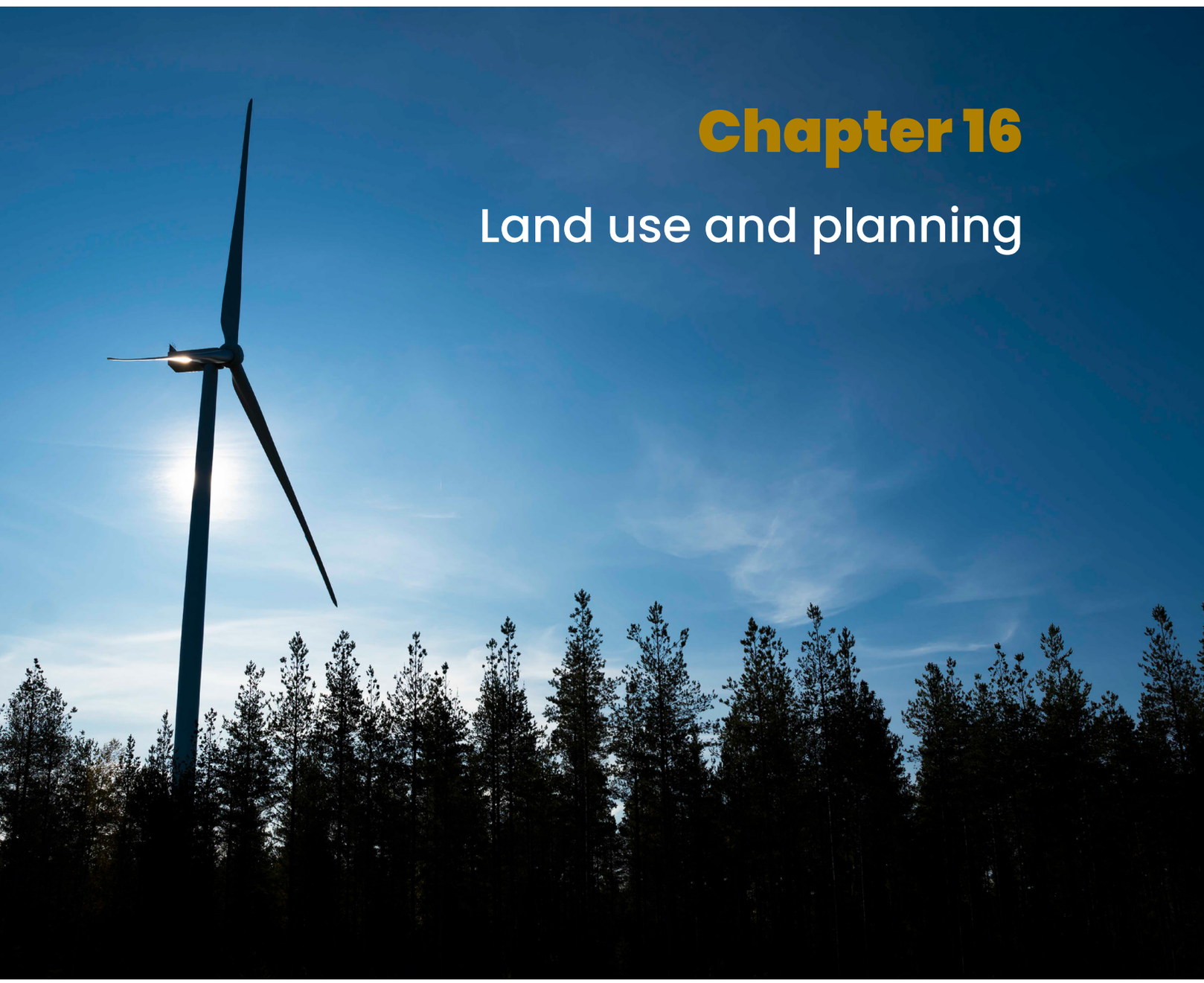


Chapter 16

Land use and planning

Acknowledgement of Country

Neoen Australia acknowledges the traditional custodians of the land in which we live, and pays its respects to their elders, past and present. The Gunditjmara are the original custodians of the Country on which the Project is located and we acknowledge them as the original custodians. We are committed to Aboriginal engagement and reconciliation and aim to bring Aboriginal and Torres Strait Islander people, local communities and the councils along for the journey to strengthen relationships and enhance local community outcomes.

Disclaimer

16 Land use and planning

This chapter describes the potential impacts on land use and planning associated with the construction, operation, and decommissioning of the Project, as well as the mitigation measures proposed to avoid, minimise and manage potential adverse impacts.

This chapter summarises the outcomes of the **Land Use and Planning Impact Assessment (LUPIA) (Appendix Q)**.

16.1 Overview

Land use and planning impacts occur when a project affects the form, function, amenity or appearance of the existing environment and/or the character of a place or location. Project activities have the potential to impact on existing and future land uses and land use policies during construction, operation and decommissioning.

The **LUPIA (Appendix Q)** was undertaken to gain an understanding of whether the construction, operation and decommissioning phases of the Project would potentially impact on the ongoing use of public land sites, existing infrastructure (such as recreational, residential and transport) and agricultural activities within the context of the Project Area and in the regional context more broadly.

The use and development of the Project is permissible under the Glenelg Planning Scheme (the Planning Scheme), subject to approval by the Victorian Minister for Planning (the Minister). Aspects of the use and development require public land manager consent. The Project is generally in accordance with the relevant provisions of the Planning Policy Framework (PPF) and the purpose of the applicable zones and overlays. The Project gives effect to relevant provisions of the Planning Scheme including **Clause 19.01** (Energy) of the Planning Scheme as it relates to renewable energy and complies with **Clause 52.32** (Wind Energy Facility) of the Planning Scheme that relates to use and development of wind energy facilities.

Planning approval for the use and development of the Project will be sought via a Planning Scheme Amendment (PSA) to the Planning Scheme, to be considered by the Minister. The PSA seeks to apply a Special Controls Overlay to the Project Area and insert an Incorporated Document to facilitate the necessary planning approvals. The **Draft PSA** (**Appendix Y**) will be publicly exhibited with this EES. During this time, the public can read the PSA and Environment Effects Statement (EES) documentation and make written submissions about matters presented.

The use of land for a wind farm would not prejudice the ongoing use of the same land for forestry and agricultural purposes. Disruption to forestry and agricultural practices is minor with the implementation of mitigation, and through the agreements in place between Neoen Australia Pty Ltd (the Proponent) and the forestry operators. There is some potential for disruption to uses associated with neighbouring public land during construction which would be appropriately managed through implementation of the Project's Construction Environmental Management Plan (CEMP) and Operational Environmental Management Plan (OEMP) as set out in the Draft Incorporated Document within the **Draft PSA** (**Appendix Y**) and supporting mitigation measures as detailed in **Chapter 19** ***Environmental Management Framework***. Impacts would be temporary during construction and there would be negligible land use effects at this location once construction is complete.

Environmental Management Plans (EMPs) will be prepared for all phases of the Project (construction, operation and decommissioning) to mitigate and management potential land use impacts throughout the Project's lifetime. The mitigation measures to be implemented will be based on the recommendations from each of the technical reports prepared for this EES, as detailed in the Environmental Management Framework (EMF) in **Chapter 19** ***Environmental Management Framework.***

16.2 EES evaluation objective

The specific environmental matters to be investigated and documented in the Project's EES are set out in the Scoping Requirements. The Scoping Requirements provide evaluation objectives that describe the desired outcomes to be achieved for each of the matters being addressed in this EES.

The following evaluation objective is relevant for the land use and planning impact assessment:

> ***Land use and socioeconomic*** *– To avoid and minimise adverse effects on land use, social fabric of the community, local infrastructure, aviation safety and to neighbouring landowners during construction, operation and decommissioning the Project.*

This chapter and the LUPIA (**Appendix Q**) address the Project's specific land use and planning matters in response to the EES Scoping Requirements.

16.3 Assessment methodology

The following approach was undertaken for the assessment:

- Establish the existing conditions of the land use and planning environment of the Project Area and the broader regional context, including applicable components of Victoria's planning system.
- Consider the Project and proposed construction and operation activities in the context of the existing environmental conditions.
- Identify potential effects on the land use and planning environment due to Project design, construction, operation, and decommissioning activities.
- Assess potential impacts considering the sensitivity and significance of affected receptors.
- Identify key avoidance and mitigation measures to reduce and/or mitigate the likelihood, extent, and duration of effects during construction and operation of the Project.
- Assess residual impacts on existing and future land uses considering the proposed mitigation measures and their likely effectiveness.

16.4 Existing conditions

16.4.1 Study area

The study area for the assessment includes the Project Area and the broader regional context in terms of the existing conditions of the assets, values and uses. The study area is not defined by a specific distance from the Project Area as the assessment considers all relevant State, regional and local policies and planning matters.

16.4.2 Glenelg Planning Scheme

Victoria's planning system allows for local councils and the State Government to develop planning schemes to control land use and development, and to ensure the protection and conservation of land in Victoria in the present and long-term interests of all Victoria. Planning schemes are developed in accordance with planning policies and strategies. They contain planning policies, zones, overlays and other provisions that affect how land can be used and developed.

The Project is subject to the provisions of the Planning Scheme. The Planning Scheme provides a clear and consistent framework within which decisions about the use and development of land can be made, including:

- Municipal Planning Strategy (MPS): The MPS introduces Glenelg Shire by describing its context and setting out the vision and strategic directions for planning in the municipality.
- Planning Policy Framework: The PPF provides the policy content of the Planning Scheme in a three-tier integrated policy structure:
    - State: Policies of state significance that apply in all planning schemes in Victoria.
    - Regional: Policies of state significance that apply to allied planning schemes based on geographic and thematic policy groupings.
    - Local: Policies of local significance that apply in an individual local planning scheme.
- Zones and overlays: These are the primary method for managing land use and development in Victoria. All land (other than some Commonwealth owned land) is zoned for a particular use, such as residential, industrial or commercial. Some land will also have overlays affecting it. Overlays provide additional development controls for particular areas in relation to specific features such as heritage, bushfire or flood risk.
- Particular provisions: Where relevant, particular provisions are planning controls that apply only to certain (or particular aspects) of land use and development.

A strategic assessment has been undertaken (see **Section 16.5)** to evaluate consistency of the Project with the MPS, PPF, zones, overlays and particular provisions that are applicable to the Project. Under the Planning Scheme, the two key Project components are defined as a wind energy facility (wind farm) and utility installation (transmission line).

16.4.3 Regional land use

The Project is located within the municipal boundary of the Glenelg Shire Council (GSC), approximately 8 km east of the South Australian / Victorian border. The Project is located within the localities of Nelson, Mount Richmond, and Heathmere. The Glenelg local government area (LGA) is located approximately 360 km west of the Melbourne Central Business District. The Glenelg LGA, along with municipalities of Corangamite, Moyne, Southern Grampians, and Warrnambool, are located within the Great South Coast Region of the Barwon South West Region, which is known for its agriculture, tourism and energy production industries (Great South Coast Group, 2014).

There are several areas of public land within the region surrounding the Project, including parks, reserves, Indigenous Protected Areas, wetlands, and permanent waterways. Public land near the Project Area is used for conservation purposes and compatible recreation uses. Some of this land is significant in terms of the diversity of flora and fauna it supports and more specifically, its contribution to the health of rivers and catchments. A number of these sites provide a range of defined visitor experiences that also protect the natural and cultural values of the land.

The key public land sites within the regional context of the Project Area and associated recreational infrastructure are described in **Table 16.1** and shown on **Figure 16.1**.

Table 16.1: Public land sites and associated recreational infrastructure

Public land site	Location and description	Recreational infrastructure in the public land site
Lower Glenelg National Park	• Located to the north of the wind farm site, immediately adjacent to the north-eastern and north-western boundaries of the wind farm site. • Covers an area of approximately 26,430 ha. • Managed by Parks Victoria and reserved under the *National Parks Act 1975* (Vic) (NP Act). • Primarily used for conservation and compatible recreation uses. Known for its cultural landscape which is highly valued by the Gunditjmara people. • Contains a section of the Glenelg Estuary and Discovery Bay Ramsar site (the Ramsar site) and Glenelg River.	• GSWW • Camping
Cobboboonee National Park	• Located east of the wind farm site. The underground section of transmission line is proposed to be constructed beneath Boiler Swamp Road within the Park. • Covers an area of approximately 18,510 ha. • Managed by Parks Victoria and reserved under the NP Act. • Used for conservation and recreation, characterised by areas of lowland forests, heathlands, and wetlands.	• GSWW • Wood, Wine and Roses Forest Drive* • Horse trails • Camping
Cobboboonee Forest Park	• Located east of the wind farm site. The underground transmission line is proposed to be constructed beneath Boiler Swamp Road within the park. • Covers an area of approximately 8,685 ha. • Managed by the Victorian Department of Energy, Environment and Climate Action (DEECA) and reserved under the *Crown Land (Reserves) Act 1978* (Vic). • Used for conservation, recreation, and sustainable resource use.	• Wood, Wine and Roses Forest Drive* • Horse trails • Cobboboonee trailbike area
Discovery Bay Coastal Park	• Located south of the Project Area, immediately adjacent to the south-eastern boundary of the wind farm site. • Covers an area of approximately 10,460 ha. • Managed by Parks Victoria and reserved under the NP Act. • Features a range of coastal landscapes with extensive beaches, coastal cliffs, dune fields, wetlands and woodland forest communities. • Contains a section of the Ramsar site, including Lake Mombeong and Swan Lake. • Known for the Cape Nelson Lighthouse and Cape Bridgewater fur seal colony.	• GSWW • Horse trails • Camping
Discovery Bay Marine National Park	• Abuts Discovery Bay Coastal Park near Cape Bridgewater, approximately 15 km south of the Project Area. • Covers an area of approximately 2,770 ha. • Managed by Parks Victoria and reserved under the NP Act. • Primarily used for conservation purposes along with compatible recreation uses.	

Public land site	Location and description	Recreational infrastructure in the public land site
Glenelg Estuary and Discovery Bay Ramsar site	• Located to the north and south of the wind farm site. • Covers an area of approximately 22,289 ha. • Designated under the Convention on Wetlands of International Importance (the Ramsar Convention) which aims to halt the worldwide loss of wetlands and to conserve those that remain. Wetlands designated under the Ramsar Convention contain representative, rare or unique wetlands, or wetlands that are important for conserving biological diversity. • Comprises three broad systems that support different wetland types: freshwater wetlands, the Glenelg Estuary, and the beach and dune system. Provides important habitat for a range of listed threatened species, ecological communities, and migratory birds.	• GSWW • Camping
Glenelg River	• Located north and west of the Project Area. At its closest, the Glenelg River is approximately 1.6 km from the northern boundary of the wind farm site. • Originates in the Grampians and flows into Discovery Bay at Nelson, covering approximately 350 km. It is the largest river in south-west Victoria. • Part of the river has been recognised as a Heritage River for its important natural values.	• Lower Glenelg River canoe trail • Fishing
Kentbruck H14 Bushland Reserve	• Located between the wind farm site and Portland-Nelson Road, south of Portland-Nelson Road and north-west of the Hedditch Hill Scenic Reserve. • Covers an area of approximately 24 ha. • Reserved under the *Crown Land (Reserves) Act 1978* (Vic). • Identified as a site to assist with the maintenance of the broader local character and quality of the landscape.	
Hedditch Hill Scenic Reserve	• Located between the wind farm site and Portland-Nelson Road, south of Portland-Nelson Road and south-east of the Kentbruck H14 Bushland Reserve. • Covers an area of approximately 7 ha. • Reserved under the *Crown Land (Reserves) Act 1978* (Vic) and managed by Parks Victoria. • Located on a bend of Portland-Nelson Road which has views towards Discovery Bay.	• Scenic lookout point
Kentbruck H50 Bushland Reserve	• Located between the wind farm site and Portland-Nelson Road, north of Portland-Nelson Road and south-east of the Kentbruck H14 Bushland Reserve and Hedditch Hill Scenic Reserve. • Covers an area of approximately 130 ha. • Reserved under the *Crown Land (Reserves) Act 1978* (Vic) and managed by Parks Victoria.	
Kentbruck Plantation	• Located north of Portland-Nelson Road, north of the wind farm site, comprising a commercial pine plantation operation. • Covers an area of approximately 5,790 ha. • Managed by Hancock Victorian Plantation (HVP).	

Public land site	Location and description	Recreational infrastructure in the public land site
Narrawong Flora Reserve	• Located south-east of the Heywood Terminal Station, less than 1 km from the end of the underground transmission line. • Covers an area of approximately 1,600 ha. • Managed by Parks Victoria and reserved under the *Forests Act 1958* (Vic) (Forests Act). • Contains valuable biodiversity and habitats for the protection of populations of threatened species such as the Heath Mouse *(Pseudomys shortidgei)* and Southern Brown Bandicoot *(Isoodon obsesulus)*	• Includes a variety of recreation infrastructure
Mount Clay State Forest	• Located east of the Heywood Terminal Station, adjacent to the substation's northern, eastern and southern boundaries. • Covers an area of approximately 2,500 ha. • Managed by Parks Victoria and reserved under the Forests Act.	• Provides a range of recreation activities including camping, picnicking, walking and mountain bike tracks

*The Wood, Wine and Roses Forest Drive is a 90 km touring route between Portland and Heywood, which passes along Boiler Swamp Road.

Several waterways are located east of the wind farm site, including the Surrey River, Johnstone Creek, Mount Kincaid Creek and some unnamed creeks (see **Figure 16.1**). The underground transmission line would cross the Surrey River at three locations: twice within the Parks, and once in farmland. There are also areas of cultural heritage sensitivity (as defined under the *Aboriginal Heritage Act 2006* (AH Act) and areas of high archaeological potential located near the Project Area. These are described further in **Chapter 11 *Cultural Heritage.***

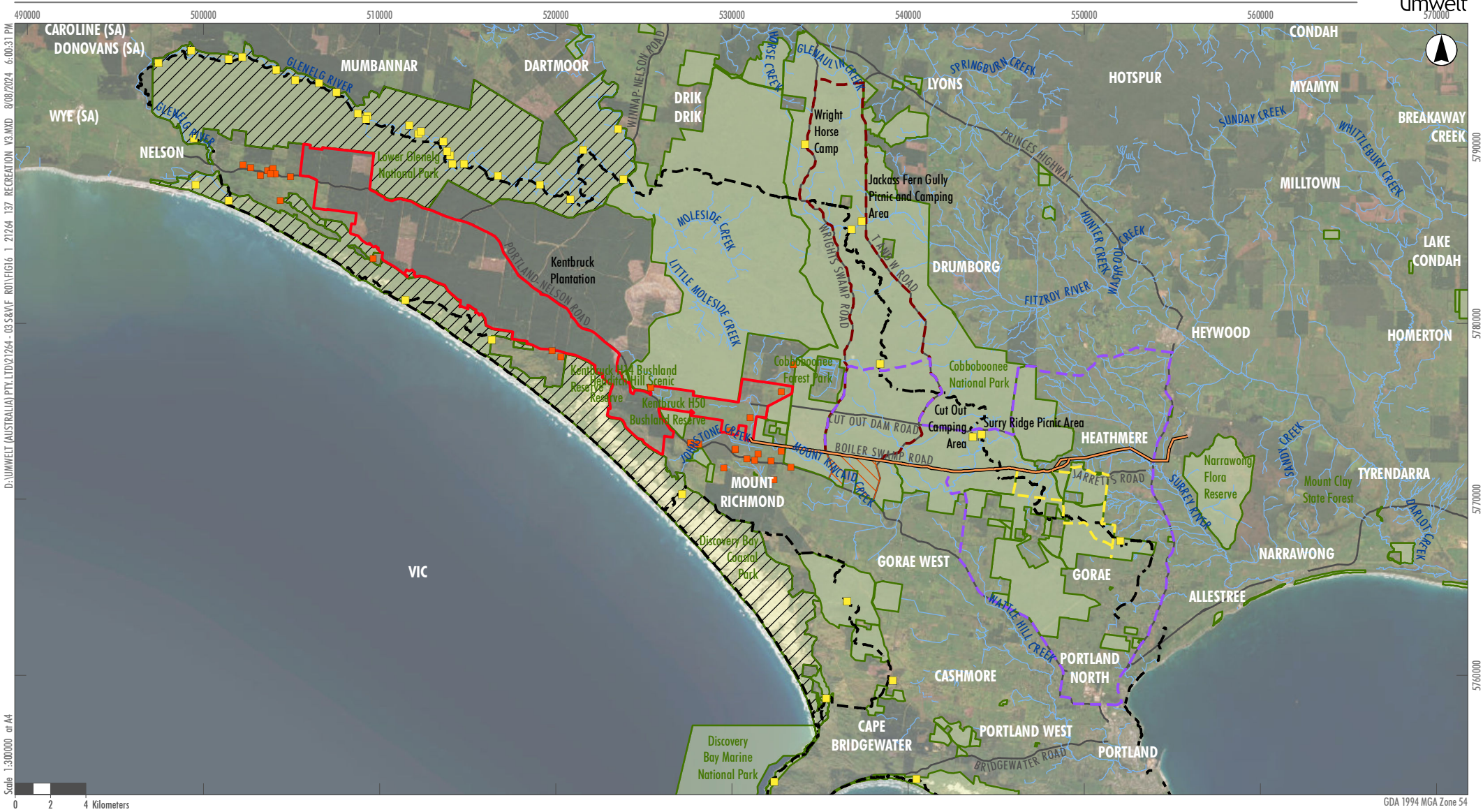
The region surrounding the Project Area has a very low population density. A total of 29 dwellings are located within 5 km of the proposed location of wind turbines as shown in **Figure 16.1**. Ten of these dwellings are associated with the Project and the Proponent has agreements in place with the landowners.

In addition to the recreational infrastructure outlined in **Table 16.1**, there is also a range of infrastructure relating to transport, power and energy, education and health. The key infrastructure is listed in **Table 16.2**.

Table 16.2: Key transport, power, energy, education and health infrastructure near the Project Area

Category	Key infrastructure
Transport (see also **Chapter 15 *Transport***)	• Portland-Nelson Road, Winnap-Nelson Road and the Princes Highway are the main roads that service the Project Area and surrounding region. The local road network in proximity to the Project Area is comprised of a combination of Department of Transport (VicRoads), GSC and other public road assets. • Several bus services are operated on roads east of the wind farm site, including Portland-Nelson Road (between Henty Highway and Stanleys Road in Mount Richmond), Henty Highway and Madeira Packet Road. • The Maroona-Portland rail line extends for 175 km and connects western Victoria to the national rail network and to the Port of Portland. The Australian Government has recently committed to funding a business case to evaluate the upgrade of this rail line. • Portland Airport is located approximately 16.5 km south-east of the wind farm site, Nelson Aerodrome is 3.9 km to the west, and a private airstrip (Kentbruck Airstrip) is located within the Kentbruck Plantation approximately 2.4 km north of the wind farm site, north of Portland-Nelson Road.

Category	Key infrastructure
Power and energy	• A 500 kV transmission line runs from the Portland Aluminium Smelter, through Melbourne, and east to the site of the former Hazelwood coal-fired power station. This transmission line runs through the Heywood Terminal Station. • The Project's transmission line is proposed to connect to AusNet's Heywood Terminal Station, which is located in the east of the Project Area and east of the Henty Highway. • Nearby wind farms include the Portland Wind Energy Project (in operation) to the south-east, Codrington Wind Farm (in operation) to the east, Yambuk Wind Farm (in operation) to the east and Ryan Corner Wind Farm (under construction) to the east.
Education	• Victorian schools closest to the Project Area are in Dartmoor to the north (primary), Portland to the east (primary and secondary) and Heywood to the north-east (secondary). Primary and secondary schools are also located in Mount Gambier, South Australia • The closest universities are the University of South Australia (Mount Gambier campus) and Deakin University (Warrnambool campus).
Health	• The nearest hospitals are located in Portland and Heywood to the east of the wind farm site.



Legend

- Wind Farm Site
- Underground Transmission Line
- Great South West Walk
- Great Cobboboonee Horse Trail
- Cobboboonee Horse Trail
- Wood, Wine and Roses Forest Drive
- Cobboboonee Trailbike Area
- Glenelg Estuary and Discovery Bay Ramsar Wetland
- Campsites
- Sensitive Receivers (within 5km)
- Parks and Reserves
- Roads
- Watercourses

FIGURE 16.1

Public land sites and recreational infrastructure near the Project Area

Image Source: ESRI Basemap (2022) Data source: DELWP (2021)

16.4.4 Land use within the Project Area

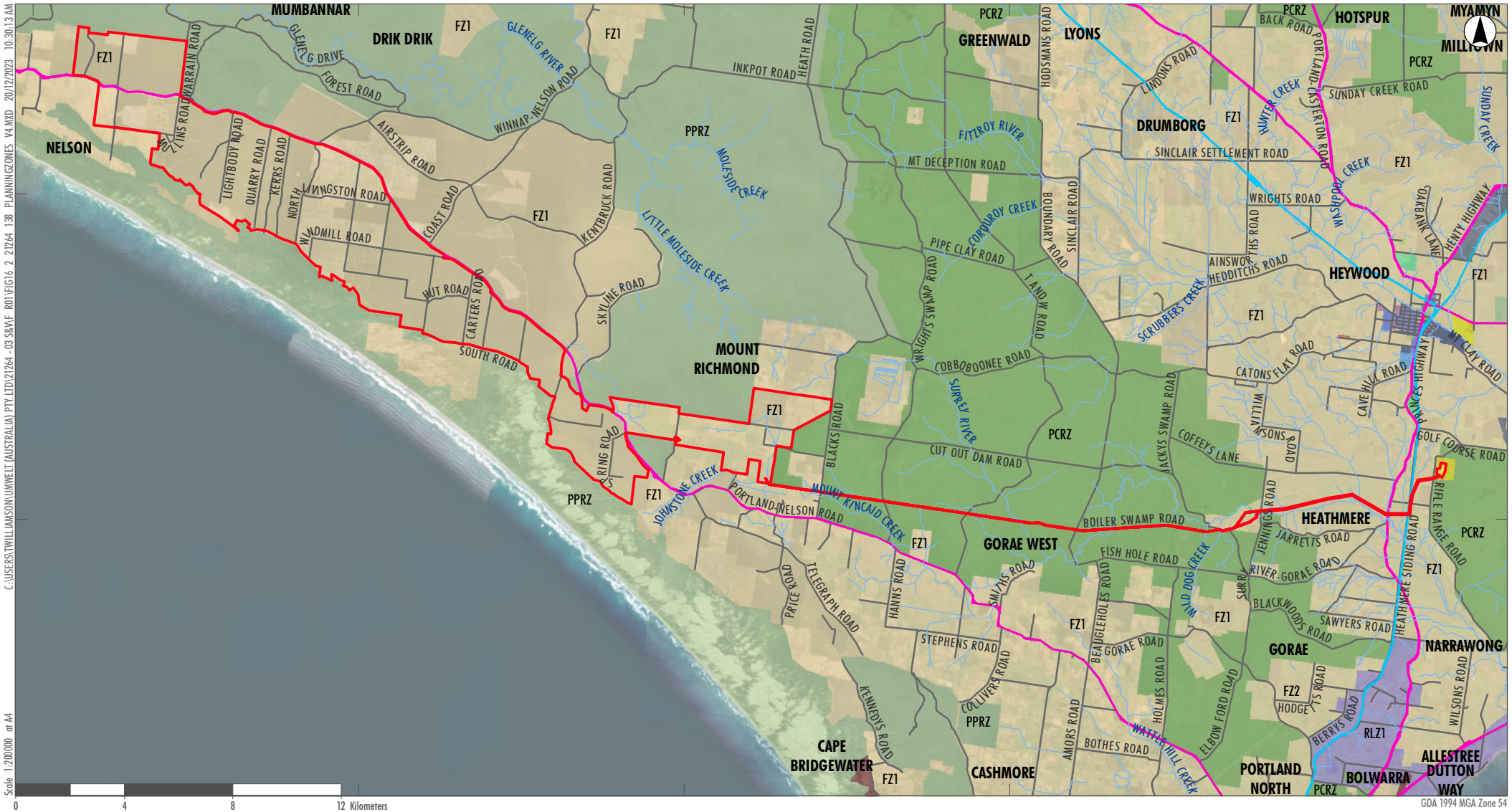
The Project Area extends across approximately 8,318 ha of land comprising 121 individual land parcels owned by 22 different landowners. Approximately 99.7 % of the Project Area is freehold land comprising substantially modified areas used for commercial forestry (85.4 %) and farmland primarily used for grazing (14.3 %). A total of 0.3 % of the Project Area (or 66 % of the transmission line corridor length) is located within Crown land (see **Figure 16.2**).

Crown land is located throughout the southern and eastern portions of the Project Area and in surrounding areas, including the Cobboboonee and Lower Glenelg National Parks and 'paper roads' (parcels of land that are legally recognised as roads but have not been formed into roads). **Table 16.3** summarises the land uses in the wind farm site and transmission line corridor. Refer to **Section 3.2.2** of **Chapter 3** ***Project description*** for further details.

Table 16.3: Wind farm site and transmission line corridor land uses

	Area (ha)	Number of land parcels	Land uses
Wind farm site	8,318	89	• Commercial forestry comprising pine and blue gum plantations: 85.7 % • Freehold land, primarily used for grazing: 14.2 %
Transmission line corridor	21	33	• Freehold land, primarily used for grazing: 51.7 % • Public land (Crown land): 48.3% • The proposed transmission line is approximately 26.6 km in length, of which 7.1 km passes through Cobboboonee National Park and 8.1 km within Cobboboonee Forest Park
Project Area	8,350	121*	• Commercial forestry (85.4 %) • Freehold land, primarily used for grazing (14.3 %) • Public land (Crown land) (0.3 %)

*Several of the same land parcels occur within both the wind farm site and transmission line corridor. The total number of land parcels in the Project Area is therefore not the numeric sum of each component of the Project Area.



Legend

- Project Area
- Roads
- Watercourses

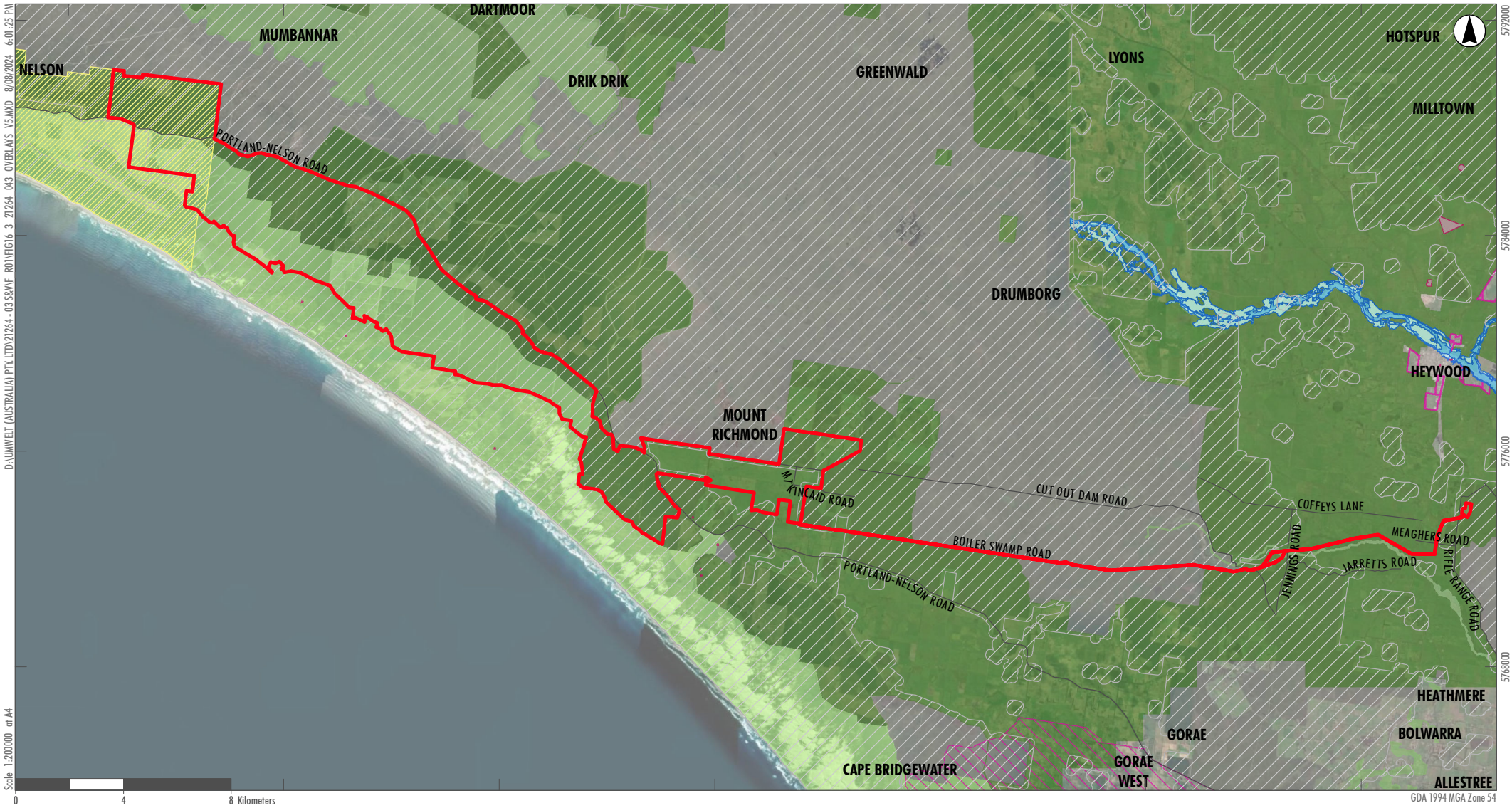
Planning Zones

- C1Z - Commercial 1 Zone
- C2Z - Commercial 2 Zone
- FZ - Farming Zone
- GRZ - General Residential Zone
- IN1Z - Industrial 1 Zone
- IN3Z - Industrial 3 Zone
- LDRZ - Low Density Residential Zone
- PCRZ - Public Conservation and Resource Zone
- PPRZ - Public Park and Recreation Zone
- PUZ1 - Public Use Zone-Service and Utility
- PUZ2 - Public Use Zone-Education
- PUZ3 - Public Use Zone-Health & Community
- PUZ5 - Public Use Zone-Cemetery/Crematorium
- PUZ6 - Public Use Zone-Local Government
- PUZ7 - Public Use Zone-Other Public Use
- RCZ - Rural Conservation Zone
- RLZ - Rural Living Zone
- SUZ - Special Use Zone
- TRZ1 - Transport Zone 1-State Transport Infrastructure
- TRZ2 - Transport Zone 2-Principal Road Network

Image Source: ESRI Basemap (2022) Data source: DELWP (2022)

FIGURE 16.2

Land Use Zones in the Project Area and Surrounds



Legend

- Project Area
- Roads

Planning Overlays

- ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 1 (ESO1)
- ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 2 (ESO2)
- ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 3 (ESO3)
- SIGNIFICANT LANDSCAPE OVERLAY - SCHEDULE 1 (SLO1)
- BUSHFIRE MANAGEMENT OVERLAY
- DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 1
- DEVELOPMENT PLAN OVERLAY - SCHEDULE 1
- DEVELOPMENT PLAN OVERLAY - SCHEDULE 11
- DEVELOPMENT PLAN OVERLAY - SCHEDULE 3
- DEVELOPMENT PLAN OVERLAY - SCHEDULE 4
- FLOODWAY OVERLAY - SCHEDULE 1
- HERITAGE OVERLAY (HO)
- LAND SUBJECT TO INUNDATION OVERLAY - SCHEDULE 1

FIGURE 16.3

Land use overlays in the Project Area and surrounds

Image Source: ESRI Basemap (2023) Data source: NTTT (2023), Victorian Government (2023), Umwelt (2023)

16.5 Strategic impact assessment

The strategic impact assessment assessed the Project against the MPS, PPF and applicable zones, overlays, and particular provisions of the Planning Scheme. The assessment concluded the following:

- The use and development of the proposed wind farm is permissible under the Planning Scheme, subject to approval by the Minister.
- The use of a utility installation (transmission line) located within the PCRZ (see **Figure 16.2**) is permissible without consent provided either of the relevant conditions within Clause 36.03-1 (Table of Uses) of the Planning Scheme are met. If neither of the conditions are met, a permit is required for the use of the land in the PCRZ provided land manager consent is obtained. Planning approval is required for construction of the transmission line within this zone.
- The use and development of sections of the transmission line located within other planning zones (FZ, Public Use Zone, and Transport Zone) is permissible with consent.
- The Project is generally consistent with the objectives of the Planning Scheme, including the PPF and applicable zones and overlays.
- Design and siting of the Project infrastructure has considered the objectives of the Planning Scheme and has been critical to ensuring compliance.
- Management and mitigation measures recommended in relevant EES technical studies will assist in meeting objectives of the policies regarding potential environmental and social impacts. Refer to **Chapter 19 *Environmental Management Framework*** for the complete list of proposed mitigation measures.
- The Project is consistent with State and regional policies pursuant to Clause 19 of the Planning Scheme relating to the provision of renewable energy.
- The Project is consistent with the requirements of Clause 52.32 (Wind energy facility) of the Planning Scheme and the Development of Wind Energy Facilities in Victoria – Policy and Planning Guidelines.
- In accordance with Section 77T of the *Mineral Resources (Sustainable Development) Act 1990* (Vic) (MRSD Act), where an EES has been prepared for the Project under the *Environment Effects Act 1978* (Vic) (EE Act) and a Work Plan is being prepared to obtain work authority from the Minister for Resources to carry out an extractive industry, the use and development of the on-site limestone quarry (classified as an extractive industry land use under the Planning Scheme) is exempt from planning approval.

For a more detailed assessment of the two key Project components (wind farm site and underground transmission line) against the applicable zones, overlays and particular provisions of the Planning Scheme, please see Section 8.1.2 of the **LUPIA (Appendix Q).**

16.6 Construction impacts

The Project's construction activities include those associated with construction of wind turbines, underground and overhead electrical infrastructure, and other ancillary infrastructure such as electrical substations. Construction activities would also include temporary concrete batching plants, the use of the on-site limestone quarry and the movements of construction-related vehicles. Land use impacts during construction of the Project would be temporary and primarily associated with the use of public roads and public land. Other land uses that could be impacted on include agricultural uses (commercial forestry and farming operations), recreational infrastructure, dwellings / residential areas, amenity of natural areas and other electricity infrastructure.

The Proponent will continue to implement its Community Engagement Strategy to ensure effective communication and engagement with nearby residents to the Project Area as well as the broader community throughout the planning, pre-construction, construction, and operational phases of the Project (see mitigation measure MM-SE01 in **Chapter 19 *Environmental management framework*).**

16.6.1 Agricultural activities

The Proponent has entered into commercial agreements with landowners and operators to host the Project. These agreements contain controls on how the Project is developed which mean the operation of the current land uses would not be materially detrimentally impacted, and also include some restrictions to ensure the safety of the landowners and staff during construction and avoidance of damage to Project infrastructure.

There would be minor interruptions to forestry and agricultural practices during construction. These would be suitably managed via provisions included in the above agreements.

Access along public roads to public land south of the wind farm, and around the Parks may be temporarily altered to ensure public safety. Diversions would be clearly marked and communicated with access restored as quickly as possible.

16.6.2 Public land and recreational infrastructure

Some disruption to public land site access and use of recreational infrastructure would likely occur as a result of construction works for the wind farm site and the underground transmission line through the Parks.

The transmission line would be constructed beneath Boiler Swamp Road using integrated excavation, cable laying and backfilling equipment. As described in **Chapter 3 *Project description***, the underground transmission line would be installed in three parallel trenches. This method has a smaller construction footprint than traditional open cut trenching methods due to the smaller trench widths and volumes of spoil generated. Multiple lengths of cable would be needed to construct the full length of the underground transmission line. Standard cable drum sizes would allow around 750 m of cabling to be installed in each section. Once the machinery has installed 750 m of cabling, it would turn around to install the second parallel length of cabling, and then turn around again to install the third and final cable.

Two-way vehicle access would be maintained at all times for emergency vehicles (e.g., those associated with bushfire management). Public access along Boiler Swamp Road would not be permitted where the construction works are taking place. This proposed construction methodology would allow Boiler Swamp Road to be closed off in segments to minimise disruption along Boiler Swamp Road, with just one 750 m section closed to the public at any one time. Road detours would be used to divert traffic onto adjacent roads through the Parks such as Wrights Swamp Road, T and W Road and Fish Hole Road. This would allow public traffic following the Wood, Wine and Roses Forest Drive and accessing other public land sites to be diverted around the section of Boiler Swamp Road under construction.

There may also be temporary access changes for other recreational uses such as horse trails, camping, hiking trails, and bike riding. For example, the Great South West Walk (GSWW) crosses Boiler Swamp Road at one location in Cobboboonee National Park. The proposed construction methodology for the underground transmission line has a 50 m-long work area at any one time. The machinery would therefore only obstruct the GSWW crossing for a short amount of time (in the order of minutes). People attempting to cross Boiler Swamp Road when the construction machinery is nearby will be encouraged to wait until the machinery has passed. A temporary marquee and seating area will be provided to allow for this. Alternatively, construction workers can guide hikers around the construction zone to continue on their way.

A detour for the GSWW along alternative roads is not considered necessary due to the short period during which hikers would be delayed (expected to be around 20 minutes), and the length of the detour that would be needed (over 1 km; 10-15 minutes of hiking). This is expected to be the case for other recreational users including horse riders and cyclists. All traffic management measures will be documented in a Traffic Management Plan (TMP) to ensure that all park users have been considered, with safe alternative access provided to maintain existing connectivity through the Parks for local access, pedestrians and cyclists (see mitigation measure MM-TP02 in **Chapter 15 *Transport***).

Construction compounds and laydown areas for the transmission line would be located on farmland outside of the Parks. These areas would be used for storing construction materials such as cable drums, equipment and plant when not in use, and as temporary facilities for construction staff (e.g., with kitchen and bathroom facilities).

The laydown areas would also be used for the temporary stockpiling of any backfill and spoil as required. The preferred construction methodology for the underground transmission line has a relatively small construction footprint largely due to its ability to trench and backfill in the same pass, minimising spoil generation. Much of the excavated material is proposed to be reused as backfill during the cable installation process, with minor amounts of excess spoil to be spread and rolled back into the road surface where appropriate to do so.

Any excess material would initially be laid on tarpaulins at existing road intersections within the Parks (where no impact on the Parks would occur), then transported at the end of each day to the offsite laydown areas to be reused elsewhere for wind farm construction or offsite disposal. Spoil management and control measures will be implemented and included in the Project's CEMP, to manage duties and obligations associated with waste/spoils under the EP Act to minimise risk of harm.

Noise generated by Project construction activities also has the potential to impact on public land users. The Environmental Noise Assessment **(Appendix O)** (ENA) undertaken for the Project conservatively predicted that the Lake Mombeong campsite and Surrey River Picnic Area could be exposed to noise levels up to 45 dB L_{Aeq} during construction (see **Chapter 14 *Noise and vibration***). EPA Victoria Publication 1834 *Civil Construction, Building and Demolition Guide* (EPA Victoria, 2020) does not apply receiver noise limits during normal working hours. However, construction works would be limited to normal working hours to minimise potential noise impacts, particularly at nighttime and on the weekend when campsites are typically occupied. The exception would be for any unavoidable works which must occur outside of these hours for safety reasons and to reduce traffic disruption. Measures to be implemented to further minimise and manage noise emissions will be detailed in a CNVMP prepared prior to construction commencing on the Project (see mitigation measure MM-NV01 in **Chapter 14 *Noise and vibration*).**

The Project's Community Engagement Strategy will also ensure effective communication and engagement with nearby residents, as well as the broader community is undertaken in relation to unavoidable night works (see mitigation measure MM-SE01 in **Chapter 17 *Socio-economic*).**

16.6.3 Amenity of natural areas

In accordance with Clause 7 of the ERS (detailed in Section 4.3.1.1 of the **LUPIA (Appendix Q)**), the environmental value of the ambient sound environment of relevance to the Project relates to 'human tranquillity and enjoyment outdoors in natural areas'.

Section 11 of the Environmental Noise and Vibration Assessment at **Appendix O** of the EES considers the ERS in the context of natural areas in detail. A summary of the outcomes of this assessment as it relates to land use and planning matters is contained in the following section. A detailed interpretation of the outcomes of that assessment is provided in Section 8.2.5 of the LUPIA (**Appendix Q**). The following section summarises each of those assessments.

In accordance with Clause 7 of the Environment Reference Standard, *natural areas* considered relevant to the Project comprise parts of the following:

- Lower Glenelg National Park
- Cobboboonee National Park
- Cobboboonee Forest Park
- Discovery Bay Coastal Park
- Various reserves
- Areas affected by the Environmental Significance Overlay and Significance Landscape Overlay under the Planning Scheme
- Recreational features including the GSWW and campsites.

Construction noise effects on natural areas

The assessment found very low background noise levels predicted at distant and sheltered parts of the natural areas. There is potential for construction activities to be audible over distances of up to 3 to 5 km from the work sites. The sections of the natural areas that are within 5 km include points of interest where people make use of natural areas, such as the Great South West Walk, camping grounds, picnic location and lookouts. Conversely, a significant portion of the areas within the indicated buffer would relate to locations which are either accessed infrequently, or not accessible.

Construction activities would be a temporary source of undesirable noise in sections of the natural areas around the Project. The predicted noise levels are low for temporary sources of noise and would be comparable to the range of noise levels that would occur when occasional forestry operations are occurring in surrounding plantations. However, while the predicted noise levels are low, the noise of construction activity is distinct from that of the natural sound environment, in terms of both the frequency and temporal characteristics of the noise. Construction activity and equipment that are characterised by tonal or impulsive sources would be most prominent and are likely to represent the greatest source of impact on natural soundscapes. Construction activity would therefore impact the value of the soundscape in these natural areas when the works are occurring. It is possible that some users of the adjacent natural areas may alter their use during construction to avoid having their experience negatively affected.

Operational noise effects on natural areas

The Project will most likely be audible on some occasions at the locations where wind turbine noise levels are above 30 dB LA90. Below that level, wind turbine noise may still be audible at times, but it would be much dependent on wind conditions and the specific characteristics of the background environment, and any audible wind turbine noise would be increasingly difficult to distinguish from the ambient sound environment.

From a land use and planning perspective, noise from adjacent land uses to natural areas should not be wholly unexpected where the planning zoning (and associated permissible land uses) differ. The proposed wind turbines are located within the Farming Zone, where a wind energy facility is a permissible land use. Notwithstanding, the ERS requires the consideration of potential noise impacts on the 'human tranquillity and enjoyment outdoors in natural areas'.

To minimise potential impacts on the 'human tranquillity and enjoyment outdoors in natural areas at these and other adjoining locations, key changes to the wind turbine layout have been made including (but not limited to):

Turbines were excluded from within two kilometres of the Lake Mombeong campsite. This also facilitates setbacks from the coastline and from the Great South West Walk at this location.

Turbines were removed from within 500 metres of wetlands within the Ramsar site and within 300 metres of public land including Lower Glenelg National Park and Cobboboonee National Park.

Turbines were removed from within parts of the Significant Landscape Overlay – Schedule 1, which relates to Glenelg River estuary and surrounds, with a focus on areas along the coastline, including sections of the Great South West Walk.

For a full description of the project design development and refinement process, refer to '**Chapter 4 – *Project development'*** of the EES.

Several measures to manage potential noise impacts, including on natural areas, have been developed. These measures include preparation of a Construction noise and vibration management plan that would be prepared in consultation with EPA Victoria and Parks Victoria and that would include all reasonably practicable measures proposed to fulfil the general environmental duty under the EP Act, accounting for guidance under EPA Publication 1834.1 Civil construction, building and demolition guide (see MM-NV01). Operational noise would also be managed by a suite of measures, including requirement to do pre and post-construction noise assessments (see MM-NV05 and MM-NV07) and the preparation of a Noise management plan (see MM-NV06). The assessment at **Section 11 of the Environmental Noise and Vibration Assessment at Appendix O** of the EES found that these measures would suitably manage potential noise effects on natural areas.

16.6.4 Housing

Potential temporary amenity impacts during construction include noise (from plant, equipment, and construction vehicles), dust, changes to access, and visual impacts on nearby existing dwellings. These impacts will be mitigated and managed through a range of industry best practice measures (see **Chapter 17 *Socio-economic***) and are unlikely to result in significant or permanent land use changes. They are not considered to be incompatible with land that is currently used for housing / residential purposes.

16.6.5 Other infrastructure

Construction of the Project, including delivery of infrastructure, may temporarily cause disruptions and/or delays along Portland-Nelson Road, but these are not expected to have long-term or significant impacts on the use of the road network. Site access points would need to be upgraded along with several pinch points along Portland-Nelson Road to allow for the transport of over-dimensional loads such as turbine blades There is not expected to be any detrimental impacts on local traffic conditions and operations once the Project is operational, due to the small amount of operational traffic that would be generated by the Project and the existing capacity of Portland-Nelson Road. Additionally, vehicle movements associated with the construction and operation of the limestone quarry would largely be contained within the wind farm site and are therefore not expected to impact on the local road network. Refer to **Chapter 15 *Transport*** for more information on potential transport impacts.

The Heywood Terminal Station would be affected by the Project during connection of the transmission line into the substation. These works would be temporary and undertaken in strict accordance with AusNet requirements or by AusNet personnel.

No other power or energy infrastructure, or education or health infrastructure, would be adversely impacted during construction of the Project.

16.7 Operation impacts

Once operational, the Project would have minimal impact on public land uses, agricultural activities and existing infrastructure. Development of the Project would not prevent land within the Project Area and surrounding properties from continuing to be used for existing land-dependant production-based land uses. Land within the wind farm site that is not required for wind farm infrastructure would continue to be used for forestry and grazing during operation. It is estimated that approximately 4 % (342 ha) of the Project Area would be used for the wind turbines, access tracks and other operational Project infrastructure.

Operational and maintenance requirements of the transmission line within the Parks would be minimal. Underground assets including cables and joints are expected to be maintenance free throughout their respective design life. However, regular monitoring would be undertaken remotely. If a fault were detected, the joint bays or link boxes would be accessed for repair or further testing. These inspections would involve removal of the joint bay / link box lids and visual inspections of the pits. Emergency vehicle access along Boiler Swamp Road would be maintained at all times. Public access would be maintained where possible, however works required to the central cabling or associated infrastructure may require that the section of road be closed to the public and detours put in place.

The cable trenching design allows for approximately 50 m of cable slack at the joint bays. This would reduce the time needed for maintenance works and minimise disruption along Boiler Swamp Road. Maintenance would be infrequent and only in response to potential issues with the joint bays or link boxes. Any onsite maintenance work would involve small crews with a vehicle and minor excavation equipment and would remain within the road formation.

These works would have a minimal impact on local traffic using Boiler Swamp Road. Maintenance works would be undertaken in accordance with the transmission line TMP (see mitigation measure MM-TP02 in **Chapter 15 *Transport***) including the following mitigation measures:

- Vehicle and machinery will be maintained in accordance with manufacturer requirements and Parks Victoria / DEECA hygiene requirements.

- No go zones will be demarcated on site and adhered to by construction traffic/personnel.
- Any excavated material will be reinstated and the road will be returned to its original state once repair works are complete.
- Potential traffic disruptions and traffic controls to be implemented during repair periods will be communicated to all relevant stakeholders in accordance with the TMP.

A pre-development noise assessment will be prepared demonstrating that the wind farm is expected to achieve compliance with the operational noise requirements established in accordance with *NZS 6808:2010 Acoustics – Wind Farm Noise* (NZ 6808). The pre-development noise assessment will be based on the final wind turbine layout, representative noise emission data for the final selected turbine model and the location of all receivers around the wind farm (see mitigation measure MM-NV05 in **Chapter 14 *Noise and vibration***). A Noise Management Plan (NMP) will be prepared and implemented during operation to ensure compliance with operational noise requirements as per the pre-development noise assessment (see mitigation measure MM-NV07 in **Chapter 14 *Noise and vibration***).

Potential amenity impacts on the visitor experience of adjacent natural areas as a result of noise from the proposed wind turbines is anticipated however, it is acknowledged that the proposed wind turbines are located within the Farming Zone, where a wind energy facility is a permissible land use. Noise sources will be limited and predominantly centred on wind turbine noise. The assessment of potential operational noise emissions found that the Project is most likely to be audible on limited occasions where wind turbine noise levels are above 30 dB L_{A90}. Below this level, wind turbine noise may still be audible at times, however less frequent and dependent on wind conditions and the background environment. It is anticipated wind turbine noise levels above 30 dB L_{A90} are predicted to occur in areas within approximately two kilometres of the Project's wind turbines. Areas within two kilometres of the Project's wind turbines include Lower Glenelg National Park, Discovery Bay Coastal Park, Kentbruck H14 Bushland Reserve, Kentbruck H50 Bushland Reserve and Hedditch Hill Scenic Reserve.

16.8 Decommissioning impacts

Potential land use impacts associated with decommissioning of the Project would be similar to those for the construction phase. Areas of agricultural land uses affected by the Project (forestry and farming) would be rehabilitated to pre-development condition or as otherwise agreed with the relevant landowners, and there is not expected to be any long-term adverse effect on the current uses.

The Proponent is exploring a number of options for decommissioning of the transmission line. The expected lifetime of this asset would exceed the lifetime of the wind farm, hence there are a number of options to consider for decommissioning:

- The assets could be left in situ for reuse. This may include reconnecting to a refurbished wind farm on the same site or a nearby site, or to other energy generation projects.
- All or some of the material could be recovered for reuse, with any waste disposed of at an appropriately licensed facility. In relation to the underground transmission line, Boiler Swamp Road would be reinstated to its original condition. Shallow underground assets (below 300 mm depth) are often left in situ for major developments, however the feasibility of this would be discussed with Parks Victoria and DEECA. Removal of all underground materials would involve a similar level of traffic disruption as construction, although the overall deconstruction process would be one or two months faster than construction.

The process for removing transmission line materials would use a similar method to construction and involve similar impacts, but would be simpler and faster. In relation to the underground transmission line, the deconstruction works would be easier to schedule and require less detailed planning and design than during construction, as the materials to be removed are known and predictable relative to the materials to be excavated during construction.

16.9 Mitigation measures

A range of measures will be implemented during Project development to avoid and minimise potential land use and planning impacts, including the strategic siting and design of Project infrastructure and selection of a construction methodology for the underground transmission line that has a small impact footprint. Specific avoidance and minimisation measures adopted by the Project include:

- Consideration of relevant overlay objectives in relation to the placement of wind turbines and other infrastructure to ensure they can be achieved, and application requirements can be met.
- Avoidance of impacts on environmentally significant areas such as the Ramsar site.
- Application of turbine setbacks from the Ramsar site, wetlands (particularly wetlands used for brolga breeding), and adjacent national parks.
- Minimisation of plantation and agricultural land needed for construction and operation of the wind farm.

- Minimisation of impacts on public land used for recreational purposes, including the selection of a construction methodology for the underground transmission line which has a small footprint, and identification of measures to manage diversions for public vehicles and GSWW users during transmission line construction.
- Application of turbine setbacks from the carriageway of Portland-Nelson Road.
- Application of buffers to dwellings (1 km unless otherwise agreed between the Proponent and the landowner) and nearby campsites (namely a 2 km buffer on the Lake Mombeong campsite) to mitigate potential noise and visual impacts.
- Relocation of wind turbines from land previously zoned Public Park and Recreation Zone (PPRZ) (gazettal of Amendment C96gelg rezoned this area of PPRZ to FZ).

In addition to these avoidance and minimisation measures already adopted by the Project, a range of management plans will be prepared to identify further measures for mitigating and managing potential land use and planning impacts including:

- A CCEMP will be prepared and implemented for managing potential amenity impacts associated with construction of the Project, including detailed management procedures and controls for noise, traffic, visual amenity, stormwater runoff, erosion and sedimentation, and dust.
- An OEMP and appropriate sub-plans will be prepared and implemented for managing potential amenity impacts associated with operation and maintenance of the Project, including the need for ongoing consultation with local landowners and other relevant stakeholders.
- A Decommissioning Environmental Management Plan (DEMP) will be prepared in consultation with affected landowners and relevant stakeholders for managing potential amenity impacts associated with decommissioning of the Project.

Several EES technical assessments and reports also propose a range of measures for minimising potential land use impacts of the Project. Refer to **Chapter 19**. ***Environmental management framework*** for the complete list of mitigation measures.

16.10 Conclusion

The key issues considered by the LUPIA assessment (**Appendix Q** of the EES) as guided by the EES scoping requirements included:

- Compatibility of the Project within the regional context and likely constraints for future land use.
- Permanent and temporary disruption of land uses and infrastructure.
- Potential effects of the Project on public land sites, and land management practices and strategic direction for public land.

The use of land for a wind farm would not prejudice the ongoing use of the same land for forestry and agricultural purposes. Disruption to forestry and agricultural practices is minor with the implementation of mitigation, and through the agreements in place between the Proponent and the forestry operators. There is some potential for disruption to uses associated with neighbouring public land during construction which would be appropriately managed through implementation of the CEMP and OEMP as set out in the draft Incorporated Document (refer **Appendix AA** to the EES).

The use and development of the Project is permissible under the Planning Scheme. The Project is generally in accordance with the relevant provisions of the PPF and the purpose of the applicable zones and overlays. The Project gives effect to relevant provisions of the Planning Scheme including **Clause 19.01** (Energy) of the Planning Scheme as it relates to renewable energy and complies with **Clause 52.32** (Wind Energy Facility) of the Planning Scheme that relates to use and development of wind energy facilities.

Planning approval for the use and development of the Project will be sought via a PSA to the Planning Scheme, to be considered by the Minister for Planning. The PSA seeks to apply a Special Controls Overlay to the Project Area and insert an Incorporated Document to facilitate the necessary planning approvals. The draft PSA documentation will be publicly exhibited with the EES. During this time, the public can read the PSA and EES documentation and make written submissions about matters presented. The draft PSA is enclosed in **Appendix AA** of the EES.

Potential impacts investigated can be summarised in accordance with the Project phases.

- Construction:
    - Land use changes would have minor and temporary land use or amenity impacts within or close to the Project Area. These temporary construction impacts would be confined in scale and relatively short in duration, with substantial work being done as part of the project development to identify low impact and progressive construction methodologies and mitigation to manage potential impacts.

  - Land to be occupied during construction would be temporary, with forestry and agricultural practices able to continue, and unimpeded use of Boiler Swamp Road for emergency and management vehicles to be ensured. Some disruption to users of the Great South West Walk may occur however these would be appropriately managed by ensuring users are suitably informed and redirected if the need arises to alternate crossings.
  - Some minor amenity effects may be felt by users of campsites and other natural features around the Project Area during construction, predominantly associated with construction noise. These would be temporary and managed via a construction noise and vibration management plan. Setbacks to adjacent public land will also assist in ameliorating potential amenity impacts.
  - Land in and around the Project Area is otherwise generally sparsely populated and compatible with temporary, localised construction effects expected from development of this scale.
- Operation:
  - The wind farm is compatible and consistent with the land use designations for the site and would not otherwise impede on the viability of existing land uses. The transmission line is compatible with the land on which it is proposed and would allow for ongoing use of Boiler Swamp Road for the array of purposes it currently serves.
  - Land adjacent to the Project would continue to be used for leisure and recreation purposes which are consistent with established land uses. There is not expected to be any long-term detrimental impacts on the objectives of the land that would be occupied or adjacent areas, including having regard to the objectives of the Ngootyoong Gunditj Ngootyoong Mara South West Management Plan.
  - Operational amenity effects on adjacent land uses are minor and not wholly unexpected given the land on which the wind farm is proposed is zoned Farming Zone, within which wind energy facilities are a permissible use.
  - Changes to visual amenity will be permanent but localised. Sensitive visual receptors such as Lake Monbeong campground will be investigated for landscape screening to assist in ameliorating visual impacts.
  - There is some potential for users of public land adjacent to the Project to experience wind turbine noise under certain conditions. Wind turbine setbacks from natural areas have been implemented to assist in ameliorating potential effects at adjacent public land sites like Lake Monbeong Campground, Discovery Bay coastline, and sections of the Great South West Walk.

Key avoidance measures and the development and implementation of a suite of management plans (**Section 16.9**) will minimise impacts on existing land uses to the extent practicable and manage the disruption to adjacent/nearby public land. The Project is considered to achieve the relevant land use and planning EES evaluation objective as set out in the EES scoping requirements. This assessment along with the supporting technical assessment considered in this assessment is considered to fulfil the EES scoping requirements.

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