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Gelliondale Wind Farm - Landscape Visual Impact Assessment Report

Gelliondale Wind Farm

Prepared for Synergy Wind Pty Ltd by Hansen Partnership - June 2023

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Version	Title	Date	Issuer	Notes / changes
P	Gelliondale Wind Farm – Preliminary Visual Appraisal report	15/12/2022	AP	Draft for review
P2	Gelliondale Wind Farm – Landscape Visual Impact Assessment	14/04/2023	AP	Application for a planning permit
P3	Gelliondale Wind Farm – Landscape Visual Impact Assessment	02/05/2023	AP	Application for a planning permit
P4	Gelliondale Wind Farm – Landscape Visual Impact Assessment	09/06/2023	AP	Local dwelling reference added

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EXECUTIVE SUMMARY

Hansen Partnership Pty Ltd has been commissioned by Synergy Wind Pty Ltd to supply landscape and visual impact assessment services for the purpose of supporting an application for a planning permit for the Gelliondale Wind Farm.

OVERVIEW

The Gelliondale Wind Farm Project comprises 13 wind turbines located between approximately 4km and 15km west of Alberton, in South Gippsland, Victoria. The towers are 129m tall with 81m long blades extending to 210m at their maximum height.

The wind turbines are located in 3 groups: 4 to the east, 6 centrally located and 3 at to the west. All wind turbines are located within 2.5 km of the South Gippsland Highway, with 7 towers located within 500m of the road reserve. The towers are all located in open pastoral country. The 'Gelliondale Plantation' and 'Gelliondale State Forest' are located to the south and east of 8 of the wind turbines.

This report identifies the visual impact that may occur as a result of the proposed wind turbines and assesses this impact on the basis of well established international principles of visual impact assessment.

BASELINE ASSESSMENT

The study area for the LVIA has been identified on the basis of the Theoretical limit of viewshed extent (TLVE) for the proposed wind turbines. The process by which the TLVE is determined is outlined in Section 4 of this report.

Within the study area, all environments have been identified and described as a series of landscape character areas. The value (or significance) of each landscape character area has been assessed and described, and provides the basis for the subsequent landscape and visual impact assessment.

The identified landscape character areas within the project study area are:

Landscape Character Areas

1. Coastal Islands, which has been assessed as a 'High' landscape value.
2. South Gippsland Coastal Plains, which has been assessed as a 'Low' landscape value.
3. Settlements, which has been assessed as a 'Low' landscape value.
4. Timber Plantation Forest, which has been assessed as a 'Low' landscape value.
5. Strzelecki Range and Foothills, which has been assessed as a 'Moderate' landscape value.
6. Forest Foothills, which has been assessed as a 'Low' landscape value.
7. Wilsons Promontory Granite Coast, which has been assessed as a 'High' landscape value.

The viewshed for the Project has a minimal impact on Wilsons Promontory, with the 15km viewshed map affecting a small area to the north east corner of the Promontory. We have included Wilson's Promontory for report completeness.

These landscape character values are consistent with the values applied for other landscape visual impact assessment projects undertaken in the local region.

IMPACT ASSESSMENT FINDINGS

An iterative assessment was undertaken to evaluate potential impacts associated with the Project, considering the existing environment within the study area and associated operational activities.

The assessment found the following key impacts:

Moderate impact

View location 02: located at Marginal Wharf, Port Welshpool, which is within the 'Settlement' landscape character area.

View location 03: at James Road, Hedley, which is within the 'Coastal Islands' landscape character area.

View location 04: located at Port Albert, which is within the 'Coastal Islands' landscape character area.

View location 05: located at South Gippsland Highway, Hedley, which is within the 'Settlement' landscape character area.

View location 06: located at South Gippsland Highway, Gelliondale, which is within the 'South Gippsland Coastal Plains' landscape character area.

View location 08: located at South Gippsland Highway, Alberton, which is within the 'Settlement' landscape character area.

View location 09: located at South Gippsland Highway, Alberton, which is within the 'South Gippsland Coastal Plains' landscape character area.

View location 10: located at Hedley, which is within the 'Settlement' landscape character area.

Low impact

View location 07: located at Yarram Memorial Park, which is within the 'Settlement' landscape character area.

Nil impact

View location 01 is located at South Gippsland Highway, Welshpool., which is within the 'Settlement' landscape character area.

ABBREVIATIONS

Abbreviation	Title
DAWE	Department of Agriculture, Water and the Environment
DELWP	Department of Environment, Land, Water and Planning
DEM	Digital elevation model
GLVIA	Guidelines for Landscape and Visual Impact Assessment
LCA	Landscape character area
LVIA	Landscape and Visual Impact Assessment
TLVE	Theoretical limit of viewshed extent
VLPWA	Visual Landscape and Planning in Western Australia
ZTV	Zone of theoretical visibility

GLOSSARY

The following terms and their definitions have been developed by Hansen Partnership with consideration of relevant LVIA guidance documents, primarily by the *Landscape Institute and Institute of Environmental Management & Assessment, Guidelines for Landscape and Visual Impact Assessment, Third Edition, 2013*.

Term	Definition
Baseline assessment	The assessment of existing landscape conditions and statutory framework relevant to the area of landscape within the site study area.
Baseline studies	Work done to determine and describe the environmental conditions against which any future changes can be measured or predicted and assessed.
Digital elevation model	The representation of continuous elevation values over a topographic surface by a regular array of sampled z-values, referenced to a common datum. To be expressed as a grid or raster data set. The DEM is ground only representation and excludes vegetation such as trees and shrubs and human constructed features such as sheds and houses.
Landscape and Visual Impact Assessment (LVIA)	A tool used to identify and assess the likely significance of the effects of change resulting from development both on the terrestrial landscape as an environmental resource in its own right and on people's views and visual amenity.
Landscape	Landscape is an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.
Landscape character	A distinct, recognisable and consistent pattern of elements that occur in the terrestrial area that make one landscape different from another, rather than better or worse.
Landscape character area	Distinct areas of landscape that are relatively homogeneous in character and share a combination of geological, hydrological, topographical, drainage, vegetative, land use and settlement layout features.
Landscape character assessment	The process of identifying and describing variation in the character of the landscape, and the unique combination of elements and features that make a defined area of land distinctive.
Landscape significance	The importance of a landscape to communities as evident either through statutory controls, preference indicators or other reliable objective data.
Landscape value	The term 'landscape value' is used interchangeably with the term 'landscape significance', and in the context of this LVIA the two terms have the same meaning.
Landscape visual sensitivity	The sensitivity of a landscape or seascape to visual impacts arising from a proposed development, determined on the basis of the value or significance of that landscape and the extent to which it is visually exposed to the proposed development.
Receptor	Individuals and/or communities who have the potential to be affected by a proposed development.

Statutory landscape significance	Areas of landscape identified as being of importance at international, national or local levels, either defined by statute or identified in applicable planning schemes or other documents. Can be interchangeably referred to within this LVIA as 'statutory significance'.
Theoretical limit of viewshed extent	The distance from proposed project infrastructure at which the vertical height of the proposed project infrastructure occupies a specified percentage of the vertical field of view.
Viewshed	A theoretical calculation based on 3D terrain modelling that determines areas of land that are potentially visible from a proposed project infrastructure, and conversely, determines land from which the proposed project infrastructure would be visible.
Wireframe photomontage	An accurate presentation of the proposed project infrastructure within an existing view photomontage which is represented as a coloured outline. The image represents the location/position of the proposal as seen from the viewpoint, including behind existing landform, landscape or built elements.
Zone of theoretical visibility	The total area of land from which there are potential views of a proposed project infrastructure (i.e. land that is within the assessed Viewshed and Theoretical Extent of Visual Exposure).

1 INTRODUCTION

1.1 Purpose of this report

The purpose of this report is to assess the potential landscape and visual impacts associated with the proposed Gelliondale Wind Farm project, which comprises a total of 13 wind turbines, to support an application for a planning permit.

1.2 Why understanding landscape visual impact is important

Planning policy and statutory decisions within Victoria recognise the value of landscapes for their intrinsic qualities, for the quality of life and enjoyment of people, and for the economic benefits they bring. In assessing the impacts of the project to identified visual and landscape values, it is important to consider that¹:

- Landscape is a shared resource which is important in its own right as a public good;
- Landscape is the setting for day to day lives - for living, recreation and working;
- Landscape provides opportunities for scenic enjoyment;
- Landscape is a source of memories and associations, and
- Landscape provides economic benefits, directly by providing resources, and indirectly in recreation and tourism.

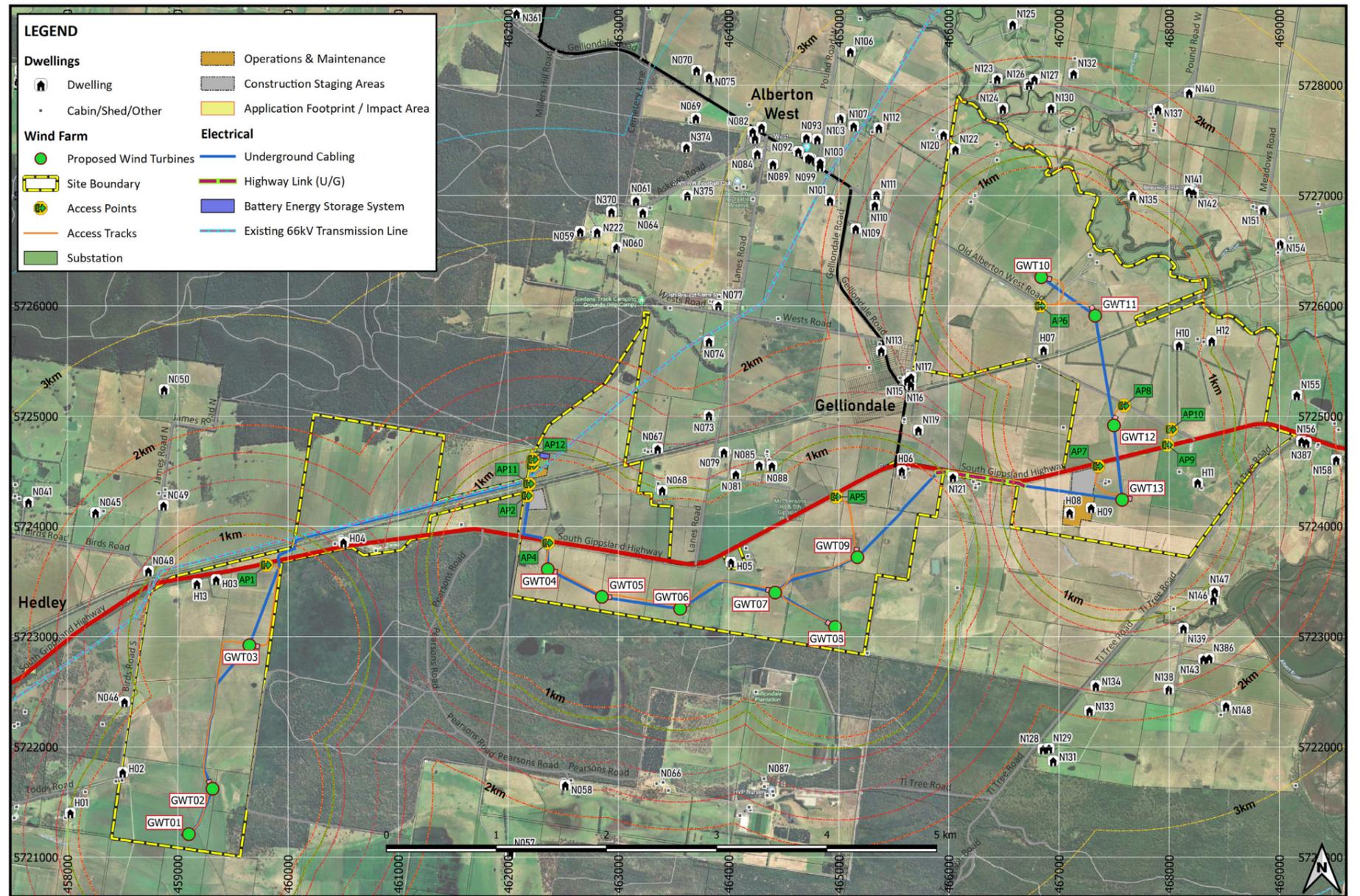
Understanding the visual character of these landscapes and their recognised scenic and landscape values helps to assess the level of impact resulting from the project.

¹ Landscape Institute and Institute of Environmental Management & Assessment, Guidelines for Visual Impact Assessment, Third Edition, 2013.

2 PROJECT BACKGROUND

2.1 Project location and description

The proposed wind farm is located near the township of Gelliondale in South Gippsland, Victoria. The town is located approximately 216 kilometres east of Melbourne and can be reached via the South Gippsland Highway. The wind farm consists of 13 wind turbines to a maximum 210 metre tip height.



Project Layout - Whole of Site Detail | March 2023

Map scale: 1:30,000 (@A3) | Coordinate system: GDA94 MGA Zone 55 | Base map: Google Hybrid Satellite | Roads data: Vicmap Transport

Figure 1 Gelliondale Wind Farm Project Layout

3 EVALUATION FRAMEWORK

The assessment will consider legislation, policy and standards relevant to this LVIA along with specific assessment criteria that have been derived for the purposes of the study.

3.1 Legislation, policy, guidelines and standards

The legislation, policy, guidelines and standards relevant to this assessment are summarised in Table 1. The detailed explanation to the relevant clauses of the legislation, policy and guidelines are described in the section 4.2 to the section 4.7.

Table 1 Legislation, policy, guidelines and standards relevant to the assessment

Document title
Commonwealth Legislation
Environment Protection and Biodiversity Conservation 1999 Act (EPBC Act)
Victorian State Legislation
Marine and Coastal Act 2018
Planning and Environment Act 1987
National Parks Act 1975
Victorian Planning Provisions - Planning Policy Framework
12.02-1S Protection of Coastal Areas
12.05-1S Coastal Crown Land
12.05-1S Environmentally Sensitive Areas
12.05-2S Landscapes
19.01-2S Renewable energy
52.16 Native Vegetation Precinct Plan
52.08 Earth and Energy Resources Industry

Victorian Planning Provisions - Local Planning Policy Framework - Wellington Shire
21.02 Key Issues and Influences
21.02-2 Environment and Landscape Values
21.03 Vision – Strategic Framework
21.13 Environment and Landscape values
21.13-1 Rural and Natural Landscapes:
21.13-3 Coastal Landscape character Significance
Victorian Planning Provisions - Local Planning Policy Framework - South Gippsland Shire
12.02-1S Protection of Coastal Areas
21.01-1 Municipal profile
21.01-2 Key issues and influences
21.01-3 Vision and strategic framework plan
21.03 Environmental and landscape values
21.03-1 Coastal and hinterland landscapes
21.03-7 Objective 4
21.03-8 Objective 5
21.03-9 Policy guidelines
21.10-6 Overview – Alternative energy
21.10-8 Objective 2
21.10-7 Strategies
21.10-9 Policy guidelines
21.13-1 Rural and Natural Landscapes
21.13-3 Coastal Landscape character Significance

21.20 Landscape character areas
21.20-10 Overview – Character area 1.5 – Waratah Bay / Corner Inlet
21.20-11 Objectives
21.20-12 Strategies
21.20-18 Overview – Character area 3.2 – Welshpool Hills and Mount Hoddle
21.20-19 Objectives
21.20-20 Strategies
Victorian Planning Provisions - Local Planning Policy Framework - Planning Scheme Zones
32.05 Township Zone (TZ)
35.03 Rural Living Zone (RLZ)
35.07 Farming Zone (FZ)
36.02 Public Park & Recreation Zone (PPRZ)
36.03 Public Conservation & Resource Zone (PCRZ)
Commonwealth Land (CA) (not in Planning Scheme)
Victorian Planning Provisions - Local Planning Policy Framework - Planning Scheme Overlays
Overlays within Wellington Planning Scheme
42.01 Environmental Significance Overlay - Schedule 1 (ES01): Coastal and Gippsland Lakes Environs
42.01 Environmental Significance Overlay - Schedule 2 (ES02): Wetlands
Environmental Significance Overlay - Schedule 3 (ES03): Urban and Construction Buffer
Overlays within South Gippsland Planning Scheme
42.01 Environmental Significance Overlay - Schedule 1 (ES01): Areas of Natural Significance
42.01 Environmental Significance Overlay - Schedule 2 (ES02): Special Water Supply Catchment Areas
42.01 Environmental Significance Overlay - Schedule 3 (ES04): Coastal Settlements
42.01 Environmental Significance Overlay - Schedule 4 (ES05): Sewage Treatment Plant and Environs
42.01 Environmental Significance Overlay - Schedule 5 (ES05): Areas Susceptible to Erosion
42.03 Significant Landscape Overlay – Schedule 3 (SLO3): Corner Inlet Amphitheatre

Planning Scheme Reference Documents	
Gippsland Regional Plan (2015)	
The Gippsland Regional Growth Plan (2014)	
Victorian Coastal Strategy (Victorian Coastal Council, 2014)	
Coastal Spaces Landscape Assessment Study – State Overview Report (Planisphere 2006)	
Coastal Towns Design Framework (2007) – Golden Beach Urban Design Framework	
Port Albert and Palmerston Urban Design Guidelines (2007)	
Siting and Design Guidelines for Structures on the Victorian Coast	
Other documents	
Land Conservation Council Wilderness Special Investigation Final Recommendations (1991)	
Statutory Heritage Controls	
Victorian Heritage Register	Woodcot Park
	Immigration Depot
	Court House
	Former Turnbull Orr & Co Bond Store and Office
	Port Albert Maritime Museum
	Former Turnbull Orr & Co Bond Store and Office
	Christ Church
	Residence
	Hawthorn Bank
	Gelliondale Briquette Plant
	Hiawatha A Frame Bridge

3.2 Legislation

3.2.1 Commonwealth legislation

Environment Protection and Biodiversity Conservation 1999 Act (EPBC Act)

The EPBC Act is the Australian Government's central piece of environmental legislation. It provides a legal framework to protect and manage matters of National Environmental Significance (MNES) including, but not limited to, World Heritage Properties, National Heritage Places, Ramsar wetland site, nationally listed threatened species and ecological communities and listed migratory species.

The EPBC Act states that 'controlled' actions i.e. actions that are determined as likely to have a significant impact on a MNES are subject to assessment and approval under the EPBC Act.

The objectives of the EPBC Act are to:

- Provide for the protection of the environment, especially matters of national environmental significance
- Conserve Australian biodiversity
- Provide a streamlined national environmental assessment and approvals process
- Enhance the protection and management of important natural and cultural places
- Control the international movement of plants and animals (wildlife specimens and products made or derived from wildlife)
- Promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources
- Recognise the role of indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity
- Promote the use of indigenous peoples' knowledge of biodiversity with the involvement of, and in cooperation with, the owners of the knowledge.

We are aware that the Alberton wind farm was assessed under the EPBC Act.

The Gelliondale Wind Farm is being referred to DEECCW under the EPBC Act (pre-referral meeting held (March 2023), application currently in progress).

3.2.2 Victorian state legislation

The Marine and Coastal Act 2018

The Marine and Coastal Act (the Act) covers the planning and management of the marine and coastal environments in Victoria. The objectives of the act which are relevant to visual and landscape values are:

- to protect and enhance the marine and coastal environment
- to promote a diversity of experiences in the marine and coastal environment
- to promote the ecologically sustainable use and development of the marine and coastal, and environment and its resources in appropriate areas.

The recently released Marine and Coastal Policy 2020 (the M&C Policy) sets objectives and guiding principles for the planning and management of the state's marine and coastal environment. The M&C Policy is accompanied by the Marine and Coastal Strategy 2022, which outlines priority actions to achieve the objectives of the M&C Policy.

The Planning and Environment Act 1987

The purpose of this Act is to establish a framework for planning the use, development and protection of land in Victoria in the present and long term interests of all Victorians. The objectives of planning in Victoria are set out in this Act. They are:

- a. to provide for the fair, orderly, economic and sustainable use and development of land;
- b. to provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity;
- c. to secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria;
- d. to conserve and enhance those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value;
- e. to protect public utilities and other assets and enable the orderly provision and coordination of public utilities and other facilities for the benefit of the community;
- f. to facilitate development in accordance with the objectives set out in paragraphs (a),(b),(c),(d) and (e);
- g. To balance the present and future interests of all Victorians.

In 2018, the Victorian Government passed landmark legislation to recognise and safeguard the state's distinctive areas and landscapes and to achieve better coordinated decision-making by government agencies, local councils and other key parties.

The Planning and Environment Amendment (Distinctive Areas and Landscapes) Act 2018, enables the government to declare a distinctive area and landscape subject to meeting strict criteria. Once declared, a Statement of Planning Policy must be prepared for the area in partnership with Traditional Owners, local councils and the community.

A Statement of Planning Policy will include a long-term vision of at least 50 years, policy objectives and strategies to achieve the vision, and a strategic framework plan for guiding the future use and development of land in the declared areas. This plan may identify long-term settlement boundaries to ensure that development does not inappropriately encroach into valued natural and rural landscapes. Once implemented, Parliament must ratify any future changes to the settlement boundaries.

Currently, no distinctive area and landscape has been declared for land within the study area extents.

3.3 Victorian planning provisions

3.3.1 State planning policy framework

12.02-1S Protection of Coastal Areas

The objective of this clause is to recognise the value of coastal areas to the community, conserve and enhance coastal areas and ensure sustainable use of natural coastal resources.

This clause outlines the following principles for the planning and management of the coastal areas:

- Principle 1 - Ensure the protection of significant environmental and cultural values.
- Principle 2 - Undertake integrated planning and provide clear direction for the future.
- Principle 3 - Ensure the sustainable use of natural coastal resources.
- Principle 4 - Ensure development on the coast is located in existing modified and resilient environments where the demand for development is evident and any impacts can be managed sustainably.

Of relevance to the visual values of the coast, the clause seeks to ensure development is sensitively sited and designed and respects the character of coastal settlements.

Policy guidelines are as follow:

- Any applicable coastal action plan or management plan approved under the *Coastal Management Act 1995 or National Parks Act 1975*.

Policy documents are as follow:

- *Victorian Coastal Strategy* (Victorian Coastal Council, 2014)
- *Coastal Spaces Landscape Assessment Study* (Department of Sustainability and Environment, 2006)

12.05-1S Coastal Crown Land

The objective of this clause is to achieve coastal crown land development that provides an environmental, social and economic balance.

The strategies of this clause is to ensure use and development on or adjacent to coastal foreshore Crown land:

- Protects local environmental and social values.
- Minimises impact on the coast by locating within a defined activity or recreation node.

Policy documents are as follow:

- The purpose for which land is reserved under the *Crown Land (Reserves) Act 1978*.
- Any relevant coastal action plan or management plan approved under the *Coastal Management Act 1995 or National Parks Act 1975*.

Policy documents are as follow:

- *Victorian Coastal Strategy* (Victorian Coastal Council, 2014)

12.05-1S Environmentally Sensitive Areas

This clause outlines protection and conservation of environmentally sensitive areas with significant conservation or recreational values. Coastal landscapes within the Port Phillip Bay areas have been identified.

12.05-2S Landscapes

This clause outlines the objective for protection and for the enhancement of landscapes and open spaces that contribute to character, identity and sustainable environments.

Strategies are as follow:

- Ensure significant landscape areas such as forests, the bays and coastlines are protected.
- Ensure development does not detract from the natural qualities of significant landscape areas.
- Improve the landscape qualities, open space linkages and environmental performance in significant landscape and open spaces, including green edges, conservation areas and non-urban areas.
- Recognise the natural landscape for its aesthetic value as fulling functioning system.
- Ensure important natural features are protected and enhanced.

19.01-2S Renewable energy

This clause outlines the objective for promotion of the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met..

Strategies are as follow:

- Facilitate renewable energy development in appropriate locations.
- Consider the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.
- Recognise that economically viable wind energy facilities are dependent on locations with consistently strong winds over the year.

Policy documents are as follow:

- Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (*Department of Environment, Land, Water and Planning*, March 2019)

52.17 Native Vegetation Precinct Plan

The purpose of this provision is:

To provide for the protection, management and removal of native vegetation through the use of a native vegetation precinct plan incorporated into this scheme.

3.3.2 Local planning policy framework–Wellington Shire

21.02 Key Issues and Influences

The Wellington Municipal Strategic Statement (MSS) identifies key influences for the municipality (21.02) and includes a range of objectives and strategies relating to the retention and enhancement of visual and Landscape values. Relevant chapters are described below:

21.02-2 Environment and Landscape Values

- The Shire’s ecological and landscape features are important State and national assets.
- The Shire’s coastal and riverine environments are sensitive to inappropriate development and can be easily and irreversibly damaged.
- The Shire’s coastal landscapes are highly sensitive to visible changes, such as inappropriately scaled or sited built form or changes to the existing vegetation patterns.

21.03 Vision – Strategic Framework

The Strategic Framework Plans (Figure 2) identify key directions for future land use planning and development in the Wellington Shire. The Framework Plans summarise the locations where specific land use outcomes will be supported and promoted. They also identify specific development opportunity areas where significant land use change can be expected, as well as areas such as heritage places and National Parks, whose special values need to be protected.

21.13 Environment and Landscape values

This clause identifies that infrastructure development can have significant detrimental effects on the landscape, and that the rural amenity of the Shire is an asset which warrants protection. In particular, this clause states:

Residents and tourists derive pleasure from the scenic values of the rural landscapes. Even the highly modified areas of the Shire possess high Landscape values.

A series of objectives have been developed in response to protecting the environmental and Landscape values. Wellington Shire recognises the scenic value of its rural landscapes both natural, and modified. The following strategies relating to these objectives are considered relevant to the project:

21.13-1 Rural and Natural Landscapes:

The Shire’s rural areas contain some of the most ecologically important and diverse areas in the State. These have high intrinsic natural values and are a significant factor in attracting people to reside and visit the Shire. There are significant environmental landscape issues facing the Shire’s rural areas, including inappropriate residential development and the protection of vegetation habitat. Infrastructure development can have significant detrimental effects on the landscape. The rural amenity of the Shire is an asset which warrants protection. Residents and tourists derive pleasure from the scenic values of the rural landscapes. Even the highly modified areas of the Shire possess high landscape values. The Macalister Irrigation District, with its picturesque, green irrigated dairy country set against the foothills of the Great Dividing Range is an excellent example of the region’s aesthetic assets.

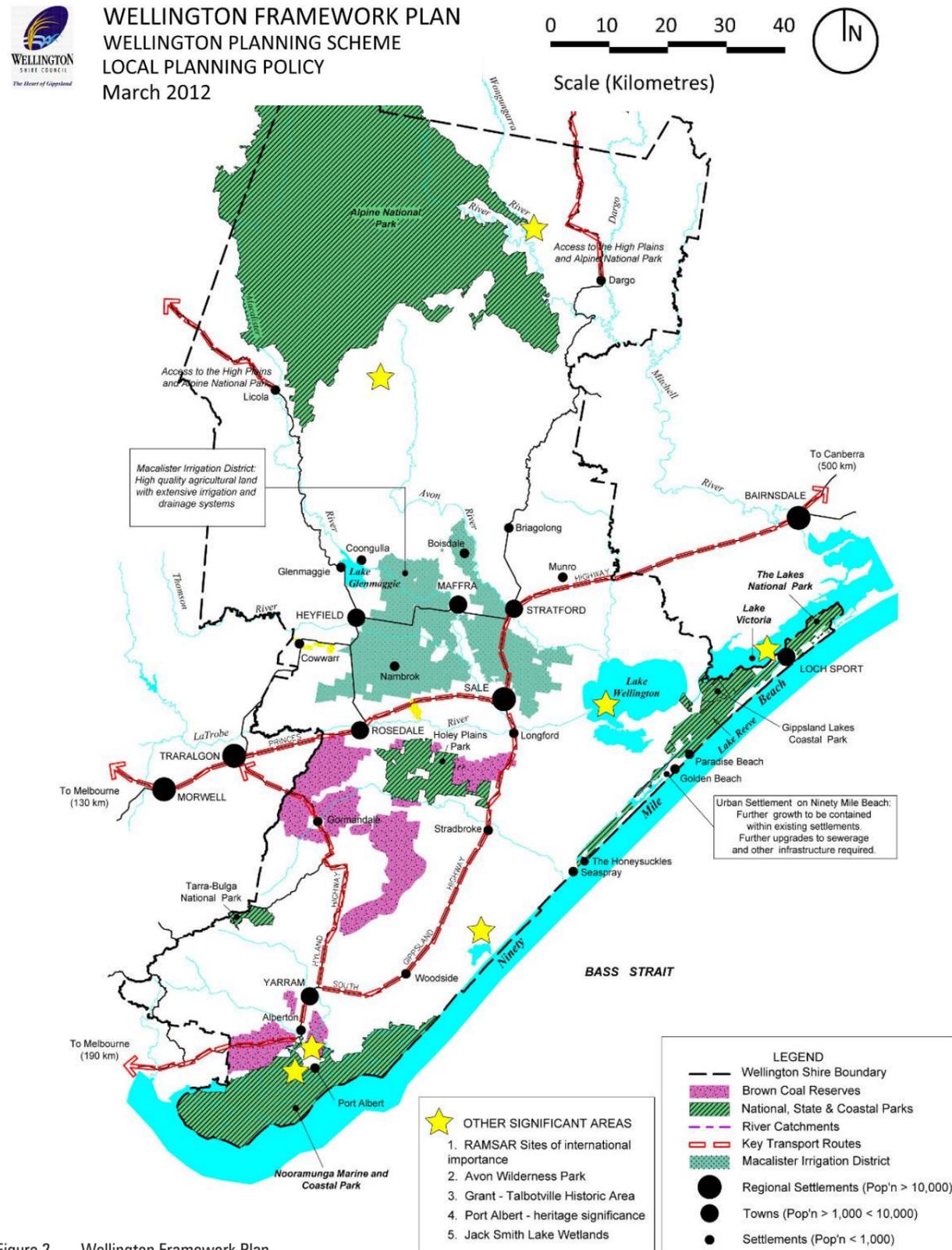


Figure 2 Wellington Framework Plan TR Chapter 4: Legislation, Policy, Guidelines and Criteria (not to scale) (Source: Wellington Planning Scheme.)

The objective of this clause is to recognise the visual, landscape and recreational importance of the Gippsland Lakes and coastal environment to the region.

Strategies are as follow:

- Protect locally significant views and vistas that contribute to the character of coastal and coastal hinterland areas.
- Minimise the visual impact of signage and infrastructure, particularly adjacent to the Gippsland Lakes or Ninety Mile Beach or areas of high visibility.

21.13-3 Coastal Landscape character Significance

The Coastal Spaces Landscape Assessment Study (2006) identifies Landscape character areas as shown on Figure 3.

The Ninety Mile Beach and the Gippsland Lakes coastal landscapes within the Shire are of State significance. The Ninety Mile Beach coastal landscape is protected by the Significant Landscape Overlay. When considering planning permit applications for development in coastal areas specific strategies and objectives apply to the Ninety Mile Beach Character area shown as Area 6.2. For other coastal landscapes, the general objectives and strategies should be considered.

The objective 1 is to ensure that coastal related development responds appropriately to the landscape setting and character.

Strategies are to minimise the impacts of development and human activity on the ecological values of the coast and around the Gippsland Lakes.

The objective 2 is to ensure that development is subordinate to the natural, visual and environmental Landscape character and significance.

Strategies for the objective 2 are as follow:

- Ensure development minimises the visual impact of signage and infrastructure, and avoids further visual clutter across the landscape at settlement entrances and exits, including through the use of large, visually intrusive or brightly coloured signage and advertising signage.
- Locate power lines, access tracks and other infrastructure in areas of low visibility, preferably in previously cleared locations, and avoid the use of materials that contrast with the landscape.

The objective 3 is to maintain locally significant views and vistas that contribute to the character of the coastal and coastal hinterland region.

Strategies for the objective 3 are as follow:

- Site infrastructure away from highly scenic locations, key views and near-coastal locations, or underground wherever possible in the case of power lines and other utility services.
- Use vegetation to screen infrastructure from key viewing corridors and public use areas.
- Protect locally significant views and vistas that contribute to the character of coastal and coastal hinterland areas, particularly from the Longford-Loch Sport Road to Lake Wellington and Lake Reeve and to the coastal dunes of the Ninety Mile Beach.

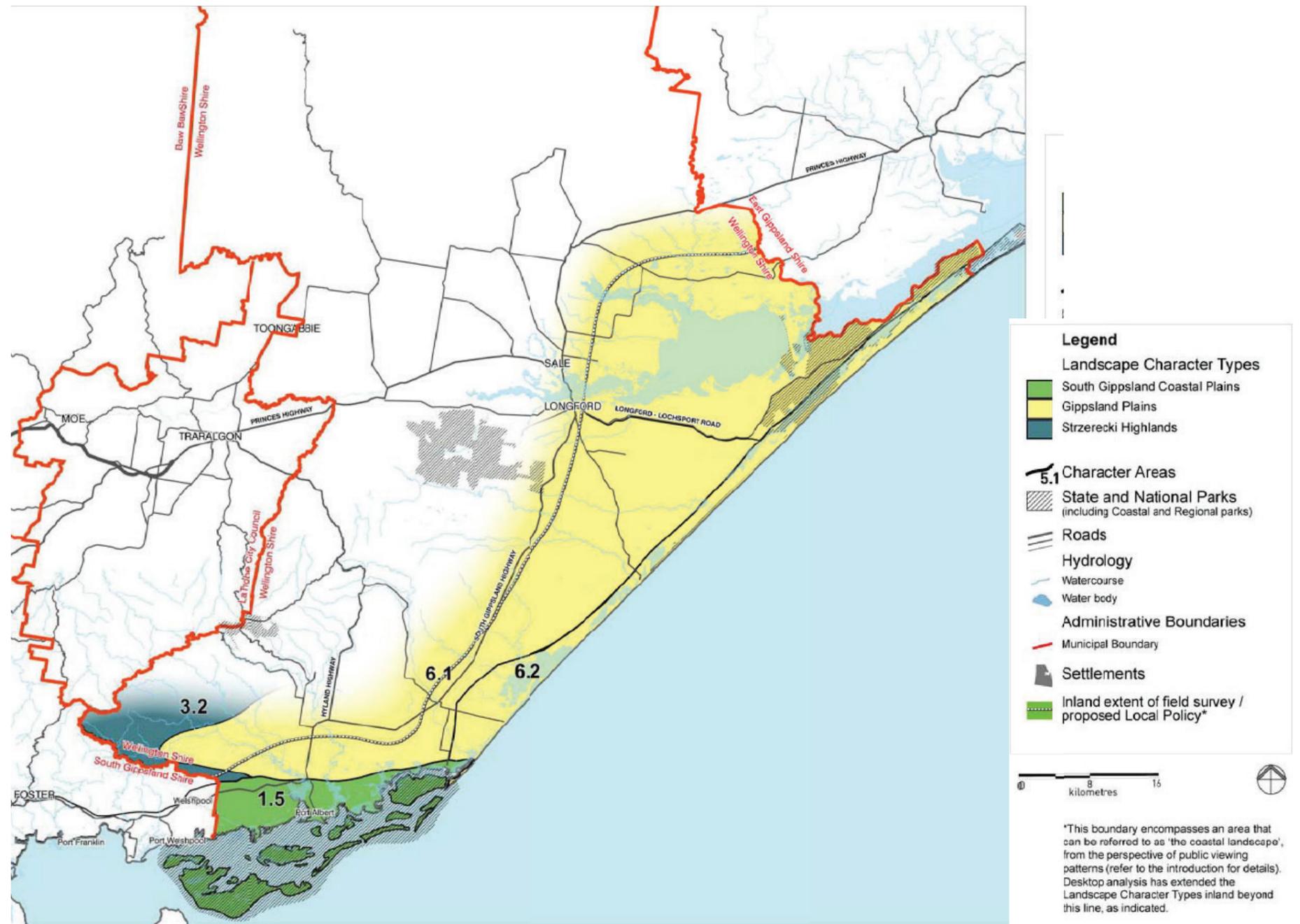


Figure 3 Wellington Shire Coastal Landscape character Types and Areas
TR Chapter 4: Legislation, Policy, Guidelines and Criteria (not to scale) (Source: Wellington Planning Scheme.)

Character Types and Areas
Wellington Shire

3.3.3 Local planning policy framework–South Gippsland Shire

21.01-1 Municipal profile

South Gippsland Shire is a large rural municipality containing a population of approximately 30,000 people dispersed across 26 settlements and 41 localities. Leongatha is the largest town and the municipal centre. The municipality is largely bounded by the Strzelecki Ranges in the north and the coast in the south. The north-western area of the Shire is located approximately 100 kilometres south east of Melbourne, and the south-east border is approximately 20 kilometres from Yarram. Primary industries, especially agriculture, combined with associated value-adding and food processing are the Shire’s main economic driver. The dairy industry is significant in this sector. Tourism is based on the natural and coastal environments (including Wilsons Promontory National Park, Corner Inlet, Shallow Inlet and Nooramunga Marine and Coastal Parks and Cape Liptrap Coastal Park), landscapes, and food and arts culture.

21.01-2 Key issues and influences

The key influences affecting the municipality are:

- Numerous dispersed settlements with unique character.
- Areas of local, state, national and international environmental significance.
- Areas of significant landscape value.

The key issues of relevance to the visual values of the coast for South Gippsland Shire are:

Built environment and heritage

- Provision of design and siting guidance and control over development to protect settlement character, landscape and environmental values, to minimise environmental risks, and to increase sustainability.
- The need to protect the character and significance of sensitive coastal and hill landscapes, particularly landscapes of State or regional significance, where there is a high level of pressure for development.

21.01-3 Vision and strategic framework plan

The major strategic directions identified in the South Gippsland Shire Council Framework Plan (Figure 4) include:

- Identification of the major urban centres and towns in the Shire
- Areas identified as having high quality soils for agriculture
- Sensitive coastal areas
- Public land and marine parks
- Designated coal area

21.03 Environmental and landscape values

This clause identifies that infrastructure development can have significant detrimental effects on the landscape, and that the rural amenity of the Shire is an asset which warrants protection. In particular, this clause states:

Residents and tourists derive pleasure from the scenic values of the rural landscapes. Even the highly modified areas of the Shire possess high Landscape values.

A series of objectives have been developed in response to protecting the environmental and Landscape values. Wellington Shire recognises the scenic value of its rural landscapes both natural, and modified. The following strategies relating to these objectives are considered relevant to the proposed project:

21.03-2 Coastal and hinterland landscapes

The *Coastal Spaces Landscape Assessment Study* (2006) identifies six perceptibly different Character areas. These are shown on the Landscape character areas map and described in detail in clause 21.20. Further detail, including Landscape Management Guidelines, is found in the *Coastal Spaces Landscape Assessment Study: South Gippsland Municipal Reference Document* (2006).

The Landscape character areas Map has been derived from the *Coastal Spaces Landscape Assessment Study* (2006).

Additional to the direction outlined above, specific coastal landscapes within the Shire have been determined to have either State or regional significance. These are the landscapes of Venus Bay Peninsula and Anderson Inlet, Cape Liptrap and Waratah Bay, and Corner Inlet Amphitheatre.

The Significant Landscape Overlay has been applied to these areas to protect the landscape values by requiring a planning permit for specified development and stipulating objectives to be achieved.

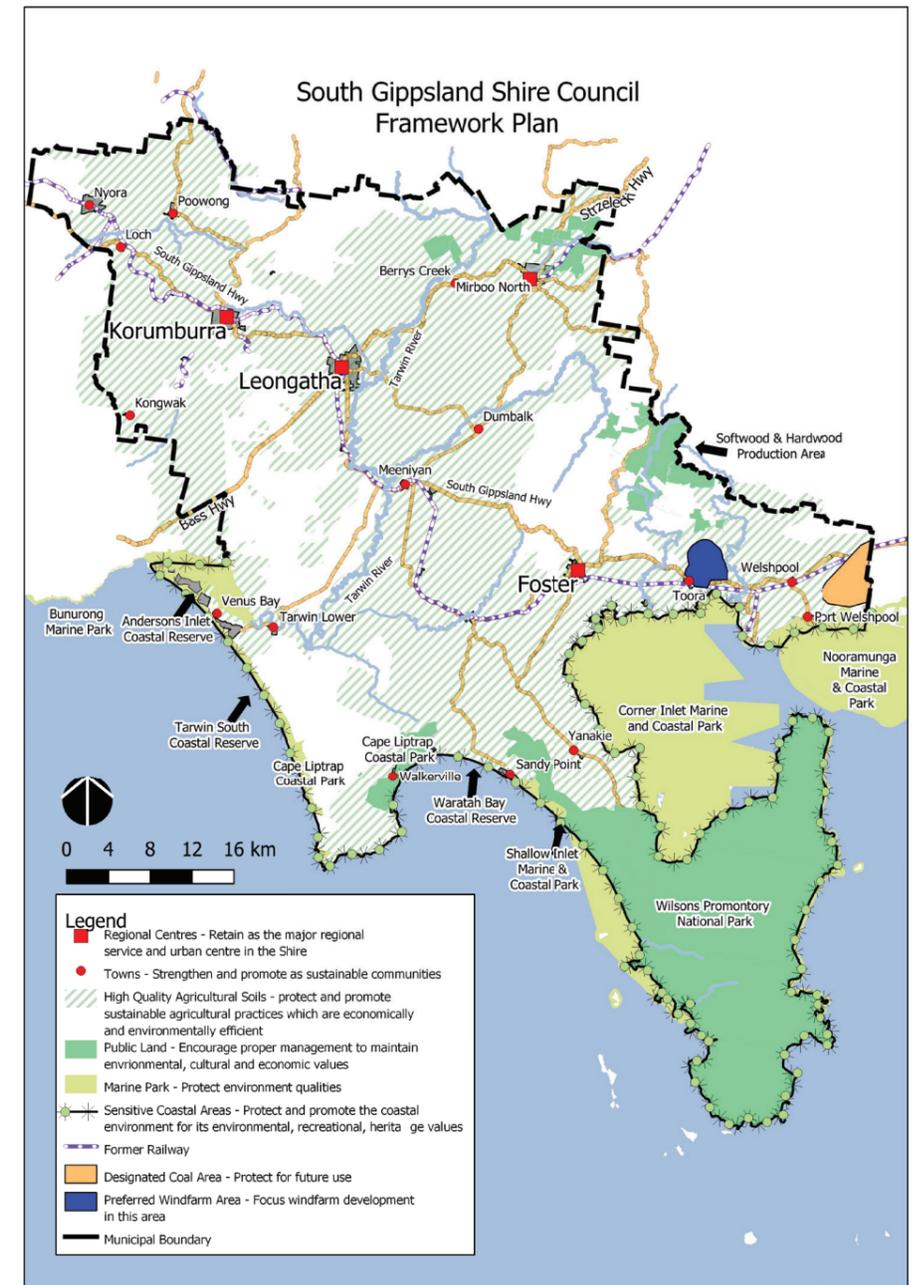


Figure 4 South Gippsland Shire Council Framework Plan TR Chapter 4: Legislation, Policy, Guidelines and Criteria (not to scale) (Source: South Gippsland Planning Scheme.)

21.03-7 Objective 4

To maintain locally significant views and vistas that contribute to the character of the coastal and coastal hinterland region.

Strategies:

- Protect views of Mt Hoddle, the Welshpool Hills and the Corner Inlet Amphitheatre and other hinterland areas by avoiding development in these areas that is visually intrusive, particularly when viewed from the South Gippsland Highway, as well as from other key touring routes, lookouts and residences.

21.03-8 Objective 5

To ensure that development is subordinate to the natural, visual and environmental Landscape character and significance.

Strategies:

- Protect and enhance indigenous vegetation.
- Encourage the planting of appropriate indigenous vegetation for rehabilitation works and landscaping around development.
- Retain existing shelterbelts and non-indigenous feature planting where they are features of the area and the species are non-invasive.

21.03-9 Policy guidelines

The specific objectives and strategies for the Landscape character areas at Clause 21.20, when assessing permit applications for development in these areas.

21.10-6 Overview – Alternative energy

Using alternative energy as a source of electricity for dwellings can have significant environmental benefits. The use of alternative, renewable energy sources such as solar and wind power is a small, yet significant, method by which the community can address the global issue of climate change through local actions. However, there needs to be a balance between the potential benefits and negative impacts of using alternative energy technologies.

21.10-8 Objective 2

To ensure that the use of alternative energy technology does not detrimentally affect the surrounding environment.

21.10-7 Strategies

- Ensure the design and siting of structures associated with alternative energy production does not detrimentally affect the character of the area.
- Discourage tall structures on ridge lines or in view corridors.

21.10-9 Policy guidelines

When deciding on an application for alternative energy sources, the following matters will be considered as appropriate:

- the design and siting of any structure associated with the energy installation;
- and the visual impact on the landscape, including visual corridors and sight lines.

21.13-1 Rural and Natural Landscapes:

The objective of the Rural and Natural Landscapes policy are to:

- Promote the use of appropriate building materials, the retention of native vegetation and revegetation that enhance the scenic landscapes of the Shire's rural areas.
- Protect locally significant views and vistas that contribute to the character of coastal and coastal hinterland areas.

21.13-3 Coastal Landscape character Significance

Based on the Landscape character areas identified in the *Coastal Spaces Landscape Assessment Study* (2006), this clause sets objectives and strategies to enhance and protect the Landscape character of the following relevant areas:

- Between Settlements in coastal locations;
- Between settlements and hinterland locations; and
- The specific character area defined as Ninety Mile Coast.

21.20 Landscape character areas

21.20-3 Overview – Character area 1.5 – Waratah Bay / Corner Inlet

This low-lying, flat area covers a long stretch of varied coastline at the gateway to Wilsons Promontory. The area exhibits a strong and open rural character wedged between the dramatic topographies of the lower Strzelecki Ranges and Wilsons Promontory. Scenic coastal landforms and extensive views to the Promontory provide valued visual links to natural landscapes. To the north, the Strzelecki Ranges and Mount Hoddle form the boundary and create prominent landscape features adjoining the flat plains. Low density development is scattered throughout, with several small lifestyle settlements on the coast and medium sized rural towns in the east.

21.20-11 Objectives

Ensure appropriate land use and development in the vicinity of Waratah Bay/Corner Inlet.

21.20-12 Strategies

- Protect the rural character and views that create a scenic 'gateway' to Wilsons Promontory (especially along Foster – Promontory Road), by restricting linear urban sprawl or the cluttering of built development.
- Ensure that long stretches of the coastal strip remain free of development of any kind.
- Reduce the visibility of buildings or structures, within the coastal strip, outside settlements.

21.20-18 Overview – Character area 3.2 – Welshpool Hills and Mount Hoddle

This hilly area stretches from Waratah Bay almost to Yarram and is part of the Strzelecki Ranges landform that extends inland to Warragul and west to the Bass Hills. The southern edge rises sharply from flat coastal plains forming the topographic 'amphitheatre' setting to Corner Inlet. Mount Hoddle and the Welshpool Hills are prominent and regionally significant landforms that are highly visible backdrops to coastal and coastal hinterland areas from Yarram to Waratah Bay, while Mount Hoddle is visible as far west as Tarwin Lower and Venus Bay. Much of the area has a cultural landscape quality of cleared land and exotic vegetation and there is a distinct absence of built elements in prominent locations, with the exception of a large wind energy facility in the hills above Toora.

21.20-19 Objectives

Ensure appropriate land use and development in the vicinity of the Welshpool Hills and Mount Hoddle.

21.20-20 Strategies

- Ensure large scale infrastructure is sited out of the coastal viewshed wherever possible and away from prominent locations.

3.4 Planning scheme zones

The types of uses that may occur within the study area are determined by the following zones within Wellington Shire Planning Scheme and South Gippsland Shire Planning Scheme:

- 32.05 Township Zone (TZ)
- 35.07 Farming Zone (FZ)
- 36.02 Public Park & Recreation Zone (PPRZ)
- 36.03 Public Conservation & Resource Zone (PCRZ)
- 35.03 Rural Living Zone (RLZ)
- Commonwealth Land (CA) (not in Planning Scheme)

As shown in Figure 5, a large portion of the LVIA study area falls within the Farming Zone (FZ). The Wellington Shire Planning Scheme encourages the retention of employment and population to support rural communities. The primary use of this land is to provide for the use of land for agriculture. The planning scheme encourages the retention of productive agricultural land, to ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture.

Another large portion of the LVIA study area is within the Public Conservation and Resource Zone (PCRZ). The purpose of the PCRZ is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.
- To provide facilities which assist in public education and interpretation of the natural environment with minimal degradation of the natural environment or natural processes.
- To provide for appropriate resource-based uses.

Gelliondale Wind Farm Landscape Assessment

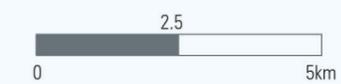
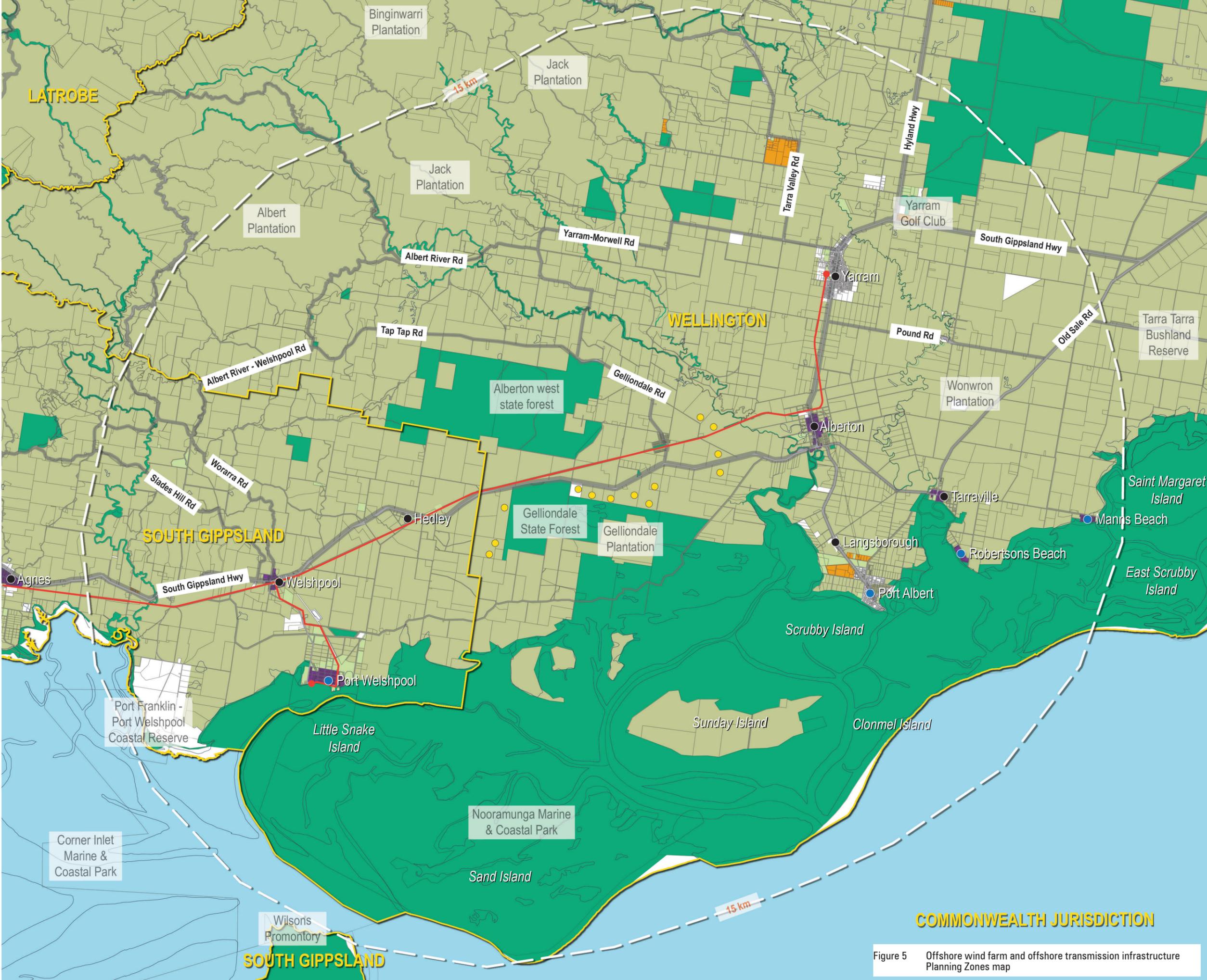
Planning Zones Map

Legend

- Proposed wind turbines ●
- Municipality boundary
- Roads
- Inland settlements ●
- Coastal settlements ●
- Study area extents
- Great Southern Rail Trail —

Zoning Legend

- Farming Zone (FZ)
- Public Conservation & Resource Zone (PCRZ)
- Public Park & Recreation Zone (PPRZ)
- Rural Living Zone (RLZ)
- Township Zone (TZ)



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 Scale: **1:160,000**
 Date: **09/06/2023**
 Revision: **P4**

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COMMONWEALTH JURISDICTION

Figure 5 Offshore wind farm and offshore transmission infrastructure Planning Zones map

3.5 Planning scheme overlays

Land within the project study area is affected by the following overlay controls:

3.5.1 Overlays within the Wellington Planning Scheme

42.01 Environmental Significance Overlay - Schedule 1 (ESO1): Coastal and Gippsland Lakes Environs

In relation to visual and Landscape values, this schedule to the ESO recognises that 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 relevant objectives of the overlay are to:

- To conserve and enhance the environmental quality of the coastal area.
- To protect and enhance the natural beauty of the coastal landscape.
- To protect and enhance the visual amenity and landscape of the coastal area.

ESO1 applies to the use or development of land along the Ninety Mile Beach and the Gippsland Lakes hinterland and aims to minimise the impact of human activities on the ecological values of the coastal and lakes environments. A permit is required for vegetation removal/alteration, building construction (some limited exceptions are provided), works and subdivision.

42.01 Environmental Significance Overlay - Schedule 2 (ESO2): Wetlands

In relation to visual and Landscape values, this overlay recognises wetlands as 'particularly rich habitats supporting many rare species' and 'a valuable resource for recreational activities'.

The objectives of ESO2 are:

- To protect and enhance the ecological, habitat, aesthetic, scientific, floristic, faunal, cultural, educational, and recreation values of wetlands through the control of development.
- To implement obligations under international, national, State, or other agreements to protect and enhance plant and animal species and habitats.

Environmental Significance Overlay - Schedule 3 (ESO3): Urban and Construction Buffer

In relation to visual and Landscape values, this overlay to ESO recognises that Gippsland coalfields are an important resource of National and State importance due to their use as the primary energy source for the electricity generating industry in Victoria.

The relevant objectives of the overlay are to:

- *To ensure that development and land management in the Gippsland Coalfields provides mutual protection of urban amenity and coal resource development and the continued social and economic productive use of land.*
- *To provide for development which is compatible within a buffer area and for services ancillary to coal open cut operations.*
- *To reduce impacts associated with coal mining such as earth subsidence, emission of noise, dust, fire hazard and visual intrusion, waste discharge, movement of earth, and dust.*

3.5.2 Overlays within the South Gippsland Shire Planning Scheme

42.01 Environmental Significance Overlay - Schedule 1 (ESO1): Areas of Natural Significance

In relation to visual and Landscape values, this schedule to the ESO recognises that South Gippsland contains a number of areas of natural significance including numerous Flora and Fauna Reserves. There are also important sites within the various National, State and Coastal Parks and other reserves throughout the Shire as well as along roadside reserves and on privately owned land. The clearing of native vegetation and the introduction of weeds and vermin remain important issues.

The relevant objectives of the overlay are to:

- *To preserve and enhance existing indigenous flora and fauna.*
- *To conserve areas of wildlife habitats and allow for the generation and regeneration of habitats.*
- *To conserve areas of high environmental and landscape quality, ensuring development minimises adverse environmental impact.*
- *To ensure that development reinforces existing flora through the revegetation of valleys and drainage lines.*
- *To protect the views of identified significant vistas.*

42.01 Environmental Significance Overlay - Schedule 2 (ESO2): Special Water Supply Catchment Areas

Approximately 30 percent of land in South Gippsland Shire is located in a water catchment that are used to provide water for human consumption, domestic use, agriculture and industrial activities. Special Water Supply Catchments cover large areas with water take-off points occurring in the lower parts of catchments. Land use or development within Special Water Supply Catchments and in close proximity of the water take-off points should be managed carefully to minimise the impact on water quality.

The objectives of ESO2 are:

- To protect and maintain water quality and quantity in Special Water Supply Catchment areas used for human consumption, domestic, industrial and rural water supply.
- To ensure that development activity and land management practices are consistent with environmental values and the long term conservation of potable water supply resources.
- To minimise the impact of residential development and intensive farming activity in Special Water Supply Catchment areas, particularly near water supply take-off points and storage reservoirs.
- To encourage retention of native vegetation and the establishment of new vegetation cover, particularly within 30 metres of a waterway.
- To consider the cumulative impact of use and development on Special Water Supply Catchments over an extended time period having regard to both climate variability and anticipated reduced inflows in catchments .
- To minimise the impact of development in townships without reticulated sewerage, particularly having regard to small lot sizes, existing water contamination levels and the long term expectation that small towns will remain unsewered.
- To ensure new development proposals meet best practice guidelines for agricultural, domestic, commercial and industrial wastewater treatment which result in reduced nutrient, pathogenic and sediment flows.
- To protect public health from the risk of water-borne diseases.

42.01 Environmental Significance Overlay - Schedule 3 (ES03): Coastal Settlements

In relation to visual and Landscape values, this schedule to the ESO recognises that South Gippsland contains some of Victoria's most significant coastal areas. Wilsons Promontory, Corner Inlet, Waratah Bay, Shallow Inlet, Walkerville, Cape Liptrap, Venus Bay and Andersons Inlet are all important coastal areas. They are important for their environmental, economic, recreational, cultural, heritage values and rugged appeal.

The relevant objectives of the overlay are to:

- To protect and enhance the natural beauty of the coastal area.
- To protect and enhance the environmental quality of the coastal area.
- To minimise the risk of erosion, pollution and destruction of the environment through poorly managed development.
- To ensure that development adjacent to coastal areas is compatible with the environment and does not result in adverse impacts on coastal processes.

42.01 Environmental Significance Overlay - Schedule 4 (ES04): Sewage Treatment Plant and Environs

In relation to visual and Landscape values, this schedule to the ESO recognises that the land surrounding sewage treatment plants is of high importance in its role of providing a two-way buffer zone between nearby developments and such plants.

The relevant objectives of the overlay are to:

- To protect sewage treatment plants from the encroachments of incompatible development.
- To provide for a buffer area around the plant as required by the Environment Protection Authority.

42.01 Environmental Significance Overlay - Schedule 5 (ES05): Areas Susceptible to Erosion

Erosion is recognised as a land management concern with diverse causes that may affect any property. Therefore it is important to encourage best practices for farming, building and associated land disturbances and to increase awareness of the issues that may exacerbate the process such as earthworks, control of water run-off and removal of vegetation.

The objectives of ES05 are:

- To protect areas prone to erosion by minimising land disturbance and vegetation loss.
- To prevent increased surface runoff or concentration of surface water runoff leading to erosion or siltation of watercourses

42.03 Significant Landscape Overlay – Schedule 3 (SL03): Corner Inlet Amphitheatre

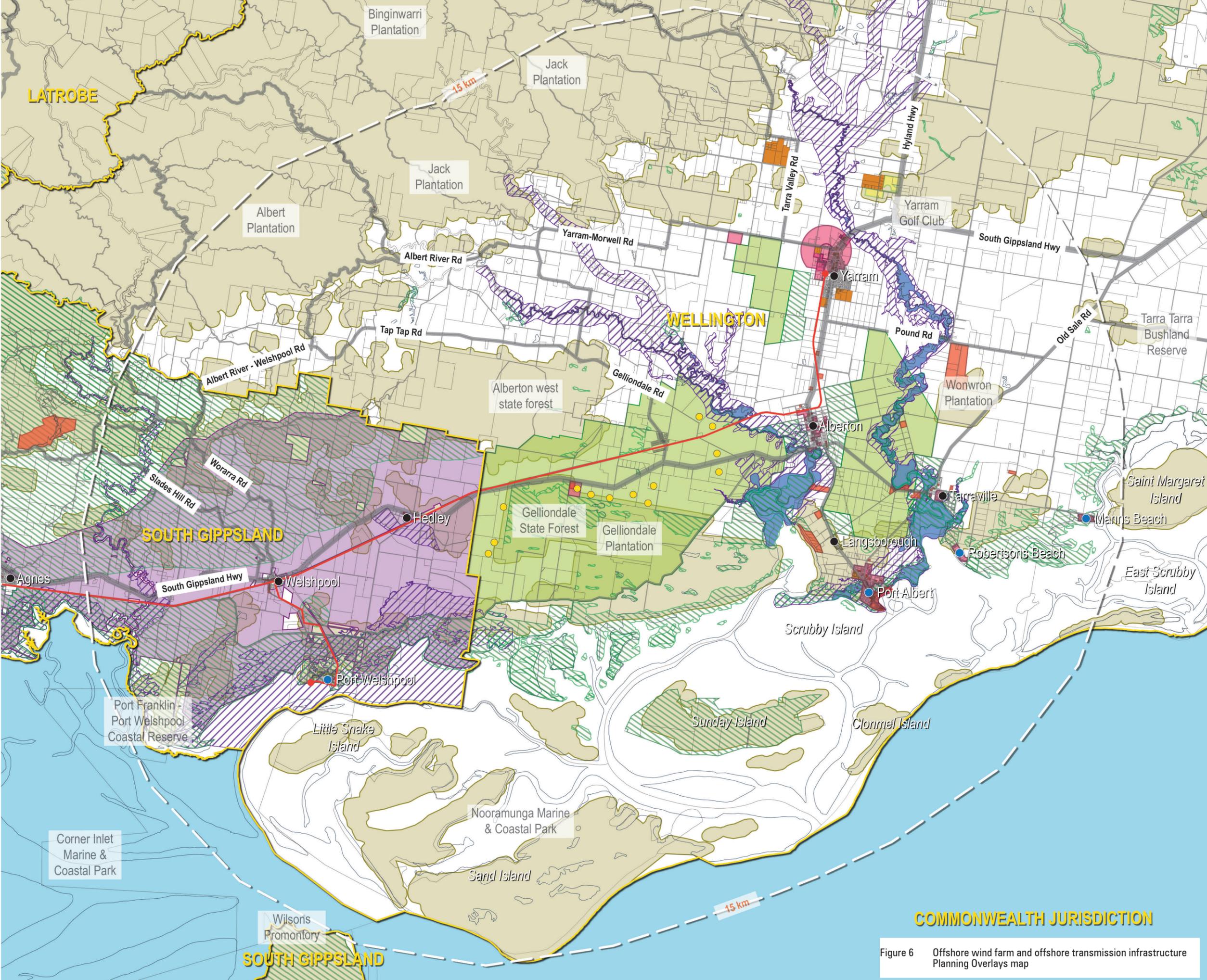
In relation to visual and Landscape values, this schedule to the ESO recognises that Mount Hoddle and the Welshpool Hills are prominent landforms that provide an amphitheatre setting for Corner Inlet and Wilsons Promontory, with the entire landscape unit being of regional significance.

The relevant objectives of the overlay are to:

- To maintain and improve indigenous vegetation, particularly at roadsides and in riparian strips throughout the landscape.
- To protect indigenous coastal vegetation and ensure that it is the dominant feature of the landscape, particularly when viewed from the foreshore.
- To protect cultural vegetation patterns in the landscape.
- To protect locally significant views and vistas that contribute to the character of the landscape, including open views to Wilsons Promontory, the Welshpool Hills and Mt Hoddle.
- To protect the rural character and views that create a scenic 'gateway' to Wilsons Promontory (especially along Foster – Promontory Road).
- To ensure that development in and around settlements does not impact on the characteristics of the landscape, including key views and viewing opportunities.
- To manage development at the coastal edge of settlements so that the intact, natural, coastal character is the dominant feature of the landscape i.e. the Corner Inlet mangrove coastal edge of Port Albert and Port Welshpool and the Waratah Bay dunal coastal edge of Waratah Bay and Sandy Point.
- To ensure buildings and structures sit within, rather than dominate the landscape.
- To ensure that long stretches of the coastal strip remain free of development of any kind.
- To reduce the visibility of buildings or structures, within the coastal strip, outside settlements.
- To retain the open, rural character of the hinterland landscape.
- To minimise the visual intrusion of infrastructure and signage, particularly between settlements.
- To protect Landscape character and attributes that are consistent with the Aboriginal cultural heritage values of the area.
- To recognise, and protect, the landscape of the Corner Inlet Amphitheatre as a place of significant Aboriginal cultural heritage value.

Gelliondale Wind Farm Landscape Assessment

Planning Overlays Map

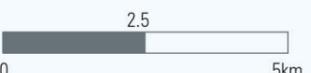


Legend

- Proposed wind turbines ●
- Municipality boundary
- Roads
- Inland settlements ●
- Coastal settlements ●
- Study area extents
- Great Southern Rail Trail —

Overlays Legend

- Bushfire management overlay (BMO)
- Design and development overlay (DDO)
- Development plan overlay (DPO)
- Environmental Significance Overlay (ESO)
- Floodway overlay (FO)
- Heritage overlay (HO)
- Land subject to inundation overlay (LSIO)
- Significant Landscape Overlay (SLO)
- State resource overlay (SRO)
- Vegetation protection overlay (VPO)



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COMMONWEALTH JURISDICTION

Figure 6 Offshore wind farm and offshore transmission infrastructure Planning Overlays map

3.6 Planning scheme reference documents

The Planning and Environment Act 1987 allows certain documents to be incorporated in a planning scheme by reference, rather than by physically including them in the scheme.

The following incorporated documents have been considered in this assessment:

Gippsland Regional Plan (2015)

The Gippsland Regional Plan (GRP) is a long-term strategic plan for improving economic, social and environmental outcomes for the Gippsland region and its community. The plan highlights the northern portion of the Ninety Mile Beach area, and Gippsland Lakes as a Significant tourism asset, and highlights the importance of protecting Gippsland's unique natural environments.

The Gippsland Regional Growth Plan (2014)

The Gippsland Regional Growth Plan (2014) has been developed as one in a series of eight regional growth plan documents to provide broad direction for land use and development across regional Victoria, and more detailed planning frameworks for key regional cities and centres.

The document outlines a series of principles which reflect the priorities and directions of the plan. Of relevance to the landscape and visual values of the region, the document states that *distinctive rural landscapes and sensitive environments such as the coast, mountain ranges and natural bushland will be protected and valued.*

Victorian Coastal Strategy (Victorian Coastal Council, 2014)

The strategy outlines the importance of maintaining the natural and visual values of the coastal landscape in balance with the exploration, appraisal, development, construction and production of gas and petroleum resources. It provides guidance for agencies and statutory decision makers along Victorian coastlines, and in marine and estuarine environments, and it is a framework for related Regional Coastal Plans and Local Planning Schemes.

The document provides the following guidance on decision making guidance regarding consideration of use and development of coastal Crown land (including the seabed) for the purpose of harnessing, extracting or transporting energy resources:

Some key policies and directions contained in the Victorian Coastal Strategy relevant to this project are:

- Protect and improve biological diversity, coastal habitats and flora and fauna.
- Crown land camping grounds – improve user amenity and ensure accessibility to sites and facilities by all prospective users.
- Tourism activities and development – provide for quality development, diversity of experience, encourage nature based tourism, give priority to tourism ventures that relate to the coastal context.

3.6.1 Coastal Spaces Initiative:

A suite of studies has been undertaken in the coastal regions of Victoria, which includes the Coastal Spaces Initiative. The Initiative includes the Coastal Spaces Landscape Assessment Study (2006), and the Coastal Towns Design Framework (2007).

Coastal Spaces Landscape Assessment Study – State Overview Report (Planisphere 2006)

The Coastal Spaces Landscape Assessment Study (CSLAS) was commissioned in December 2004 as part of the Coastal Spaces Initiative, led by the Victorian State Government Department of Sustainability and Environment. The study focuses on the coastal areas of Gippsland (Bass Coast to the NSW border), the Bellarine Peninsula and the coast west of Warrnambool to the South Australian border.

The project identifies and maps individual Landscape characteristics within these coastal regions, identifies significant landscapes and provides an implementation framework to assist local government and other agencies in managing development impacts within coastal landscapes. Refer to Figure 17. The study is designed to implement the objectives of the Coastal Management Act 1995 and the Victorian Coastal Strategy 2002.

The report identifies Wilsons Promontory, Nooramunga Marine Park and Environs and Ninety Mile Beach Coast as landscapes of State significance. Refer to Figure 18. With respect to Landscape character, the report identifies the following CSLAS Landscape character Types which are relevant to this assessment:

- South Gippsland Coastal Dunes (1.5 Waratah Bay/Corner Inlet)

This low-lying, flat Character area covers a long stretch of varied coastline at the gateway to Wilsons Promontory. The area exhibits a strong and open rural character wedged between the dramatic topographies of the lower Strzelecki Range and Wilsons Promontory. Scenic coastal landforms and extensive views to the Promontory provide valued visual links to natural landscapes. To the north, the Strzelecki Range and Mount Hoddle form the boundary and create prominent landscape features adjoining the flat plains. Low-density development is scattered throughout, with several small lifestyle settlements on the coast and medium sized rural towns in the east.

- Strzelecki Highlands (3.2: Welshpool Hills and Mount Hoddle)

This hilly Character area stretches from Waratah Bay almost to Yarram and is part of the Strzelecki Range landform that extends inland to Warragul and west to the Bass Hills. The southern edge rises sharply from flat coastal plains, forming the topographic 'amphitheatre' setting to Corner Inlet. Mount Hoddle and the Welshpool Hills are prominent and regionally significant landforms that are highly visible backdrops to coastal and coastal hinterland areas from Yarram to Waratah Bay, while Mount Hoddle is visible as far west as Tarwin Lower and Venus Bay. While much of the Character area has a cultural landscape quality, contributed to by a pattern of cleared land and exotic vegetation, there is a distinct absence of built elements in prominent locations, with the exception of a wind energy facility north of Toora.

- Gippsland Plains (6.1 Gippsland Lakes Plains)

The land associated with Wilsons Promontory was not within the detailed study area of the Coastal Spaces Landscape Assessment Study, and therefore, Character areas were not delineated for this Landscape character Type.

Nooramunga Coast and Islands are also identified as a landscape of state significance on account of the following:

- *Visually significant as a coastal area and chain of small sand islands that protect mangroves and mudflats from the wild seas of the Bass Strait*
- *Characterised by coastal barriers, spits, sandy islands and extensive mudflats, as well as rare and endangered plant species*
- *Valued by the community for panoramic out-views of Wilsons Promontory, particularly from Snake Island*

Coastal Towns Design Framework (2007) – Golden Beach Urban Design Framework

The Coastal Towns Design Framework was a joint initiative of Wellington Shire Council and East Gippsland Shire Council who appointed consulting firm, Meinhardt Infrastructure and Environment to develop Urban Design Frameworks (UDF) for 18 coastal settlements in eastern Victoria.

These frameworks provide guidance for the future development of urban areas. Key components of this framework are included in the Wellington Planning Scheme and the East Gippsland Planning Scheme. The frameworks and their visions are defined as follows:

- Golden Beach UDF Vision:

“Golden Beach / Paradise Beach will develop as a residential holiday township, set in coastal bushland. Buildings will be of high quality and reflect the coastal environment through the use of materials, colours and building styles. The settlement will have an active ‘village centre’, which will be a focal point for the community with high quality public spaces and commercial uses for local and visitor needs. The town will be further developed as an important node for the Shire.”

- Woodside Beach UDF Vision:

“As Woodside Beach grows it will retain its character as a holiday hamlet at the western end of the Ninety Mile Beach. It will be a desirable destination for visitors from Woodside, Yarram and the surrounding region. The natural environmental setting will be protected, streets will be leafy and buildings will reflect the ‘coastal village’ character of the hamlet. The main activity focus of the settlement, the foreshore, will be easily accessed on foot and will be enhanced as an attractive destination with community facilities.”

Port Albert and Palmerston Urban Design Guidelines (2007)

The Port Albert and Palmerston Urban Design Guidelines has been prepared to assist the community, developers and the planning authority in designing and assessing the design of new development within Port Albert and Palmerston.

The guideline provides a design framework to ensure land use and development in the township:

- *Complements the natural and cultural values of the area;*
- *Complements the maritime heritage focus of the township;*
- *Accommodates the existing and future needs of the Port Albert population;*
- *Continues to encourage tourism and investment in tourism; and*
- *Is consistent with the low-density nature of the township.*

The objectives promote views outward toward the bay and encourage design that maintains the visual dominance of existing heritage buildings.

Siting and Design Guidelines for Structures on the Victorian Coast

The primary purpose of the Siting and Design Guidelines is to define those issues which should be considered in the siting, design and construction of new structure in coastal areas. The guidelines are separated into three basic categories in response to the nature of the issues. These categories and their primary objectives are listed below:

- *Functional Guidelines: a structure should be sited and designed to fulfil its purpose with sustainable use of resources.*
- *Cultural/Aesthetic Guidelines: a structure should be sited and designed to culturally respect its setting and visually complement the surrounding coastal landscape.*
- *Ecological Guidelines: a structure should not cause undesirable changes to terrestrial and marine ecosystems in the locality.*

The guidelines intend to cover all development taking place in the coastal viewshed, both on private land and public crown land.

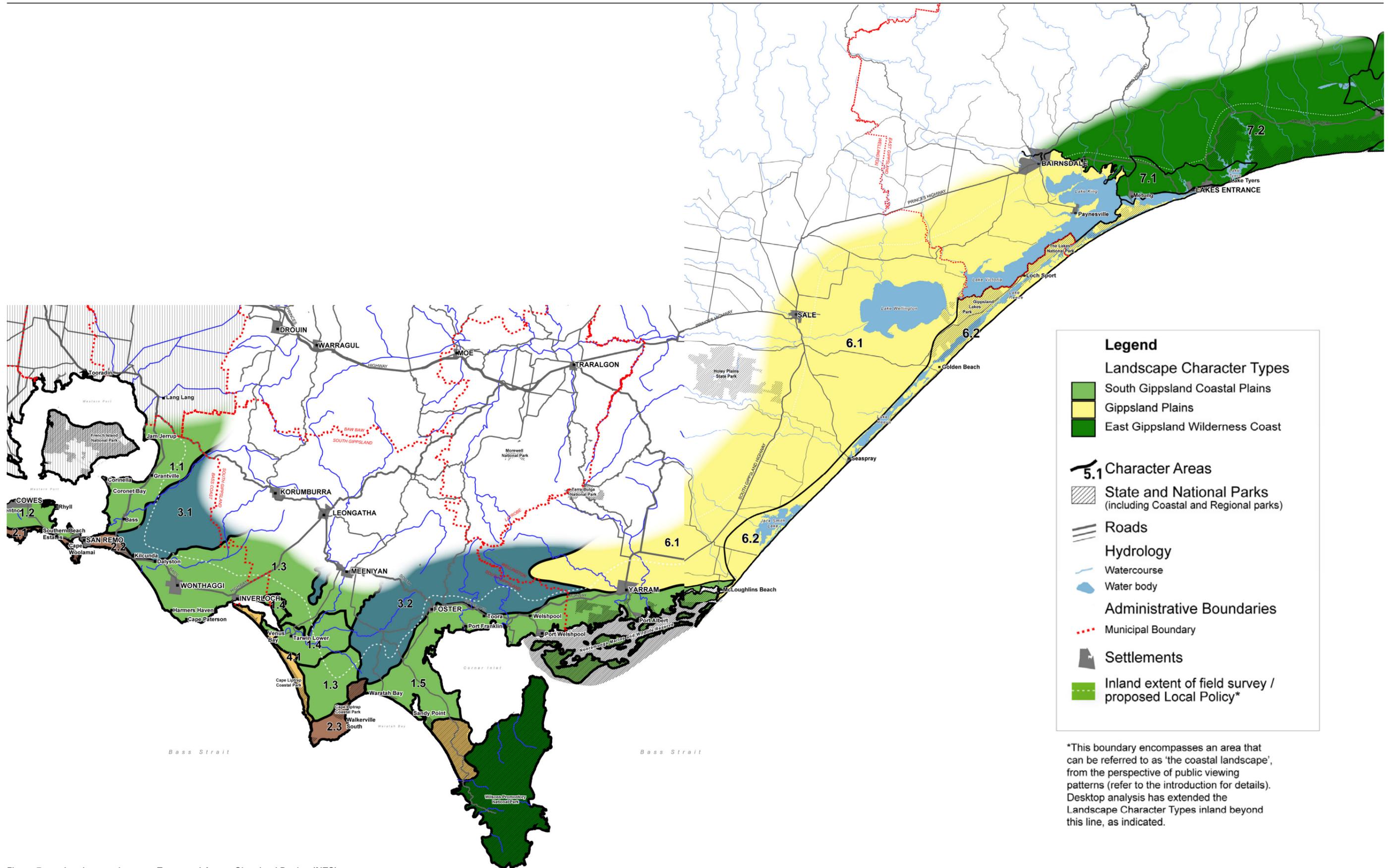


Figure 7 Landscape character Types and Areas: Gippsland Region (NTS)
 (Source: Coastal Spaces Landscape Assessment Study – State Overview Report, Planisphere 2006)

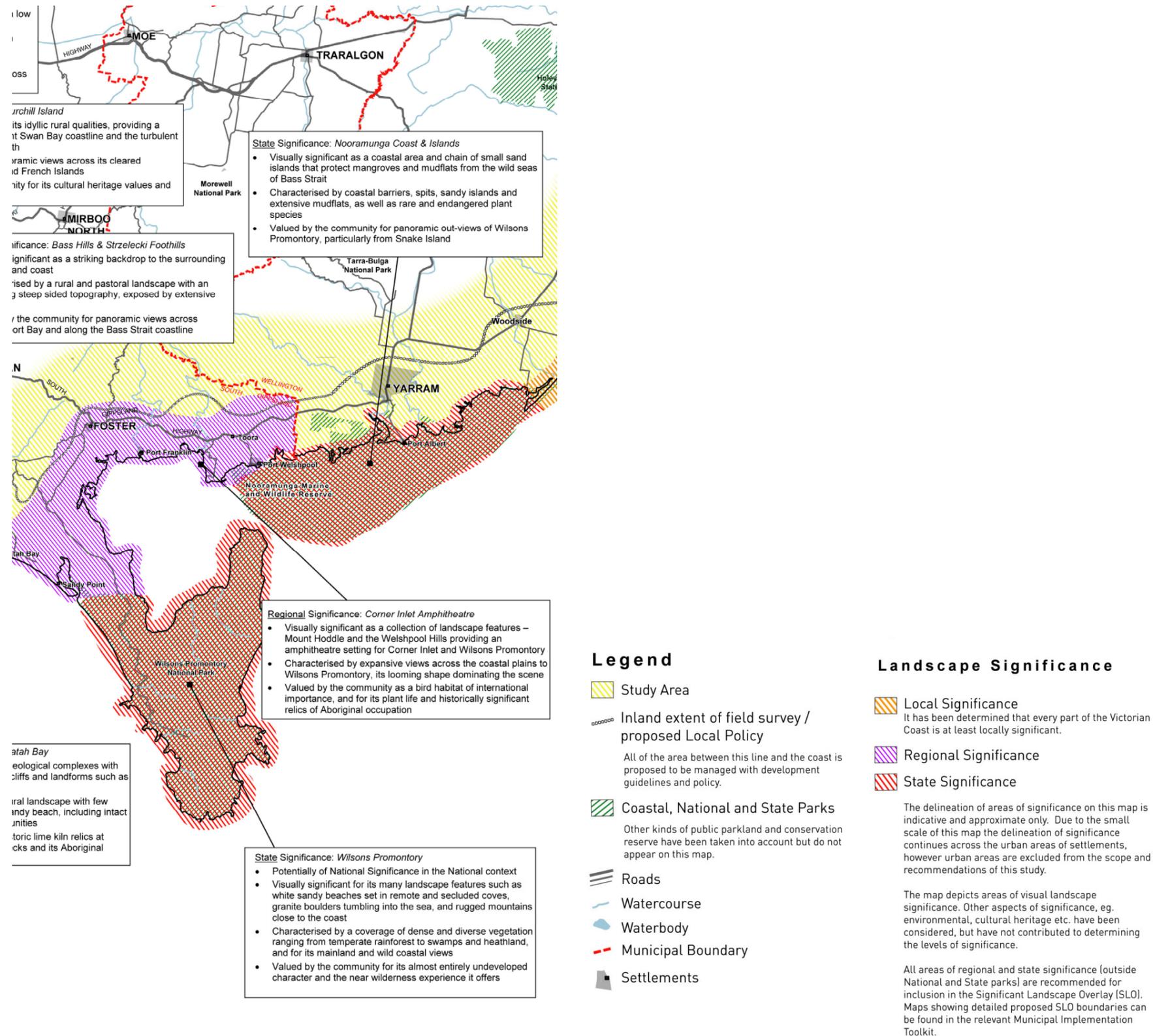


Figure 8 Significant Coastal Landscapes: Gippsland Region (NTS)
 (Source: Coastal Spaces Landscape Assessment Study – State Overview Report, Planisphere 2006)

3.7 Other documents

3.7.1 Land Conservation Council Wilderness Special Investigation Final Recommendations

In August 1988, the Victorian State Government directed the Land Conservation Council to conduct a special investigation of wilderness in Victoria, to identify:

- those parts of Victoria that should be protected and managed as wilderness areas;
- other areas of high wilderness quality that should be protected, and
- areas with potentially high wilderness quality subject to minor changes in management.

The Wilsons Promontory Wilderness Zone was identified as a designated wilderness area.

The Final Recommendations (1991) for designated wilderness areas are:

- Maximise the extent to which they are undisturbed by the influences of European settlement in Australia;
- Ensure the maintenance and protection of natural resources;
- Provide opportunities for the public to enjoy inspiration, solitude, and self-reliant recreation in undisturbed natural settings;
- Resource utilisation not be permitted, including timber and broombrush harvesting, exploration and extraction of earth resources, grazing of livestock, beekeeping and impoundment of water;
- Additional vehicular tracks or roads, structures, or other facilities not be permitted within or on their boundaries;
- Upgrading of existing vehicular tracks or roads, structures or other facilities not be permitted within or on their boundaries;
- Motorised or mechanical transport, or transport reliant on animals not be permitted (unless required for an essential management purpose);
- Hunting not be permitted, except for deer hunting by stalking, which may be permitted seasonally, the timing and length of season to be determined by the Department of Conservation and Environment;
- Scientific investigation involving minimal disturbance to the natural environment be permitted under permit by the land manager;
- Measures required for fire management, control and where possible eradication of non-indigenous flora and fauna and emergencies relating to the safety of visitors be permitted, provided that the operational techniques used have due regard for the protection and maintenance of wilderness values, and
- Wherever possible, existing vehicular tracks or roads, structures or other facilities be removed, and areas of these and other disturbances be rehabilitated as soon as practicable.

In addition to the above, the following recommendations apply specifically to the Wilsons Promontory Wilderness Zone:

- Its undisturbed coastline be protected by ensuring that any coastal engineering works proposed in surrounding areas minimise impact on coastal processes;
- No additional walking tracks be constructed;
- Attention be given to reducing the visual impact of Five Mile Road (within the wilderness area), to the extent possible, consistent with fire protection requirements, and
- While required, the navigation light at Lighthouse Point be retained.

3.8 Statutory Heritage Controls

3.8.1 Victorian Heritage Register

3.8.1.1 Woodcot Park

Victorian Heritage Register (VHR) Number: H0649

Heritage Overlay Numbers: H018

VHR Registration: March 11, 1987

Heritage Listing: Victorian Heritage Register

Statement of Significance:

James Neilson built Woodcot Park before 1855. He had arrived in the district in 1841 to set up a model dairy. He is said to have built several other buildings in the district. He died in 1859 probably by suicide. Woodcot Park was sold by James Neilson's trustees in 1865. It has been owned by the Macphail family since 1890.

The house is Georgian in its style and proportions. Its quality reflects the earlier architecture of NSW and Tasmania. A trading link was maintained with Tasmania from Port Albert. Various special details (some now missing) and unusual materials suggest a direct connection.

The most unusual feature of the house is the external wall construction. The original cladding was stretched oil cloth used to simulate stucco. The weatherboards which formed the base for the oil cloth are irregular in length and shape and are butt-jointed. The weatherboards on the rear elevation are more typical for the time.

The formerly detached kitchen is prefabricated, using a timber and iron frame with broad-gauge corrugated iron. It may have been imported in 1841. It is a very rare surviving example.

The house remains in its garden and orchard setting beside the Tarra River. It is of state importance for its connections with the earliest period of Gippsland's settlement and for its unusual building details.

3.8.1.2 Immigration Depot

Victorian Heritage Register (VHR) Number: H0498

Heritage Overlay Numbers: HO30

VHR Registration: June 26, 1981

Heritage Listing: Victorian Heritage Register

Statement of Significance:

From the early 1840s when Gippsland first opened up to pastoral settlement labour supply had always been a problem. With relatively rapid development following the Omeo gold rushes, this labour shortage changed in type - pastoralist station hands were not as much in demand as agricultural workers and single women. The people of the district were more than anxious to welcome the immigrants. A public meeting at the Tarraville court house on 6.1.1857 passed the following motion "that as the only accommodation now existing in the district for immigrants is a rough slab hut destitute of every convenience and comfort, erected some years ago at a cost of 40 pounds, and situated four miles from the port, it is, in the opinion of this meeting, highly desirable that a suitable depot be erected at Port Albert, the place of arrival". (Gippsland guardian 9.1.1857). The local MLA, James Davis, acted on this resolution and in February 1857 tenders were called for building materials for the immigration barracks - 93,000 bricks and 7,500 ft. of blue gum plank 6"x8". McKenzie & Co. of Port Albert won the tender at three pounds five shillings per 1000 bricks. (Gippsland guardian 13.1.1857).

While the depot was under construction the flood of immigrants continued and Port Albert received some direct from England. One such group of one hundred and eleven souls arrived at Port Phillip heads on 7.6.1857 per the "Black Eagle" from Liverpool, were transferred on the government steam sloop "Victoria" to the Port Albert heads, and from there they were transferred to the Port Albert steam navigation company's ship "Oberon" for the last leg of the trip to Port Albert township. Temporary quarters were provided in the iron store and two tents (government gazette 18.7.1857). This accommodation was subject to some criticism: "... The iron store at Port Albert ... A more miserable place scarcely exists at this stage of the year - without fire place, wood for fuel and with the sea within a few feet of the building, the immigrants after their transshipment, like so many bales of goods, will be able vividly to depict the comforts of Port Albert". (Government Gazette 24/7/1857).

Three more groups of immigrants arrived at Port Albert before the end of 1857. At this stage it was noted that Henry Charlesworth, an immigrant bricklayer on a wage of 8/- per day wet or dry weather, was employed by Mr. Lowe of Port Albert on building the new immigration depot, wanted a rise of 10/- per day. This would suggest that the immigration depot was not completed until 1858, the year in which no arrivals were recorded. The Gippsland guardian of 10 June 1859 advised that twelve married couples, twenty-eight single females and one single male ("Ex Herald" presumably meaning that he had previously worked on the newspaper) were now awaiting service at the immigration barracks, Palmerston. Between the years 1860 and 1865, twelve separate contingents, being mostly single females, arrived. This contributed to the Sale newspapers report of the "extensive immigration barracks ... which looks more like a convent than anything else - all that is merely required in a temporary building where a few girls and married couples may get a few nights lodging as they will be engaged soon after that." (Gippsland Times 6/11/1863). Only two contingents of immigrants are recorded in local newspapers from 1865 to 1870 so it seems that the immigration barracks at Palmerston became functionally redundant - an official "white elephant".

The building was used intermittently until the 1880s to house government officers from other departments which had sub-barracks in the district. In 1886 when the second building used to house the police officers was built on an adjacent site, it was noted that the former immigration barracks was used as a corn store.

The barracks reflect the importance of imported labour to the development of Gippsland in the mid-nineteenth century. The building illustrates the government role in local development - Palmerston was a government township established in 1857 to break the monopoly control held by the merchants Turnbull bros over the 180 acres around the port. The building as it stands today is a two roomed brick structure with gable ends. There is no floor or ceiling, the plaster is coming off the walls and the roof is supported by a simple timber truss system.

3.8.1.3 Court House

Victorian Heritage Register (VHR) Number: H1491

Heritage Overlay Numbers: HO33

VHR Registration: August 20, 1982

Heritage Listing: Victorian Heritage Register

Statement of Significance:

This very distinctive Federation design, with its unusual massing and roof form, displays considerable creative and technical achievement. Situated on the South Gippsland Hwy (also called Commercial Rd, Yarram's main thoroughfare), the Court House, with its distinctive design, is a dominant feature of the local streetscape.

3.8.1.4 Port Albert Maritime Museum

Victorian Heritage Register (VHR) Number: H1210

Heritage Overlay Numbers: HO34

VHR Registration: October 24, 1996

Heritage Listing: Victorian Heritage Register

Statement of Significance:

What is significant?

The former Bank of Victoria (now Port Albert Maritime Museum) was designed by the architects, Robertson and Hale and was constructed c.1861. The bank was the second Bank of Victoria to open in Port Albert and it replaced an earlier branch which had opened in 1856 in a two-storey prefabricated iron store in Victoria Street. The former bank, now used as a maritime museum, is a single storey stuccoed building in the Conservative Classical revival style. The splayed corner positioning, the corniced parapet and the pedimented entrance and quoining all combine to emphasize the prominent position of the building in Port Albert.

How is it significant?

The Former Bank of Victoria (now Port Albert Maritime Museum) is of architectural and historical significance to the State of Victoria.

Why is it significant?

The Former Bank of Victoria (now Port Albert Maritime Museum) is architecturally important as a rare and intact example of Conservative Classical revival architecture. The former bank is one of only two known surviving examples of the work of the architectural firm Robertson and Hale and is the only architecturally designed bank building, of its era, in the Gippsland region. The former bank remains as an impressive and significant example of a 19th century commercial building, designed and positioned specifically to communicate the importance of Gippsland to the rest of the State. The building demonstrates an early use of a parapeted classical revival form and is notable for its considerable age.

The Former Bank of Victoria (now Port Albert Maritime Museum) is historically significant for its relationship with Gippsland and coastal trading activities of the 19th century. The building was designed and erected at a time when Port Albert was regarded as an important coastal trading port in Victoria and the style and siting of the building symbolise the once prosperous township of Port Albert, the projected expectations for its growth and the anticipated success of the Bank of Victoria in this region. The building is of historical importance for its association with the Bank of Victoria which was established in 1853, during Victoria's goldrush era, by Henry 'Money' Miller, MLC. The Bank of Victoria amalgamated with the Commercial Banking Company of Sydney in 1927.

3.8.1.5 Former Turnbull Orr & Co Bond Store and Office

Victorian Heritage Register (VHR) Number: H1779

Heritage Overlay Numbers: HO66

VHR Registration: February 18, 1999

Heritage Listing: Victorian Heritage Register

Statement of Significance:

Last updated on - June 10, 1999

What is significant?

Port Albert developed from 1841 soon after the wreck of the steamer Clonmel led to the discovery of the port. Until the opening of the Gippsland railway Port Albert was the main port for the export of Gippsland's produce, principally livestock, and for the import of manufactured goods and immigrants. The commercial life of the peninsula was dominated from 1844 into the 1860s by the firm of Turnbull, Orr & Co. The firm's brick and timber bond stores and offices were constructed in 1844 and are shown on the Wilkinson survey plan of 1848. The existing derelict brick store building and the rendered and parapeted brick office building are probably the buildings shown facing Wharf Street on the 1848 plan although there is much physical evidence of subsequent alterations. The store building has lost its roof and the current rafters are replacements of an earlier set. The west wall has been rebuilt with the original bricks but without the earlier door and window openings. The office building has undergone extensive change with physical evidence that the timber work is much later than 1844, possibly 1890s when it was damaged by fire. A slate roof, itself probably the second roof, has been replaced with corrugated iron. The building has recently been stabilised by the insertion of steel rods and plates. The two buildings have been on separate titles since 1862.

How is it significant?

The Former Turnbull, Orr & Co Bond Store and Office Port Albert are historically, archaeologically and architecturally important to the State of Victoria.

Why is it significant?

The Former Turnbull, Orr & Co Bond Store and Office Port Albert are historically and architecturally important as probably the earliest surviving buildings in Port Albert. As such they would be among the oldest buildings in Gippsland and therefore immensely important in the history of the region and of Victoria. Their association with the commercial development of the port adds to their significance.

The Former Turnbull, Orr & Co Bond Store and Office Port Albert are archaeologically significant because of the relative lack of deep disturbance of the site since the earliest days of settlement. The whole site from Wharf Street to the alignment of North Street at the rear has the potential to yield important artefactual evidence from the days when the peninsula was a thriving port serving the whole of Gippsland.

3.8.1.6 Christ Church

Victorian Heritage Register (VHR) Number: H0999

Heritage Overlay Numbers: HO36

VHR Registration: December 23, 1993

Heritage Listing: Victorian Heritage Register

Statement of Significance:

Christ Church, Tarraville was constructed in 1856 to the design of local architects and surveyors John HW Pettit and George Hastings, it has been in use as a parish church since that time.

Christ Church at Tarraville is an extraordinary example of a well resolved and particularly finely detailed Victorian Carpenter Gothic church. The building is of technical interest for its construction system which utilises heavy timber framing notched to accommodate infill planks laid horizontally and grooved at the edges to take iron tongues. The significance of the building is enhanced by its extraordinarily good condition and high degree of intactness.

The interior of the church is characterised by its sparse and plain appearance. It is simply finished with milled timber lining boards to walls and ceiling, the heavy timber framing is expressed on the interior in a similar manner to the exterior of the building. Walls and ceiling are painted matt white with a dark brown painted dado.

Christ Church, Tarraville is believed to be the first church constructed in the Gippsland region and is amongst the earliest surviving churches in the State.

3.8.1.7 Residence

Victorian Heritage Register (VHR) Number: H2272

Heritage Overlay Numbers: HO39

VHR Registration: February 10, 2011

Heritage Listing: Victorian Heritage Register

Statement of Significance:

What is significant?

The timber Residence, Stawell Street, Tarraville belonged to local storekeeper, Thomas H. Smith. Though its exact date of construction is unknown, it is most likely to have been constructed in the 1840s.

In 1841, John Reeve was granted land on the eastern bank of the Tarra River as a Special Survey. Farm allotments of various sizes in the 'Tarra Vale Estate', also known as 'Reeves Special Survey', were advertised for lease in September 1843, located on lightly timbered, rich alluvial flats. Within the estate, Reeve's township was named Tara Ville or Tarraville. Tarraville township was surveyed in mid-1843 and located at the south-west corner of the estate, adjacent to the later government township (also known as Tarraville). By 1845, it contained a licensed hotel, 'good stores' and various tradesmen and was deemed 'flourishing' by a newspaper correspondent in 1847. Tarraville was well placed to supply Tasmania (from Port Albert) with cattle and sheep, and it was important in supplying the Gippsland goldfields in the 1850s. Its population grew on the basis of this trade, increasing from 99 to 339 between 1848 and 1857 - the largest town in Gippsland in the 1850s.

The Residence is located on what was Loughnan Street in the township on the Special Survey estate and is one of only two buildings remaining from this township. Thomas H. Smith had arrived in Tarraville by 1850, as he was listed in the Victoria Directory of 1851. Smith's residence and shop were first cited in the 1856 electoral roll, the year Smith purchased the allotment from Reeve, and he was rated for this residence between 1863 and 1874.

The Residence, Stawell Street, Tarraville, is a weatherboard building with a pit-sawn hardwood frame and cladding and a high hipped roof. It has an asymmetrical facade, which faces what was the yard, rather than the street. The Residence comprised one large room and two smaller rooms. Internal walls were clad in lath and plaster, some of which remains in the smaller rooms. Other early internal features include ogee moulding on internal doorways, shingles in the roof, and a cedar fanlight, recently removed for repair from above the front door. A pear tree, believed to date from the 1860s, remains near the house and the area surrounding the house has the potential for archaeological relics from its early occupation.

How is it significant?

The Residence, Stawell Street, Tarraville is of historical, architectural, archaeological and aesthetic significance to the State of Victoria, and is also of State significance for its rarity.

Why is it significant?

The Residence at Stawell Street, Tarraville is of historical significance as an early remnant of a once flourishing, commercially and geographically important town in South Gippsland. The construction techniques and materials indicate evidence of the area's early trade links with Tasmania, the basis of the area's growth.

The Residence at Stawell Street, Tarraville is of significance for its construction methods and materials, which indicate it dates from the 1840s, and is a rare example of pre-Separation and pre-gold rush settlement in Gippsland.

The Residence, Stawell Street, Tarraville is of aesthetic significance as an example of an early, simple residential building form in Victoria, dating from the pre-Separation and pre-gold rush era in Victoria.

The Residence at Stawell Street, Tarraville is of architectural significance for its demonstration of construction methods and materials which are unusual for the State of Victoria, and which indicate it dates from the 1840s.

The site is of archaeological significance for its potential to reveal relics relating to the pre-Separation and pre-gold rush era occupation of the site and early settlement in Gippsland in the mid-nineteenth century.

3.8.1.8 Hawthorn Bank

Victorian Heritage Register (VHR) Number: H0256

Heritage Overlay Numbers: H043

VHR Registration: October 9, 1974

Heritage Listing: Victorian Heritage Register

Statement of Significance:

Last updated on - 2001

What is significant?

Hawthorn Bank is a farmhouse complex (now in a ruinous state) apparently constructed in three main stages. The construction dates of the various stages are not known, though the earliest portion of the complex was possibly built in the early 1840's when Reeve's Special Survey was undertaken.

The first stage of the complex is a timber framed structure comprising round, timber posts and wattle and daub infill panels for walls. Wattle and daub is a form of construction employing a background of woven wattle branches, with an applied finish, typically consisting of mud and other additives, including in the instance of Hawthorn Bank, animal hair. The structure is roofed with a double gabled corrugated iron roof, probably replacing earlier timber shingles.

The second stage of the complex (now in a poor state of repair, due to the collapse of an adjacent mature tree in 1978) is also timber framed, with timber weatherboard cladding and a timber shingled gabled roof.

The third stage of the complex, constructed sometime in the late nineteenth century, also has weatherboard cladding, a gabled corrugated iron roof, and remnants of a returning concave profile roofed verandah.

There are a number of mature exotic trees surrounding the complex, including a large *Ficus macrophylla*, *Araucaria heterophylla* opposite the front entrance of the 1890s house, *Araucaria cunninghamii*, *Araucaria bidwillii*, *Cedrus atlantica* f. *glauca*, row of *Pinus radiata* along the west side of the former driveway, and 3 senescent *Pinus radiata* along the west side of the garden, and four pear trees in the former orchard. Scattered around the complex are several clumps of *Amaryllis belladonna*, and next to the *Araucaria bidwillii* there is a large old *Coprosma repens*.

Despite deterioration in the physical condition of the complex, due to the collapse of the tree, harsh weather conditions, and some poorly executed cement based repairs to the daub (undertaken approximately 20 years ago) the complex retains a high degree of integrity as a complex of simple, primitive vernacular buildings.

How is it significant?

Hawthorn Bank is of historical and architectural significance to the State of Victoria.

Why is it significant?

Hawthorn Bank is historically significant as a rare surviving rural complex, some of which would appear to pre-date 1850. The complex is strongly evocative of the early pastoral settlement and development of Gippsland. The large mature trees, comprising of *Araucaria cunninghamii*, *A. heterophylla*, *A. bidwillii*, *Cedrus atlantica* f. *glauca*, *Pinus radiata*, *Ficus macrophylla*, *Coprosma repens* and *Amaryllis belladonna* and pear trees are all species popular in the nineteenth century are of landscape and historic value.

Hawthorn Bank is architecturally significant as the oldest surviving example of wattle and daub construction in Victoria. The complex stands as an important document of changing traditions in rural vernacular architecture, from the 1840s through to the late nineteenth century.

3.8.1.9 Gelliondale Briquette Plant

Victorian Heritage Register (VHR) Number: H1058

Heritage Overlay Numbers: H081

VHR Registration: November 24, 1994

Heritage Listing: Victorian Heritage Register

Statement of Significance:

The Gelliondale Brown Coal and Oil Co. commenced operations in 1930 and under the direction and ownership of James T Knox started manufacturing briquettes in 1934. The company ceased the production of briquettes in 1944 and was wound up in 1950. The concrete engine footings and machinery remains of the briquette plant today form part of an industrial complex comprised of a factory and conveyor belt system, a water frilled open-cut mine, a large mullock heap and the remnants of a tramway system.

The remains of the Gelliondale Briquette plant have an important association with the endeavours of James Knox and the Gelliondale Brown Coal and Oil Co. to retain the rights of individuals and of private enterprise on the face of active opposition from the State Government. The social associations of the site are an illustration of the lack of power granted to the private sector when a conflict of interests arises in relation to the utilization of natural resources, culminating in this instance in the passing of legislation, the 1950 Gelliondale Land (Mineral Lease) Act, which granted the Crown authority for the resumption of both mineral leases and land.

The Gelliondale Briquette plant is a demonstration of technical accomplishment in the history of briquette production and of the construction and layout of a brown-coal mining operation. Of Victoria's three original briquette production facilities the Gelliondale briquette plant is the only one which is represented by physical remains. Due to extended open-cut mining both of the Yallourn sites have been completely removed. It is also the only remaining site that is representative of non-government operated briquette production facility.

The site of Gelliondale Briquette Plant is a rare example of a briquette plant. It is the oldest remaining example of briquette production processes in Victoria and is the only site which remains as a record of the history of briquette manufacturing in the State. The processes and machinery used in the production of briquettes at Gelliondale pre-date and differ to some extent from those used at the later, currently operational Morwell plant. The Gelliondale Briquette plant is much smaller in scale than the Morwell plant and therefore is representative of a different approach to the utilization of resources.

The Gelliondale Briquette plant demonstrates an association with an important figure as it was owned and operated by James T. Knox (1889-1967), a civil engineer who is noted for promoting the use of concrete in the Australian construction industry. He is purportedly the designer of the original 1937 concrete southern stand at the Melbourne Cricket Ground. Knox's innovative projects extended beyond building design and included attempts to introduce advanced farming technology and his operation of the Gelliondale Brown Coal and Oil Co.

3.8.1.10 Hiawatha A Frame Bridge

Victorian Heritage Register (VHR) Number: H2069

Heritage Overlay Numbers: HO110

VHR Registration: September 9, 2004

Heritage Listing: Victorian Heritage Register

Statement of Significance:

What is significant?

The Hiawatha A Frame Bridge was built in 1933 to a standard design by the Country Roads Board (CRB). It is situated at the foot of the Strezlecki Ranges in south Gippsland, on a tributary of the Albert River, in what is now the Shire of Wellington. The bridge was part of the Developmental Roads Scheme, a scheme for constructing roads and bridges suitable for motorised transport in remote areas to facilitate closer settlement. Whilst the scheme was funded by the State, maintenance of the bridges rested in perpetuity with the local municipality.

The A frame design was a solution to situations which had previously required two stringer spans with a centre-stream pile pier. Flood prone streams carrying debris and floating logs could damage or destroy centre piers, so the suspended A Frame design was a solution for numerous fast flowing Gippsland streams. This bridge has a clear span of approximately 18m. The design was developed during the Depression years of the early 1930s, possibly following an early example on the Great Ocean Road, and a full prototype built for £470 on Merriman's Creek in the former Shire of Alberton. The cost was about half that of a traditional truss bridge.

The bridge is formed by a pair of A frames on each side of the deck constructed from two large logs, joined at the apex and with their bases encased in concrete on each bank of the stream. The frames are also braced with cross stays. A heavy steel rod hanger is suspended from the apex of each A frame, and these rods carry a large steel joist. The steel joist, suspended over the centre of the stream, carries the ends of the substantial timber stringers, on which the standard 1930s CRB motor deck is carried.

How is it significant?

The Hiawatha A Frame Bridge is of scientific (technical) and historical significance to the State of Victoria.

Why is it significant?

The Hiawatha A Frame Bridge is of historical significance as the last surviving example of an innovative type of timber bridge which were particularly numerous in Gippsland. The design was never used on main roads and highways, and therefore has close historical associations with the Developmental Roads Scheme, which helped open up remote areas to settlement. It is also historically significant as an economic design response to the exigencies of the Depression years of the early 1930s.

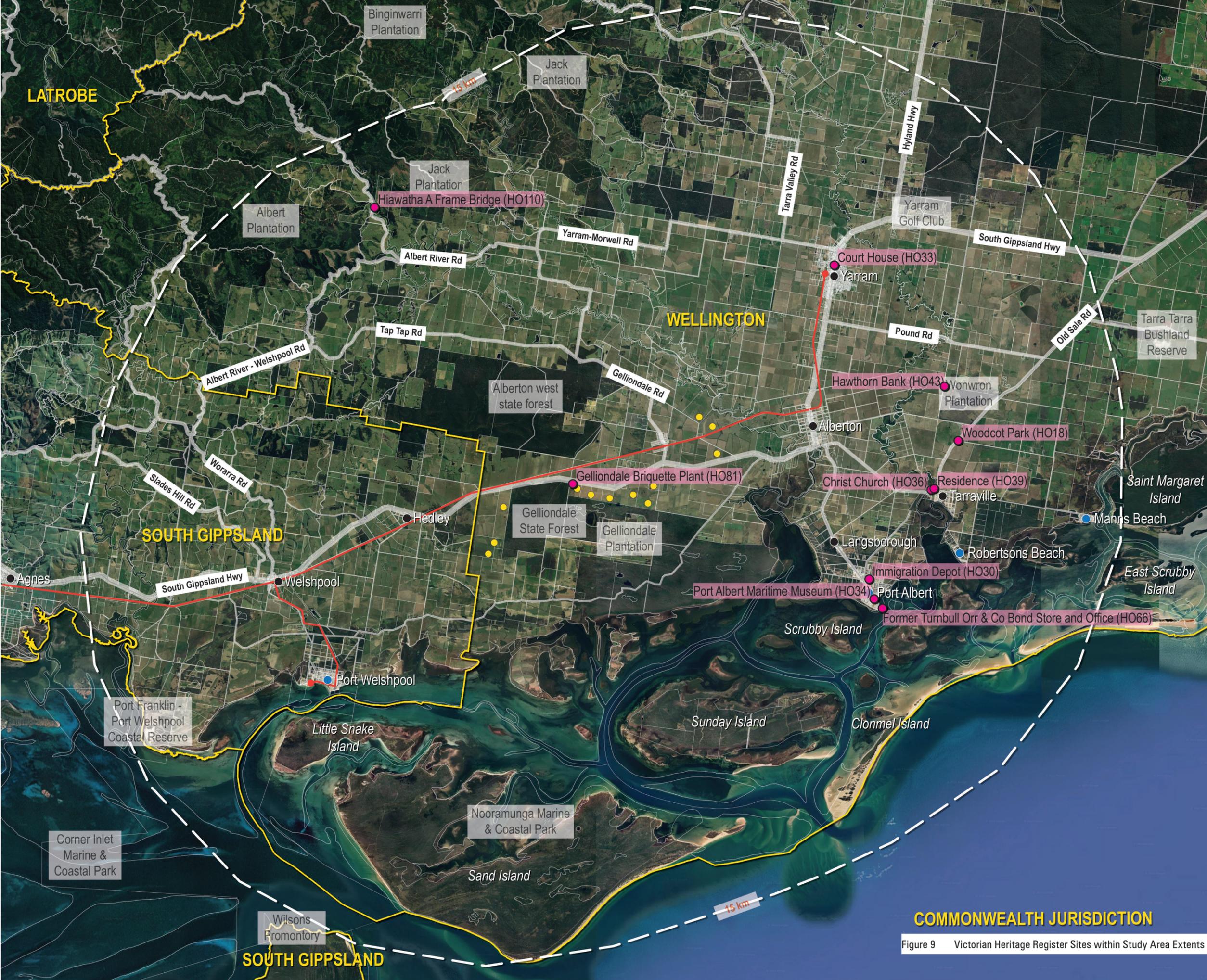
The Hiawatha A Frame Bridge is of scientific (technical) significance as an innovative engineering solution to the need for bridges in remote locations which were more economical compared to traditional solutions yet could clear large spans. Although of more limited application, the A Frame suspension principle was promoted by the CRB as a successor to the traditional timber truss designs of the 1920s.

Gelliondale Wind Farm Landscape Assessment

Victorian Heritage Register Sites within Study Area Extents

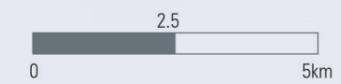
Legend

- Proposed wind turbines ●
- Municipality boundary
- Roads
- Inland settlements ●
- Coastal settlements ●
- Study area extents
- Great Southern Rail Trail —
- Victorian Heritage Register sites ●



COMMONWEALTH JURISDICTION

Figure 9 Victorian Heritage Register Sites within Study Area Extents



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 Scale: **1:160,000**
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 Revision: **P4**

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4 METHODOLOGY

4.1 Study area

The study area has been determined through Zone of theoretical visibility (ZTV) assessment, which includes:

- Viewshed mapping, and
- Determination of the Theoretical limit of viewshed extent (TLVE)

It is important to emphasise that the ZTV assessment process undertaken relies on viewshed mapping informed by topographical data only. As such, the ZTV assessment should not be relied upon as a definitive representation of the visibility (or otherwise) of the proposed project infrastructure, but rather should be used to guide the subsequent identification of representative view locations for the preparation of photomontage images, which can be relied upon as definitive representations of visibility and visual impact.

A map of the study area is provided at Figure 9.

4.1.1 Establishing the study area

4.1.1.1 Zone of theoretical visibility

Viewshed mapping

The following describes the viewshed assessment methodology used to develop the viewshed mapping. This mapping is a digitally-produced graphic representation of areas surrounding the project from which the proposed project infrastructure is potentially visible. This assessment is subsequently used to guide the selection of photomontage view locations.

It is important to emphasise that the viewshed mapping process undertaken is a 'virtual' exercise, which utilises only topographical data to generate viewshed assessment mapping. It does not take into account 'real world' obstacles such as buildings and vegetation, which obstruct or reduce views. In this regard, it presents what can be described as a 'worst case assessment', as the presence of existing buildings and vegetation almost always results in a 'real' viewshed being less extensive than a virtual viewshed, for any given point.

A viewshed is defined as the surface area or terrain visible from a given view location. It is also the area from which that view location or series of view locations may be seen. This is referred to as the 'intervisibility' relationship. The visibility between two points depends on the presence of on-ground obstacles, such as vegetation and buildings along the sight-line which connects the two points. Such obstacles may obstruct or reduce the reciprocal vision of the same two points.

Viewshed mapping involves the use of computer software packages to translate topographical data (i.e. contour lines) into a 3-dimensional digital terrain model. The project was modelled using DEM map data, 3DS Max & Rhino software, and 3D models of the proposed project infrastructure. This information was subsequently used to guide the identification of view locations for which photomontages were generated as a means of demonstrating the visual impact of the project, and the degree to which mitigation of visual impact is required.

Theoretical limit of viewshed extent

The study area extents are determined by the theoretical limit of viewshed extent (TLVE). This is a standard measure that determines the distance from proposed project infrastructure at which the vertical height of the proposed project infrastructure occupies a specified percentage of the vertical field of view.

'Human Factors in Design' (Dreyfuss, 1960)¹ provides guidance with respect to the field of view of the human eye, and describes a normal horizontal and vertical field of view as comprising approximately 60 degrees (horizontal) and 20 degrees (vertical).

Noting the ZTV description in the previous section, in the absence of intervening topographical features which would otherwise limit the extent of a particular viewshed, it is theoretically possible for a computer-modelled viewshed to have an infinite extent. To address this, in circumstances where topography does not provide a limit to viewshed extent, a limitation can be applied on the basis of the known characteristics of the human eye field of view. The 3D terrain model used to determine the TLVE does take into account earth curvature, and the photomontages prepared to inform the assessment also allow for curvature of the earth in the modelling which underpins their preparation.

For this LVIA, an assumption has been made that any object which occupies less than 5% of the human eye vertical field of view (equivalent to 1 degree) is unlikely to result in an unacceptably-high visual impact, due to the relatively small proportion of the total field of view it would occupy.

A 1-degree vertical angle measured from an origin point to a horizontal distance of 1 kilometre yields a height at that distance of 17m above the level of the origin point. Conversely, an object of that height, at a distance of 1 kilometre from an origin point (or viewing point) would occupy a vertical field of view not greater than 1 degree (or 5% of the vertical field of view).

Within these extents, potential sensitive receptors are identified as having a range of visual exposure ranging from 'very low' to 'very high'. This relationship can hence be applied to any structure with a vertical height and used to determine an appropriate viewshed extent.

Review of the potential cause and effect pathways for visual impacts identified that the key issues and impacts are more likely to result during the project's operation phase because of the introduction of wind energy assets within the landscape. There is also the potential for the presence of transmission assets such as substations and overhead transmission lines to contribute to visual impact. Where electricity transmission cables are installed underground as is the case with this wind farm proposal, landscape and visual impacts of this infrastructure are largely avoided. The impact of infrastructure servicing the wind farms including substations and transmission cables will be the focus of further assessment.

For the purposes of this LVIA, the TLVE has been calculated for each relevant project component:

- Wind farm infrastructure: based on all turbine tip heights at a maximum of 210-metres above natural ground, a maximum TLVE would be 12.4 kilometres. A 15 kilometres TLVE has been adopted to ensure complete site coverage.

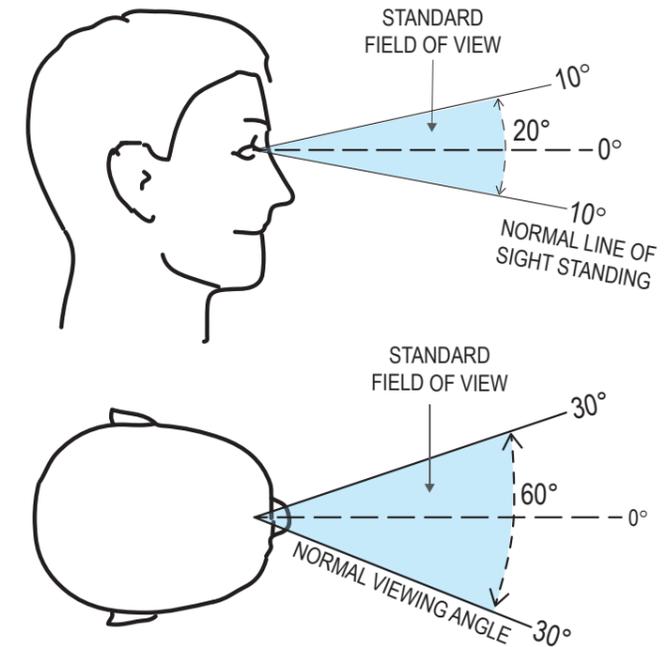


Figure 10 Field of view diagram

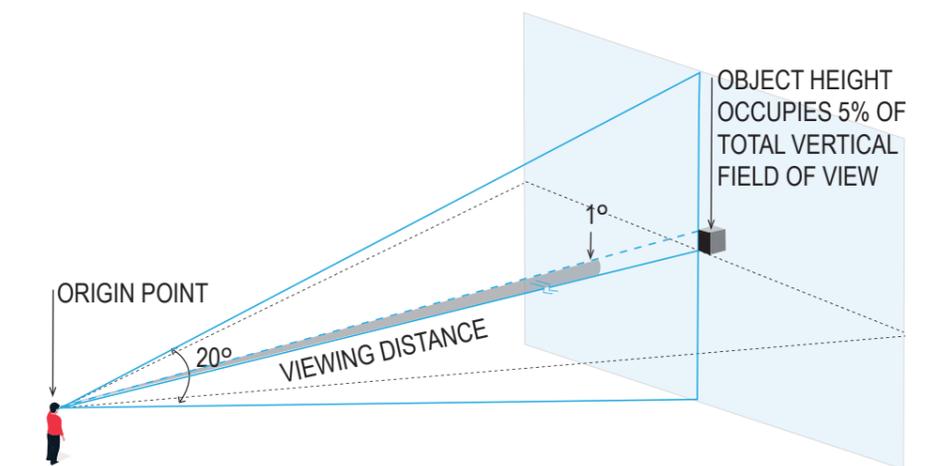


Figure 11 Theoretical limit of viewshed extent diagram

¹ 'Human Factors in Design', Dreyfuss 1960

4.2 Baseline conditions

A comprehensive assessment was undertaken to understand the baseline conditions of the study area to inform the environmental impact assessment for the project and enable comparison of the project to the 'no project' scenario. This assessment incorporated:

- Baseline assessment, comprising:
 - Review of legislation, policy, and guidelines
 - Existing conditions: landscape features
 - Identification of the nature, location & frequency of visual receptors.
- Landscape character assessment
- Landscape value assessment

4.3 Impact assessment method

Impacts are described as changes or effects to baseline environmental conditions, assets or values as a result of activities driven by the project. The extent of any impact is measured against the baseline conditions assessment. Impacts may be referred to either prior to mitigation (potential impact) or following mitigation (residual impact). Impacts can be positive or negative, direct or indirect.

This study assesses the impacts of the project on LVIA assets and values to be protected.

The factors that have been considered when assessing the significance of potential environmental impacts of the project on LVIA are as follows:

- The potential effects on individual environmental assets – magnitude, extent and duration of change in the values of each asset
- The likelihood of adverse effects, including those caused indirectly as a result of proposed activities, and associated uncertainty of available predictions or estimates
- Proposed avoidance or mitigation measures to reduce predicted effects
- Likely residual effects and their significance, that are likely to occur assuming the proposed measures to avoid and mitigate environmental effects are implemented
- Proposed approach to managing and monitoring environmental performance and contingency planning.

The rationale for this considers the nature of the LVIA, which considers three key variables:

- Landscape visual sensitivity (determined on the basis of the identified landscape value and its degree of visual exposure to the project);
- Magnitude of visibility of the proposed infrastructure (as depicted within the photomontage views from representative view locations), and
- The characteristics of visual receptors.

For LVIA, the first and third variables are unchanged as they consider contextual matters which are pre-existing within the project study area. The second variable is the magnitude of visibility of the proposed infrastructure.

A brief overview of the Hansen Partnership LVIA Methodology is outlined in Figure 12. The following sections describe the process undertaken for the impact assessment in more detail.

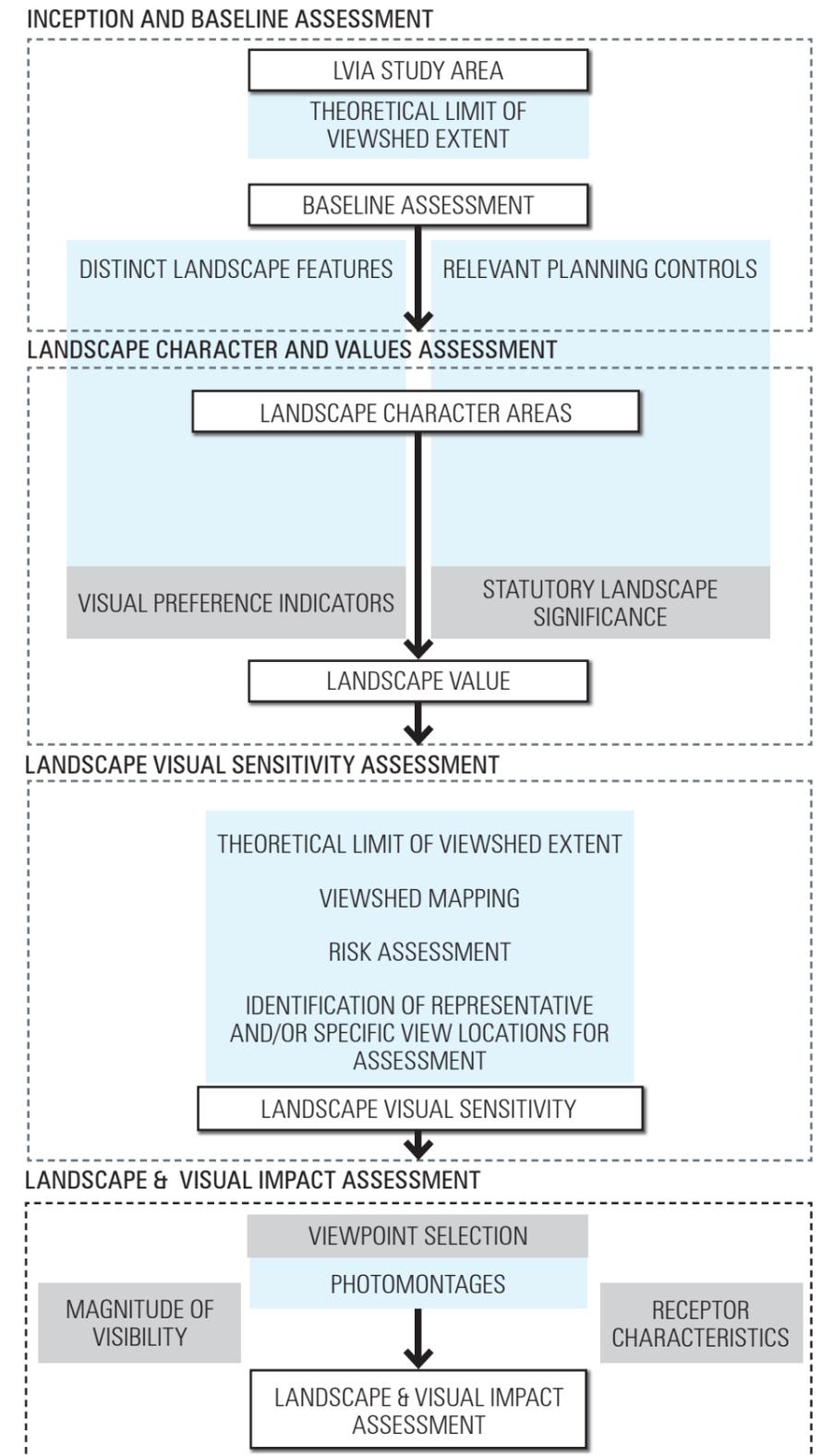


Figure 12 Hansen Partnership Pty. Ltd. LVIA Methodology

4.3.1 Existing conditions assessment

4.3.1.1 Baseline assessment

The existing conditions are identified in the baseline analysis phase of the LVIA assessment process. This phase establishes the baseline for the existing landscape and visual conditions, and their recognition. The information is collected and reviewed alongside the description of the project and forms the basis for the identification and description of the changes that would result from the project.

The baseline analysis comprises the following:

- Baseline assessment, comprising:
 - Review of legislation, policy, and guidelines
 - Existing conditions: landscape features
 - Identification of the nature, location & frequency of visual receptors.
- Landscape character assessment
- Landscape value assessment

4.3.1.2 Landscape character assessment

Landscape character assessment is a key tool for understanding the overall character of the landscape in the study extent, including distinctions between landscape character types based on the particular combinations of elements and perceptual aspects that make each area distinctive.

This section of the report focuses on describing the landscape character of the 'study area extent' by identifying the primary landscape features that make a defined geographical area distinctive. This was undertaken to understand, through fieldwork, whether there are any further landscape or visual amenity values which are of significance within the LVIA study extent, in addition to those identified in the desktop baseline work undertaken.

The LVIA study extent has been assessed to identify the landscape character precincts being areas of similar patterns or elements in the landscape such as landform, vegetation, water-bodies and land use as well as individual features.

Separating the LVIA study extent into landscape character precincts is the initial step in identifying areas of relative significance. This is an essential part of the landscape assessment, and leads into determining landscape values.

Where existing character assessments have been undertaken and applied to land within the LVIA study extent, they can contribute to the formation of the LVIA landscape character types. Existing landscape character assessments are reviewed as part of the LVIA process to ensure that the intent, scale, relevance to existing conditions and quality are suitable for adaptation.

4.3.1.3 Landscape value

This section of the assessment aims to assess the existing landscape value of the study area and surrounding landscapes in an objective manner. This is to be achieved through the baseline analysis work and the fieldwork undertaken.

The determination of landscape values within the study area relies upon information from four primary sources:

- Existing statutory designations of value/significance, as contained within Federal and State Legislation, the Victorian Planning Provisions and relevant heritage controls;
- Landscape preference indicators;
- Community perceptions of landscape value as obtained through direct engagement with local communities within the study area, and
- Relevant findings from other technical assessments.

Statutory controls which apply to land within the study area include the relatively higher level of control placed on the landscapes regarded as being significant for their landscape and amenity values within the State Planning Policy Framework, national or state parks, and landscapes with designations such as World Heritage, Ramsar wetland site, National Trust, and Australia ICOMOS sites.

Guidance is taken from benchmarking documents, including *Visual Landscape and Planning in Western Australia, a Manual for Evaluation, Assessment, Siting and Design, November 2007*, which defines landscape value as:

- *The value placed on a landscape feature by the community based primarily on its perceived visual quality.*¹

Landscape value is defined within the Manual as either *high, moderate or low* based on the following criteria:



High

- Prevalence of preferred landscape features, with minimal presence of non-preferred landscape features.



Moderate

- Some presence of preferred landscape features, with these being more prevalent than non-preferred landscape features.



Low

- Minor presence of preferred landscape features, and/or a prevalence of non-preferred landscape features.

4.3.1.4 Visual exposure

The visual exposure of landscapes within the study area is determined through viewshed mapping (Section 8.2).

Relative levels of visual exposure to the project are determined by individually mapping the viewshed extent of the proposed project components and subsequently overlapping the individual viewsheds to develop an appreciation of the cumulative viewshed of project infrastructure.

Landscapes within the study area which fall within the viewshed of a relatively high proportion of the proposed project structures are identified as having higher levels of visual exposure to the Project, whereas landscapes within the study area which fall within the viewshed of a relatively low proportion of the proposed project structures are identified as having lower levels of visual exposure to the project.

4.3.1.5 Visual Sensitivity

The visual sensitivity of landscapes within the study area is determined on the basis of a matrix analysis which considers landscape value and visual exposure. The matrix is shown below:

	Landscape Value		
Visual Exposure	High	Moderate	Low
High	High	High	Moderate
Moderate	High	Moderate	Moderate
Low	Moderate	Moderate	Low
Very Low	Moderate	Low	Low
None	Low	Very Low	Very Low

Table 2 Landscape visual sensitivity matrix

¹ Visual Landscape and Planning in Western Australia, a Manual for Evaluation, Assessment, Siting and Design. November 2007, Page 33

4.3.2 Impact assessment

A change to baseline conditions (or the no-project case) caused by project activities may give rise to impacts.

The impact assessment involves identifying the severity, extent and duration of any impacts, that the project may have on the existing environment, through consideration of landscape visual sensitivity (determined on the basis of the identified landscape value and its degree of visual exposure to the project), the magnitude of visibility of the proposed infrastructure (as depicted within the photomontage views) and the nature, number and frequency of visual receptors.

The impact assessment considers the 'worst case' design outcome for this discipline, which may vary across other assessment topics. For the purposes of this assessment, the 'worst case' design outcome assumes that there is no mitigation of visual impacts resulting from the project.

The significance of the impacts has been assessed in accordance with the evaluation framework, based on applicable legislation, policy and standards and the evaluation objectives and environmental significance guidelines arising from the government terms of reference established to guide the assessments.

The report documents the approach to the LVIA undertaken by Hansen Partnership and has been based on industry best practice as articulated by key reference documents, including *Guidelines for Landscape & Visual Impact Assessment*, British Landscape Institute, 2013, *Visual Landscape Planning in Western Australia*, Western Australian Planning Commission, 2009, Environment Protection and Heritage Council, 2010 and *Guidance Note for Landscape & Visual Assessment*, Australian Institute of Landscape Architects, 2018²³⁴. The Western Australian Guidelines is considered the most relevant LVIA guideline to the local context in the absence of a Victorian document. The UK publications are broadly accepted as the basis for LVIA theory and terminology.

The nature of receptors (viewers), the quantum, duration and frequency of views - per view location - is considered and forms part of the assessment.

The impact assessment considers day time views only, with photomontages prepared from representative view locations.

The final impact assessment as determined on the basis of impacts assessed at each representative viewpoint is arrived at on the basis of three variables:

- Landscape visual sensitivity (determined on the basis of the identified landscape value and its degree of visual exposure to the project);
- Magnitude of visibility of the proposed wind turbines (as depicted within the photomontage views from representative view locations), and
- The nature, number and frequency of visual receptors.

² *Visual Landscape and Planning in Western Australia, a Manual for Evaluation, Assessment, Siting and Design*, Department for Planning and Infrastructure, November 2007

³ *Guidelines for Landscape and Visual Impact Assessment*, British Landscape Institute, Third Edition, 2013

⁴ *Note for Landscape & Visual Assessment*, Australian Institute of Landscape Architects, 2018

4.3.2.1 Magnitude of visibility

In adopting a series of criteria for assessing the magnitude of visibility of project infrastructure from representative view locations, as depicted within photomontage imagery, it is important to define a range of terms which provide some indication of the extent to which a view location may be impacted upon visually by the Project, and when mitigation measures are considered necessary.

In determining this range a grading system of visual magnitude categories is described below.

Very High: entailing close proximity in an exposed location incapable of effective mitigation, where the proposed project occupies a significant proportion of the view and are visually-dominant.

High: where the project forms a major element in the view. There will be a tendency for the proposed project to be more dominant than other landscape elements.

Moderate: where the project will typically be visible, sometimes obviously so. Notwithstanding this, the distance of the project from the viewpoint and/or the contribution to visual screening provided by topography, vegetation or the curvature of the earth, results in situations where the project will not be a dominant element in the view.

Low: where the project is visible but forms only minor elements in available views as a result of distance and/or screening by vegetation, topography or earth curvature.

Very Low/Negligible: where the project is visible in clear conditions and may be recognisable, but conversely may sometimes not even be noticed.

Nil: where the project is entirely screened from view by topography, vegetation or other existing structures, and hence not visible. In circumstances where the magnitude of visibility is assessed as nil, the overall impact assessment is also considered to be nil, regardless of the assessed level of landscape visual sensitivity and receptor sensitivity.

4.3.2.2 Visual receptors

Consistent with guidance provided within the *Landscape Institute and Institute of Environmental Management & Assessment, Guidelines for Landscape Visual Impact Assessment, Third Edition, 2013*, consideration of visual receptors is necessary, in order to identify and understand who will be affected by visual amenity impacts resulting from the Project. Visual receptors can include:

- People living within the study area;
- People working within the study area;
- People travelling through the study area;
- People visiting recognised landscapes or attractions within the study area, and
- People engaged in recreational activities within the study area.

It is recognised that people have differing responses to changes in views and visual amenity depending on the context and purpose for being in a particular place. It is generally accepted that changes to views and visual amenity which affect a workplace are typically perceived as being of a lower order of impact than changes which affect a recognised landscape or attraction. It is also generally accepted that changes to views and visual amenity which affect a private residence are typically perceived as being of a higher order of impact by the occupants of that residence, but not necessarily by a broader audience.

The impact assessment incorporates a weighting in order to ensure an appropriate level of consideration of the perception of the particular receptors who will see and experience the changes to views and visual amenity, outlined as follows:

Nature of receptor - private residents are assumed to have a high level of sensitivity to visual impacts regardless of the circumstances, as are visitors within National Parks or other recognised scenic destinations (such as designated lookouts and/or areas with statutory protection on the basis of landscape value/significance), with other receptors in the public realm assumed to have a moderate level of sensitivity to visual impact. Receptors in their regular place of work, and undertaking regular work activities, are assumed to have a low level of sensitivity to visual impact;

Number of receptors - relative visitation numbers are considered, using the rationale that viewpoints which experience higher levels of visitation are assumed to experience higher levels of visual impact;

Frequency of receptors - the frequency of visits to a viewpoint by individual receptors is considered, using the rationale that a visual impact which is experienced more frequently is likely to be felt more significantly. For example, a receptor who experiences a view daily is considered to experience a greater level of impact than a receptor who only experiences it once a year or less. This rationale underpins the assumption that private residents are more sensitive to impacts felt at their place of residence where they might spend entire days, because they travel to and from that location more frequently, and

Duration of receptors - the period of time which receptors typically spend at a viewpoint is considered, with longer durations assumed to result in higher levels of visual impact. This rationale also underpins the assumption that private residents are more sensitive to impacts felt at their place of residence, and supports an assumption that short-term views - such as those experienced from moving vehicles - would be associated with lower levels of visual impact.

5 EXISTING CONDITIONS

The existing condition of landscapes within the LVIA study area are described in the following sections.

5.1 Baseline assessment: landscape features

5.1.1 Settlements

The proposed wind farm is located between areas of State Forest which extend to the north and south of South Gippsland Highway.

Within the study area (Figure 18), the coastal settlements and their key features are described as follows:

- Port Welshpool

Port Welshpool is located approximately 24 kilometres south of Yarram within the South Gippsland Region of Victoria on Corner Inlet, with commercial port and trawlers moored along the wharf. At the 2016 census, Port Welshpool had a population of 209 (*Australian Bureau of Statistics, QuickStats, accessed 06/09/2021*).

- Port Albert

Port Albert is located approximately 12 kilometres south of Yarram, situated within the Nooramunga Marine and Coastal Park in the Wellington local government area of Victoria. Port Albert is one of Victoria's oldest sea ports, established in 1841. At the 2016 census, Port Albert had a population of 135 (*Australian Bureau of Statistics, QuickStats, accessed 06/09/2021*).

The town has a collection of historical buildings including the general store which dates back to 1856. Views from the foreshore encompass tidal waters protected within vegetated sand islands which form a distinctive backdrop to the setting. These views are experienced by those standing at Government Wharf, from the Christopher Robinson Walking Trail (previously named the 'Old Port Walking Trail') which extends across the coast within the Nooramunga Marine and Wildlife park, and from private residential dwellings facing south at the interface of the foreshore.

- Robertsons Beach

Robertsons Beach is located approximately 15 kilometres south-east of Yarram in the Wellington local government area of Victoria. Robertsons Beach foreshore is set within the tidal waters and mangrove wetland of Nooramunga Marine and Wildlife park. Travelling along Sarena Parade, open and expansive inlet views to Port Albert & Wilsons Promontory are experienced. At the 2016 census, Robertsons Beach had a population of 55 (*Australian Bureau of Statistics, QuickStats, accessed 06/09/2021*).

- Manns Beach

Manns Beach is located approximately 18 kilometres south-east of Yarram in the Wellington local government area of Victoria. Manns Beach foreshore is set within the tidal waters and mangrove wetland of Nooramunga Marine and Wildlife park. It contains lavatory facilities, jetty and boat ramp that provides boating access to the water body. Views from the foreshore share open and expansive inlet views to Port Albert & Wilsons Promontory. At the 2016 census, Manns Beach had a population of 24 (*Australian Bureau of Statistics, QuickStats, accessed 06/09/2021*).

Within the study area, the inland settlements and their key features are described as follows:

- Welshpool

Welshpool is located approximately 28.8 kilometres south-west of Yarram on the South Gippsland Highway between Toora and Hedley. Welshpool is a central point to a large number of natural attractions for locals and tourists alike to enjoy, with the backdrop of Wilsons Promontory, as well as the Agnes Falls and Tarra-Bulga National Park. At the 2016 census, Welshpool had a population of 331 (*Australian Bureau of Statistics, QuickStats, accessed 06/09/2021*).

- Hedley

Hedley is located approximately 22.7 kilometres south-west of Yarram on the South Gippsland Highway between Welshpool and Alberton. Views at the South Gippsland Highway experience hilly to gently undulating land north towards the Strzelecki Ranges. At the 2016 census, Hedley had a population of 125 (*Australian Bureau of Statistics, QuickStats, accessed 06/09/2021*).

- Alberton

Alberton is situated at the Albert River, about 30 kilometres east of Corner Inlet along the South Gippsland Highway, approximately seven kilometres south of Yarram and 216 kilometres east of Melbourne. At the 2016 census, Alberton had a population of 262 (*Australian Bureau of Statistics, QuickStats, accessed 06/09/2021*).

- Tarraville

Tarraville is situated at the Tarra River, north of Robertsons Beach, about 4 kilometres southeast of Alberton. At the 2016 census, Tarraville had a population of 80 (*Australian Bureau of Statistics, QuickStats, accessed 06/09/2021*).

- Yarram

Yarram is a major service centre for coastal communities in Gippsland, located south of the Strzelecki Ranges, east of Wilsons Promontory, and inland from the historic Port Albert. At the 2016 census, Yarram had a population of 2,135 (*Australian Bureau of Statistics, QuickStats, accessed 06/09/2021*).



Figure 13 View from Bowling Club Road to Port Welshpool Long Jetty Artwork



Figure 14 Port Albert foreshore

5.1.2 Existing land use

The study area currently supports a range of rural industries mostly related to broad acre cropping, grazing and timber plantation.

The natural resources and significant landscapes throughout the study area support a wide variety of industries including energy resources, agriculture and forestry, manufacturing and tourism.

Many access points along the coast to the beach incorporate timber ramp and stair structures over the sand dunes and right down to the sand, some integrated with picnic tables and viewing decks.

5.1.3 Infrastructure

The South Gippsland Highway (A440) is the major road transport route connecting motorists from Melbourne to the Central Gippsland area. It traverses a variety of landscape character types, and for those using the road provides a range of vistas which encompass both natural and modified landscapes, townships and rural settings.

5.1.4 The Great Southern Rail Trail

The Great Southern Rail Trail provides a shared recreation path for cyclists and pedestrians between Leongatha and Yarram. It intersects with the South Gippsland Highway at Hedley, and continues eastwards towards Alberton, following a path that parallels the highway to its north. It traverses similar landscapes to the South Gippsland Highway.

At its closest point, the Rail Trail is located approximately 200m south of one of the wind turbines forming part of the eastern cluster.

Due to the generally low usage of the Rail Trail, the impact of the Wind Turbines on users of the adjoining South Gippsland Highway provides a better gauge of the overall visual impact.



Figure 15 Port Welshpool Marginal Wharf



Figure 17 Typical grazing farmland with expansive view



Figure 16 View to a wide boulevard with Palm trees in the central strip in Yarram



Figure 18 Typical lightweight framed building structures (View in McLoughlins Beach coastal settlement)

Gelliondale Wind Farm Landscape Assessment

Study Site Map

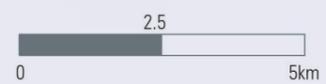
Legend

- Proposed wind turbines ●
- Municipality boundary
- Roads
- Inland settlements ●
- Coastal settlements ●
- Study area extents
- Great Southern Rail Trail —



COMMONWEALTH JURISDICTION

Figure 19 Gelliondale Wind Farm study context Map



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 Scale: **1:160,000**
 Date: **09/06/2023**
 Revision: **P4**

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5.1.5 Elevation and hydrology

The terrestrial study area is relatively flat to gently undulating, associated with low elevations and is subject to flooding and inundation, mostly pastoral and subject to historical grazing. There are few topographic features to break up the expansive plains such as scattered native vegetation, avenues of trees along roadsides and timber plantations.

To the north-west, the Strzelecki Ranges, with their relatively high elevations, create prominent landscape features that adjoin the flat plains along the study area boundary.

There are numerous water bodies across the LVIA study area, including Reeves Beach Waterway, Four Mile Creek, Sunville Creek, Morris Creek, Warrigal Creek, Bruthen Creek, Merriman Creek, Flynns Creek Traralgon Creek, Tarra River, Albert River and Agnes River.

The collection of lakes and wetlands form the Corner Inlet Marine & Coastal Park and Norramunga Marine & Coastal Park are recognised as an internationally significant Ramsar wetland site (Figure 25).



Figure 20 View from Wills Road to the Norramunga Marine & Coastal Park (Ramsar wetland site)



Figure 23 Typical view to Alberton West State Forest



Figure 21 View from James Road to residential housing



Figure 24 View from South Gippsland Highway



Figure 22 View from Port Albert Wharf

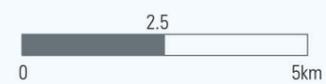
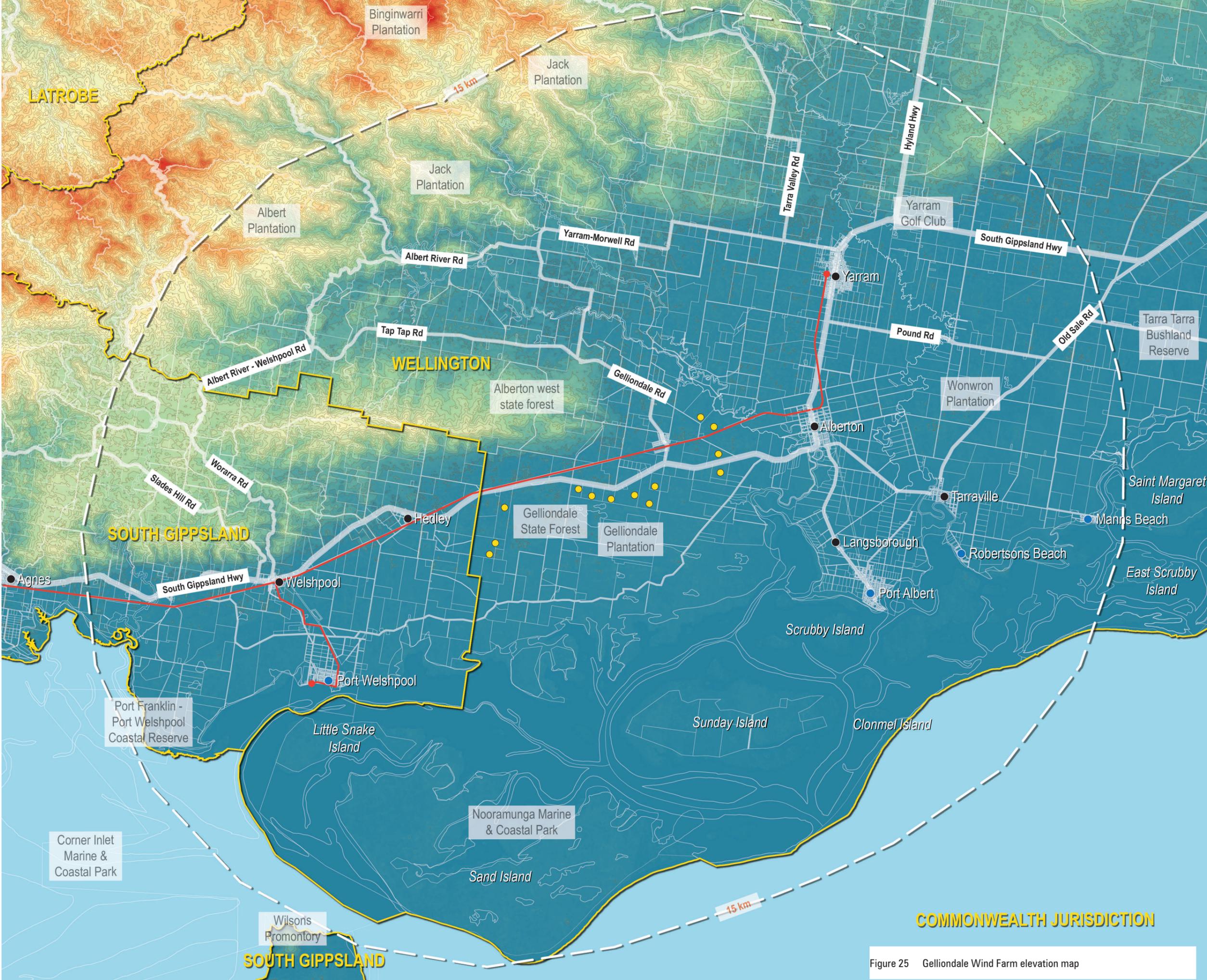
Gelliondale Wind Farm Landscape Assessment

Elevation Map

Legend

- Proposed wind turbines ●
- Municipality boundary
- Roads
- Inland settlements ●
- Coastal settlements ●
- Existing contours (20m intervals)
- Study area extents
- Great Southern Rail Trail

Elevation Colour Range Classification:



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 Scale: **1:160,000**
 Date: **09/06/2023**
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COMMONWEALTH JURISDICTION

Figure 25 Gelliondale Wind Farm elevation map

5.1.6 Vegetation

Noting that the primary use of the land within the study area is either for primary agricultural production (such as dairy farming) or for commercial tree plantations, the existing vegetation within the study area can be categorised as follows:

- Alberton West State Forest areas
- Gelliondale State Forest areas
- Bushland holdings appear to consist of remnant indigenous and other native vegetation.
- Timber plantations producing non-native pine and native eucalyptus species
- Pasture and cropping grasses with scattered native trees along agricultural property boundaries
- Salt-marsh wetland vegetation
- Roadside vegetation consisting of shrubs, grasses, and native trees.
- Dense coastal heath and bushland
- Avenues of windbreak vegetation along roads and parcel boundaries

The study area supports a mix of industrial and productive agricultural activities which are set back from adjacent main roads or behind screening vegetation so as not to be noticed from public vantage points.

The Ecological Vegetation Classes (EVC) within the study area consist of a variety of class types such as: Box Ironbark Forests or dry/lower fertility Woodlands, Coastal Scrubs Grasslands and Woodlands, Dry Forests, Heathlands, Heathy Woodlands, Herb-rich Woodlands, Lowland Forests, Plains Grasslands and Chenopod Shrublands, Plains Woodlands or Forests, Rainforests, Riparian Scrubs or Swampy Scrubs and Woodlands, Salt-tolerant and/or succulent Shrublands, Wet or Damp Forests, Wetlands.



Figure 26 View from James Road



Figure 28 View from South Gippsland Highway



Figure 27 View to Alberton West State Forest



Figure 29 Typical timber plantation view

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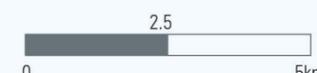
Tree Density Map

Legend

- Proposed wind turbines 
- Municipality boundary 
- Roads 
- Inland settlements 
- Coastal settlements 
- Study area extents 
- Great Southern Rail Trail 

Tree Density Legend

- Tree density - dense 
- Tree density - medium 
- Tree density - scattered 



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Figure 30 Gelliondale Wind Farm tree density map

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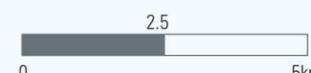
Ecological Vegetation Classes Map

Legend

- Proposed wind turbines 
- Municipality boundary 
- Roads 
- Inland settlements 
- Coastal settlements 
- Study area extents 
- Great Southern Rail Trail 

EVC Legend

- Box Ironbark Forests or dry/lower fertility Woodlands 
- Coastal Scrubs Grasslands and Woodlands 
- Dry Forests 
- Heathlands 
- Heathy Woodlands 
- Herb-rich Woodlands 
- Lowland Forests 
- Plains Grasslands and Chenopod Shrublands 
- Plains Woodlands or Forests 
- Rainforests 
- Riparian Scrubs or Swampy Scrubs and Woodlands 
- Salt-tolerant and/or succulent Shrublands 
- Wet or Damp Forests 
- Wetlands 



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Figure 31 Gelliondale Wind Farm ecological vegetation classes map

5.1.7 Geology

The majority of the inland area within Wellington Shire is a fluvial landform, which consists of some significant landscapes such as Alberton west state forest, Bruthern Nature Conservation Reserve, Wonwron Plantation, and Mullungdung Nature Conservation Reserve.

The coastal area within Wellington Shire is formed by paludal and aeolian environments. Tarra Tarra Bushland Reserve, Woodside H28 Bushland Reserve, Jack Smith Lake Wildlife Reserve, and the majority of the islands and beaches fall within these types of land.

The land within South Gippsland Shire consists of a variety of landforms such as fluvial landform to the north and inland area, paludal and aeolian environments to the coastal area. Wilsons Promontory National Park and Port Franklin - Port Welshpool Coastal Reserve fall within these types of land.

5.1.8 Summary of landscape features

A large portion of the landscape within the LVIA study area has been modified by human activity, whether directly by the nearby agricultural, plantation and industrial land uses, or indirectly through the emergence of saltwater/brackish ecosystems within the Gippsland Lake network. The landscape features shift markedly from east to west across the study area. The east is defined by pockets of timber plantation and industrial land use interspersed between large areas of farmland. The scenery to the west of the study area is largely uninterrupted by existing industrial activity, which is located away from roads or screened from public vantage points by vegetation or raised embankments.

The natural landscape and rural living landscape are visually dominant within the LVIA study area. Several patches of bushland sit within paddocks and pastures.

The natural values of the landscape, however, remain visually dominant; particularly toward the southern and eastern most parts of the study area associated with Wilsons Promontory and Nooramunga Coastal Park which host coastal and wetland habitats with unique geological features, and healthy swathes of native vegetation. These natural values become less dominant but remain present within the main settlements on account of the increase in building density in this area.



Figure 32 Typical South Gippsland Coastal Plains expansive view

Gelliondale Wind Farm Landscape Assessment

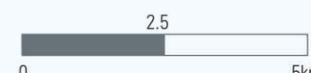
Geology Map

Legend

- Proposed wind turbines 
- Municipality boundary 
- Roads 
- Inland settlements 
- Coastal settlements 
- Study area extents 
- Great Southern Rail Trail 

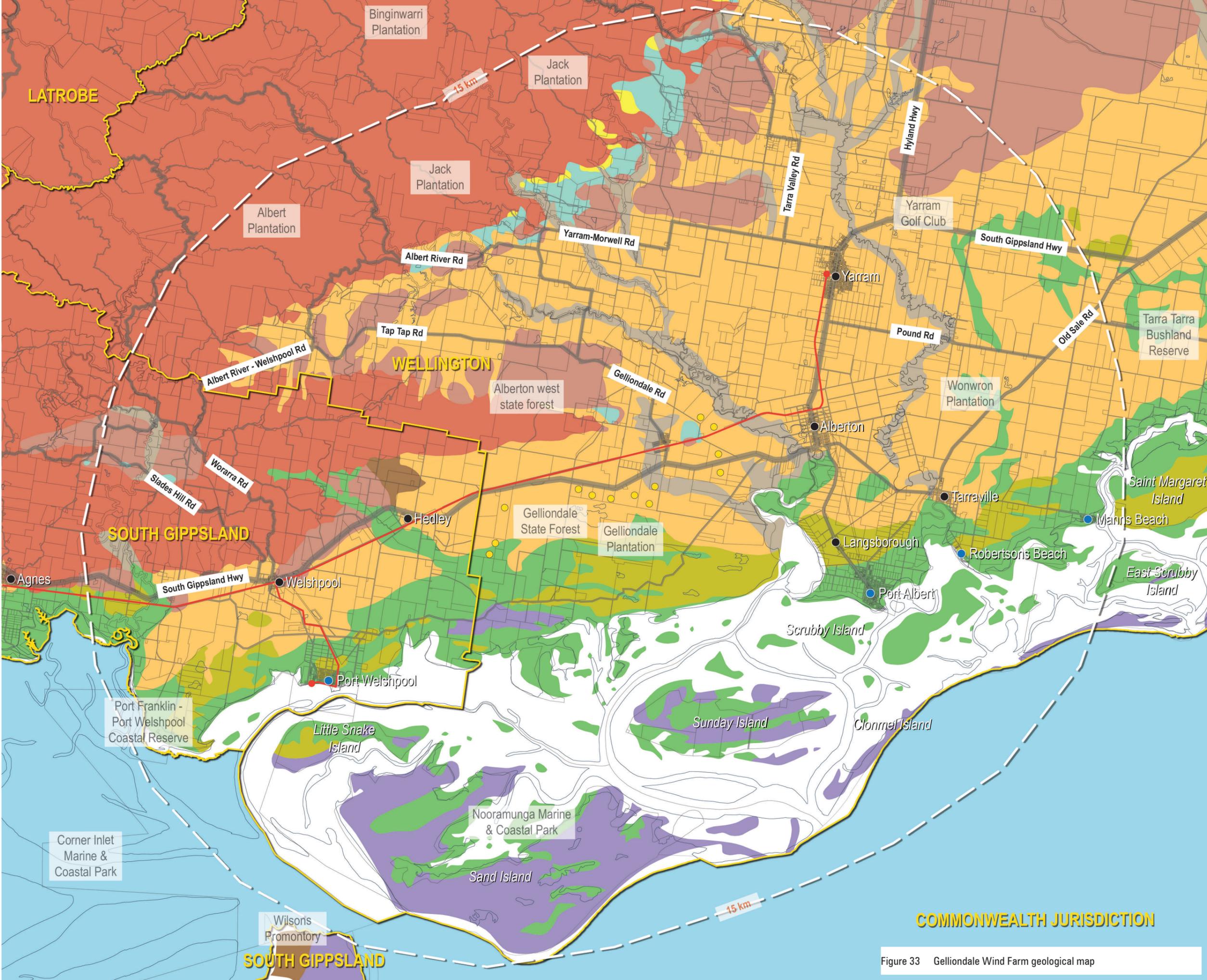
Geology Legend

- Aeolian: coastal and inland dunes: dune sand, some swamp deposits 
- Aeolian: dune deposits: sand, clay, calcareous sand 
- Extrusive: tholeiitic and minor alkaline basalts 
- Fluvial: "gully" alluvium, colluvium: gravel, sand, silt 
- Fluvial: alluvium, gravel, sand, silt 
- Fluvial: gravel, sand, silt 
- Fluvial: lithic sandstone, siltstone, minor conglomerate, coal 
- Fluvial: sand, clay gravel, conglomerate 
- Fluvial: sand, silt, gravel, ferruginous sand 
- Marine: calcarenite, marl 
- Paludal: lagoon and swamp deposits: silt, clay 



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Figure 33 Gelliondale Wind Farm geological map

5.2 Landscape character area assessment

5.2.1 Introduction

This section of the report focuses on describing the Landscape character of the LVIA study area by identifying the main characteristics of the landscape. This was undertaken to understand, through fieldwork, whether there are any further Landscape character or visual amenity values which are of significance within the LVIA study area, in addition to those identified in the desktop baseline work undertaken.

The LVIA study area has been assessed to identify the Landscape character areas (LCAs) which can be described as areas of similar patterns or elements in the landscape such as landform, vegetation, water bodies and land use as well as individual features.

Separating the LVIA study area into LCAs is the initial step in identifying areas of relative significance. This is an essential part of the landscape assessment, and leads into determining landscape values.

5.2.2 Landscape character areas

The LVIA study area comprises 12 Landscape character areas each with a distinct, recognisable and consistent pattern of elements that occur in the landscape. The Landscape character areas are identified as:

1. Coastal Islands
2. South Gippsland Coastal Plains
3. Settlements
4. Timber Plantation Forest
5. Strzelecki Ranges and Foothills
6. Forest Foothills
7. Wilsons Promontory Granite Coast

These character areas are mapped (refer to Figure 33) and described as follows:

Landscape character area 1: Coastal Islands

This low-lying, flat character area covers a long stretch of varied coastline, extending from the gateway to Wilsons Promontory to the southern end of Ninety Mile Beach, and includes the Nooramunga Marine and Coastal Park. The area has a strong and open natural character, comprising an intricate network of quiet waterways and islands, all framed by the stunning backdrop of Wilsons Promontory. Shallow marine waters, isolated granite islands, intertidal mudflats, and a complex array of sand barrier islands create beautiful coastal and wetland landforms. The expansive views of the Promontory provide valued visual links to natural landscapes.

The dispersed settlements of Port Welshpool, Port Albert, Manns Beach and Robertsons Beach are all located at the interface between this LCA and the South Gippsland Coastal Plains LCA, and all offer expansive views of the Coastal Islands LCA.

Landscape character area 2: South Gippsland Coastal Plains

This area is predominantly pastoral with a flat to gently undulating landscape. Expansive pastures are the dominant feature, providing clear and open views along roads and through gaps in dense verge-side vegetation. The relatively flat and open terrain offers unobstructed views of the Strzelecki Ranges, which form a prominent backdrop to the northwest. In areas where roadside vegetation is absent, motorists can enjoy open views across paddocks and toward timber plantations. Although there are few topographic features to break up the expansive plains, scattered outcrops of native vegetation, avenues of trees along roadsides, and timber plantations create points of visual interest within the area.

The land in this area supports a mix of industrial and productive agricultural activities, which are usually set back from main roads or screened behind vegetation to avoid being noticed from public vantage points. While there is a visual presence of utility-related infrastructure throughout the character area, it remains subservient to the overall rural nature of the landscape. The road reserve edges are typically bordered by timber post and wire fencing or shrubby roadside vegetation, and above-ground power lines align main roadways. Single-story residential buildings, as well as farming-related sheds and equipment, are scattered throughout the landscape, creating a uniform rural character.

Landscape character area 3: Settlements

The 'Settlements' character area comprises townships that vary in size and type. Small coastal settlements typically consist of private, low-density, and sparsely developed residential areas. In contrast, larger townships have well-defined commercial centers with a main street, general stores, civic spaces, hotels, and schools. These larger townships are often connected by main arterial roadways and have tourist infrastructure such as information signage, public artwork, car parking, accommodations, restaurants, and recreational activities. In contrast, small coastal settlements are usually located at the end of unsealed roads and have predominantly one to two-story dwellings nestled among the coastal vegetation.

Landscape character area 4: Timber Plantation Forest

This character area consists of 'artificial' planted forests defined by the grid formation of trees, with clean, linear trunks, often with lifted canopies and minimal to no understorey vegetation growth. Commercial forests in the area contain rows of both native and exotic species at varying stages of maturity, or cleared land from which plantation-grown timber has recently been felled and harvested.

Landscape character area 5: Strzelecki Ranges and Foothills

This hilly character area stretches from Toora at the southwest end of the study area north through Tarra Valley and beyond as part of the Strzelecki Ranges' low mountain ridge landform. The southern edge rises sharply from the flat Gippsland coastal plains, forming a topographic 'amphitheater' setting to Corner Inlet. Although much of the foothills have an agricultural landscape quality, contributed to by a pattern of cleared land and exotic vegetation, there is a distinct absence of built elements in prominent locations and along ridge lines, except for a wind energy facility north of Toora. The higher peaks are densely forested.

Landscape character area 6: Forest Foothills

The 'Forest Foothills' landscape comprises an area of hilly agricultural and forested land situated at the foothills of the Strzelecki Ranges. Settled areas are located within the hills, but they remain relatively passive to the natural landscape. The 'Forest Foothills' form a distinctive backdrop to views looking west from the Gippsland coastal plains and coastal islands areas.

Landscape character area 7: Wilsons Promontory Granite Coast

The Wilsons Promontory National Park projects into Bass Strait and is almost an island, linked to the mainland by beach ridges. The natural coastal wilderness landscape setting of 'The Prom' comprises a mountainous interior, forests, and fern gullies fringed by granite headlands, sandy beaches, and sheltered coves backed by coastal dunes, heathlands, and swamps. The landscape is threaded with a network of walking tracks. Its topography and unique position within Bass Strait also support a diverse array of marine habitats within the waters of Victoria's first marine national park.

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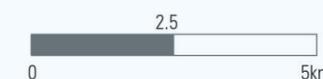
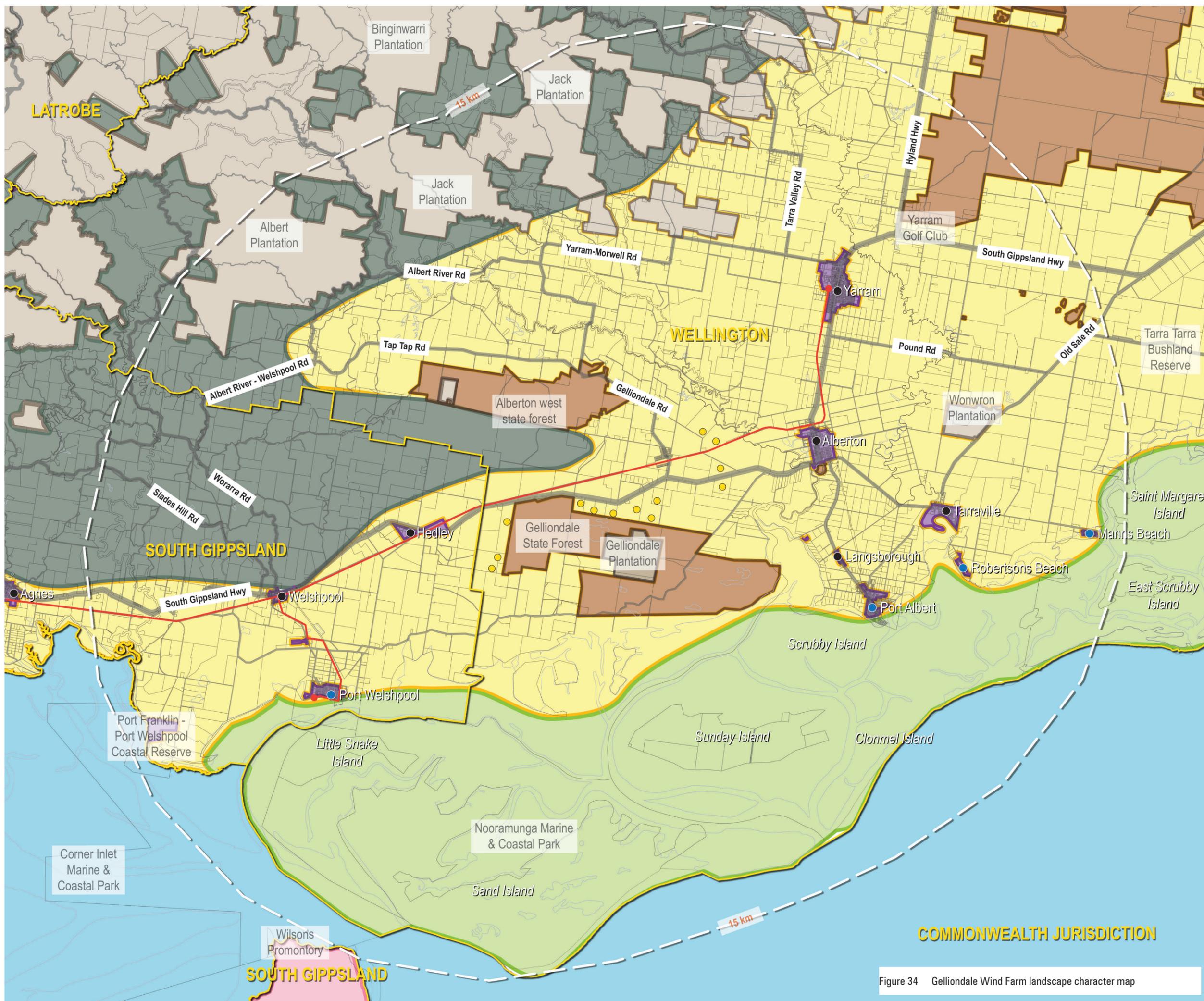
Landscape Character Map

Legend

- Proposed wind turbines 
- Municipality boundary 
- Roads 
- Inland settlements 
- Coastal settlements 
- Study area extents 
- Great Southern Rail Trail 

Landscape Character Legend

- Landscape Character Area 1: Coastal Islands 
- Landscape Character Area 2: South Gippsland Coastal Plains 
- Landscape Character Area 3: Settlements 
- Landscape Character Area 4: Timber Plantation Forest 
- Landscape Character Area 5: Strzelecki Range and Foothills 
- Landscape Character Area 6: Forest Foothills 
- Landscape Character Area 7: Wilsons Promontory Granite Coast 



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Figure 34 Gelliondale Wind Farm landscape character map

5.3 Landscape value

5.3.1 Introduction

This section of the assessment aims to assess the existing landscape value of the study area in an objective manner.

The determination of landscape values within the study area relies upon information from 4 primary sources:

- Existing statutory designations of value/significance, as contained within Federal and State Legislation, the Victorian Planning Provisions and relevant heritage controls;
- Landscape preference indicators;
- Community perceptions of landscape value as obtained through direct engagement with local communities within the study area, and
- Relevant findings from the approved amended Aboriginal Cultural Heritage Management Plan.

Statutory controls which apply to land within the study area include the relatively higher level of value placed on the landscapes regarded significant for their landscape and visual values within the State Planning Policy Framework, national or state parks, and landscapes with designations such as World Heritage, Ramsar wetland site, National Trust, and Australia ICOMOS sites.

Guidance is taken from benchmarking documents, including *Visual Landscape and Planning in Western Australia, a Manual for Evaluation, Assessment, Siting and Design*. November 2007, which defines landscape value as: *The value placed on a landscape feature by the community based primarily on its perceived visual quality.*¹

Landscape value is assigned as either high, moderate or low based on the following criteria:



High

- Prevalence of preferred landscape features, with minimal presence of non-preferred landscape features.



Moderate

- Some presence of preferred landscape features, with these being more prevalent than non-preferred landscape features.



Low

- Minor presence of preferred landscape features, and/or a prevalence of non-preferred landscape features.

5.3.2 Built character preference indicators

Preferred landscape features

Most preferred landscape features for this landscape typology include:

- Presence of trees, greenery, parks and gardens, street trees, canopied streets, median strip vegetation;
- Complementary building styles in neighbourhoods;
- Diverse building styles in neighbourhoods;
- Built developments that do not impinge on dominant natural features;
- Coherence of industrial buildings in one area;
- Elevated landforms and undulating terrain;
- Presence of water bodies;
- Presence of natural rock features
- Historic features including land uses that strengthen the local urban character;
- Well maintained gardens;
- Incorporation of significant cultural and environmental features into urban design;
- Urban water management (water bodies that are well maintained, and open drains with a complementary appearance to the surrounding built form);
- Development sites supporting and enhancing the urban context in which they are located;
- Development sites designed so they strengthen local character and promoted a sense of community;
- Design which takes account of landscape features, vegetation and landform;
- Services being underground to reduce cabling and severance of street trees;
- Unobtrusive mobile phone towers and other utility towers;
- Unobtrusive advertising;

Least preferred landscape features

Least preferred landscape features for this landscape typology include:

- Derelict industrial areas;
- Large car parks without trees;
- Run-down residential areas (dead grass, bare sand, dead vegetation, derelict housing and/or buildings, abandoned and/or trashed cars);
- Intrusive billboards (particularly along roads and railway reserves);
- Buildings which contrast sharply from surrounding built character;
- Arterial highways with strip commercial and light industrial developments, lacking trees and other vegetation;
- Utilities (tower, transmission lines, overhead power lines);
- Severed or badly pruned street trees;
- Lack of vegetation;
- Poorly maintained waterways and drains prone to stagnation, pollution and littering;

¹ Visual Landscape and Planning in Western Australia, a Manual for Evaluation, Assessment, Siting and Design. November 2007, Page 33
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5.3.3 Rural character preference indicators

Preferred landscape features

Most preferred landscape features for this landscape typology include:

- Unusual diversity in agricultural landscapes (colour and contrast or species diversity of cropping);
- Agricultural patterns, colours and textures that complement natural features;
- Gradual transition zones between agricultural land and natural landscape;
- Topographic variety and ruggedness;
- Presence of water bodies (dams, lakes, inundated areas) that borrow location, shape, scale and edge configuration from natural elements;
- Areas or sites frequently prone to ephemeral features (presence of fauna, distinctive crop rotations, water conditions and climatic conditions);
- Significant landscape features (trees and tree stands, historic relics, some windmills and areas of unusual topographic variation);
- Settlement patterns and individual structures that strengthen the local rural character (silos, windmills, water tanks, historic buildings, bridges, hay bales and dams);
- Historic features and land use patterns that strengthen the local rural character (historic farm machinery, old shearing sheds, windmills and historic buildings); and
- Distinctive remnant vegetation located along stream sides, roadsides and in paddocks (parkland cleared paddocks).

Least preferred landscape features

Least preferred landscape features for this landscape typology include:

- Areas of soil salinity/salt scalds or dead, dying or diseased vegetation;
- Areas of extensive weed infestation;
- Eroded areas;
- Tips, dumps and landfill areas;
- Recently harvested areas (stumps, debris, abandoned off-cuts);
- Land use areas that contrast significantly from natural landscape characteristics (can include plantations, mines, rural settlement and/or housing, utility towers, roads and fencing);
- Abandoned structures in a state of disrepair or destruction;
- Unmanaged roads and access tracks;
- Farm structures and buildings in a state of disrepair;
- Jetties and other marine structures that are either closed or not maintained; and
- Eutrophied dams, lakes and water bodies.

5.3.4 Natural Landscape character preference indicators

Preferred landscape features

Most preferred landscape features for this landscape typology include:

- High degrees of perceived naturalness; high degree of topographic variety or vertical relief (dramatic relief, ruggedness, rock outcropping, outstanding ridge lines and beach forms);
- Vegetative diversity (distinctive patterns, species composition, height, colour and texture);
- Diversity of vegetation age and density (structural complexity);
- Unusually expansive landforms or vast horizontal scale (desert landscapes, beach and dune fields, rolling hills);
- Presence of water bodies (waterfalls, rivers, estuaries, oceans, lakes, inundated areas);
- Distinctive displays of colour: soils, vegetation (often seasonal), topography, rock formations or water bodies;
- Distinctive landscape features (waterfalls, unique plants, reefs, geological formations such as ranges, cliff faces and granite outcrops);
- Outstanding combinations of landform, vegetation patterns and water features in one area;
- Seascapes (combinations of ocean, reefs, beach, dune formation, coastal rocks, coastal vegetation); and
- Areas or sites frequently prone to ephemeral features (fauna, water or wave conditions, beach erosion scarps, climatic conditions).

Least preferred landscape features

Least preferred landscape features for this landscape typology include:

- Disturbed areas with little evidence of naturalness;
- Areas of diseased, dead or dying vegetation;
- Areas with severe weed infestations in a natural landscape;
- Areas of soil erosion (especially where human-induced);
- Water bodies with degraded banks, weed infestations, stagnation, eutrophication, algae or litter; and
- Evidence of mining (gravel pits, sand mines, limestone).

5.3.5 Local community perceptions of landscape value

Direct engagement with local communities in relation to the perceived value (or significance) they attribute to landscapes and seascapes within the project study area has identified the following:

- Impacts to natural landscape in designated wilderness areas and National Parks (Wilson's Promontory) and along scenic coastlines
- Concern that coastal residents will experience loss of enjoyment of ocean views due to visibility of turbines. Key locations mentioned are Port Albert, Manns Beach, Robertsons Beach, McLoughlins Beach, Woodside Beach, Seaspray
- Concern that coastal property values will be affected due to visibility of turbines
- Both positive and negative perspectives raised about impacts on tourism. Some see the project will attract visitation while others believe they could deter visitors.
- Concern about visible infrastructure changing the 'feel' of the area from natural to industrial
- Concern about visual impact of any overhead transmission infrastructure in rural/farming settings
- Strong support for undergrounding infrastructure where possible
- Both positive and negative perspectives raised about turbine views. Some see them as attractive while others see them as an eye-sore

5.4 Landscape value assessment

5.4.1 Landscape character area 1: Coastal Islands

Landscape typology

Natural

Statutory landscape significance

- Ramsar wetland site
- Marine & Coastal Park
- Area of State Significance as identified in the Coastal Spaces Landscape Assessment Study (2006)
- Public Conservation & Resource Zone (PCRZ)
- Environmental Significance Overlay – Schedule 1 (ES01) – Coastal and Gippsland Lakes Environs
- Environmental Significance Overlay - Schedule 2 (ES02) - Wetlands

Preferred landscape features

- Presence of water bodies (waterfalls, rivers, estuaries, oceans, lakes, inundated areas);
- Distinctive displays of colour: soils, vegetation (often seasonal), topography, rock formations or water bodies;
- Outstanding combinations of landform, vegetation patterns and water features in one area;
- Seascapes (combinations of ocean, reefs, beach, dune formation, coastal rocks, coastal vegetation); and
- Areas or sites frequently prone to ephemeral features (fauna, water or wave conditions, beach erosion scarps, climatic conditions).

Least preferred landscape features

- None applicable

Overall landscape value

HIGH

The 'Coastal Islands' character area is distinctive, exhibiting a strong and open natural character that provides valued views of inland lakes, riparian and natural coastal and riparian landscapes. It contains landscape which is recognised as being of State Significance on account of the visually significant coastal landscape and chain of small sand islands that protect mangroves and mudflats from Bass Strait, and its value by the community for panoramic views of Wilsons Promontory. The intersection of landforms and lakes creates a scenic landscape setting for minor settlements and recreation locations. This Landscape character type exhibits many preferred natural and rural landscape features.



Figure 35 View from Port Welshpool to Nooramunga Marine & Coastal Park

5.4.2 Landscape character area 2: South Gippsland Coastal Plains

Landscape typology

Rural

Statutory landscape significance

- Significant Landscape Overlay (limited areas)
- Environmental Significance Overlay – Schedule 2 (ESO2) - Wetlands
- Public Conservation & Resource Zone (PCRZ)

Preferred landscape features

- Agricultural patterns, colours and textures that complement natural features;
- Gradual transition zones between agricultural land and natural landscape;
- Presence of water bodies (dams, lakes, inundated areas) that borrow location, shape, scale and edge configuration from natural elements;
- Settlement patterns and individual structures that strengthen the local rural character (silos, windmills, water tanks, historic buildings, bridges, hay bales and dams);
- Historic features and land use patterns that strengthen the local rural character (historic farm machinery, old shearing sheds, windmills and historic buildings); and
- Distinctive remnant vegetation located along stream sides, roadsides and in paddocks (parkland cleared paddocks).

Least preferred landscape features

- Recently harvested areas (stumps, debris, abandoned off-cuts);
- Land use areas that contrast significantly from natural landscape characteristics (can include plantations, mines, rural settlement and/or housing, utility towers, roads and fencing);
- Abandoned structures in a state of disrepair or destruction;
- Unmanaged roads and access tracks;

Overall landscape value

LOW

The 'South Gippsland Coastal Plains' Landscape character area is an extensive character type with a consistency of appearance in terms of topography, landform, land use and vegetation. A large portion of the landscape has been modified by agricultural activity. The unremarkable scenery is largely uninterrupted by existing industrial activity, which is located away from roads or screened from public vantage points by vegetation or raised embankments. Several patches of bushland sit within paddocks and pastures breaking up the monotony. There are some statutory controls identifying areas of significance, however they only apply to limited parts of the area. It exhibits a number of preferred rural landscape features but also some that are least preferred including a presence of overhead transmission lines.



Figure 36 Typical view of the South Gippsland Coastal Plains LCA

5.4.3 Landscape character area 3: Settlements

Landscape typology

Built

Statutory landscape significance

- Significant Landscape Overlay
- Environmental Significance Overlay – Schedule 3 (ES04) (Coastal Settlements)
- Public Conservation & Resource Zone (PCRZ)

Preferred landscape features

- Historic features including land uses that strengthen the local urban character
- Low density and built developments that do not impinge on dominant natural features
- Presence of community artworks
- Large mature feature trees
- The presence of native or exotic avenue trees along property driveway entrances
- Uninterrupted vistas of natural horizons

Least preferred landscape features

- Run-down residential areas (dead grass, bare sand, dead vegetation, derelict housing and/or buildings, abandoned and/or trashed cars);
- Intrusive billboards (particularly along roads and railway reserves);
- Utilities (tower, transmission lines, overhead power lines);

Overall landscape value

LOW

The 'Settlements' character area comprises of coastal towns of varying scales and densities that are enveloped within the rural Gippsland plains setting. Some of the smaller townships also abut the natural setting of the Nooramunga Marine & Coastal Park and benefit from scenic views across the coastal landscape of mangroves, panoramic views of Wilsons Promontory to the south and the Strzelecki Ranges to the north and west. Built structures tend to dominate the urban and rural settings, however historic built features provide visual interest. While the settlement areas are highly modified from the natural landscape, residents and tourists can derive pleasure from the scenic values of the rural and natural landscapes within which they are surrounded. The predominant views within the 'Settlements' areas however are of buildings. This Landscape character type exhibits some preferred urban landscape features and some less preferred urban landscape features.



Figure 37 Typical view of Settlements LCA

5.4.4 Landscape character area 4: Timber Plantation Forest

Landscape typology

Natural

Statutory landscape significance

- None applicable

Preferred landscape features

- None applicable

Least preferred landscape features

- Disturbed areas with little evidence of naturalness;
- Areas of soil erosion (especially where human-induced);
- Evidence of mining (gravel pits, sand mines, limestone).

Overall landscape value

LOW

The landscape is not naturally occurring and is valued for its economic contribution to the State supporting regional development and boosting rural economies. Timber plantations are located on both private land and Crown land, typically with no public access. Some plantation forests located adjacent habitable areas may provide a scenic location for spotting local fauna however the high density of tree planting severely limits visual permeability, and the ecological benefits are only temporary and are expunged once the trees are harvested. The plantation is a commercial landscape, equivalent to a working farm that undergoes rapid change once the trees are harvested. This Landscape character type exhibits some preferred natural landscape features but equally some least preferred features.



Figure 38 Typical view of Timber Plantation Forest LCA

5.4.5 Landscape character area 5: Strzelecki Ranges and Foothills

Landscape typology

Natural

Statutory landscape significance

- Significant Landscape Overlay - Schedule 3 (Corner Inlet Amphitheatre)
- Public Conservation & Resource Zone (PCRZ) (limited areas)
- Coastal Spaces Landscape Assessment Study (2006) (limited areas)

Preferred landscape features

- High degrees of perceived naturalness; high degree of topographic variety or vertical relief (dramatic relief, ruggedness, rock outcropping, outstanding ridge lines and beach forms);
- Unusually expansive landforms or vast horizontal scale (desert landscapes, beach and dune fields, rolling hills);
- Presence of water bodies (waterfalls, rivers, estuaries, oceans, lakes, inundated areas);
- Distinctive landscape features (waterfalls, unique plants, reefs, geological formations such as ranges, cliff faces and granite outcrops);

Least preferred landscape features

- None applicable

Overall landscape value

MODERATE

The 'Strzelecki Ranges and Foothills' character area presents a diverse range of landscapes – featuring pastoral green rolling hills with small farms and settlements in the west with Mount Hoddle and the Welshpool Hills being prominent in the distance. It includes regionally significant landforms that are highly visible backdrops to coastal and coastal hinterland areas and settlements within the study area. The area transitioning to a more natural landscape of heavily forested steep dissected ridges and valleys in the east providing a dominating view from the settlements that encircle the ranges. The natural values of the landscape remain visually dominant; particularly toward the eastern-most parts of the study area. This Landscape character type exhibits many preferred landscape features with some visibly contrasting rural qualities.



Figure 39 Typical view of Strzelecki Ranges and Foothill LCA

5.4.6 Landscape character area 6: Forest Foothills

Landscape typology

Natural

Statutory landscape significance

- Public Conservation & Resource Zone (PCRZ) (limited areas)

Preferred landscape features

- High degrees of perceived naturalness; high degree of topographic variety or vertical relief (dramatic relief, ruggedness, rock outcropping, outstanding ridge lines and beach forms);

Least preferred landscape features

- Areas of soil erosion (especially where human-induced);
- Water bodies with degraded banks, weed infestations, stagnation, eutrophication, algae or litter; and

Overall landscape value

LOW

The 'Forest Foothills' landscape supports a range of tourism and recreational areas which are intrinsically linked to the natural features of the land: forested elevated hills that provide expansive views, unique geological features, high biodiversity value and distinct native vegetation patterns. Patches of vegetation break up the homogeneity of the pastoral countryside, however these swathes of cleared landscape remain the dominant feature. Above ground utilities predominantly power lines are also visible. The 'Forest Foothills' Landscape character area exhibits a number of preferred natural landscape features however the visual presence of human intervention in cleared areas and infrastructure are less preferred features.



Figure 40 Typical view of Forest Foothills LCA

5.4.7 Landscape character area 7: Wilsons Promontory Granite Coast

Landscape typology

Natural

Statutory landscape significance

- National Park
- Public Conservation & Resource Zone (PCRZ)
- Environmental Significance Overlay - Schedule 3 (ESO3): Coastal Settlements
- Wilsons Promontory Lightstation is included on the Commonwealth Heritage List
- Refuge Cove is included on the Victorian Heritage Register
- Area of State Significance as identified in the Coastal Spaces Landscape Assessment Study (2006)

The Wilsons Promontory Wilderness Zone has been previously identified by the Victorian Lands Conservation Council as a designated wilderness area.

Preferred landscape features

- High degrees of perceived naturalness; high degree of topographic variety or vertical relief (dramatic relief, ruggedness, rock outcropping, outstanding ridge lines and beach forms);
- Vegetative diversity (distinctive patterns, species composition, height, colour and texture);
- Diversity of vegetation age and density (structural complexity);
- Unusually expansive landforms or vast horizontal scale (desert landscapes, beach and dune fields, rolling hills);
- Presence of water bodies (waterfalls, rivers, estuaries, oceans, lakes, inundated areas);
- Distinctive displays of colour: soils, vegetation (often seasonal), topography, rock formations or water bodies;
- Distinctive landscape features (waterfalls, unique plants, reefs, geological formations such as ranges, cliff faces and granite outcrops);
- Outstanding combinations of landform, vegetation patterns and water features in one area;
- Seascapes (combinations of ocean, reefs, beach, dune formation, coastal rocks, coastal vegetation); and
- Areas or sites frequently prone to ephemeral features (fauna, water or wave conditions, beach erosion scarps, climatic conditions).

Least preferred landscape features

- None applicable

Overall landscape value

HIGH

The 'Wilsons Promontory Granite Coast' character area is distinctive, unique and has a consistency of appearance in terms of topography, landform, land use and vegetation. It is recognised as an area of State Significance for its intrinsic natural character and ecological biodiversity, the pleasure it provides from the natural wilderness and diverse scenery and for the economic benefits it provides through tourism. The natural values of the landscape are visually dominant across the mountainous interior, granite headlands, forested fern gullies, coastal heath and intertidal and coastal areas with minimal intrusion of built elements or presence of human activity. Its unique position within Bass Strait also caters to a diverse array of marine landscapes within the waters of Victoria's first national marine park. Moreover, it exhibits a significant number of preferred natural landscape features, is a pristine natural coastal wilderness area and is a consistent landscape.

Views of proximate seascapes are many and varied, and include glimpses of open sea through narrow openings (such as from Refuge Cove), uninterrupted vistas of open ocean terminating at the horizon (such as from Johnny Souey Cove), views punctuated with offshore islands (such as from Five Mile Beach) and expansive, elevated views of the intersection of seascape and landscape (such as from Kersop's Peak and Vereker Outlook).

The remoteness, naturalness and lack of physical evidence of human intervention in the Northern Wilderness Area elevates the landscape value of that part of Wilsons Promontory National Park.

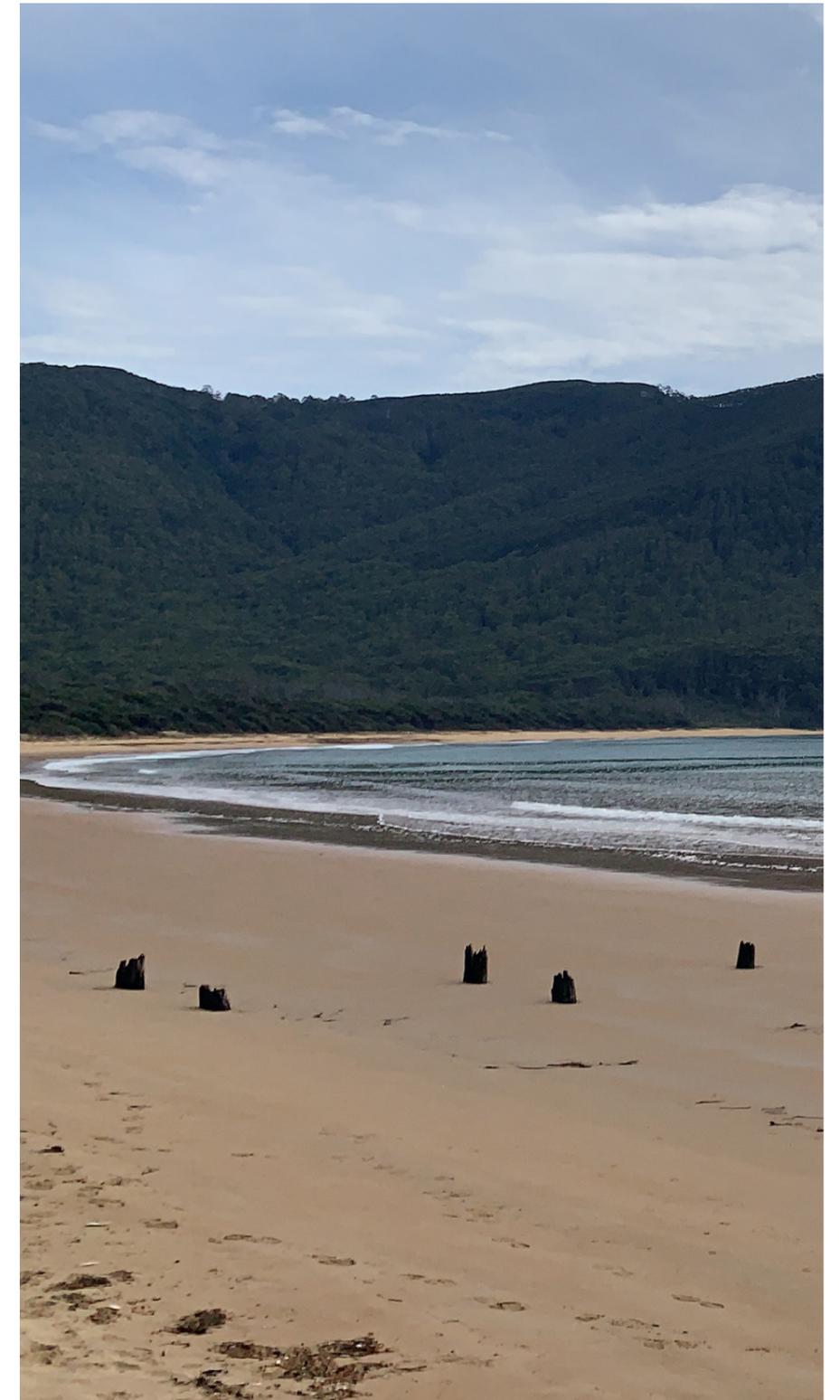


Figure 41 View from Sealers Cove looking north

Gelliondale Wind Farm Landscape Assessment

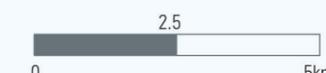
Landscape Value Map

Legend

- Proposed wind turbines ●
- Municipality boundary
- Roads
- Inland settlements ●
- Coastal settlements ●
- Study area extents
- Great Southern Rail Trail —

Landscape Value Legend

- High landscape value
- Moderate landscape value
- Low landscape value



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Figure 42 Gelliondale Wind Farm landscape value map

6 IMPACT ASSESSMENT

6.1 Introduction

This section of the report aims to determine whether there is a visual impact incurred due to the proposed development, through the process of undertaking the following:

- Identifying and describing the representative views from each of the ten view locations considered for this LVIA: Welshpool, Port Welshpool, James Road - Hedley, Port Albert, S Gippsland Hwy - Hedley, S Gippsland Hwy - Gelliondale, Yarram Memorial Park, S Gippsland Hwy - Alberton, Yarram Morwell Rd and Hedley; and
- Preparing an 'existing view' image for each of the ten view locations, that is representative of views experienced at these locations. This is a photograph taken with a fixed 50mm camera lens with a 100 degree horizontal field of view, and a 26 degree vertical field of view.

Using these 'existing view' images as points of reference, the impacts incurred will be described and the LVIA formed on this basis will conclude whether or not a visual impact would occur for each representative viewpoint.

6.2 Visual exposure

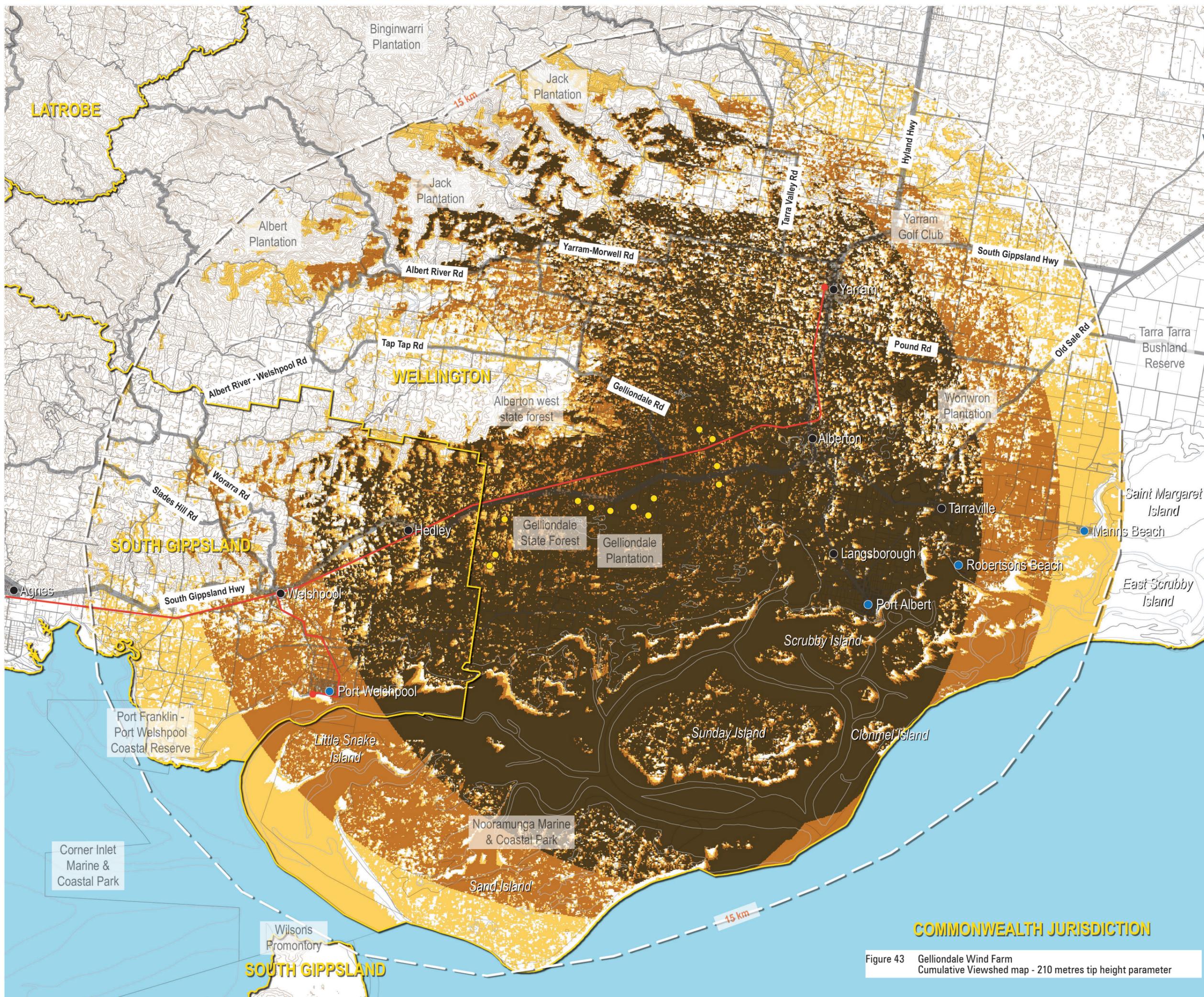
Viewshed mapping - to determine the potential visual exposure of landscapes within the study area to proposed wind turbines- has been prepared in accordance with the methodology outlined in Section 4.

The results of that mapping are provided in Figure 43 on the following page.

Note that for the purpose of Visual Exposure, trees and buildings are not considered. However, the effect of existing buildings in screening wind turbines is considered in the final impact assessment.

Gelliondale Wind Farm Landscape Assessment

Cumulative Viewshed Map
Viewpoints at RL 210m AHD
(the proposed turbines tip height)

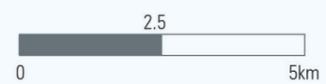


Legend

- Proposed wind turbines
- Municipality boundary
- Roads
- Inland settlements
- Coastal settlements
- Existing contours (20m intervals)
- Study area extents
- Great Southern Rail Trail

Potential Visual Exposure

- High (10 - 13 wind turbines potential visible area)
- Moderate (5 - 9 wind turbines potential visible area)
- Low (1 - 4 wind turbines potential visible area)
- None wind turbines visible



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Figure 43 Gelliondale Wind Farm Cumulative Viewshed map - 210 metres tip height parameter

6.3 Visual sensitivity

Visual sensitivity mapping - to determine the visual sensitivity of landscapes within the study area to proposed project infrastructure - has been prepared in accordance with the methodology outlined in Section 4.3.1.5. Visual Sensitivity. The results of that mapping are provided in Figure 43 on the following page.

6.4 Rationale for selection

The rationale for viewpoint selection is based on the visual sensitivity map in the areas of moderate and high visual sensitivity. The view locations were selected within a 3km radius of the Project area and the townships of Welshpool, Port Welshpool, Hedley, Alberton, Yarram and Port Albert.

The results of the selected view locations is provided in Figures 44.

Gelliondale Wind Farm Landscape Assessment

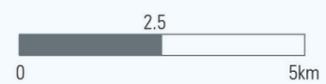
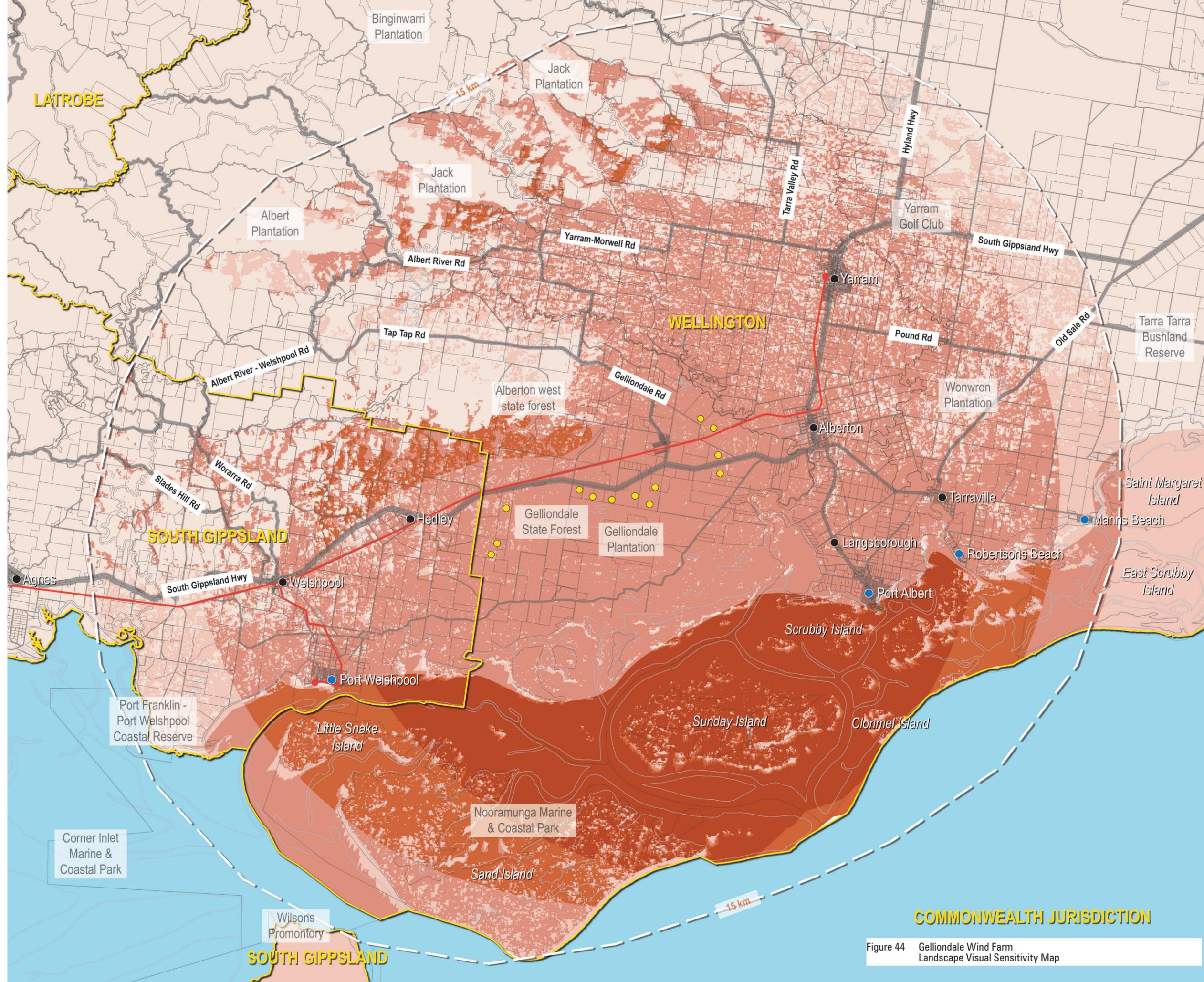
Landscape Visual Sensitivity Map

Legend

- Proposed wind turbines 
- Municipality boundary 
- Roads 
- Inland settlements 
- Coastal settlements 
- Study area extents 
- Great Southern Rail Trail 

Landscape Visual Sensitivity

- Very high 
- High 
- Moderate 
- Low 
- Very low 



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Figure 44 Gelliondale Wind Farm Landscape Visual Sensitivity Map

6.5 Impact assessment

The impact assessment considers day time impacts with photomontages prepared from ten representative view locations:

- View location 1 - located at S Gippsland Hwy, Welshpool is approximately 7.6 kilometres from the proposed Gelliondale wind farm.
- View location 2 - located at Marginal Wharf, Port Welshpool is approximately 7.4 kilometres from the proposed Gelliondale wind farm.
- View location 3 - located at James Road, Hedley is approximately 2.6 kilometres from the proposed Gelliondale wind farm.
- View location 4 - located at Port Albert is approximately 7.9 kilometres from the proposed Gelliondale wind farm.
- View location 5 - located at S Gippsland Hwy, Hedley is approximately 0.4 kilometres from the proposed Gelliondale wind farm.
- View location 6 - located at S Gippsland Hwy, Gelliondale is approximately 0.8 kilometres from the proposed Gelliondale wind farm.
- View location 7 - located at Yarram Memorial Park is approximately 7 kilometres from the proposed Gelliondale wind farm.
- View location 8 - located at S Gippsland Hwy, Alberton is approximately 3.8 kilometres from the proposed Gelliondale wind farm.
- View location 9 - located at Yarram Morwell Road is approximately 6.6 kilometres from the proposed Gelliondale wind farm.
- View location 10 - located at Hedley is approximately 3.4 kilometres from the proposed Gelliondale wind farm.

The impact assessment as determined on the basis of impacts assessed at each representative viewpoint is arrived at on the basis of 3 variables:

- Landscape visual sensitivity (determined on the basis of the identified landscape value and its degree of visual exposure to proposed project infrastructure);
- Magnitude of visibility of the proposed infrastructure (as depicted within the photomontage views from representative view locations), and
- The nature, number and frequency of visual receptors.

Gelliondale Wind Farm Landscape Assessment

Camera Views

Legend

- Proposed wind turbines ●
- Municipality boundary
- Roads
- Inland settlements ●
- Coastal settlements ●
- Study area extents
- Camera locations 01
- Great Southern Rail Trail



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Figure 45 Overall view locations map



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6.5.1 View location 01: South Gippsland Highway, Welshpool

Location

View location 01 is at South Gippsland Highway, Welshpool. The view is oriented to the east towards the proposed wind farm project infrastructure, with the closest turbines being approximately 7571m from the view location.

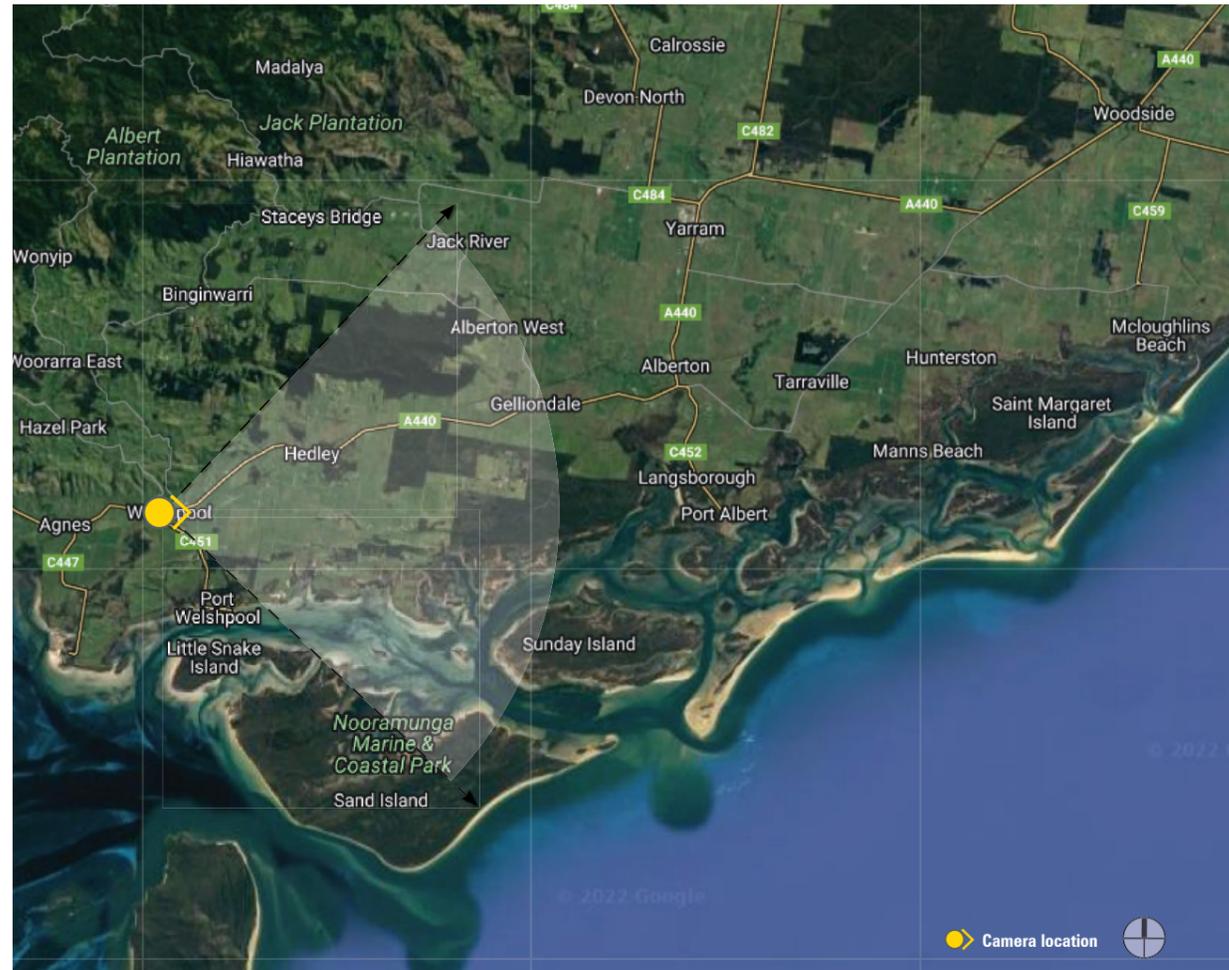
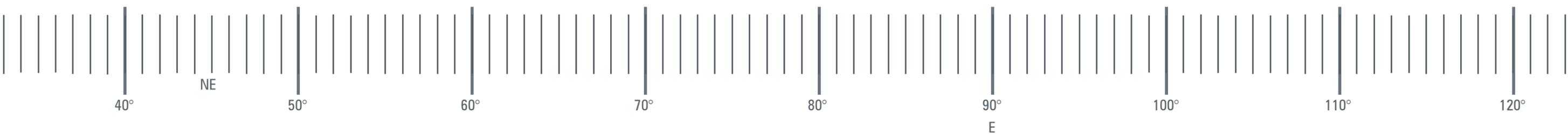


Figure 46 South Gippsland Highway, Welshpool camera location



Figure 47 View location 01: Existing view



View Location 01 - S Gippsland Hwy - Facing north east towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 11.58am on 02/08/22
View location 01: e: 451578.4290 n: 5720345.5550 rl: 19.2870
Approx distance to closest turbine: 7571m

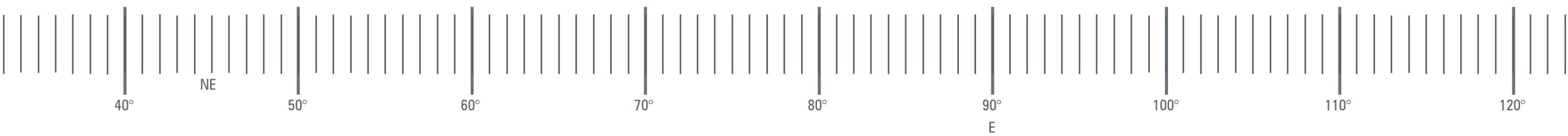
Camera location



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Figure 48 View location 01: Wireframe view



View Location 01 - S Gippsland Hwy - Facing north east towards proposed turbines.

Photomontage created by:
OZ - 3D Visualizer
Images created using:
3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data:
Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera:
Canon EOS 5Ds Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
11.58am on 02/08/22

View location 01:
e: 451578.4290
n: 5720345.5550
rl: 19.2870

Approx distance to closest turbine
7571m

Camera location

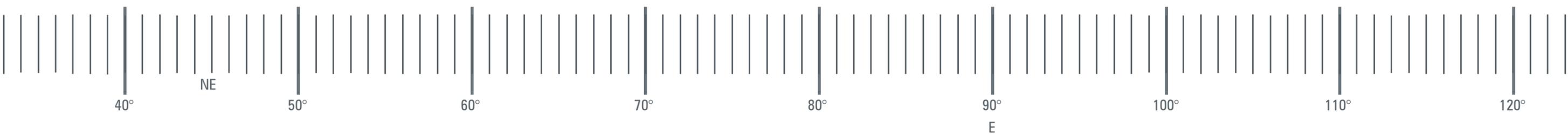


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Figure 49 View location 01: Photomontage view



View Location 01 - S Gippsland Hwy - Facing north east towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 11.58am on 02/08/22
View location 01: e: 451578.4290 n: 5720345.5550 rl: 19.2870
Approx distance to closest turbine: 7571m

Camera location



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View location 01 - Impact assessment

Table 3 View 01 - South Gippsland Highway, Welshpool impact assessment

Assessment criteria	Assessment ranking	Rationale
Landscape value	Low	The view location is within the 'Settlement' Landscape character area, for which the assessed landscape value is 'low'. Refer to section 5.4.
Visual exposure	Moderate	The view location is within an area which has 'moderate' visual exposure to proposed wind farm. 5-9 wind turbines will be visible.
Visual sensitivity assessment	Moderate	Visual sensitivity at this view location is assessed as being 'moderate'. Refer to section 6.3.
Magnitude of visibility	Nil	Photomontage imagery prepared to represent the visual impact at this view location (refer to Figure 45) illustrate that the magnitude of visibility of the proposed Project components is 'nil',
Nature of receptors	Public realm	The view location is within Welshpool township, along the South Gippsland Highway directly facing the proposed wind farm.
Number of receptors	Moderate	Welshpool is a small town with approximately 300 residents. The town centre fronts the South Gippsland Highway. Drivers travelling east along South Gippsland Highway directly face the wind farm location.
Frequency	Low	Individual receptors are assumed to visit this view location infrequently.
Duration	Very low	Visitors will be accessing businesses and using the Highway for short periods.
Receptor sensitivity	Moderate	Receptor sensitivity at this view location is assessed as 'moderate'.
Overall impact assessment	NIL	

6.5.2 View location 02: Marginal Wharf, Port Welshpool

Location

View location 02 is at Marginal Wharf, Port Welshpool. The view is oriented to the north east towards the proposed wind farm project infrastructure, with the closest turbines being approximately 7432m from the view location.

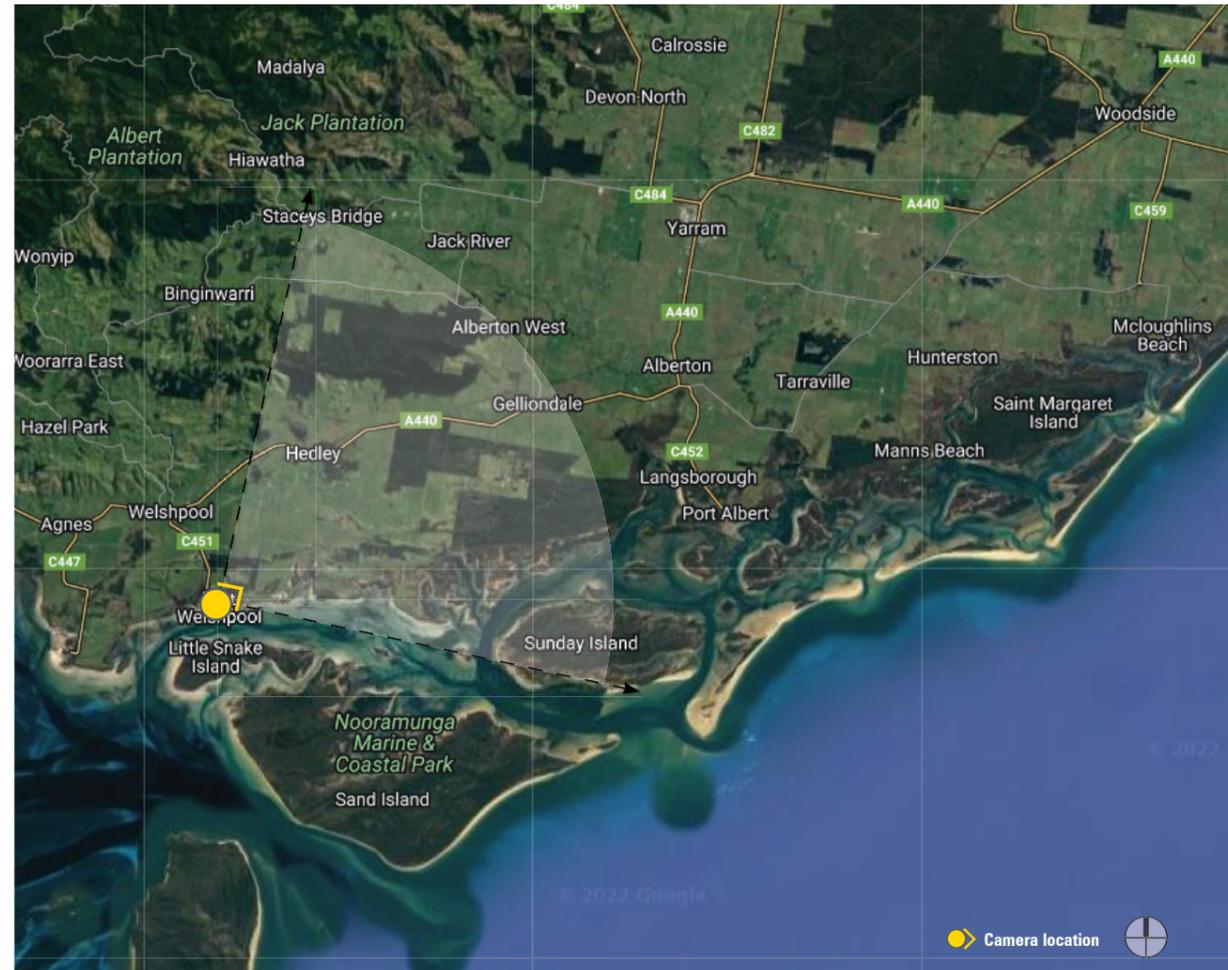
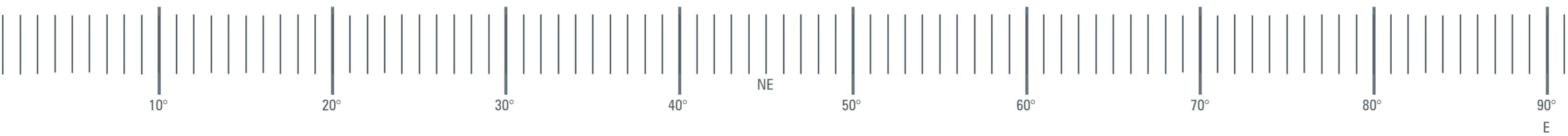


Figure 50 Marginal Wharf, Port Welshpool camera location



Figure 51 View location 02: Existing view



View Location 02 - Marginal Wharf - Facing north east towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 12.19pm on 02/08/22
View location 02: e: 453607.2720 n: 5716203.0280 rl: 3.7780
Approx distance to closest turbine: 7432m

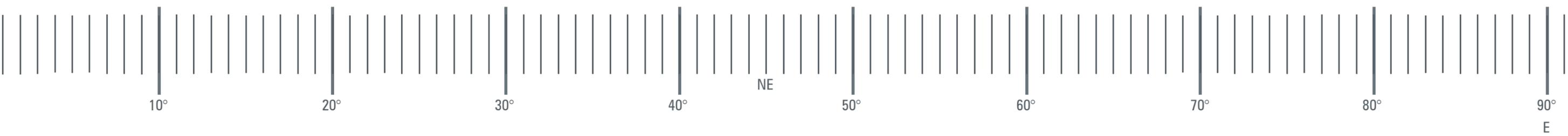


Camera location

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Figure 52 View location 02: Wireframe view



View Location 02 - Marginal Wharf - Facing north east towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 12.19pm on 02/08/22
View location 02: e: 453607.2720 n: 5716203.0280 rl: 3.7780
Approx distance to closest turbine: 7432m

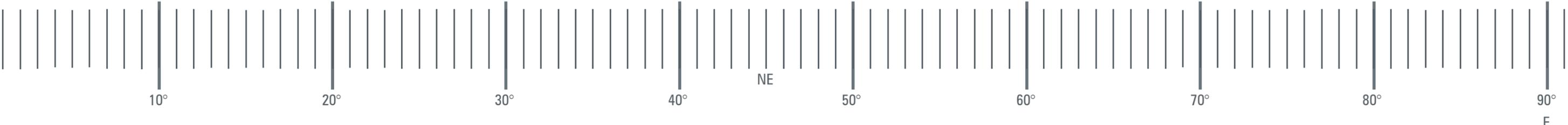


Camera location

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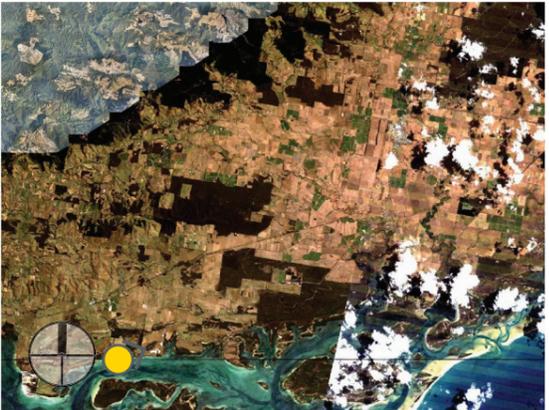
Figure 53 View location 02: Photomontage view



View Location 02 - Marginal Wharf - Facing north east towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 12.19pm on 02/08/22
View location 02: e: 453607.2720 n: 5716203.0280 rl: 3.7780
Approx distance to closest turbine: 7432m



Camera location

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View location 02 - Impact assessment

Table 4 View 02 - Marginal Wharf, Port Welshpool impact assessment

Assessment criteria	Assessment ranking	Rationale
Landscape value	Low	The view location is within the 'Settlement' Landscape character area, for which the assessed landscape value is 'low'. Refer to section 5.4.
Visual exposure	Moderate	The view location is within an area which has 'moderate' visual exposure to the proposed wind farm. 5-9 wind turbines will be visible.
Visual sensitivity assessment	Moderate	Visual sensitivity at this view location is assessed as being 'moderate'. Refer to section 6.3.
Magnitude of visibility	Low	Turbines will appear in the distance as small elements rising above the existing vegetation line.
Nature of receptors	Public realm	The view location is at the entrance to the Port Welshpool pier. Approximately 600m east of the location is the Nooramunga Marine and Coastal Park.
Number of receptors	Moderate	Port Welshpool is a small town with approximately 190 residents. The town is a holiday destination and comprises many holiday homes. It is popular for fishing and other boating activities and relatively busy during the holiday season.
Frequency	Low	Individual receptors are assumed to visit this view location for recreation.
Duration	Low	The majority of receptors are assumed to stay for approximately 1 – 2 hours.
Receptor sensitivity	High	Receptor sensitivity at this view location is assessed as 'high', as it is a recognised scenic destination.
Overall impact assessment	MODERATE	

6.5.3 View location 03: James Road, Hedley

Location

View location 03 is at James Road, Hedley. The view is oriented to the north east towards the proposed wind farm project infrastructure, with the closest turbines being approximately 2576m from the view location.

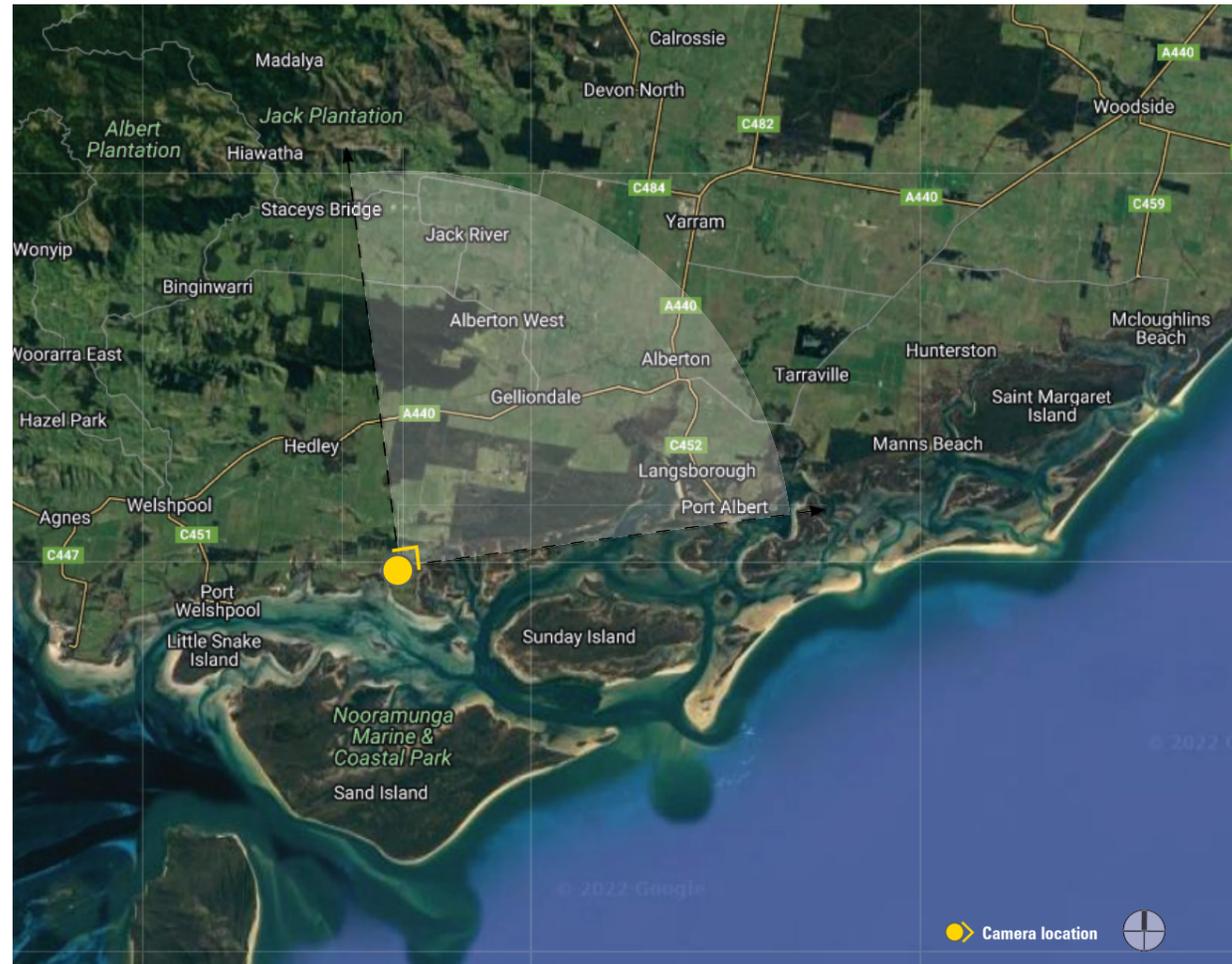
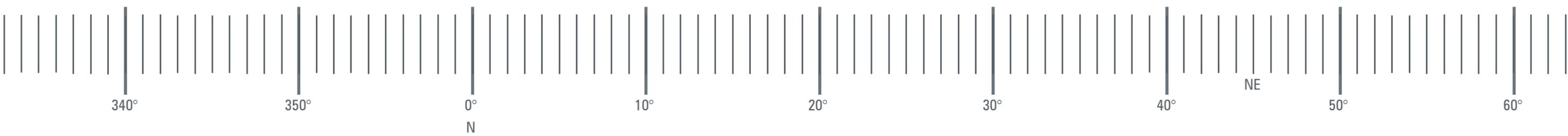


Figure 54 James Road, Hedley camera location



Figure 55 View location 03: Existing view



View Location 03 - James Road - Facing north east towards proposed turbines.

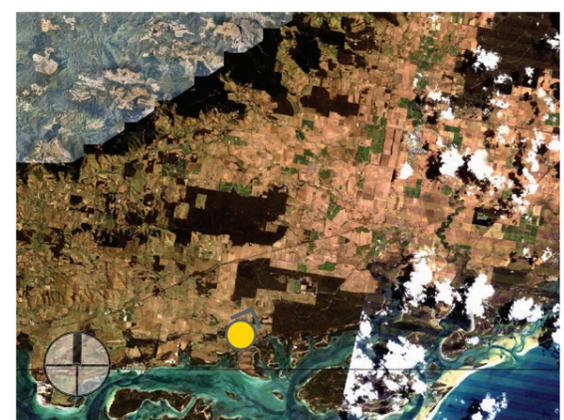
Photomontage created by:
OZ - 3D Visualizer
Images created using:
3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data:
Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera:
Canon EOS 5Ds Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
12.48pm on 02/08/22

View location 03:
e: 460474.1940
n: 5719031.0470
rl: 6.7250

Approx distance to closest turbine
2576m

Camera location

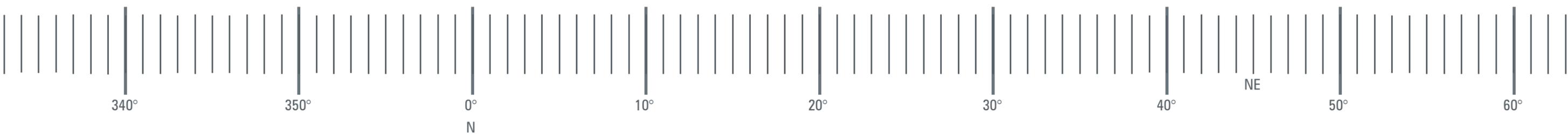


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Figure 56 View location 03: Wireframe view

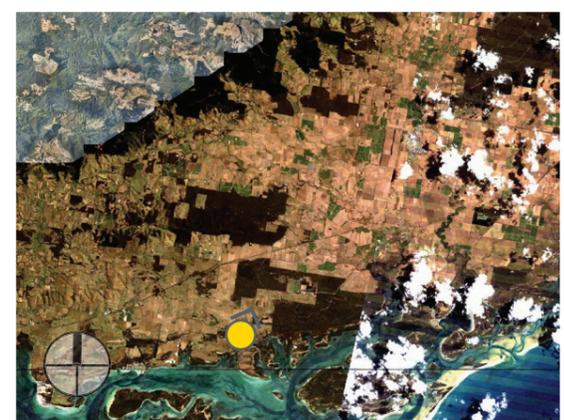


View Location 03 - James Road - Facing north east towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 12.48pm on 02/08/22
View location 03: e: 460474.1940 n: 5719031.0470 rl: 6.7250
Approx distance to closest turbine: 2576m

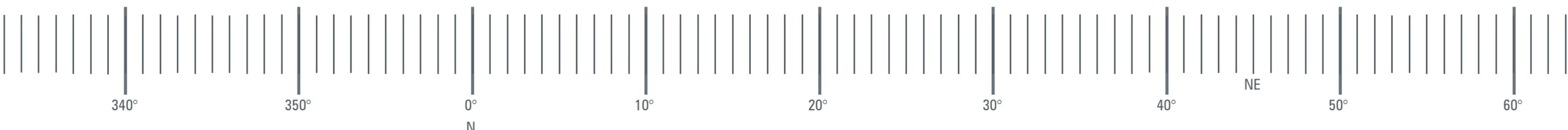
Camera location



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Figure 57 View location 03: Photomontage view

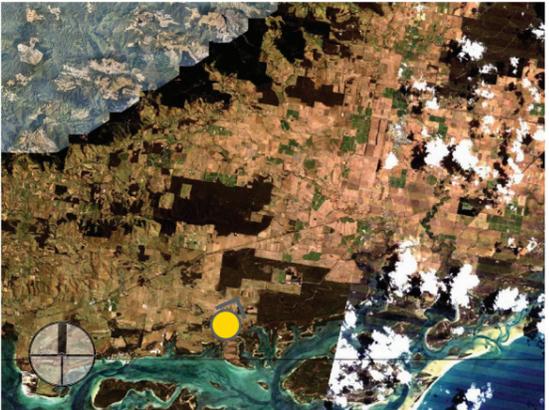


View Location 03 - James Road - Facing north east towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 12.48pm on 02/08/22
View location 03: e: 460474.1940 n: 5719031.0470 rl: 6.7250
Approx distance to closest turbine: 2576m

Camera location



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View location 03 - Impact assessment

Table 5 View 03 - James Rd, Hedley impact assessment:

Assessment criteria	Assessment ranking	Rationale
Landscape value	Low	The view location is within the 'South Gippsland Coastal Plains' Landscape character area, for which the assessed landscape value is 'low'. Refer to section 5.4.
Visual exposure	High	The view location is within an area which has 'high' visual exposure to proposed wind farm. 10-13 wind turbines will be visible.
Visual sensitivity assessment	Moderate	Visual sensitivity at this view location is assessed as being 'moderate'. Refer to section 6.3.
Magnitude of visibility	Moderate	Turbines are mostly concealed behind vegetation. Some turbines will be partially exposed with others appearing above vegetation.
Nature of receptors	Private residents	Unmade road accessing a few rural properties near the coast.
Number of receptors	Very low	Very few local residents. Use of road limited to local residents. Possible occasional visitor.
Frequency	Very high	Private residents are assumed to have a very high frequency of visitation.
Duration	Very high	Private residents are assumed to have a very high duration of visitation.
Receptor sensitivity	High	Receptor sensitivity at this view location is assessed as 'high'.
Overall impact assessment	MODERATE	

6.5.4 View location 04: Port Albert

Location

View location 04 is at Port Albert. The view is oriented to the east towards the proposed wind farm project infrastructure, with the closest turbines being approximately 7885m from the view location.

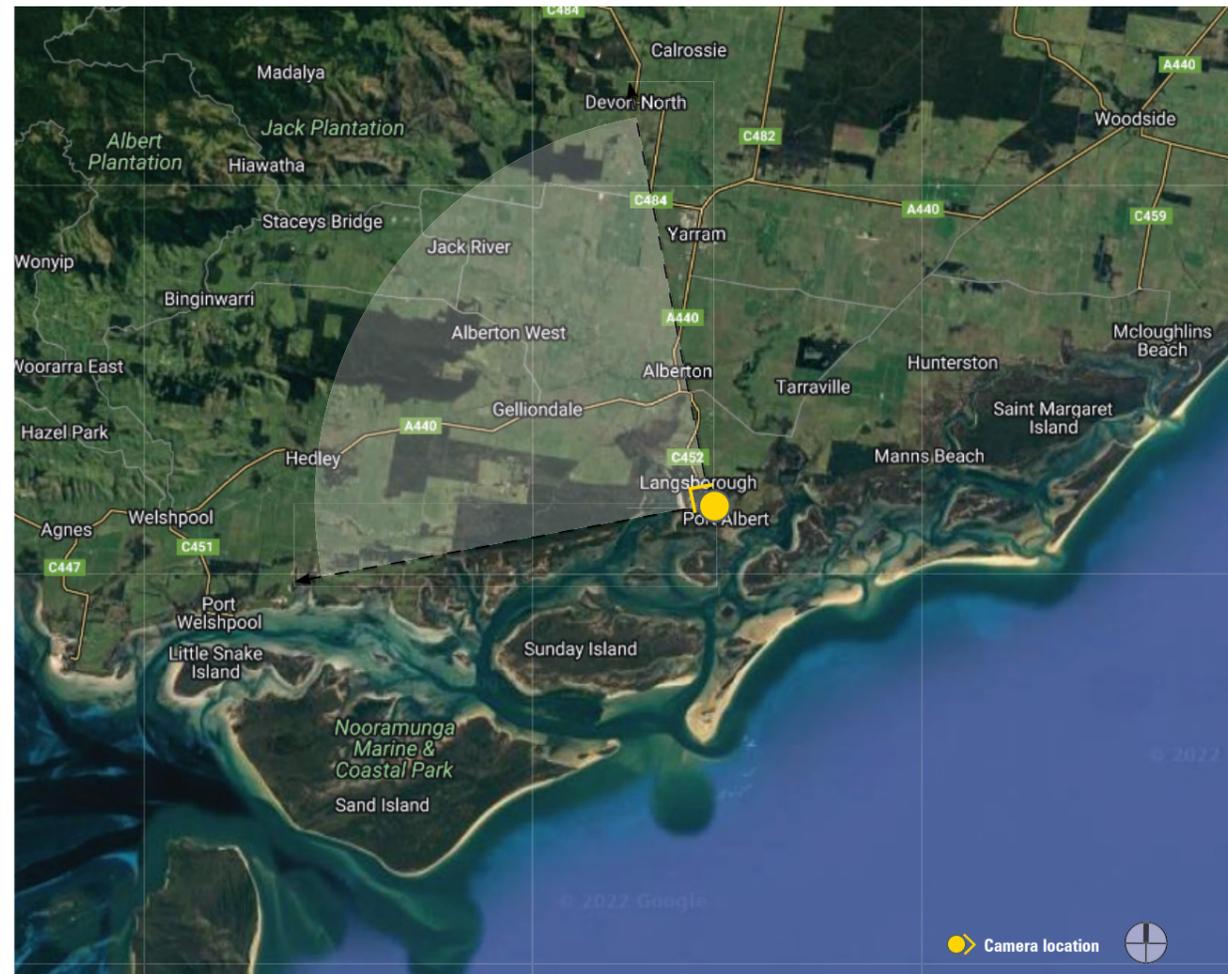
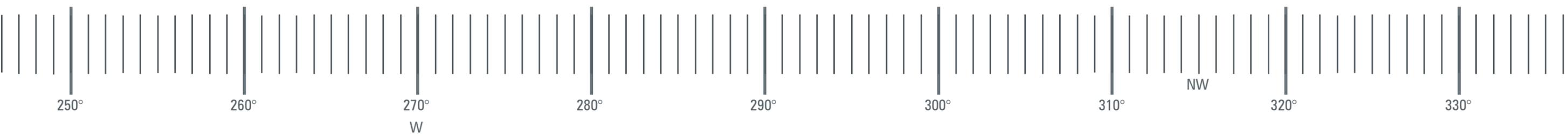


Figure 58 Port Albert camera location



Figure 59 View location 04: Existing view



View Location 04 - Port Albert - Facing north west towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 02.00pm on 02/08/22
View location 04: e: 473647.3560 n: 5719212.1090 rl: 3.3160
Approx distance to closest turbine: 7885m

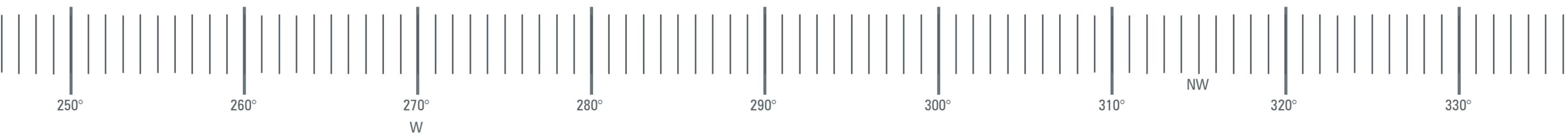
Camera location



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Figure 60 View location 04: Wireframe view



View Location 04 - Port Albert - Facing north west towards proposed turbines.

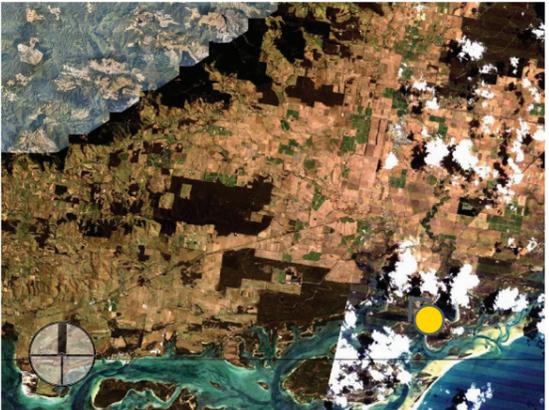
Photomontage created by:
OZ - 3D Visualizer
Images created using:
3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data:
Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera:
Canon EOS 5Ds Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
02.00pm on 02/08/22

View location 04:
e: 473647.3560
n: 5719212.1090
rl: 3.3160

Approx distance to closest turbine
7885m

Camera location

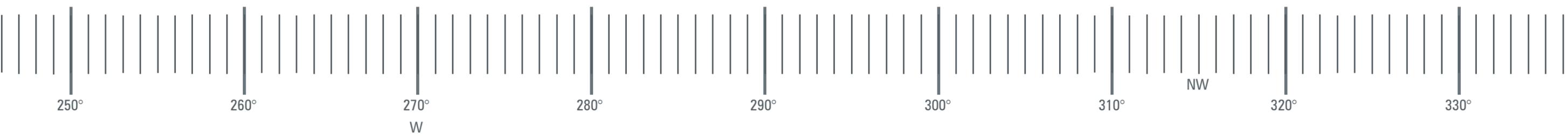


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Figure 61 View location 04: Photomontage view



View Location 04 - Port Albert - Facing north west towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 02.00pm on 02/08/22
View location 04: e: 473647.3560 n: 5719212.1090 rl: 3.3160
Approx distance to closest turbine: 7885m

Camera location



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View location 04 - Impact assessment

Table 6 View 04 - Port Albert impact assessment:

Assessment criteria	Assessment ranking	Rationale
Landscape value	Low	The view location is within the 'Township' Landscape character area, for which the assessed landscape value is 'low'. Refer to section 5.4.
Visual exposure	High	The view location is within an area which has 'high' visual exposure to proposed wind farm. 10-13 wind turbines will be visible.
Visual sensitivity assessment	Moderate	Visual sensitivity at this view location is assessed as being 'moderate'. Refer to section 6.3..
Magnitude of visibility	Very low	Turbines are concealed behind vegetation. Some glimpses may occur of turbines in the distance.
Nature of receptors	Public realm	The view location is within the Port Albert township, in a public park at the southern end of Wharf Street (Christopher Robinson Trail)
Number of receptors	Moderate	Port Albert is a small town with approximately 300 residents. The town is a holiday destination including many visitors who participate in fishing and boating activities. The town is located adjacent to the Mooramunga Marine & Coastal Park.
Frequency	Low	The majority of receptors are assumed to visit weekly or less frequently.
Duration	Low	Visitors will be accessing the public reserve for short periods, although a number of longer stays will occur for picnickers and fishers.
Receptor sensitivity	High	Receptor sensitivity at this view location is assessed as 'high', as it is a recognised scenic destination.
Overall impact assessment	MODERATE	

6.5.5 View location 05: South Gippsland Highway, Hedley

Location

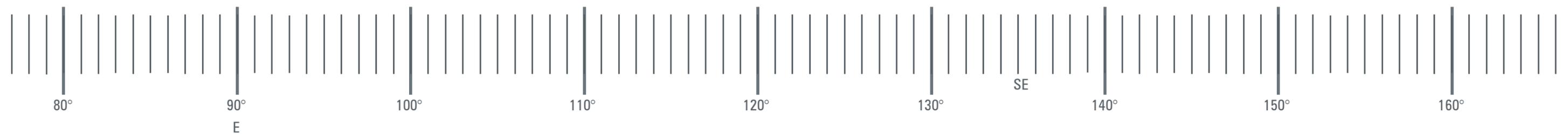
View location 05 is at South Gippsland Highway, Hedley. The view is oriented to the south east towards the proposed wind farm project infrastructure, with the closest turbines being approximately 420m from the view location.



Figure 62 South Gippsland Highway, Hedley camera location



Figure 63 View location 05: Existing view



View Location 05 - S Gippsland Hwy - Facing south east towards proposed turbines.

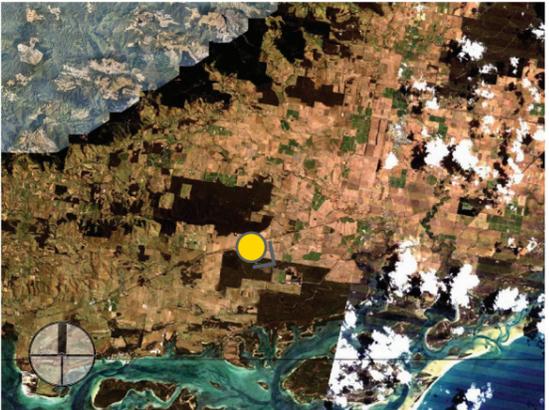
Photomontage created by:
OZ - 3D Visualizer
Images created using:
3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data:
Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera:
Canon EOS 5Ds Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
01.21pm on 02/08/22

View location 05:
e: 462074.2450
n: 5723919.7520
rl: 11.6340

Approx distance to closest turbine
420m

Camera location

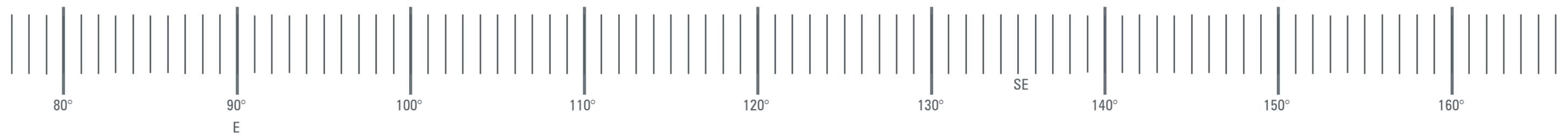


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Figure 64 View location 05: Wireframe view



View Location 05 - S Gippsland Hwy - Facing south east towards proposed turbines.

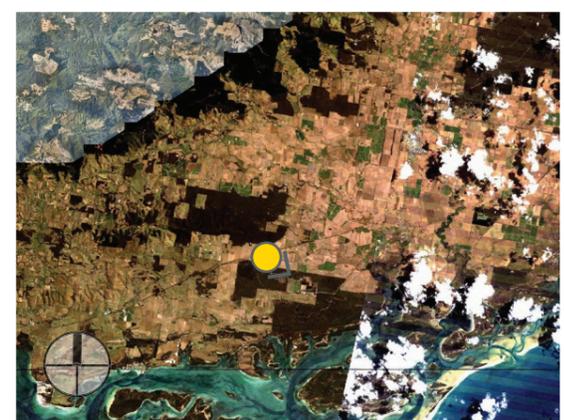
Photomontage created by:
OZ - 3D Visualizer
Images created using:
3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data:
Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera:
Canon EOS 5Ds Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
01.21pm on 02/08/22

View location 05:
e: 462074.2450
n: 5723919.7520
rl: 11.6340

Approx distance to closest turbine
420m

Camera location

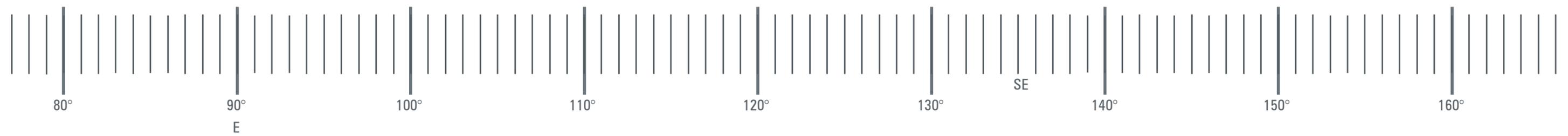


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Figure 65 View location 05: Photomontage view

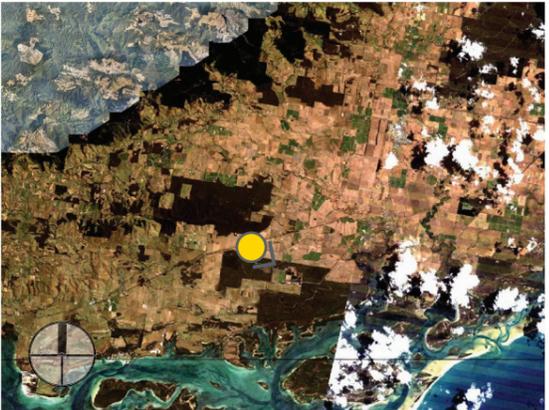


View Location 05 - S Gippsland Hwy - Facing south east towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 01.21pm on 02/08/22
View location 05: e: 462074.2450 n: 5723919.7520 rl: 11.6340
Approx distance to closest turbine: 420m

Camera location



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View location 05 - Impact assessment

Table 7 View 05 - S Gippsland Hwy, Hedley impact assessment:

Assessment criteria	Assessment ranking	Rationale
Landscape value	Low	The view location is within the 'South Gippsland Coastal Plains' Landscape character area, for which the assessed landscape value is 'low'. Refer to section 5.4.
Visual exposure	High	The view location is within an area which has 'high' visual exposure to the proposed wind farm. 10-13 wind turbines will be visible.
Visual sensitivity assessment	Moderate	Visual sensitivity at this view location is assessed as being 'moderate'. Refer to section 6.3..
Magnitude of visibility	Very high	A large number of turbines (5) are fully exposed in the foreground with some further glimpses of turbines emerging above the vegetation in the distance.
Nature of receptors	Public realm	The view location is within a rural area, viewed east along the South Gippsland Highway. Approximately 4 residences are located within 2km of this location.
Number of receptors	Moderate	The South Gippsland Highway forms an important access route for visitors to the area around Yarram and Port Albert. The receptors are mostly limited to eastbound drivers and their passengers.
Frequency	Low	Many receptors would use this road daily, primarily as part of their commute. Many users are less frequent – weekly or even yearly.
Duration	Very low	Drivers will pass through this area over a short period of time (less than 10 minutes)
Receptor sensitivity	Low	Receptor sensitivity at this view location is assessed as 'low'.
Overall impact assessment	MODERATE	

6.5.6 View location 06: South Gippsland Highway, Gelliondale

Location

View location 06 is at South Gippsland Highway, Gelliondale. The view is oriented to the south west towards the proposed wind farm project infrastructure, with the closest turbines being approximately 1500m from the view location.

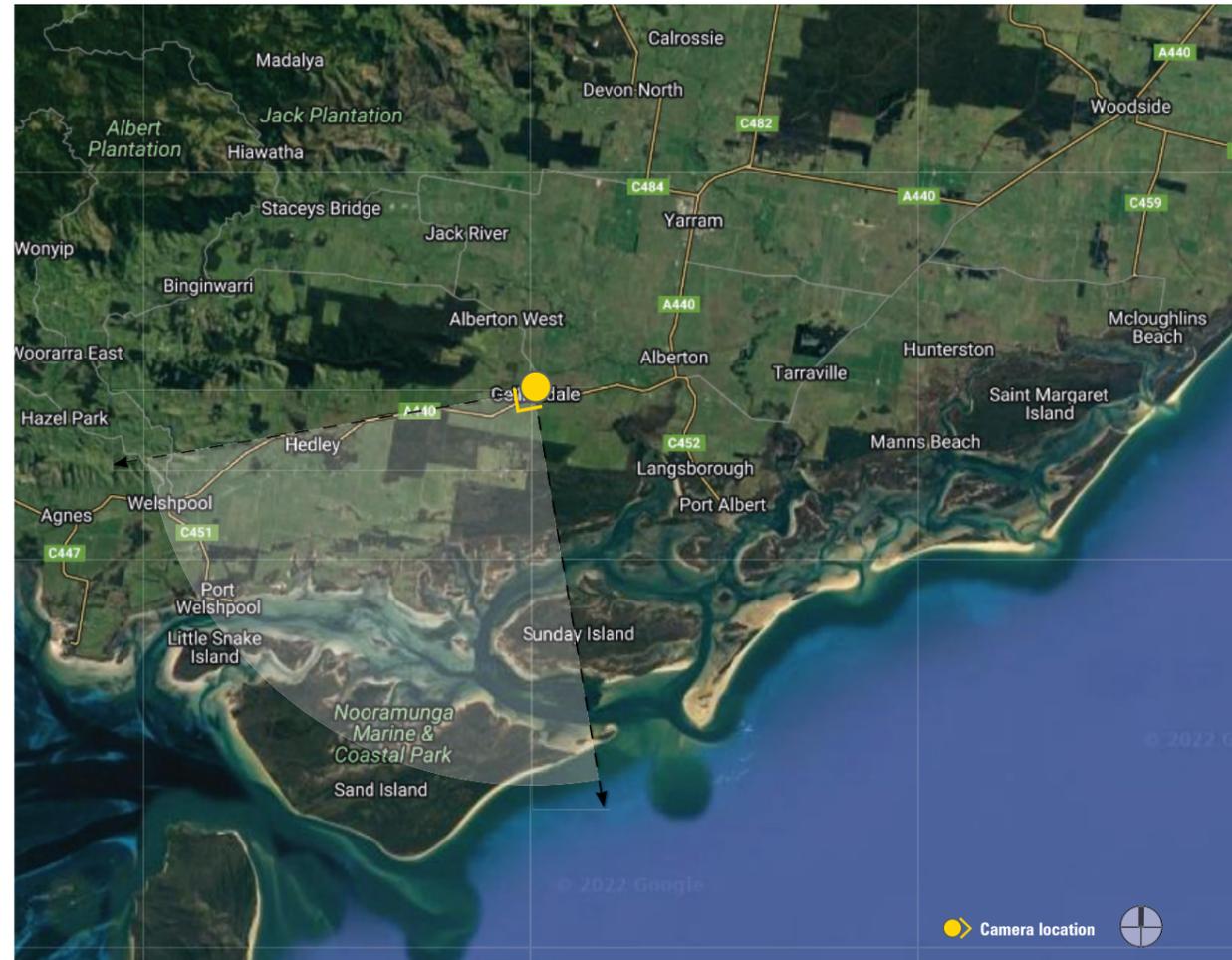


Figure 66 South Gippsland Highway, Gelliondale camera location



Figure 67 View location 06: Existing view

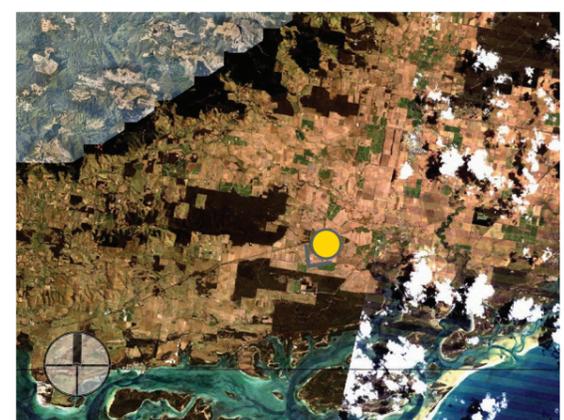


View Location 06 - S Gippsland Hwy - Facing south west towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 01.38pm on 02/08/22
View location 06: e: 465420.3500 n: 5724534.9360 rl: 8.8440
Approx distance to closest turbine: 853m

Camera location



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Figure 68 View location 06: Wireframe view

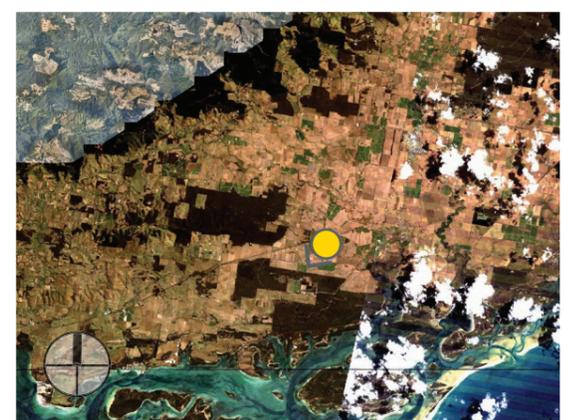


View Location 06 - S Gippsland Hwy - Facing south west towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 01.38pm on 02/08/22
View location 06: e: 465420.3500 n: 5724534.9360 rl: 8.8440
Approx distance to closest turbine: 853m

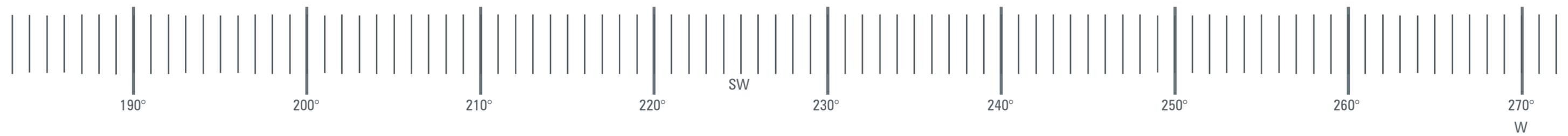
Camera location



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Figure 69 View location 06: Photomontage view

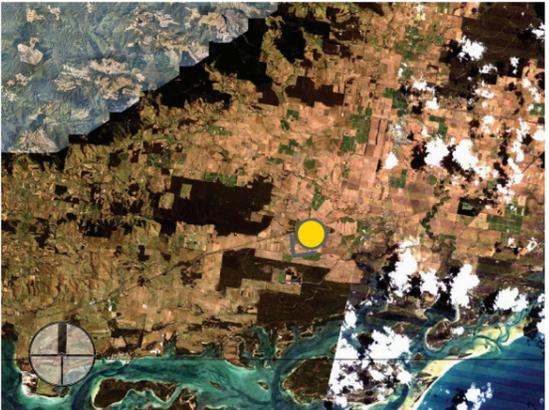


View Location 06 - S Gippsland Hwy - Facing south west towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 01.38pm on 02/08/22
View location 06: e: 465420.3500 n: 5724534.9360 rl: 8.8440
Approx distance to closest turbine: 853m

Camera location



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View location 06 - Impact assessment

Table 8 View 06 - S Gippsland Hwy, Gelliondale impact assessment:

Assessment criteria	Assessment ranking	Rationale
Landscape value	Low	The view location is within the 'South Gippsland Coastal Plains' Landscape character area, for which the assessed landscape value is 'low'. Refer to section 5.4.
Visual exposure	High	The view location is within an area which has 'high' visual exposure to the proposed wind farm. 10-13 wind turbines will be visible.
Visual sensitivity assessment	Moderate	Visual sensitivity at this view location is assessed as being 'moderate'. Refer to section 6.3..
Magnitude of visibility	Very high	A large number of turbines (8) are largely exposed in the middle ground although some turbines are largely screened by roadside vegetation.
Nature of receptors	Public realm	The view location is within a rural area, viewed west along the South Gippsland Highway west of Gelliondale. Approximately 10 residences are located within 2km of this location.
Number of receptors	Moderate	The South Gippsland Highway forms an important access route for visitors to the area around Yarram and Port Albert. The receptors are mostly limited to westbound drivers and their passengers.
Frequency	Low	Individual receptors are assumed to visit this view location infrequently.
Duration	Very low	Drivers will pass through this area over a short period of time (less than 10 minutes)
Receptor sensitivity	Moderate	Receptor sensitivity at this view location is assessed as 'moderate'.
Overall impact assessment	MODERATE	

6.5.7 View location 07: Yarram Memorial Park

Location

View location 07 is at Yarram Memorial Park. The view is oriented to the south west towards the proposed wind farm project infrastructure, with the closest turbines being approximately 7002m from the view location.

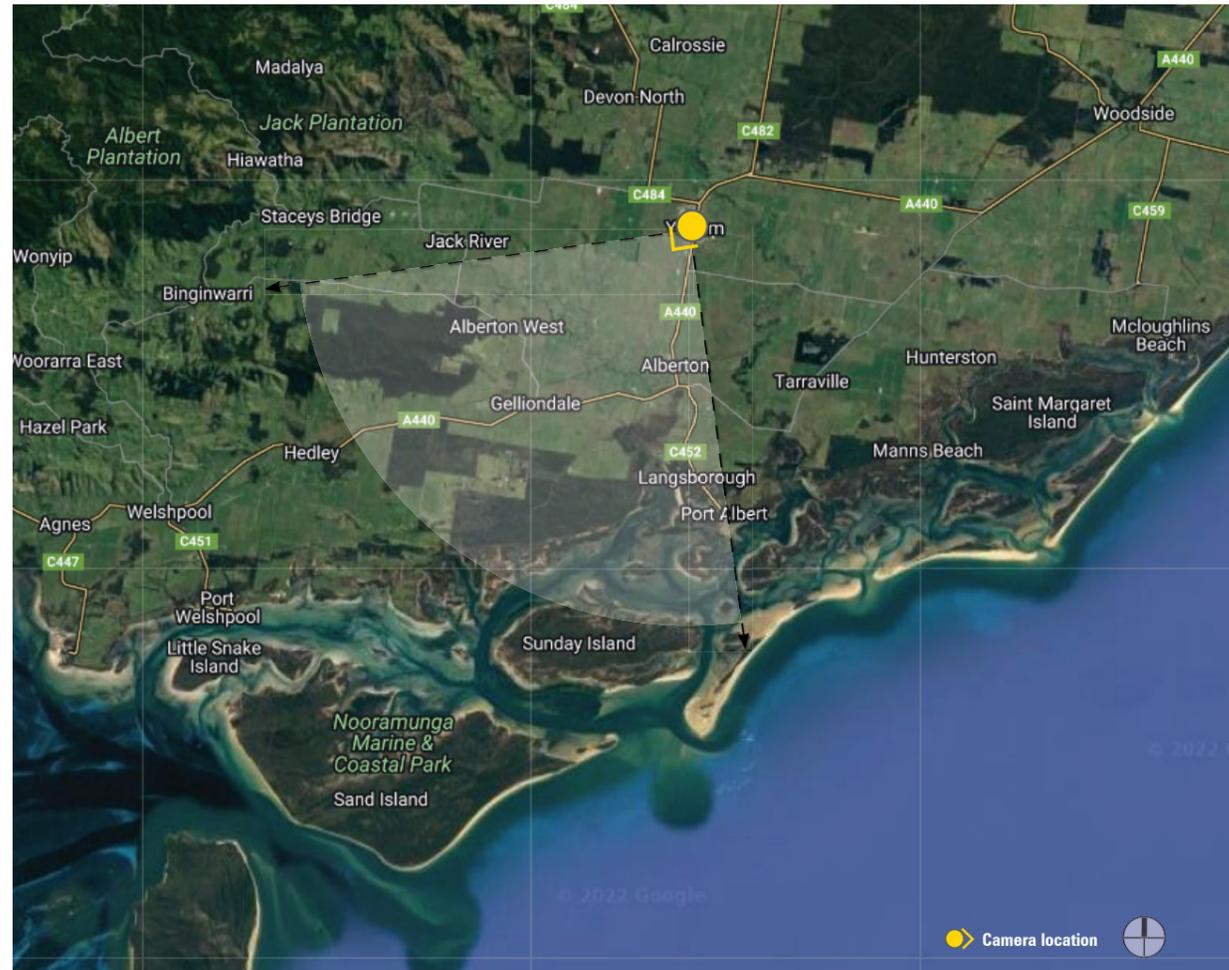
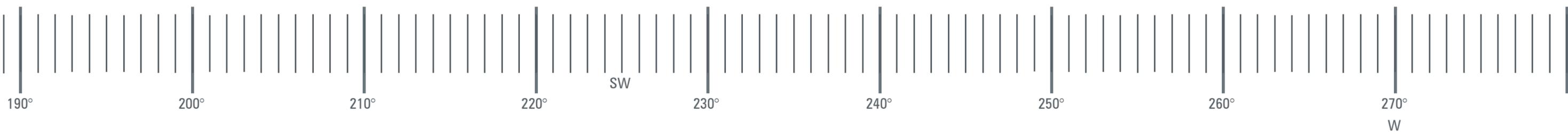


Figure 70 Yarram Memorial Park camera location



Figure 71 View location 07: Existing view

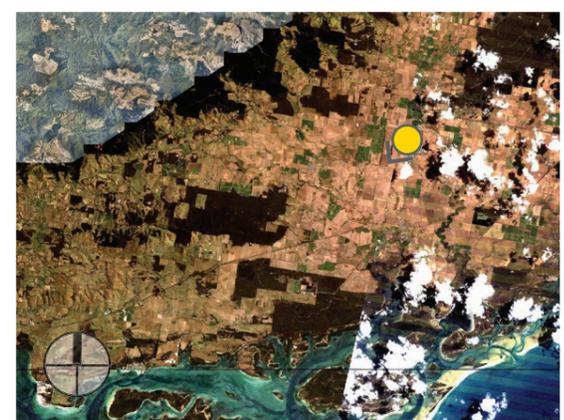


View Location 07 - Yarram Memorial Park - Facing south west towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 03.21pm on 02/08/22
View location 07: e: 471695.0590 n: 5731387.1630 rl: 21.5950
Approx distance to closest turbine: 7002m

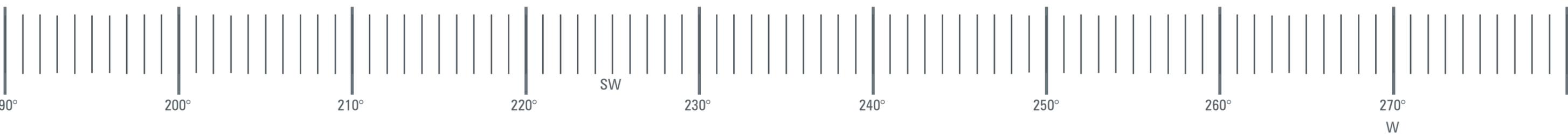
Camera location



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Figure 72 View location 07: Wireframe view



View Location 07 - Yarram Memorial Park - Facing south west towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 03.21pm on 02/08/22
View location 07: e: 471695.0590 n: 5731387.1630 rl: 21.5950
Approx distance to closest turbine: 7002m

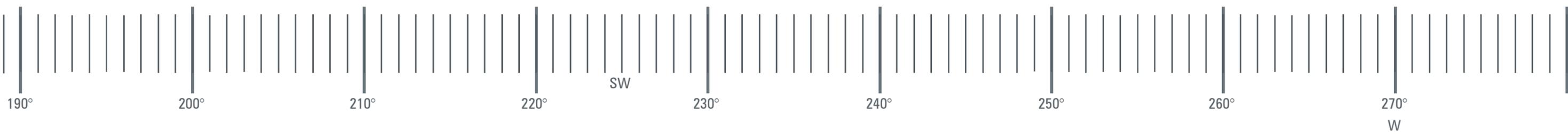
Camera location



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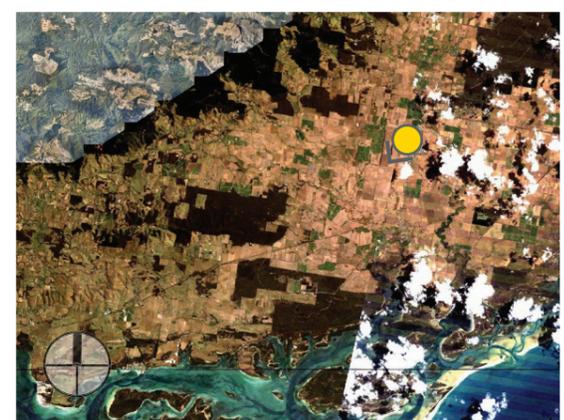
Figure 73 View location 07: Photomontage view



View Location 07 - Yarram Memorial Park - Facing south west towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 03.21pm on 02/08/22
View location 07: e: 471695.0590 n: 5731387.1630 rl: 21.5950
Approx distance to closest turbine: 7002m



Camera location

Project ref: 2022/0195
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View location 07 - Impact assessment

Table 9 View 07 - Yarram Memorial Park impact assessment:

Assessment criteria	Assessment ranking	Rationale
Landscape value	Low	The view location is within the 'Township' Landscape character area, for which the assessed landscape value is 'low'. Refer to section 5.4.
Visual exposure	High	The view location is within an area which has 'high' visual exposure to the proposed wind farm. 10-13 wind turbines will be visible.
Visual sensitivity assessment	Moderate	Visual sensitivity at this view location is assessed as being 'moderate'. Refer to section 6.3..
Magnitude of visibility	Very Low	Turbines are concealed behind buildings and vegetation. Some glimpses may occur of turbines blades in the distance – appearing above buildings.
Nature of receptors	Public realm	The view location is within Yarram Memorial Park in the township of Yarram.
Number of receptors	Moderate	Yarram is a service town with approximately 2130 residents. The town services the surrounding rural areas and smaller towns and holiday destination. The reserve is a popular picnic area adjacent to the town centre, frequented by residents and visitors. It features the local tennis club and outdoor pool, and includes picnic and bbq facilities.
Frequency	Low	The majority of receptors are assumed to visit once or occasionally twice weekly. Many of the receptors are seasonal visitors.
Duration	Low	Most visitors will spend a short period in the park or adjoining facilities. Occasional visitors will spend up to several hours.
Receptor sensitivity	Moderate	Receptor sensitivity at this view location is assessed as 'moderate'.
Overall impact assessment	LOW	

6.5.8 View location 08: South Gippsland Highway, Alberton

Location

View location 08 is at South Gippsland Highway, Alberton. The view is oriented to the south west towards the proposed wind farm project infrastructure, with the closest turbines being approximately 3829m from the view location.

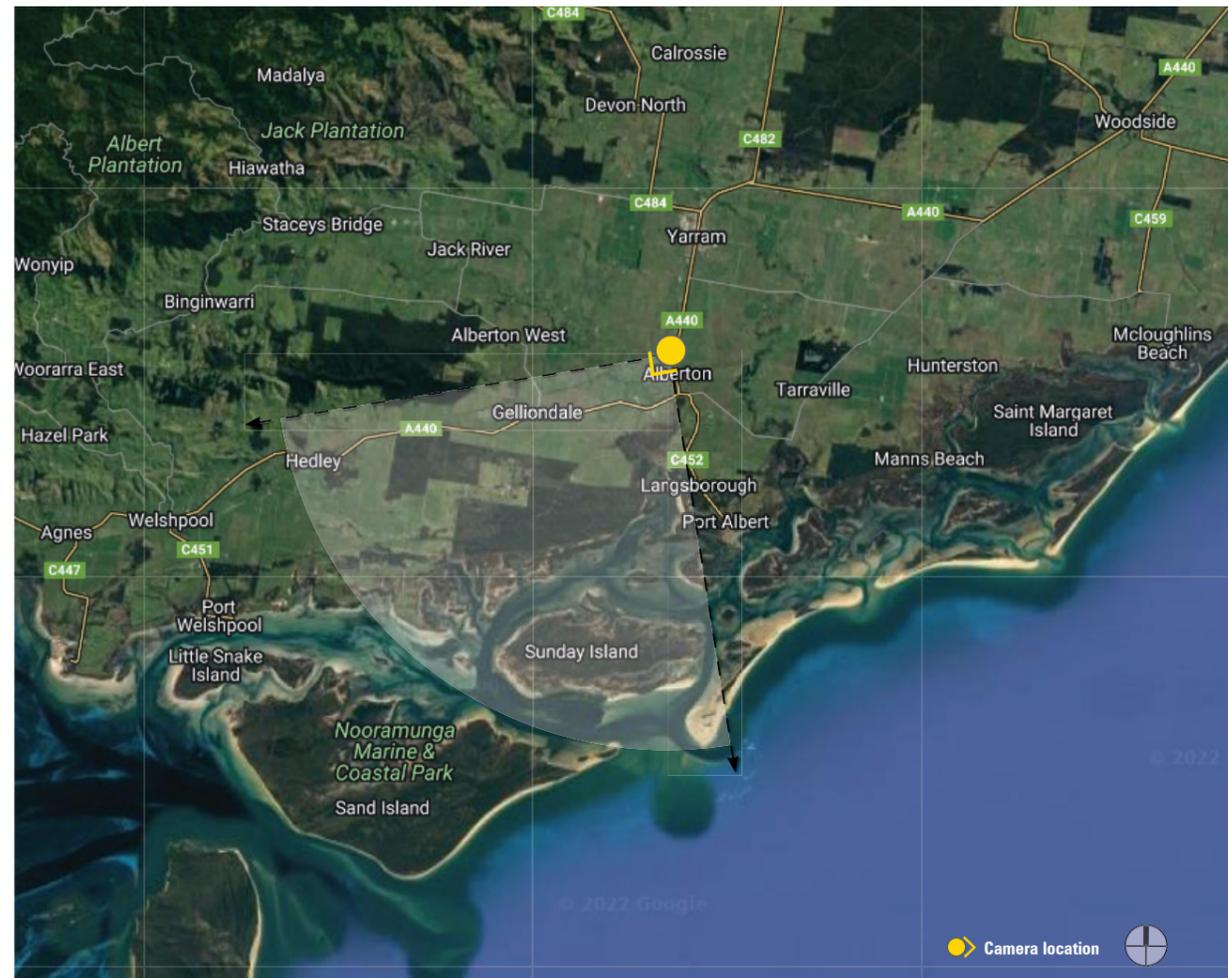


Figure 74 South Gippsland Highway, Alberton camera location



Figure 75 View location 08: Existing view



View Location 08 - S Gippsland Hwy - Facing south west towards proposed turbines.

Photomontage created by:
OZ - 3D Visualizer
Images created using:
3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data:
Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera:
Canon EOS 5Ds Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
02:31pm on 02/08/22

View location 08:
e: 470967.2280
n: 5727105.3580
rl: 13.3350

Approx distance to closest turbine
3829m

Camera location

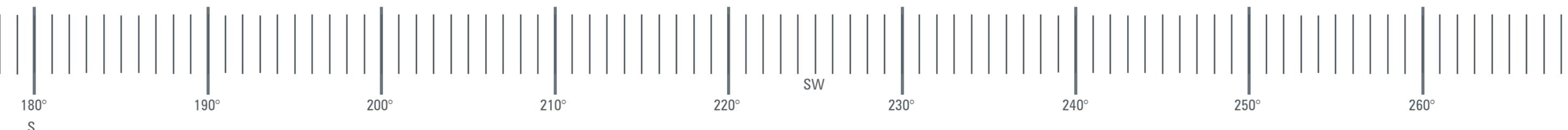


Project ref: 2022/0195
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Figure 76 View location 08: Wireframe view



View Location 08 - S Gippsland Hwy - Facing south west towards proposed turbines.

Photomontage created by:
OZ - 3D Visualizer
Images created using:
3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data:
Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera:
Canon EOS 5Ds Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
02:31pm on 02/08/22

View location 08:
e: 470967.2280
n: 5727105.3580
rl: 13.3350

Approx distance to closest turbine
3829m

Camera location



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Dwg no.: VIA-023
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Figure 77 View location 08: Photomontage view



View Location 08 - S Gippsland Hwy - Facing south west towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 02:31pm on 02/08/22
View location 08: e: 470967.2280 n: 5727105.3580 rl: 13.3350
Approx distance to closest turbine: 3829m

Camera location



Project ref: 2022/0195
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View location 08 - Impact assessment

Table 10 View 08 - S Gippsland Hwy, Alberton impact assessment:

Assessment criteria	Assessment ranking	Rationale
Landscape value	Low	The view location is within the 'Township' Landscape character area, for which the assessed landscape value is 'low'. Refer to section 5.4.
Visual exposure	High	The view location is within an area which has 'high' visual exposure to the proposed wind farm. 10-13 wind turbines will be visible.
Visual sensitivity assessment	Moderate	Visual sensitivity at this view location is assessed as being 'moderate'. Refer to section 6.3..
Magnitude of visibility	High	Turbines are clearly visible in the middle ground to background (13 in total).
Nature of receptors	Public realm	The view location is on the South Gippsland Highway at the northern entrance to Alberton township.
Number of receptors	Moderate	Alberton is a small service town and timber mill with approximately 160 residents. The town services the surrounding rural areas and holiday destinations including a small primary school. The location is on the highway with views from drivers approaching the town from the north.
Frequency	Low	Individual receptors are assumed to visit this view location infrequently.
Duration	Very low	Most receptors will pass through the site in less than 5 minutes. There are likely to be some residences that encounter similar views from their residences.
Receptor sensitivity	Low	Receptor sensitivity at this view location is assessed as 'low'.
Overall impact assessment	MODERATE	

6.5.9 View location 09: Yarram Morwell Road

Location

View location 09 is at Yarram Morwell Road. The view is oriented to the south west towards the proposed wind farm project infrastructure, with the closest turbines being approximately 6596m from the view location.

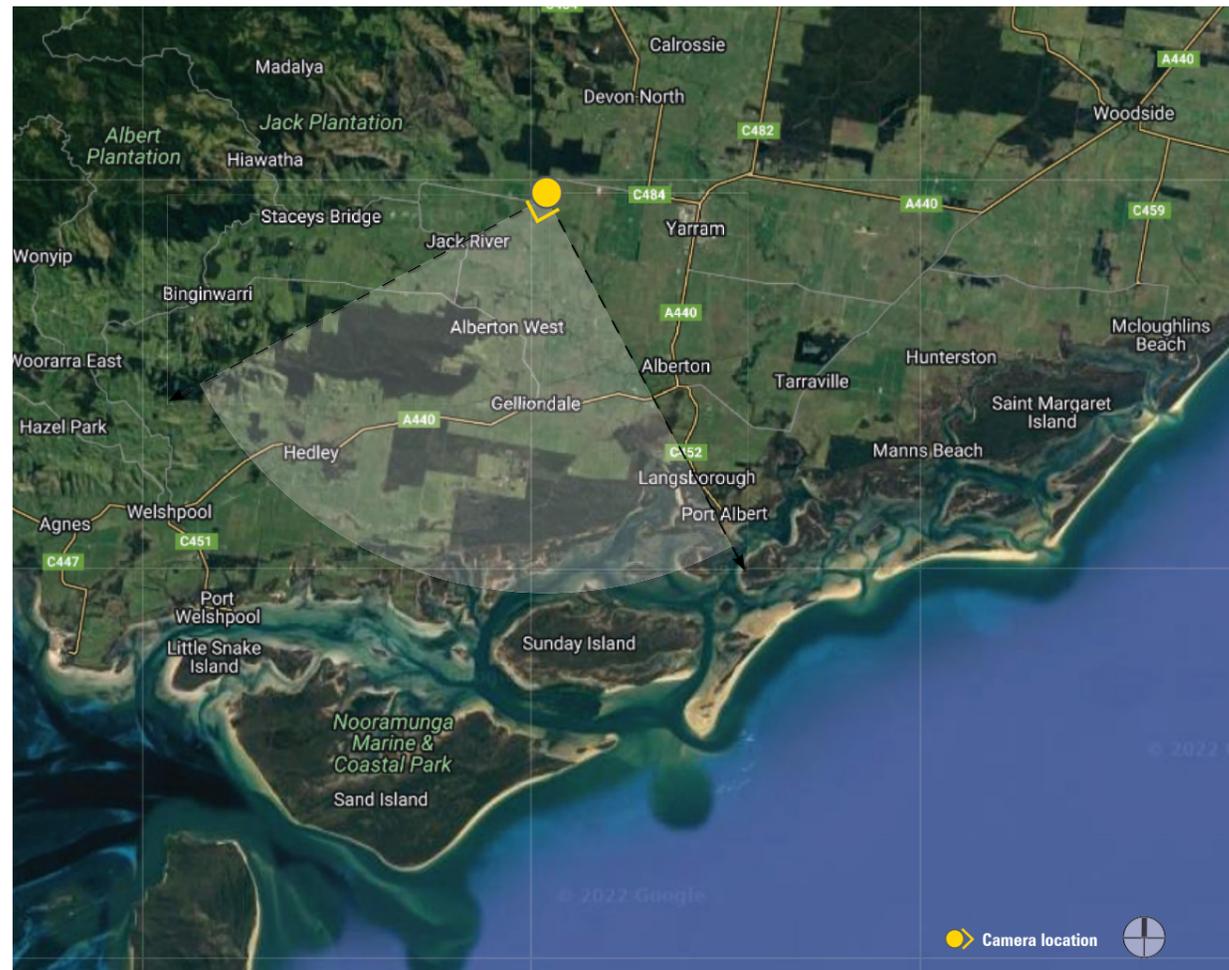
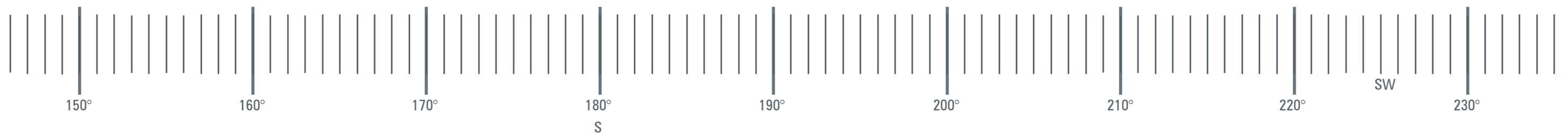


Figure 78 Yarram Morwell Road camera location



Figure 79 View location 09: Existing view



View Location 09 - Yarram Morwell Rd - Facing south west towards proposed turbines.

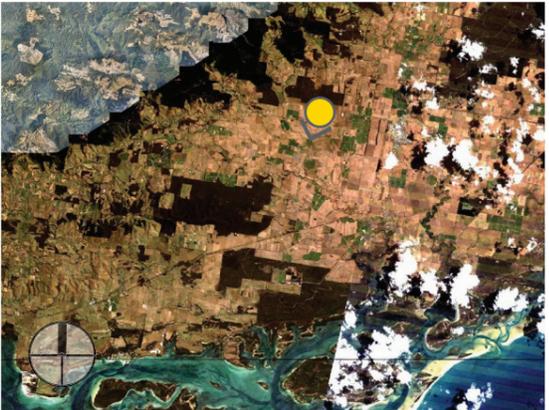
Photomontage created by:
OZ - 3D Visualizer
Images created using:
3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data:
Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera:
Canon EOS 5Ds Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
03.41pm on 02/08/22

View location 09:
e: 465658.9920
n: 5732750.0910
rl: 25.9090

Approx distance to closest turbine
6596m

Camera location

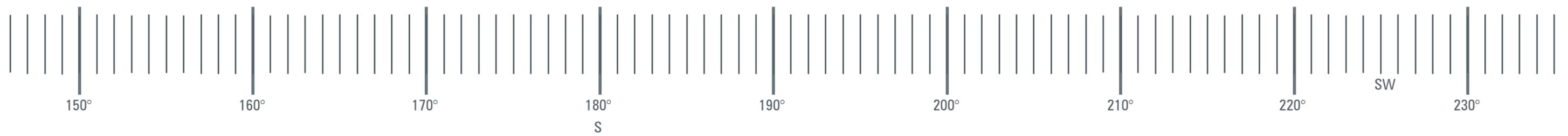


Project ref: 2022/0195
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Figure 80 View location 09: Wireframe view



View Location 09 - Yarram Morwell Rd - Facing south west towards proposed turbines.

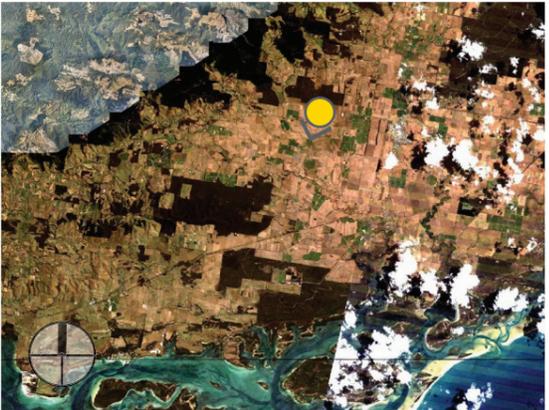
Photomontage created by:
OZ - 3D Visualizer
Images created using:
3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data:
Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera:
Canon EOS 5Ds Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
03.41pm on 02/08/22

View location 09:
e: 465658.9920
n: 5732750.0910
rl: 25.9090

Approx distance to closest turbine
6596m

Camera location

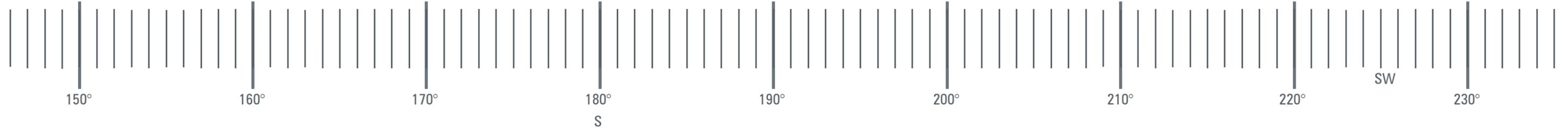


Project ref: 2022/0195
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Date: 019/12/22
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Figure 81 View location 09: Photomontage view

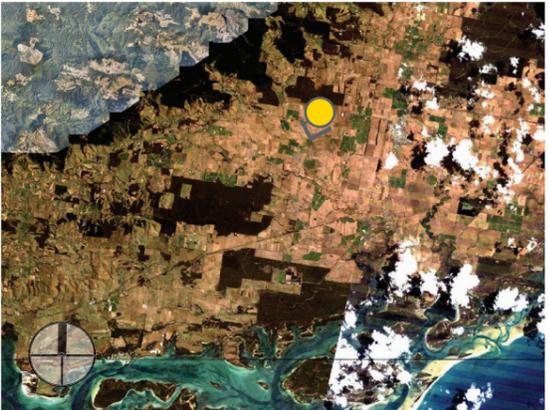


View Location 09 - Yarram Morwell Rd - Facing south west towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 03.41pm on 02/08/22
View location 09: e: 465658.9920 n: 5732750.0910 rl: 25.9090
Approx distance to closest turbine: 6596m

Camera location



Project ref: 2022/0195
Dwg no.: VIA-027
Date: 019/12/22
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View location 09 - Impact assessment

Table 11 View 09 - Yarram Morwell Rd impact assessment:

Assessment criteria	Assessment ranking	Rationale
Landscape value	Low	The view location is within the 'South Gippsland Coastal Plains' Landscape character area, for which the assessed landscape value is 'low'. Refer to section 5.4.
Visual exposure	High	The view location is within an area which has 'high' visual exposure to proposed wind farm. 10-13 wind turbines will be visible.
Visual sensitivity assessment	Moderate	Visual sensitivity at this view location is assessed as being 'moderate'. Refer to section 6.3..
Magnitude of visibility	Moderate	A number of turbines are viewed in the background east of the road relatively unobstructed, although low in height. West of the road, turbines are concealed behind vegetation.
Nature of receptors	Public realm	The view is in a rural area looking south along the Yarram Morwell Road along a short north south stretch extending for approximately 800m. Approximately 9 residences are located within 2km of the viewpoint.
Number of receptors	Low	The Yarram Morwell Road is a local connector road with relatively low volumes of traffic. Turbines will be viewed by westbound traffic.
Frequency	Low	The majority of receptors are assumed to visit daily or two – three times per week.
Duration	Very low	The period of view will typically be less than 2 mins.
Receptor sensitivity	Low	Receptor sensitivity at this view location is assessed as 'low'.
Overall impact assessment	MODERATE	

6.5.10 View location 10: Hedley

Location

View location 10 is at Hedley. The view is oriented to the south east towards the proposed wind farm project infrastructure, with the closest turbines being approximately 3395m from the view location.

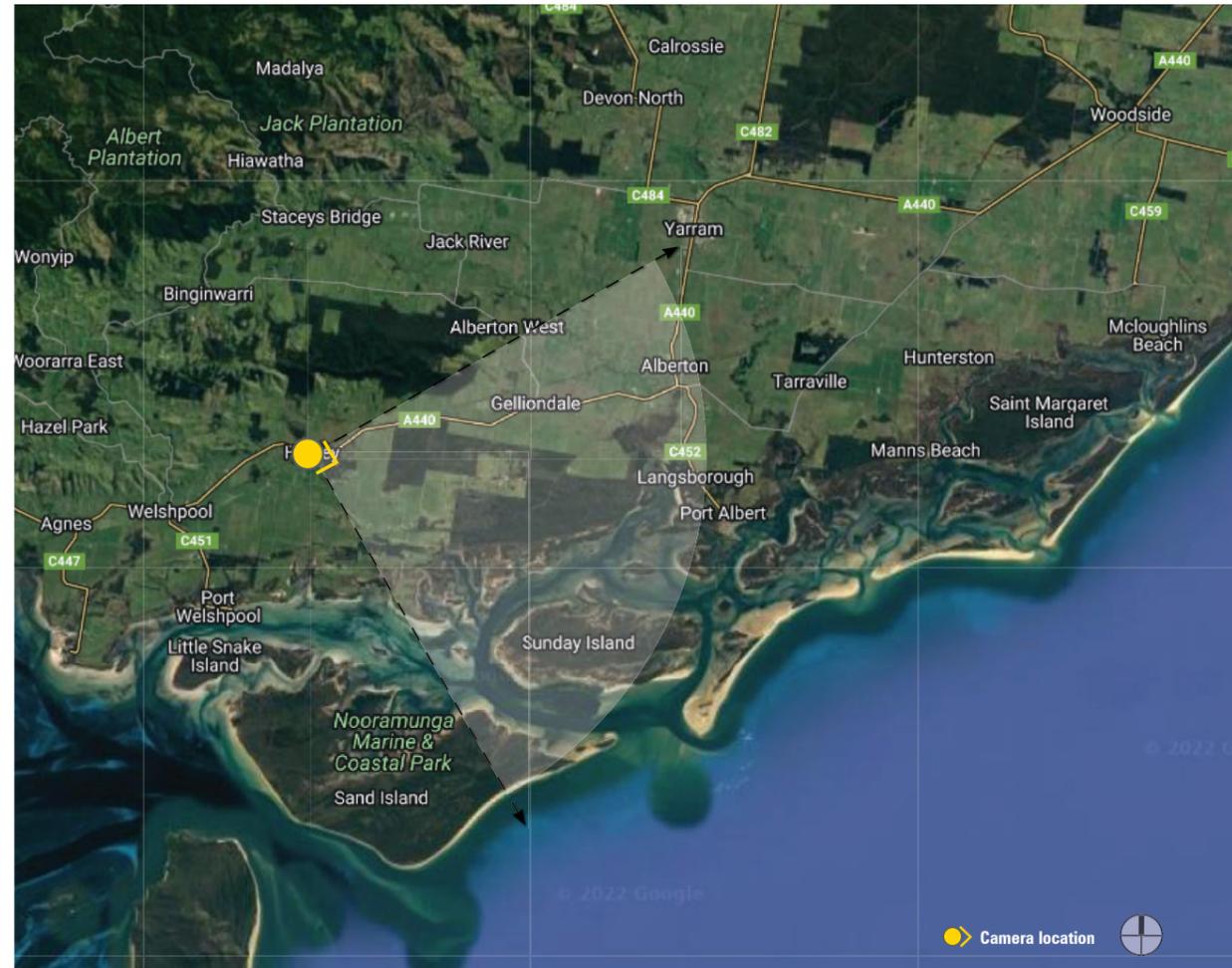
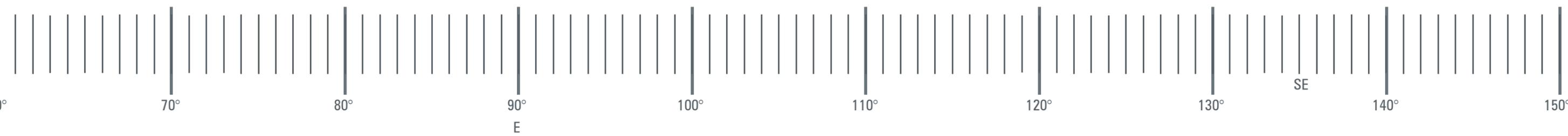


Figure 82 Hedley camera location



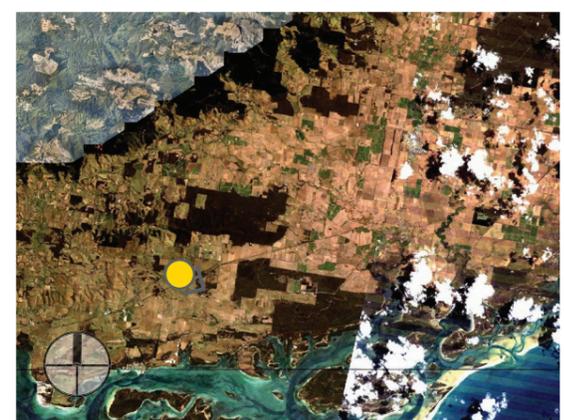
Figure 83 View location 10: Existing view



View Location 10 - S Gippsland Hwy - Facing south east towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 04.52pm on 02/08/22
View location 10: e: 456059.9470 n: 5722721.3990 rl: 22.1920
Approx distance to closest turbine: 3395m

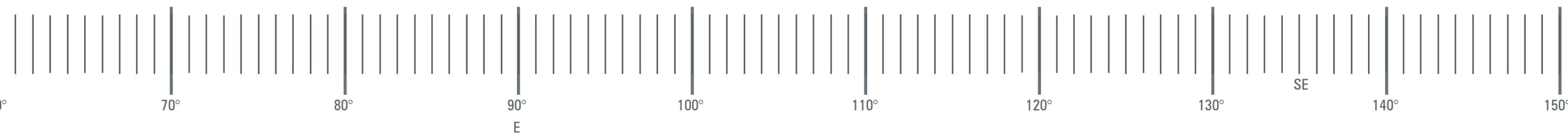


Camera location

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Figure 84 View location 10: Wireframe view

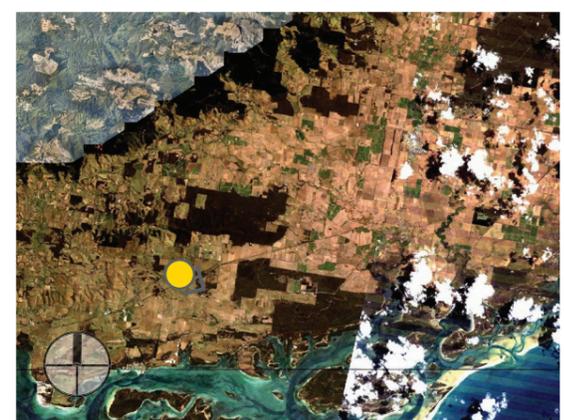


View Location 10 - S Gippsland Hwy - Facing south east towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 04.52pm on 02/08/22
View location 10: e: 456059.9470 n: 5722721.3990 rl: 22.1920
Approx distance to closest turbine: 3395m

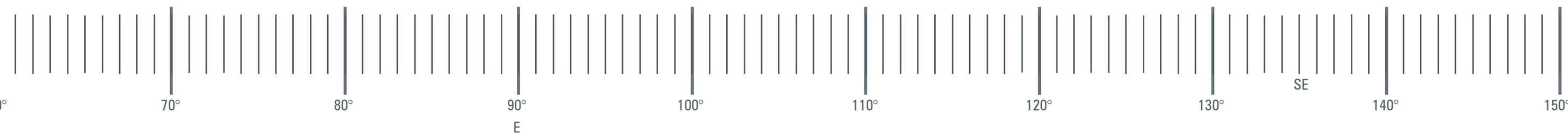
Camera location



Project ref: 2022/0195
Dwg no.: VIA-029
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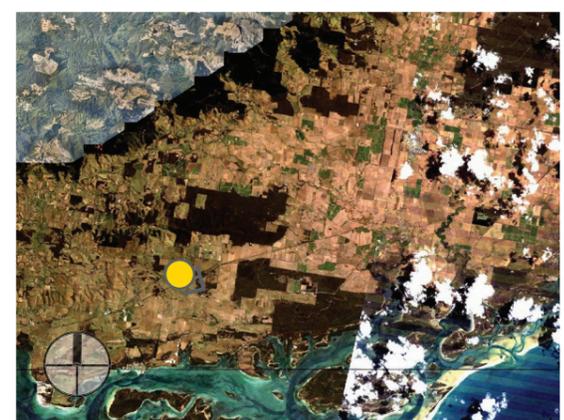
Figure 85 View location 10: Photomontage view



View Location 10 - S Gippsland Hwy - Facing south east towards proposed turbines.

Photomontage created by: OZ - 3D Visualizer
Images created using: 3ds max 2023, Vray 5, autocad 2023, adobe photoshop, illustrator & indesign cc 2022
Method used to collect relevant data: Photo locations surveyed on site by Geocomp Consulting pty ltd on 02/08/22
Camera: Canon EOS 5Ds Digital SLR
Camera lens: Canon EF 50mm f/1.8 USM

Photograph taken: 04.52pm on 02/08/22
View location 10: e: 456059.9470 n: 5722721.3990 rl: 22.1920
Approx distance to closest turbine: 3395m



Camera location

Project ref: 2022/0195
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View location 10 - Impact assessment

Table 12 View 10 - Hedley impact assessment:

Assessment criteria	Assessment ranking	Rationale
Landscape value	Low	The view location is within the 'Township' Landscape character area, for which the assessed landscape value is 'low'. Refer to section 5.4.
Visual exposure	High	The view location is within an area which has 'high' visual exposure to proposed wind farm. 10-13 wind turbines will be visible.
Visual sensitivity assessment	Moderate	Visual sensitivity at this view location is assessed as being 'moderate'. Refer to section 6.3..
Magnitude of visibility	Low	Turbines are mostly concealed behind roadside vegetation. One turbine appears above the vegetation south of the highway.
Nature of receptors	Public realm	The view location is located at the crest of a rise along the South Gippsland Highway in Hedley.
Number of receptors	Moderate	Hedley is a very small village with approximately 15 residences mostly fronting the South Gippsland Highway. Most of the receptors will be drivers heading east (and their passengers). Most residents would typically head west towards Welshpool for their services.
Frequency	Low	The majority of receptors are assumed to visit weekly or less frequently.
Duration	Very low	Visitors will be passing through Hedley in less than 2 minutes. Some residents may be able to view the turbines, however the large quantity of vegetation around the town is likely to obscure most views.
Receptor sensitivity	Low	Receptor sensitivity at this view location is assessed as 'low'.
Overall impact assessment	MODERATE	

6.6 Local dwellings

The impact of the turbines on the local residents who reside in dwellings in close proximity to proposed wind turbines was considered in the preparation of this report. The adjoining plan illustrates the location of residential dwellings located within approximately 3km of the turbines.

The visual impact on a dwelling is dependent on numerous factors. These include the following:

- Distance from the turbine
- Orientation of dwelling
- Location of living spaces in dwellings
- Use of dwelling (e.g. permanent, temporary, long or short term rental)
- Outdoor recreation spaces providing views of turbines.

Generally, the overall visual impact on a single dwelling is considered low in comparison to a group of dwellings (town or village) although the perceived impact by residents is considered high.

Assessing the impact of every individual dwelling through the preparation of photomontages is unfeasible in an abridged LVIA report such as this. The likely impact is better assessed through identifying comparable nearby locations that identify an impact on the public realm. The viewpoint sites (nos. 5 & 6) located along the South Gippsland Highway are suitable locations for identifying the impact of the turbines on local residents. Both viewpoints are located with 500m – 1km of the nearest turbine and consequently reflect the greatest visual impact likely to be encountered by an individual dwelling.

Raised visual impact concerns

Approximately 80 dwellings are located within 4km of the wind turbines. The occupants of 5 of these dwellings expressed concerns on the visual impact of the turbines on their properties. We do not consider that direct notification of concerns by residents either increases or decreases the likely visual impact. However, we believe that there may have been benefit in preparing a direct assessment from each of these dwellings and to determine the level of impact (including the preparation of photo-montages).

The residents of each of these 5 dwellings were contacted (via email and phone message) to determine if they would grant access to their properties to undertake a visual impact assessment specific to their property. The residents either declined the opportunity or did not respond. Consequently, we can only rely on the assessment undertaken for the broader public realm.

Assessment

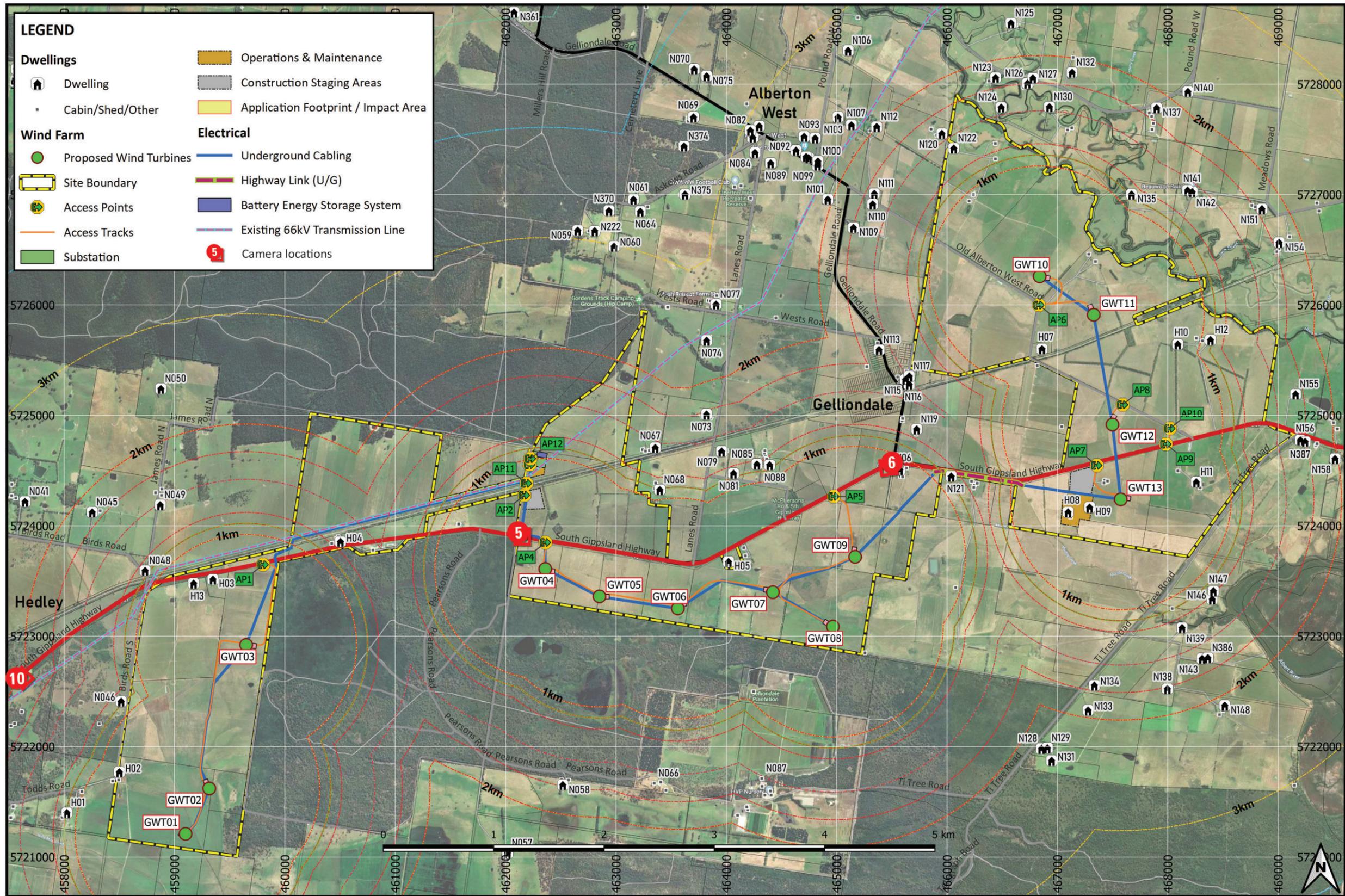
For the basis of our assessment, we have assumed that all properties are permanently occupied and with full view of the wind turbines from living spaces and outdoor areas.

Based on an assessment as noted on the following page, the Overall impact assessment on local dwellings is moderate. This is consistent with the impact arising from viewpoints 5 and 6 located along the South Gippsland Highway. The photo montages prepared for these viewpoints are representative of the possible views that may occur from living spaces associated with 5 to 6 dwellings. For the remainder of the dwellings, the height of the turbines represented by the photo-montages will be consistently less than illustrated. Viewpoint 10 offers a located 2km from the nearest turbine and may be used to understand the scale of the turbines within the viewshed of dwellings located between 2km and 3km from the nearest turbine.

The following table represents an assessment of a dwelling located approximately 1km from the nearest turbine. We have used viewpoint 6 as a guide for the assessment.

Table 13 Typical dwelling assessment

Assessment criteria	Assessment ranking	Rationale
Landscape value	Low	View location is within local rural landscape.
Visual exposure	High	7 - 10 wind turbines will be visible
Visual sensitivity assessment	Moderate	.
Magnitude of visibility	Very high	A large number of turbines (8) are largely exposed in the middle ground although some turbines are largely screened by roadside vegetation.
Nature of receptors	Private	The view location is located at the crest of a rise along the South Gippsland Highway in Hedley.
Number of receptors	Very Low	The view location is within a rural area, typically viewed by residents from a dwelling less than 2km from the nearest turbine.
Frequency	Very High	Receptors are low in number.
Duration	Very High	Individual receptors are to regularly view the turbines (daily).
Receptor sensitivity	High	Receptors will view the turbines for some extended periods as features in the background of their regular views.
Overall impact assessment	MODERATE	



Project Layout - Whole of Site Detail | March 2023

Map scale: 1:30,000 (@A3) | Coordinate system: GDA94 MGA Zone 55 | Base map: Google Hybrid Satellite | Roads data: Vicmap Transport

7 CONCLUSION

The purpose of this report is to assess the potential LVIA impacts associated with the Gelliondale Wind Farm to support an application for a planning permit. A summary of the key assets, values or uses potentially affected by the Project, and an associated assessment of LVIA impacts, are summarised below.

7.1 Baseline assessment

The study area for the LVIA has been identified on the basis of the Theoretical limit of viewshed extent (TLVE) for proposed project. The process by which the TLVE is determined is outlined in Section 5 of this report.

Within the study area, all environments have been identified and described as a series of landscape character areas. The value (or significance) of each landscape character area has been assessed and described, and provides the basis for the subsequent landscape and visual impact assessment.

The identified landscape character areas within the project study area are:

Landscape Character Areas

1. Coastal Islands, which has been assessed as a 'High' landscape value.
2. South Gippsland Coastal Plains, which has been assessed as a 'Low' landscape value.
3. Settlements, which has been assessed as a 'Low' landscape value.
4. Timber Plantation Forest, which has been assessed as a 'Low' landscape value.
5. Strzelecki Range and Foothills, which has been assessed as a 'Moderate' landscape value.
6. Forest Foothills, which has been assessed as a 'Low' landscape value.
7. Wilsons Promontory Granite Coast, which has been assessed as a 'High' landscape value.

The viewshed for the Gelliondale wind farm has a minimal impact on Wilsons Promontory, with the 15km viewshed map affecting a small area to the north east corner of the Promontory. We have included Wilson's Promontory for Report Completeness.

These landscape character values are consistent with the values applied for other landscape visual impact assessment projects undertaken in the local region.

7.2 Impact assessment findings

An iterative assessment was undertaken to evaluate potential impacts associated with the Project, considering the existing environment within the study area and associated operational activities.

The assessment found the following key impacts:

Moderate impact

View location 02: located at Marginal Wharf, Port Welshpool, which is within the 'Settlement' landscape character area.

View location 03: at James Road, Hedley, which is within the 'Coastal Islands' landscape character area.

View location 04: located at Port Albert, which is within the 'Coastal Islands' landscape character area.

View location 05: located at South Gippsland Highway, Hedley, which is within the 'Settlement' landscape character area.

View location 06: located at South Gippsland Highway, Gelliondale, which is within the 'South Gippsland Coastal Plains' landscape character area.

View location 08: located at South Gippsland Highway, Alberton, which is within the 'Settlement' landscape character area.

View location 09: located at South Gippsland Highway, Alberton, which is within the 'South Gippsland Coastal Plains' landscape character area.

View location 10: located at Hedley, which is within the 'Settlement' landscape character area.

Low impact

View location 07: located at Yarram Memorial Park, which is within the 'Settlement' landscape character area.

Nil impact

View location 01 is located at South Gippsland Highway, Welshpool., which is within the 'Settlement' landscape character area.

