Assessment Study (CLAS) (Plansispere 2006) focuses on the Victoria coast and associated hinterland regions outside metropolitan Melbourne. The CLAS identifies key areas, landscapes and their values, and provides recommendations to assist councils in managing impacts through development in coastal towns and their fringes.

The CLAS is not a reference or incorporated document in the Wellington Planning Scheme and therefore carries no statutory weight. The CLAS does, however, identify places and features in the exhibit that are distinguishable or include attributes distinct from those of the areas surrounding them. For this reason, the implications of the CLAS to this review are undertaken in the following section, which considers character and values within the Study Area.

5.2 Summary of findings

No Commonwealth or Victorian government legislation or policies are specifically relevant to landscape and visual impacts.

All landscapes are valued. However, landscape character and values assigned to areas vary, as do the levels of protection. Planning, environmental, and heritage policies in local planning schemes refer to landscape sensitivity and in some areas managing views. Areas and landscape features with statutory protections at the state and local levels are summarised below.

Areas with the most significant protection include areas designated as Public Conservation and Resource Zone (PCRZ) in the local planning schemes. Importantly, the closest point within Wilsons Promontory is greater than 60 km to the southwest. At this distance, it is unlikely that the turbines would be visible from within the Promontory, except for clear days. Other examples include McGuaran Beach, Mcoughlins Beach Seaspray Coastal Reserve, Jack Smith Lake Wildlife Reserve, Lake Reeve and Mullungdung Flora and Fauna Reserve. These areas are valued for their natural appearance, recreational uses, and biodiversity values.

Settlements and residential areas host a greater number of people, and their primary purpose is residential. These areas include land within the General Residential Zone (GRZ), Township Zones (TZ), and Rural Living Zones (RLZ). Coastal townships and communities include Seaspray, The Honey Suckles, Golden Beach and Woodside Beach. Inland areas include Woodside and southern parts of Longford. It is acknowledged that people live in the Farming Zone, but this is not recognised as the protection's primary purpose or focus, which is what this part of the review has sought to establish.

Most of the land within the study area is within the Farming Zone. The purpose of these zones is to protect the ongoing use of these areas for agriculture by preventing encroachment by incompatible uses, such as dwellings and lifestyle properties with higher amenity expectations in surrounding areas.

Overlays applied to landscapes and features in the study area that protect landscape character, views, and amenity. These include Schedules to the Significant Landscape Overlay and Environmental Significance Overlays of the Wellington Planning Scheme.

The following overlays have informed the definition of landscape character described in the following section.

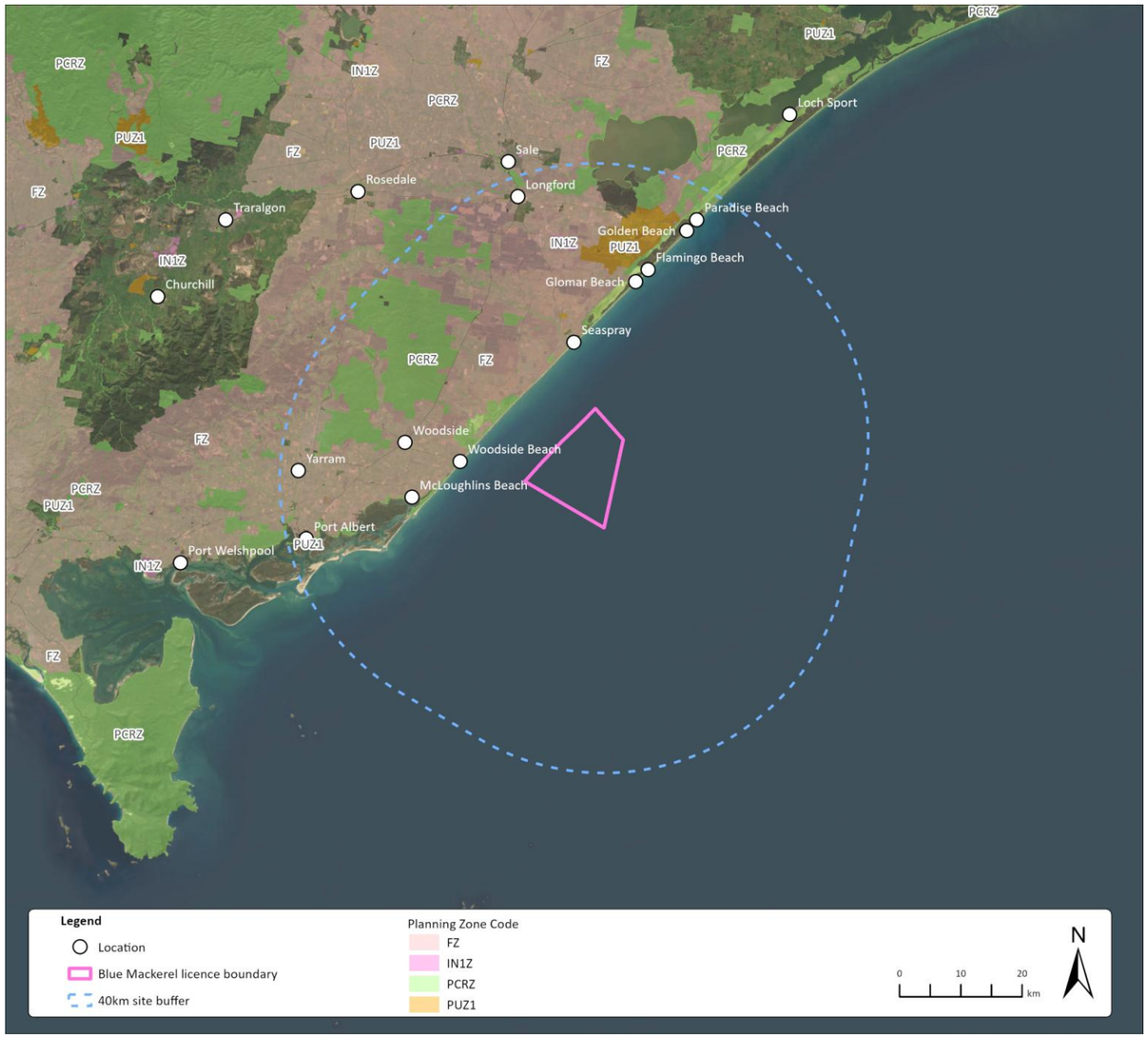


Figure 5-1 Land-use zones

5.3 Significant Landscape Overlays

Schedule 1 To Clause 42.03 Significant Landscape Overlay – Ninety Mile Beach Rural Conservation Areas applies to 90 Mile Beach between Reeve Lake and the southern edge of Golden Beach.

The Statement of Nature and key elements of Landscape recognises that *Ninety Mile Beach is the longest stretch of uninterrupted beach in the country and the second longest in the world. This unparalleled linear Landscape with its combination of sandy beaches, low dunes, peninsulas, and wetlands is set against the wild seas of Bass Strait, is visually of State significance, and potentially of national significance in that context.*

Ninety Mile Beach is protected by a series of official designations - National Park, Wildlife Reserve, and Coastal Park - that recognise the remarkable ecological and scenic values of this area. The Landscape is characterised by large swathes of indigenous vegetation including coastal heath, mangroves, and dune grasses, and there are vast ocean views along its entirety.

Ninety Mile Beach is listed by the National Trust as regionally significant, as part of the Gippsland Lakes region. Due to its iconic landscape features and extent, Ninety Mile Beach is an international visitor destination, featuring strongly in Victoria's tourism promotion. Lake Reeve is a bird habitat of international importance that is recognised under the Ramsar Convention, and the area includes Rotamah Island, a bird observatory managed by the Royal Australian Ornithologists Union. The area is also important for its Aboriginal cultural heritage significance, the dunal systems still containing many remnants and evidence of indigenous settlements.

5.4 Environmental Significance Overlays

Several Schedules to the Environmental Significance Overlay (ESO) (Wellington Planning Scheme) are applied to foreshore areas, coastal dunes and wetlands which refer to aesthetic and recreational values.

Schedule 1 To Clause 42.01 Environmental Significant Overlay – Coastal and Gippsland Lakes Environs applies to a large area of 90 Mile Beach and lakes.

The Statement of Environmental Significance recognises *The Ninety Mile Beach and Gippsland Lakes and their environs are some of the most significant environmental, landscape, and recreational areas within the State of Victoria.*

The coast and lakes systems comprise easily disturbed ecosystems susceptible to soil erosion, ground and surface water `pollution, and habitat disturbance. In particular, areas which have been developed as coastal settlements and towns along the Ninety Mile Beach are beginning to cause significant environmental management problems, including loss of water and soil quality, as well as loss of native vegetation.

There are 11,200 subdivided lots along the Ninety Mile Beach between Paradise Beach and the Honeysuckles, east of Seaspray. These lots occur both on the sand dunes of the Ninety Mile Beach and on the adjacent sandy soils. None of the lots is connected to reticulated water or sewerage systems. Investigations have revealed evidence of groundwater contamination at Loch Sport. Development has been encouraged to occur within the township areas of Paradise Beach, Golden Beach and at the Honeysuckles.

There are significant environmental issues in this area, including water quality, landscape, protection of primary and secondary sand dunes, flooding, protection of vegetation habitat, impacts on neighbouring wetlands and coastal parks. Coastal and estuarine systems are vulnerable to human development.

Schedule 2 To Clause 42.01 Environmental Significant Overlay – Wetlands also applies to a large area of 90 Mile Beach and lakes. The Statement of Environmental Significance recognises that Wetlands:

- Are one of the most productive and diverse biological systems on earth.
- Are particularly rich habitats supporting many rare species, including species of birds protected under national and international treaties and agreements.
- Are a valuable resource for recreational activities.
- Have an ability to assimilate and recycle nutrients and pollutants.
- Can act as flood control basins and for water storage.
- Have a role in local and regional water balance, including recharge and discharge of groundwater.

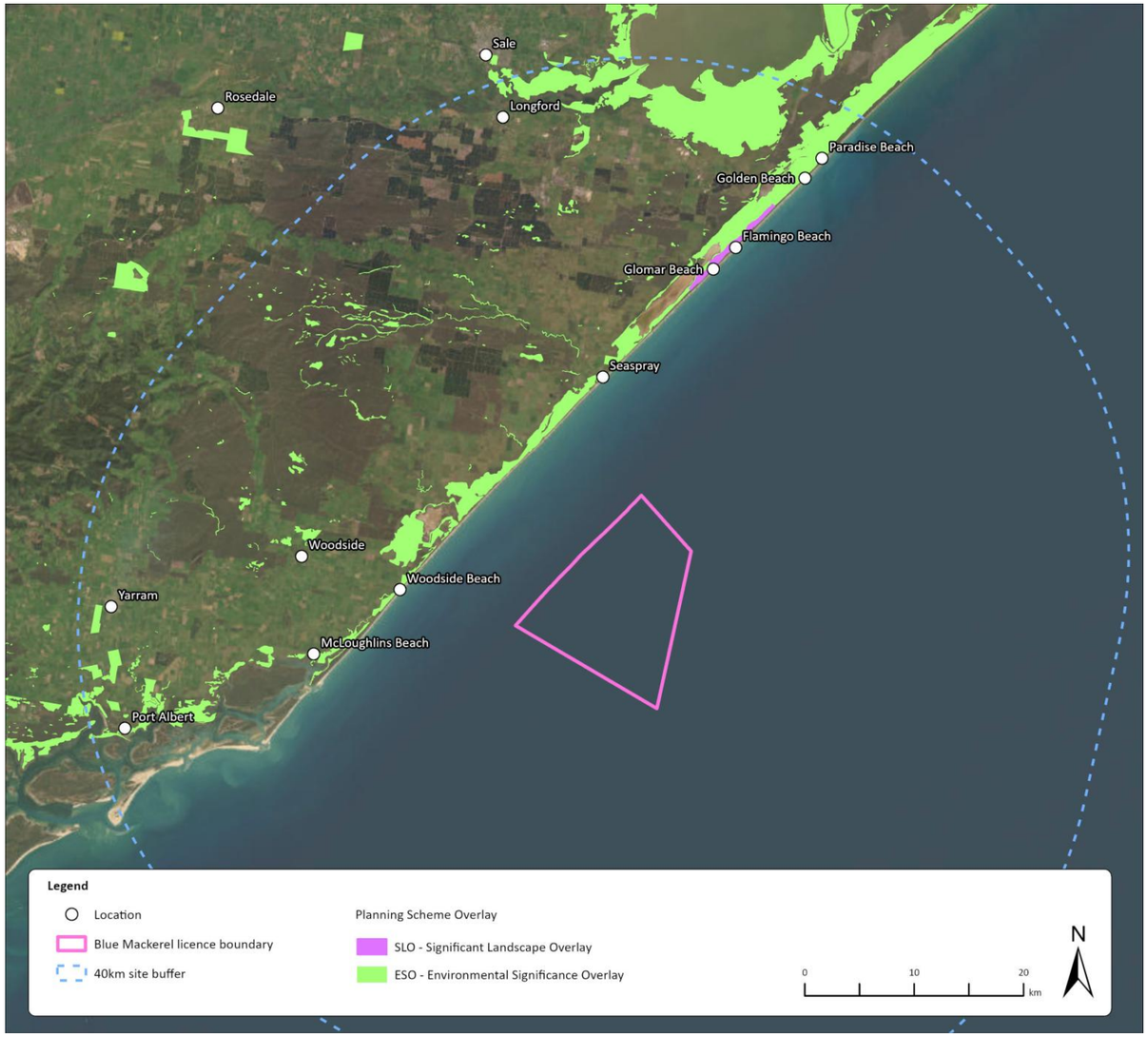


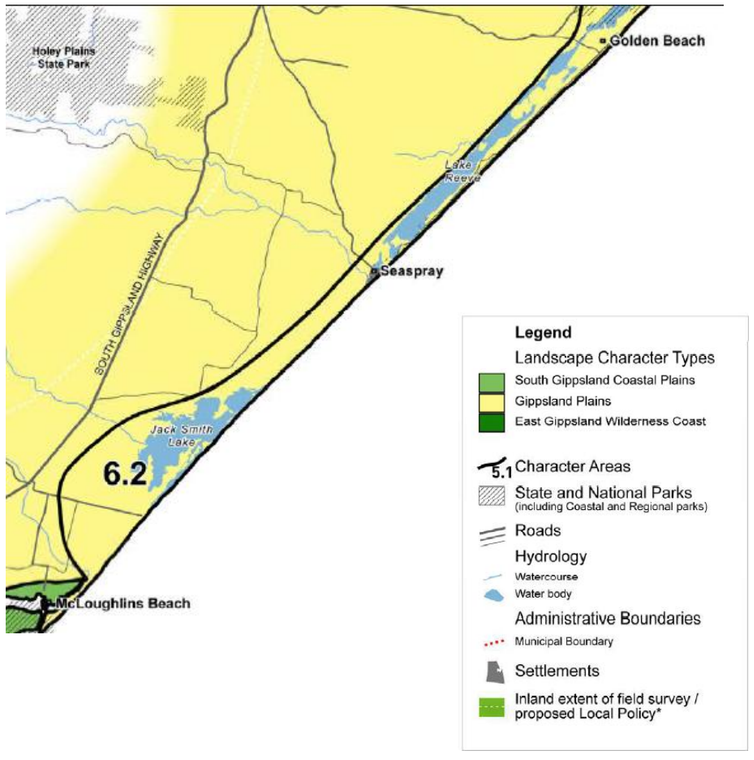
Figure 5-2 SLO / ESO Overlay's Wellington Planning Scheme

5.5 CLAS

Coastal Landscape Assessment Study (CLAS) (Plansispere 2006) focuses on the Victoria coast and associated hinterland regions outside metropolitan Melbourne and recognises these areas' growth pressures and demands. The study sought to identify key areas, landscapes, and their values, and to provide recommendations to assist councils in managing impacts from development in coastal towns and their fringes.

Figure 53 below shows the CLAS Landscape Character Types within the study area. The majority of the land is within the Gippsland Plain Landscape Character Type.

Figure 5-3 opposite shows areas along 90 Mile Beach as potentially of State significance. These areas are also recognised by Schedule 1 of the SLO of the Wellington Planning Scheme. Coastal areas between Seaspray and McLoughlins Beach as being od Local Significance. These areas are recognsied by Schedules to the Environmental Significance Overlay of the Wellington Planning Scheme.



-Figure 53 Coastal Spaces Landscape Assessment Study Landscape Character Types and Areas: Gippsland Region (not to scale) Source: Coastal Spaces Landscape Assessment Study (Department of Sustainability and Environment, 2006)

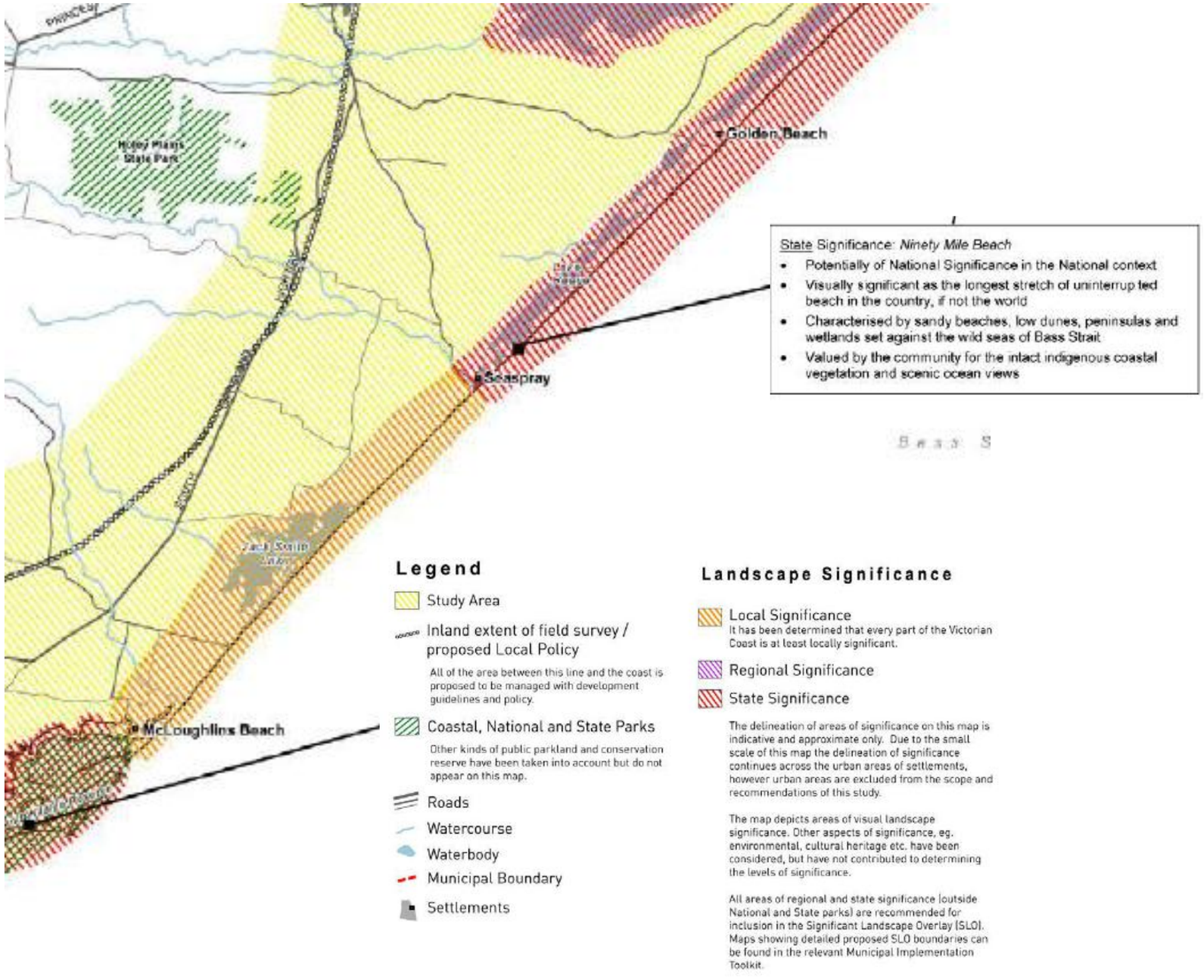


Figure 5-4 Coastal Spaces Landscape Assessment Study Significant Coastal Landscapes:
Gippsland Region (not to scale) Source: Coastal Spaces Landscape Assessment Study (Department of Sustainability and Environment, 2006)

6 Landscape Character and Sensitivity

Landscape sensitivity is, in part a measure of the ability of a landscape to absorb visual change based on the attributes of a particular landscape. The sensitivity of the previously described landscape units will depend upon several attributes, such as:

- **Location.** The sensitivity of a potential viewer varies according to location. For example, visitors to a national park where the landscape appears untouched or pristine will be more sensitive to the imposition of new or artificial elements within that landscape. The same viewer travelling along a rural highway, which contains existing examples of modifications and artificial elements, will be less sensitive to the presence of new elements. Changes or artificial elements are not confined to vertical structures or built form. They also include the removal of native vegetation and visibility of roads, tracks, fences, and other rural infrastructure, all of which decrease the sensitivity of a landscape to change further.
- **Rarity.** Landscapes that are considered rare or threatened are valued more highly by viewers.
- **Scenic Qualities.** Landscapes that are considered scenic are also those that are considered sensitive. They often contain dramatic topographical changes, the presence of water, coastlines, and other comparable features. The presence of modifications or artificial elements (including built form, roads, tracks, fences, and silos) and farming practices such as land clearing, cropping, and burning can decrease the sensitivity of a landscape's scenic qualities.

Through examining policy, landscape features, and land uses within the study area, six landscape character types can be defined within the study area, a summary of which include:

- Landscape Character 1 – Beach and foreshore
- Landscape Character 2a – Townships
- Landscape Character 2b – Rural residential
- Landscape Character 3 – Cleared farmland
- Landscape Character 4 – Plantations
- Landscape Character 5 – Lakes and waterway
- Landscape Character 6 – Parks, forests and reserves

Table 6 provides the sensitivity of each landscape unit established through recent and similar visual assessments across Victoria.

A description of the key features and attributes relevant to this assessment is set out across the following chapter.

Landscape Unit	Sensitivity and value
Landscape Unit 1 – Beach and Foreshore	High – Coastal areas are valued for their recreation and amenity benefits. Some coastal areas have been modified by way of agriculture and urban areas, which lessens their sensitivity to visual change. Some of these areas are recognised by significant landscape overlays (SLOs) and environmental significance overlays (ESOs).
Landscape Unit 2a – Townships	Moderate – Although population density and potential viewers are increasing, the sensitivity of these areas is reduced from high to moderate. This is due to the highly modified views, including built forms, roads, and urban infrastructure. Views from these areas are typically screened by built forms and vegetation within road reserves and private allotments.
Landscape Unit 2b – Rural residential	Moderate-High – These areas are valued for their natural-appearing or rural landscape amenity. Although these areas are adjacent to highly modified farming areas, their amenity is recognised through specific zoning distinct to townships and farming areas.
Landscape Unit 3a – Cleared farmland	Low – These areas are highly modified, are not rare, and are not topographically dramatic. These areas are extensively modified and include regular visual changes. Provisions within the planning scheme often provide greater protection for the use of these areas and against potential offsite amenity impacts and impacts on these uses arising from encroachment by sensitive residential uses. It is recognised that these areas are often highly regarded in a local context.
Landscape Unit 4 – Plantation	Low – These areas may be considered attractive for some viewers when vegetation is established and mature. Plantings are often uniform in height and planting spacings, with regular vegetation appearing in rows. These areas constantly change through growth cycles, culminating in rapid change through harvesting.
Landscape Unit 5 – Lakes and waterways	Moderate to High – Lakes and waterways are considered to have a high sensitivity to visual change due to their scenic qualities, contemplative aspects, and intrinsic values. These areas are also often used for passive and active recreational pursuits.
Landscape Unit 6 –Parks, Forests and Reserves	High – Landscapes in these areas appear pristine and are typically not extensively modified. However, these areas are considered highly sensitive to visual change due to their natural values, scenic qualities, and recreational pursuits.

Table 6-1 Landscape Character and sensitivity and value rating

6.1 Landscape Character 1 – Beach and Foreshore

Beaches and Foreshore describe the foreshore areas and beaches generally west and north of the Project. Included in this area is the location where the subsea cable crosses under the dunes to join the land cables.

Figure 6-1 shows a view through a vegetated dune, which is typical of most beach access locations along foreshore areas.

Figure 6-2 shows a typical view from a beachside carpark, coastal lookout or ramped beach entry.

6.1.1 Landscape and viewer sensitivity considerations

Coastal areas are valued for their recreation and amenity benefits. As a result, several areas are recognised by schedules to the SLO and ESO in the Wellington Planning Scheme.

Figure 6-1 Beach Access

Figure 6-2 Lookout

6.2 Landscape Character 2a – Townships

Townships are characterised by a cluster of residential dwellings around the main street with shops. Some townships have parks and reserves as well as community-oriented buildings.

Figure 6-3 shows the view within coastal townships. Vegetation within rural communities and townships are typically located within road reserves and private gardens.

6.2.1 Landscape and Viewer sensitivity considerations of Rural residential areas

Areas in the Townships Landscape Unit have a moderate sensitivity to visual change. This is partly due to the higher number of people and the constructed elements and features in views of the surrounding areas. From many areas, views toward the surrounding landscape are usually screened or filtered by buildings and vegetation. The sensitivity of views from individual dwellings in these areas will be moderate.

Figure 6-3 Townships

6.3 Landscape Character 2b – Rural Residential

Rural Living or Rural Residential are areas of residential land uses outside of townships that are not inherently linked to agriculture or other rural industries.

Planning provisions apply directly to land within these areas while protecting the ongoing use of neighbouring uses such as land in the Farming Zone. The landscape and viewer sensitivity of these areas is moderate. The sensitivity of views from individual dwellings in these areas will be high. Figure 6-4 shows a rural residential area near Driffield toward the northern end of the project.

These areas include many constructed elements, including dwellings, structures and sheds, transmission line towers, plantations, mining and quarrying activities, power infrastructure, and other interventions.

6.3.1 Landscape and Viewer sensitivity considerations of Rural residential areas

Residents value areas in Rural Living Zones for their 'rural' amenity and outlook. Planning provisions apply directly to land within these areas while protecting the ongoing use of neighbouring uses such as land in the Farming Zone. The landscape and viewer sensitivity of these areas is moderate. The sensitivity of views from individual dwellings in these areas will be high.

Figure 6-4 Rural Residential Example

6.4 Landscape Character 3 – Cleared farmland

Landscape Character Unit 3 – Cleared farmland comprises large areas of cleared land within the Farming Zone. The primary purpose and use of these areas are cropping and grazing. The vegetation comprises broad areas of low-level crops, with taller vegetation located along property boundaries, fence lines, road reserves and water courses. Views across these landscapes are often expansive and take in a considerable distance. Large areas of the landscapes are subject to seasonal change. Figure 6-5 shows a view of cleared flat farmland west of the township of Buffalo.

Constructed elements include machinery, sheds, irrigation plant and equipment, and attached dwellings. In some areas, power lines along the local distribution network are located along roadsides and across farming areas.

6.4.1 Landscape and Viewer sensitivity considerations

The sensitivity of the Cleared Flat Farmland landscape is considered to be low. While such areas may be valued by some for their openness and perceived natural qualities, an objective assessment must recognise that these landscapes have been extensively modified from their natural condition to support agriculture.

Modifications include widespread vegetation clearance, changes to landform and drainage, subdivision patterns expressed through roads and fencing, and the presence of buildings and structures associated with farming operations. These landscapes also continue to evolve over time through ongoing agricultural activities, new dwellings and additional farm infrastructure.

In contrast, the sensitivity of dwellings within farming areas is assessed as high. The level of visual impact experienced from dwellings will vary depending on several factors, including the orientation of views, the duration and frequency of exposure, and the activities undertaken in locations where the Project may be visible.

Figure 6-5 Cleared Farmland Example

6.5 Landscape Character 4 – Plantation

Landscape Character Unit 4 – Plantation forests, describes areas of managed timber plantations and forests. These areas are typically in Farming Zone.

Vegetation is usually a monoculture comprising radiata pine or native eucalypts.

Vegetated and natural areas such as Parks, Forests and Reserves are described in Landscape Character Unit 6. These areas (Parks, Forests and Reserves are more sensitive to change than managed plantations.

Figure 6-6 shows a view along an access track within a typical managed plantation area.

These areas are vegetated with regular or ordered plantings that limit views and can contrast with adjoining native forests when viewed from a distance. The visual change in these landscapes includes growth and establishment of timbers and rapid change upon harvest.

Some recreational activities are permitted in these landscapes, such as mountain biking or trail riding; however, due to the managed nature of the plantations, underlying land-use zones, and the absence of overlays protecting landscape features, views, or amenity, these areas are not considered sensitive.

6.5.1 Landscape and Viewer sensitivity considerations of Plantation forests

Plantation forests are established on land in the Farming Zone, and areas that are not sensitive to visual change. Commercial timber plantations are a dynamic landscape with trees being cleared as they mature, reducing their sensitivity to change.

Figure 6-6 Plantation Example

6.6 Landscape Character 5 – Lakes and waterways

Several Lakes and waterways are located within the study area. Lakes include Jack Smith Lake, Lake Reeve, Lake Coleman, Lake Wellington and Lake Victoria.

Named waterways include Tarra River, Merriman Creek, Warrigal Creek and Monkey Creek. Tributaries supporting waterways also contribute to localised character.

6.6.1 Landscape and Viewer sensitivity considerations for Water bodies and waterways

The landscape and viewer sensitivity of Lakes and waterways is considered to be high. Natural waterways are valued for their natural features, amenity, and recreational uses. Although water bodies in the study area have been established for utility purposes, these areas are valued for their amenity, recreational, and tourism uses.

Figure 6-7 Lakes and Water Bodies and Waterways example

6.7 Landscape Character 6 –Parks, Forests and Reserves

Landscape Character Unit 6 - Parks, Forests and Reserves includes areas generally within the land in Public Conservation and Resource Zone (PCRZ). These areas are often vegetated, hilly landscapes with dramatic topographical features. These areas remain primarily intact as they were either challenging to clear or to improve for productive agriculture.

These areas are pristine, with little development or modifications other than access roads, trails, and telecommunications infrastructure.

There are locations where breaks in vegetation permit views across the landscape. These areas are limited to elevated lookouts or at bends in roads and switchbacks on steep climbs and descents.

These landscapes are valued for their amenity, biodiversity, and recreational values. Figure 6-8shows an example of views from along a roadway within the National Park, State Parks, and State Forest areas.

6.7.1 Landscape and Viewer sensitivity considerations for Parks, Forests and Reserves

The landscape sensitivity of the National Parks and State Forests (Natural) Landscape Unit is considered high. These landscapes appear pristine or more natural than the Farmland landscape unit and are valued for amenity, recreation, and tourism uses.

Figure 6-8 Parks, Forests and Reserves Example

7 Public Viewpoints

Viewpoints have been selected from foreshore locations and from the nearby townships of Seaspray and Woodside Beach. These locations provide an understanding of potential turbine visibility from places familiar to the local community and to visitors. Figure 7-2 shows the location of the selected viewpoints in relation to the proposed Project.

This preliminary review focuses on the potential visibility and proximity of the wind turbines. The selected viewpoints allows consideration of the prominence of the proposed wind turbines across varying distances. The selected viewpoints are not exhaustive and do not include views from dwellings or private properties.

Each viewpoint is supported by a photomontage illustrating the proposed turbines in an indicative layout. To adopt a conservative approach for referral purposes, the photomontages presented in this review depict the larger 18 MW turbine scenario. For transparency, alternative photomontages showing a reduced 15 MW turbine layout are provided in the appendices.

A detailed assessment of the Project's visual impact—which will consider a greater number of viewpoints, and factors such as visibility, distance, duration of viewing, viewer numbers and the qualitative characteristics of the view will be undertaken in the detailed SLVIA.

The level of visual impact is rated in accordance with the scale of visual effects defined in Section 3.7 of this report and shown repeated in Figure 7-1.

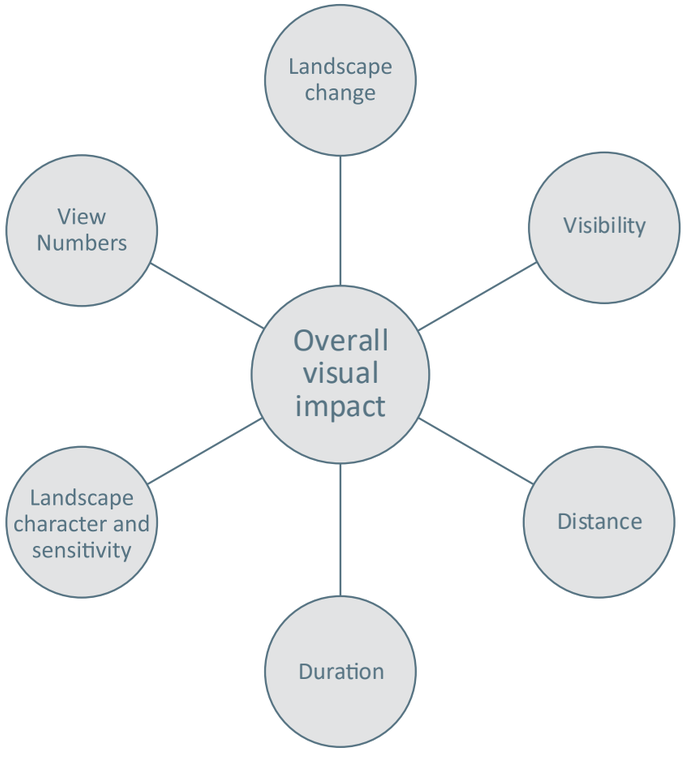


Figure 7-1 Visual impact – public realm

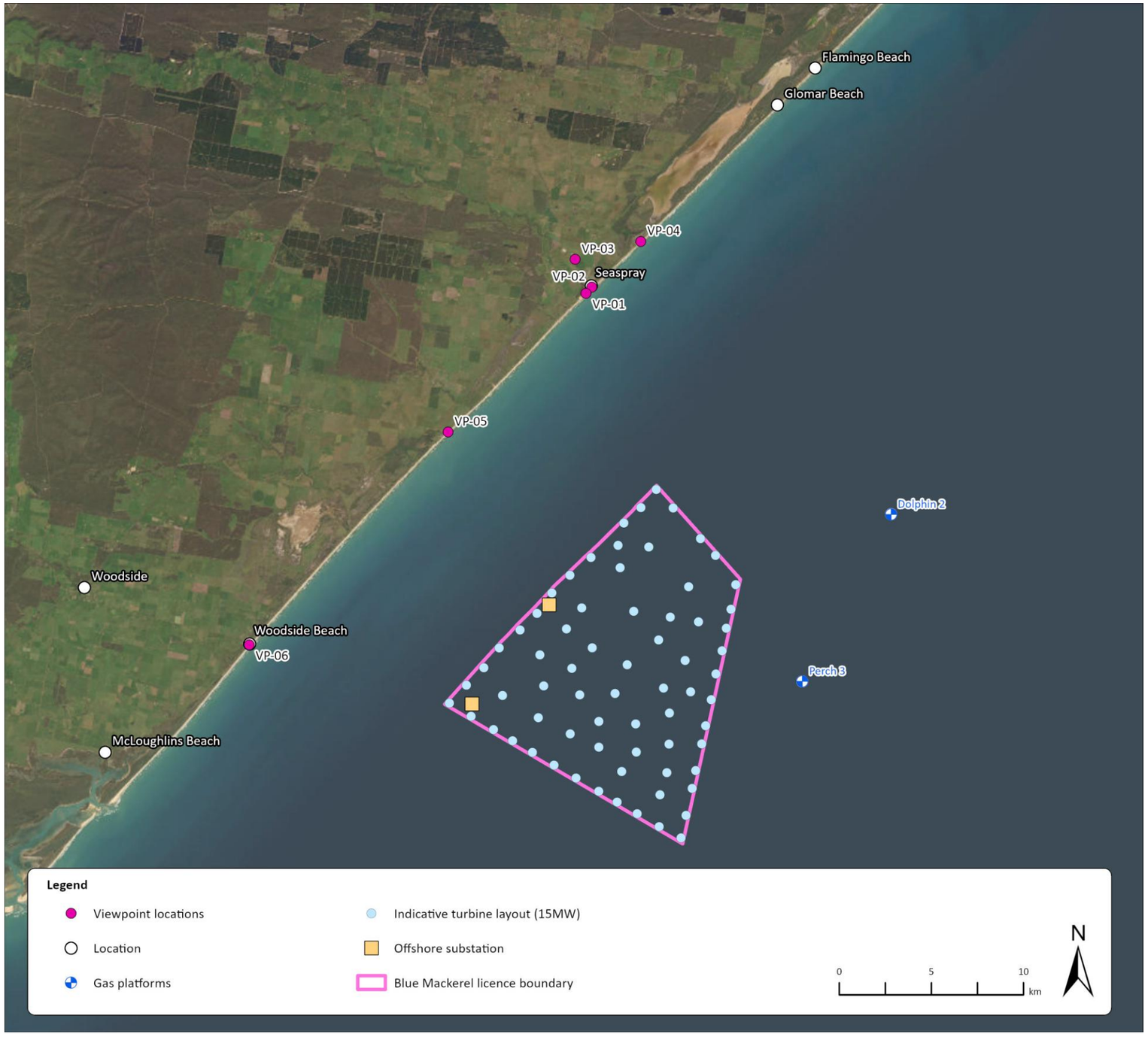


Figure 7-2 Viewpoint Location Map - 15MW turbine layout

7.1 Viewpoint 1 – Seaspray SLSC (GPS 55H 516364.00 m E, 5752039.00 m S)

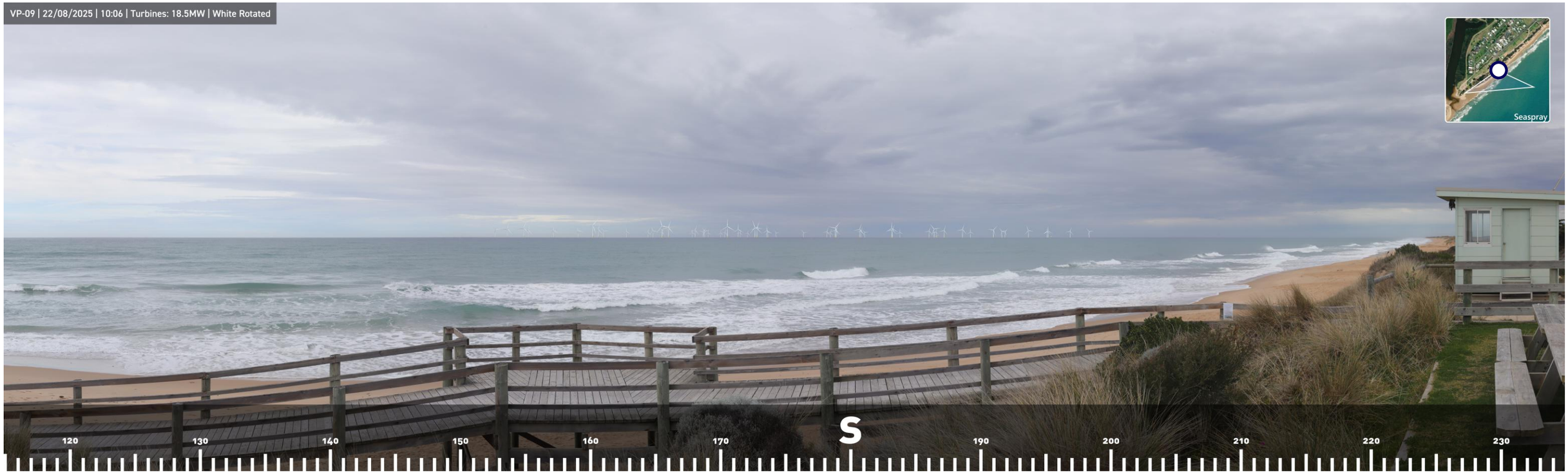


Figure 7-3 Viewpoint 1 – Photomontage - Seaspray SLSC

Summary of "Scale of Effects" Criteria		Discussion
Visibility (Full / Filtered / Screened)	Visible in full	Viewpoint Selection The Seaspray Surf Life Saving Club (SLSC) is located south of the Seaspray township and is a focal point within the community and for visitors.
Distance to turbine field	~11.1km SE	
Duration	Medium - Long	
Character / Viewer sensitivity	LU1 – Beach and Foreshore	Visual Setting The SLSC is elevated above the dune and beach with clear, and panoramic views across Bass Straight. Beach access is via a ramped walkway, with a lookout roughly midway.
Viewer Type	Local Community / Visitors	
Viewer numbers	Low – High (Summer)	
Visual Impact	Yes	Change in View Figure 7-3 shows a photomontage of the proposed turbines in the turbine field. The nearest boundary within the turbine field is approximately 11.1km to the south. Turbines would be oblique to primary views, and visible through approximately 45° in the horizontal field of view.

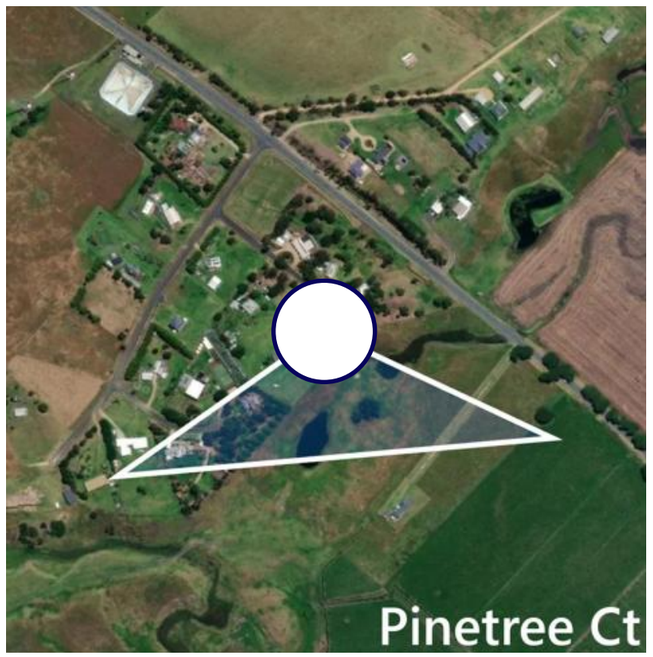
7.2 Viewpoint 2 – Seaspray Township (GPS 55H 516675.00 m E, 5752390.00 m S)

Figure 7-4 Viewpoint 2 – Seaspray Caravan Park – Wireframe view

Summary of "Scale of Effects" Criteria		Discussion
Visibility (Full / Filtered / Screened)	Screened	Viewpoint Selection The Seaspray caravan park is located approximately 200m north of the SLSC and is frequented by tourists and visitors. Peak periods being the summer months. Visual Setting A low, vegetated dune, and Shore Drive separate the caravaning and camping areas from the beachfront. Beach access is via a walkway at the southern end of Fulcher Street. Change in View Figure 7-4 shows a view from the southwestern corner of the caravan park near the intersection of Shoreline Drive and Fulcher Street. The Projects turbines are superimposed in red. Note the 15MW turbine design has been used for this montage to demonstrate the exact location in relation to the vegetation and dunes. The larger 18 MW turbine configuration would also remain effectively screened from this viewpoint due to the same intervening landscape features. The Projects' turbines would be screened by both the dune and vegetation south of the Caravan Park. Once beyond the dune, the turbines would be visible from the beach access point, roughly central in the view.
Distance to turbine field	~11.3km SE	
Duration	Short	
Character / Viewer sensitivity	LU2a – Townships	
Viewer Type	Local Community / Visitors	
Viewer numbers	Low – High (Summer)	
Visual Impact	No	

7.3 Viewpoint 3 – Pinetree Court (GPS 55H 515772.00 m E, 5753887.00 m S)

Figure 7-5 Viewpoint 3 – Pinetree Court - Photomontage



Summary of "Scale of Effects" Criteria		Discussion
Visibility (Full / Filtered / Screened)	Visible / Screened	Viewpoint Selection A small cluster of dwellings in the Low Density Residential Zone lies approximately 1.0km north of Seaspray. This viewpoint is from the southern end of Pinetree Court, from a location where a break in vegetation and dwellings permits views to the south.
Distance to turbine field	~13.1km SE	
Duration	Short	
Character / Viewer sensitivity	LU2b – Rural Residential	Visual Setting Dwellings are in an area that are slightly elevated, allowing for long-range views across low-lying farmland north of Seaspray and Bass Straight in the distance. Dwellings are well established, most of which are set within mature gardens comprising trees, tall shrubs and other vegetation.
Viewer Type	Local Community	
Viewer numbers	Local / Regular	
Visual Impact	Yes	Change in View Figure 7-5 shows a photomontage of the proposed turbines in the turbine field. The nearest boundary within the turbine field is approximately 13.3km to the south. Turbines would be oblique to primary views, and visible through approximately 40° in the horizontal field of view. In this area, there will be views from some dwellings and adjoining areas of private open space. Views will depend on the orientation and outlook from dwellings, and existing vegetation. At a distance of 13.1km, the turbines will be noticeable, but not dominant features.

7.4 Viewpoint 4 – Honeysuckles (GPS 55H 519334.00 m E, 5754876.00 m S)

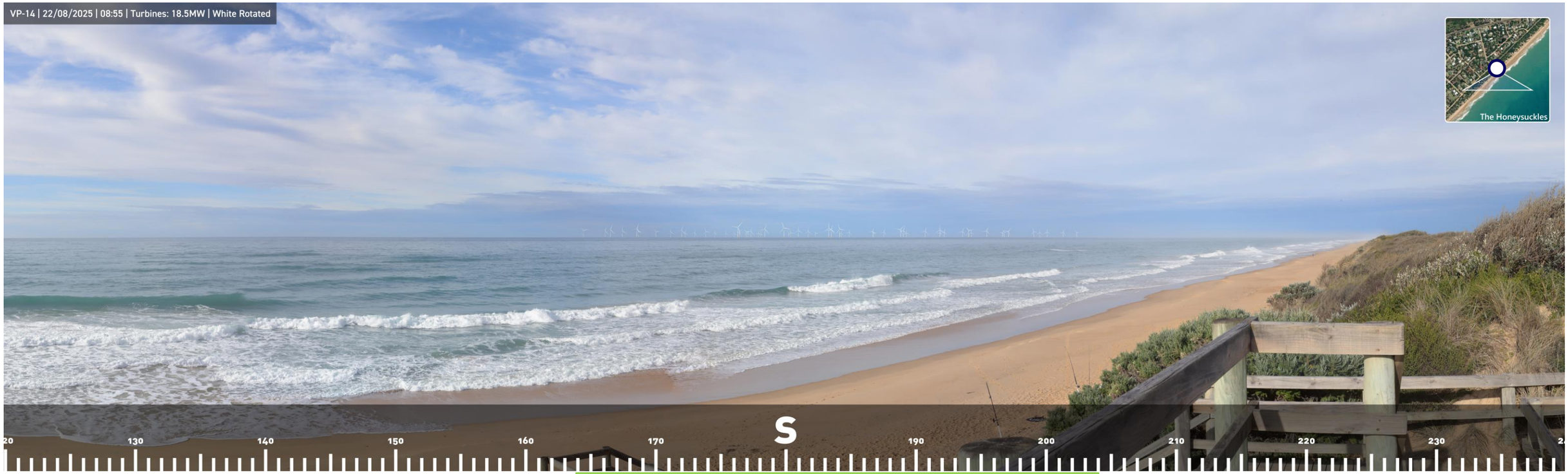
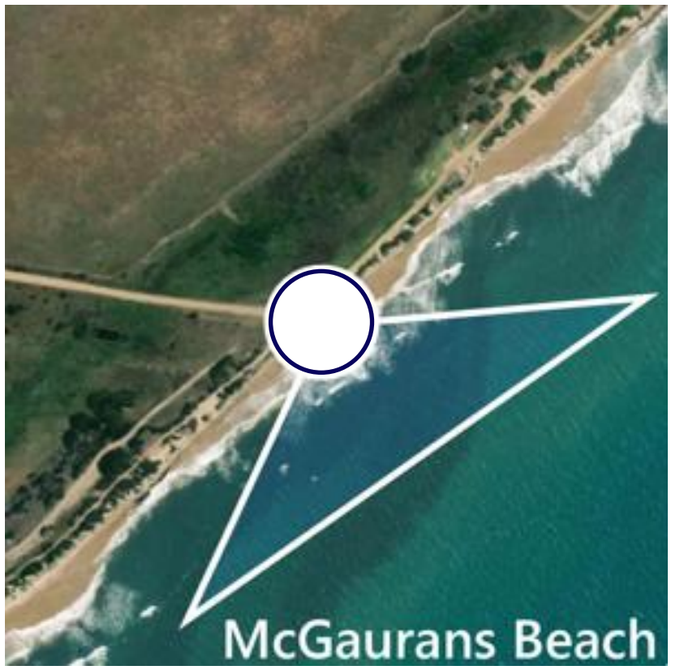


Figure 7-6 Viewpoint 4 – Honeysuckles Beach Access - Photomontage

Summary of "Scale of Effects" Criteria		Discussion
Visibility (Full / Filtered / Screened)	Visible from the beach Screened from the village	Viewpoint Selection Honeysuckles is a small, coastal village north of Seaspray. The village, comprises gravel roads, modest holiday houses and beach shacks set behind the primary vegetated dune system. Visual Setting Dwellings are set within native vegetation limiting views of neighbouring properties, the coast and Bass Straight. Beyond the dune, views from the beach are expansive, offering long, uninterrupted views along the Ninety Mile Beach. Change in View Figure 7-6 shows a photomontage of the proposed turbines from the boardwalk and beach access point south of the community. The nearest boundary within the turbine field is approximately 13.3km to the south. Turbines would be oblique to primary views, and visible through approximately 38° in the horizontal field of view. At a distance of 13.3km, the turbines will be noticeable, but not dominant features.
Distance to turbine field	~11.1km SE	
Duration	Medium - Long	
Character / Viewer sensitivity	LU1 – Beach and Foreshore	
Viewer Type	Local Community / Visitors	
Viewer numbers	Low – High (Summer)	
Visual Impact	Yes	

7.5 Viewpoint 5 – McGaurans Beach (GPS 55H 508870.00 m E, 5744510.00 m S)

Figure 7-7 Viewpoint 5 – McGaurans Beach - Photomontage



Summary of "Scale of Effects" Criteria		Discussion
Visibility (Full / Filtered / Screened)	Visible from the beach Screened from the village	**Viewpoint Selection** McGaurans Beach is a discreet beachfront area at the southern end McGaurans Beach Road. The area allows informal beach access and self-sufficient camping in open sandy clearings behind the dunes. **Visual Setting** The absence of services, expansive beaches and windswept dunes creates a simple, natural, and isolated coastal environment. From the beach, expansive views are afforded along exposed stretches of Ninety Mile Beach. **Change in View** Figure 7-7 shows a photomontage of the proposed turbines from the beach. The nearest boundary within the turbine field is approximately 11.1km to the south. Turbines would be roughly central to primary views, and visible through approximately 75° in the horizontal field of view. At a distance of 11.1km, the turbines will be noticeable, but not dominant features, albeit within views from a location with limited to no other constructed features.
Distance to turbine field	~11.1km SE	
Duration	Medium - Long	
Character / Viewer sensitivity	LU1 – Beach and Foreshore	
Viewer Type	Local Community / Visitors	
Viewer numbers	Low – High (Summer)	
Visual Impact	Yes	

7.6 Viewpoint 6 – Woodside Beach (GPS 55H 498068.00 m E, 5732943.00 m S)

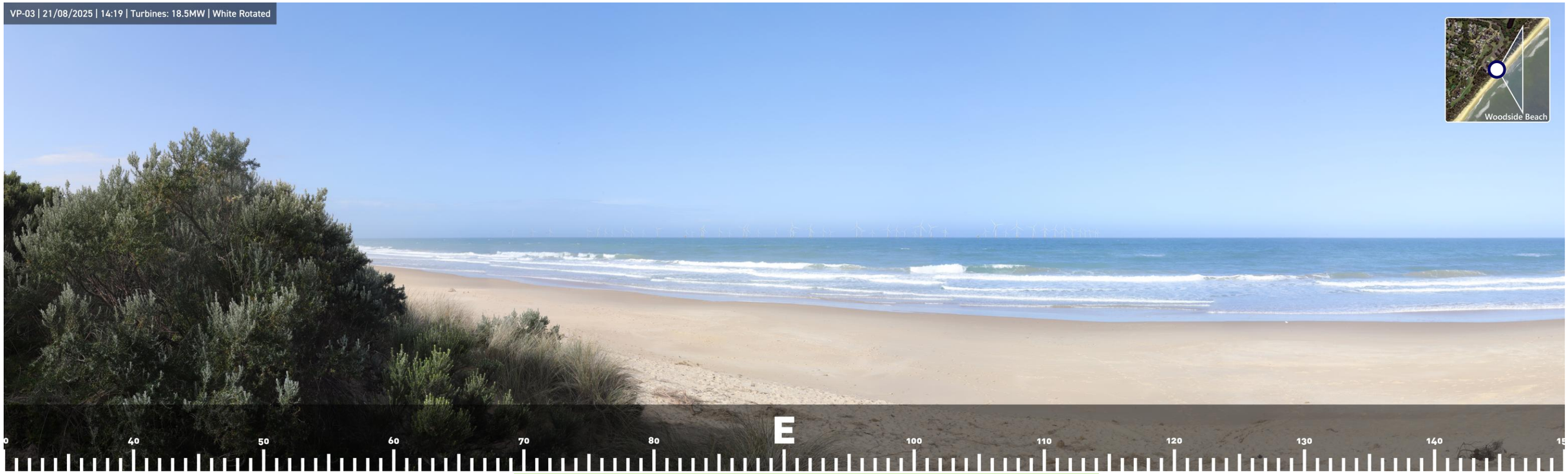


Figure 7-8 Viewpoint 6 – Woodside Beach Access - Photomontage

Summary of "Scale of Effects" Criteria		Discussion
Visibility (Full / Filtered / Screened)	Visible in full	**Viewpoint Selection** Woodside Beach is a small, coastal village east of Woodside. The village, comprises gravel roads, modest holiday houses and beach shacks set behind the primary vegetated dune system. **Visual Setting** Dwellings are set within native vegetation, limiting views of neighbouring properties, the coast and Bass Straight. Beyond the dune, views from the beach are expansive, offering long, uninterrupted views along the Ninety Mile Beach. **Change in View** Figure 7-8 shows a photomontage of the proposed turbines from the boardwalk and beach access point south of the community. The nearest boundary within the turbine field is approximately 23km to the south. Turbines would be oblique to primary views and visible through approximately 38° in the horizontal field of view. At a distance of 23km, the turbines will be noticeable, but not dominant features. The closest landfall areas within Wilsons Promontory is approximately 40km further to the south west, and greater than 60km to the closest edge of the proposed turbine field. This is roughly three times the distance to the view and photomontage shown above. At this distance (>60km), it is unlikely that the Project's turbines would be visible, except from elevated locations and only on clear days.
Distance to turbine field	~23.0km SE	
Duration	Medium - Long	
Character / Viewer sensitivity	LU1 – Beach and Foreshore	
Viewer Type	Local Community / Visitors	
Viewer numbers	Low – High (Summer)	
Visual Impact	Yes	

8 Conclusion

The Blue Mackerel Offshore Wind Farm would be located wholly within the Gippsland Declared Offshore Wind Zone.

The preliminary review of SLVIA considerations shows that while the turbines will be visible from parts of the Ninety Mile Beach coastline—including areas identified in the Coastal Landscape Assessment Study (CLAS) as having State and local landscape significance—CLAS carries no statutory weight.

These areas are at a distance greater than 11.0km, and a range in which the turbines will be noticeable but not dominant elements in views.

The closest landfall areas within Wilsons Promontory is greater than 60km to the southwest, roughly three times the distance to the view and photomontage shown in Viewpoint 6 taken from Woodside Beach. At this distance, it is unlikely that the Project's turbines would be visible, except from elevated locations and only on clear days.

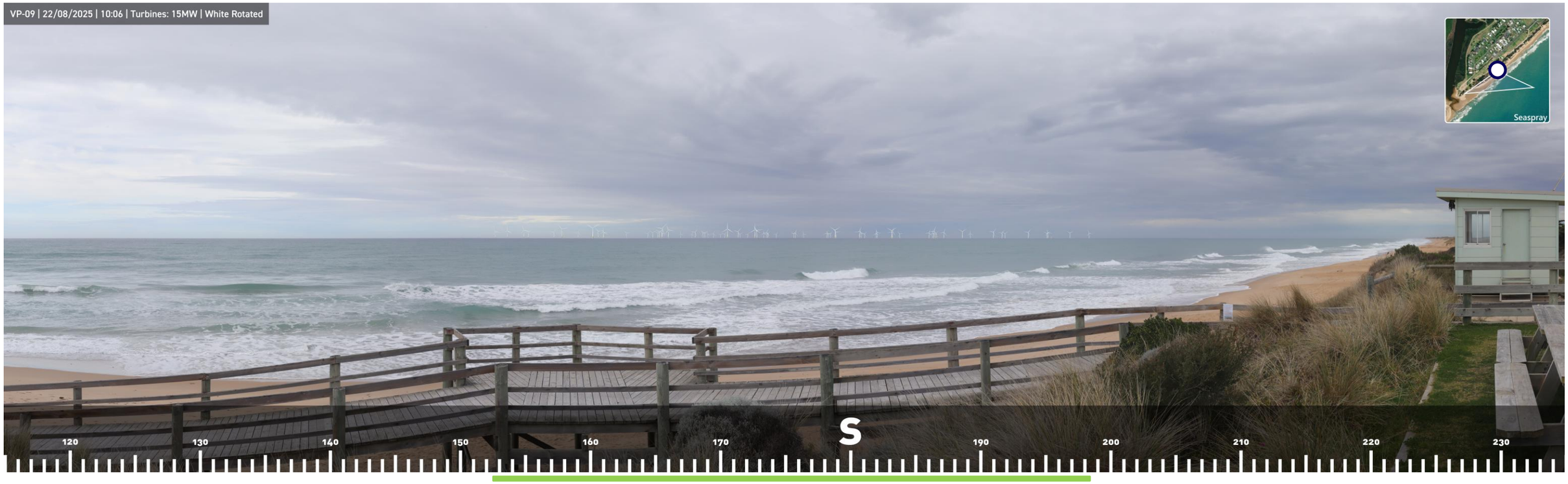
Inland visibility is limited due to dunes, vegetation and local landforms. The broader coastal setting remains capable of accommodating offshore infrastructure without eroding the functions or values of nearby townships, beach access points, or foreshore reserves.

Based on the above, and the understanding that the Project is proposed in an area that has been strategically identified for hosting offshore wind there appears to be no visual impediments to progressing through the OEIA approvals pathway, with visual effects to be addressed in further detail through an SLVIA at the feasibility licence stage as part of the environmental impact assessment process.

Appendix 1: 15MW Turbine Visualisations

Item	18.5MW Turbine	15MW Turbine
Overall height	Up to 330m above sea level	Up to 270m above sea level
Hub height	Up to 181 m above sea level	Up to 153 m above sea level
Rotor Area/ Rotor diameter	Up to 292m	Up to 240m
Blade chord width	Up to 8m	Up to 6m
Number of turbines	Up to 56	Up to 70

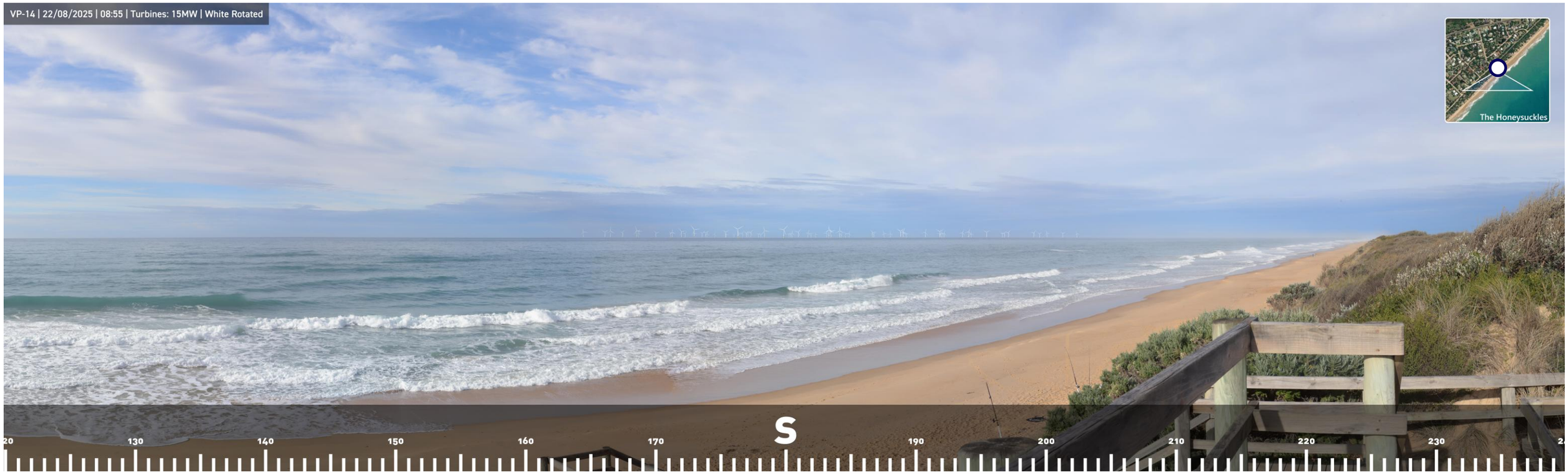
A1: Viewpoint 1 – Seaspray SLSC – 15MW Turbine Layout



A2: Viewpoint 2 – Seaspray Township – 15MW Turbine Layout

A3: Viewpoint 3 – Pinetree Court – 15MW Turbine Layout

A4: Viewpoint 4 – Honeysuckles – 15MW Turbine Layout



A5: Viewpoint 5 – McGaurans Beach – 15MW Turbine Layout

A6: Viewpoint 6 – Woodside Beach – 15MW Turbine Layout