Hexham
Wind Farm

Chapter 20

Land use and planning

WIND PROSPECT

20.1 Overview

This chapter describes the potential land use and planning impacts associated with the construction, operation and decommissioning of the project. The information is based on the impact assessment prepared by Bunjil Planning and presented in Appendix H – ***Land Use and Planning Report***.

The project is subject to the provisions of the Moyne Planning Scheme. Most of the project site is within the Farming Zone, with small areas of Transport 2 Zone also proposed to host project infrastructure. How the project addresses relevant planning policy is discussed in Section 20.5. and Section 20.6 of this chapter and in Appendix H – ***Land Use and Planning Report***.

Impacts associated with the project have been minimised and avoided through landowner consultation and improvements to the design and siting of infrastructure. The impacts on the reduction of available agricultural land during the project stages were found to be minor, as they impact on a small percentage of the project site, and are short term, reversible, and localised. Further, the proposed use of the land is compatible with the existing agricultural land use and will have a negligible impact on agricultural land use during the operation of the project. Residual impacts would be managed via the use of construction and decommissioning management plans.

Impacts to the residential land use of existing dwellings during construction, operation and decommissioning is found to be negligible with minor potential for short term and localised impacts which can be managed. The location of new dwellings in proximity to the project has the potential to result in significant inconsistences or inability to comply with relevant state and local policy and guidelines. The potential for significant impacts could potentially be managed via a planning permit application process.

Potential impacts to the use of agricultural land resulting from the proposed temporary on-site quarry are considered to be minor. Potential impacts on residential land use of dwellings are considered to be minor due to the distance of the proposed on-site quarry from dwellings, the short-term nature of the operation and the proposal to return the land to agricultural uses.

The project's proximity to ten other windfarms raises the potential for cumulative impacts if multiple projects are constructed and/or decommissioned at the same time. Coordination between approved and yet to be constructed projects would be undertaken to minimise any potential impact.

Required planning approval

Planning approval for the project is being sought via a planning permit application(s) under the *Planning and Environment Act 1987*, which is exhibited alongside the EES for public comment. This application will be reviewed by the Inquiry and Advisory Committee appointed for the EES, and is subject to approval by the Minister for Planning, as outlined in Chapter 3 – ***Legislation and policy framework***.

The project requires a planning permit due to its location in the Farming Zone and the nature of proposed activities, including the use and development of a wind energy facility, removal of native vegetation, use of signage, and creation of site access points.

20.2 EES objectives and key issues

The EES scoping requirements specify the evaluation objective and key issues, outlined in Table 20.1, relevant to land use that have guided this assessment.

Table 20.1 EES evaluation objective and key issues

Evaluation objective	
Land use and socioeconomic: *To avoid and minimise adverse effects on land use (including agricultural and residential), social fabric of the community (with regard to wellbeing, community cohesion), local infrastructure, electromagnetic interference, aviation safety and to neighbouring landowners during construction, operation and decommissioning of the project.*	
Key issues	• Significant disruption to existing and/or proposed land uses, with associated economic and social effects on households and businesses.

The land use and socioeconomic evaluation objective also includes key issues relating to socio-economic, aviation and aerial safety, agriculture, traffic and communication, which are the subject of individual specialist studies that have informed the preparation of the land use and planning assessment.

20.3 Legislation, policy and guidelines

Key legislation, policies and guidelines relevant to ***Land Use and Planning Report*** (Appendix H) for the project are summarised in Table 20.2 below. Specific legislation, policies and guidelines relevant to the generation of noise, dust, traffic, obstacles and shadow flicker, which also impact land use and planning outcomes, are described in the relevant chapters:

- Chapter 15 – ***Shadow flicker and blade glint***
- Chapter 16 – ***Air quality and greenhouse gas***
- Chapter 17 – ***Noise and vibration***
- Chapter 22 – ***Aviation***
- Chapter 25 – ***Traffic and transport.***

Table 20.2 Relevant legislation and policies

Legislation/policy	Description	Relevance to project
State		
Planning and Environment Act 1987	The *Planning and Environment Act 1987* establishes the legislative framework for the use and development of land in Victoria. This Act is the primary mechanism by which land use and development is permitted, controlled or prohibited, and it sets out the structure and administration of the planning system in Victoria. This is the key legislation for land use and planning to address the relevant EES objectives outlined in the EES scoping requirements. Further detail is provided in Chapter 3 – ***Legislation and policy framework***.	The land within the project site is subject to the requirements of the Moyne Planning Scheme. The scheme includes policies that are directly relevant to the project and are examined further in Section 5 of Appendix H – ***Land Use and Planning Report***. Approval is required under this Act for the project.

Legislation/policy	Description	Relevance to project
Mineral Resources (Sustainable Development) Act 1990	The *Mineral Resources (Sustainable Development) Act 1990* provides a legislative framework for the development and regulation of the mineral exploration and mining industry, and extractive industries (quarries) for the extraction of stone resources in Victoria.	Under the provisions of the Farming Zone a planning permit is not required to use and develop land for an earth and energy resources industry (stone extraction) if the proposed on-site quarry complies with Section 77T of the *Mineral Resources (Sustainable Development) Act 1990*. Section 77T states: *"If under a planning scheme a permit is required to be obtained for carrying out an extractive industry on the land covered by an extractive industry work authority, the holder of the work authority is not required to obtain a permit if—* a. *an Environment Effects Statement has been prepared under the Environment Effects Act 1978 on the work proposed to be done under the work authority; and* b. *an assessment of that Statement by the Minister administering the Environment Effects Act 1978 has been submitted to the Minister; and* c. *the work authority was granted by the Minister following the Minister's consideration of that assessment."* A Work Plan will be required to be endorsed pursuant to Section 77TD of this Act.
Crown Land (Reserves) Act 1978	The *Crown Land (Reserves) Act 1978* provides for the reservation of Crown Land for certain purposes by the Governor in Council and sets out the administrative and legal framework for managing reserved Crown land and the processes for revoking Crown land in Victoria. Crown land can be reserved for a range of public purposes, including public parks and gardens, the beds and banks of waterways, and railways.	Crown land, including unnamed government roads within the project site and some road reserve land, will be used by the project, requiring consent under this Act. Project infrastructure located close to roads will result in blade overhang onto Crown land and will require consent. Infrastructure crossing and impact on crown land includes overhead powerlines and pole, wind turbine hardstand, access tracks, underground electrical cables and temporary construction such as a site office, compound and laydown areas. A plan of known crown land locations and the location of Project infrastructure is detailed in Appendix A of the ***Land Use and Planning Report*** (Appendix H).
Land Act 1958	The *Land Act 1958* provides for the management of unreserved Crown land and freehold land. This Act also regulates the grants of interest in, and alienation of, unreserved Crown land.	Works or activities that may occur on Crown land comprising unnamed government roads within the project site may include the creation of access to and from other roads, underground electrical infrastructure and overhead powerlines. A permit is required to impact on unreserved crown land and permission will be required.

Legislation/policy	Description	Relevance to project
Road Management Act 2004	The purpose of the *Road Management Act 2004* is to establish a coordinated management system for public roads that promotes safe and efficient state and local public road networks and the responsible use of our roads.	Under the *Road Management Act 2004*, written consent from the coordinating road authority is required to conduct work in, on, under or over a road. The proponent will obtain the required consents from authorities for any such works.
Water Act 1989	The *Water Act 1989* provides the legal framework for managing Victoria's water resources for the purpose of promoting the orderly, equitable and efficient use of water resources. It ensures water resources are conserved and properly managed for sustainable use for the benefit of present and future Victorians. The *Water Act 1989* applies to management of surface water and groundwater resources.	The *Water Act 1989* applies to management of surface water and groundwater resources. Section 67 a licence to construct, alter, operate, remove or decommission any works on a waterway. A licence to construct works across designated waterways (such as waterway crossings associated with access tracks) or to construct a bore as part of the project would be required from the Glenelg Hopkins Catchment Management Authority.
Planning Guidelines for Development of Wind Energy Facilities (Planning Guidelines) (DTP, 2023a)	The Planning Guidelines provide a set of consistent operational performance standards to inform the assessment and operation of a wind energy facility project, as well as guidance as to how planning permit application requirements might be met.	The Planning Guidelines are referenced throughout the Victoria Planning Provisions (VPP), specifically in: • Clause 19.01-2S Renewable Energy • Clause 52.32 Wind Energy Facility These guidelines have informed the project design and have been considered in the land use and planning assessment.
Renewable Energy Zones Development Plan Directions Paper (Directions Paper) (DELWP, 2021b)	The purpose of the Directions Paper is to unlock 10 GW of new renewable energy capacity in Victoria, taking the total capacity across Victorian Renewable Energy Zones (REZ) to 16 GW. This will be enabled by the Victorian Government's $540 million REZ Fund to invest in needed REZ network infrastructure and the establishment of a new body, VicGrid, to actively plan and develop Victorian REZs.	The project is located within Victoria's proposed South West REZ.
Local/Regional		
Moyne Planning Scheme	The purpose of the Moyne Planning Scheme (Clause 1.01) is: • To provide a clear and consistent framework within which decisions about the use and development of land can be made. • To express state, regional, local and community expectations for areas and land uses. • To provide for the implementation of State, regional and local policies affecting land use and development. • To support responses to climate change.	Planning permits are required for the project (refer to Section 20.5.1 and 20.6 for further assessment).

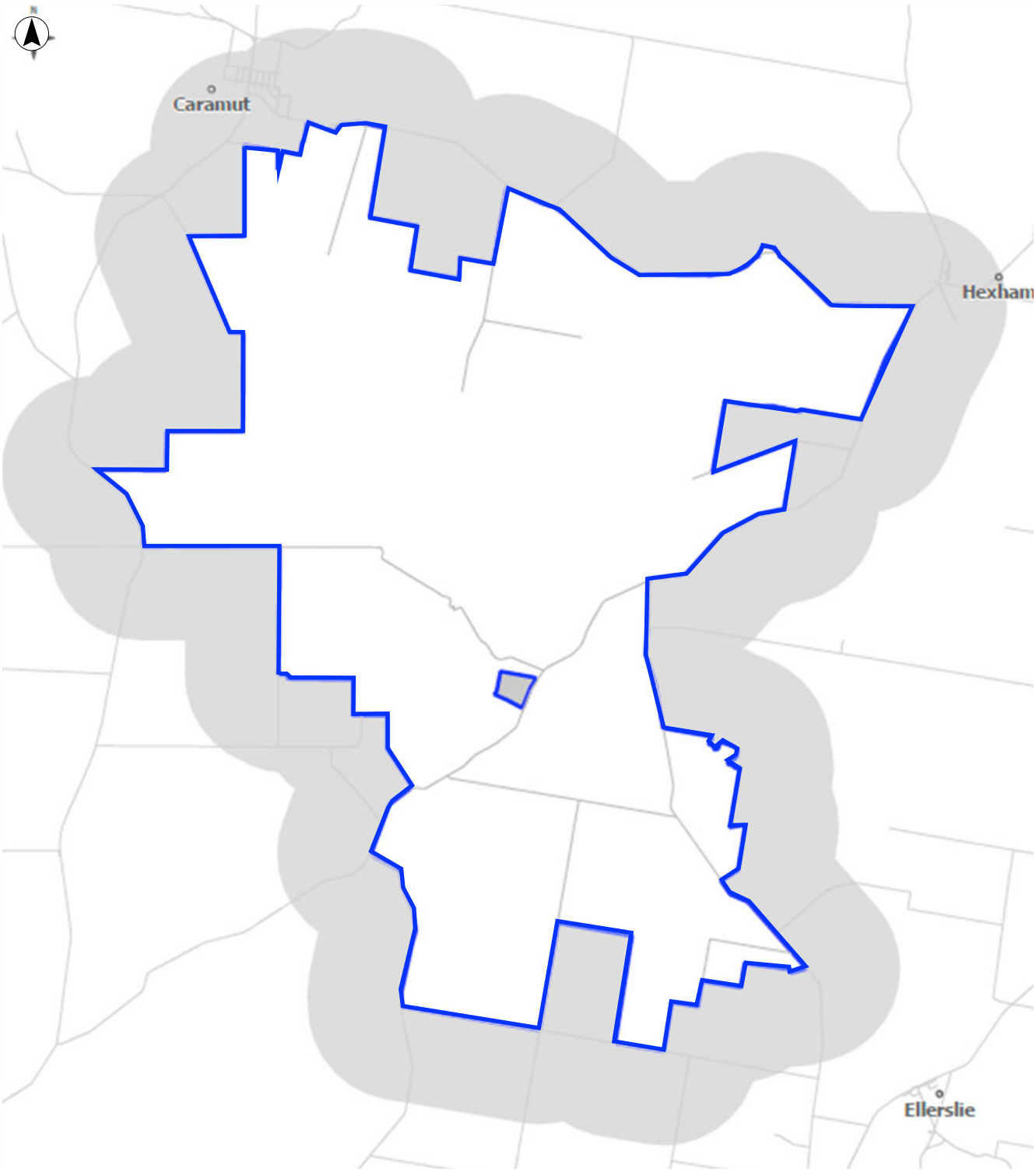
Legislation/policy	Description	Relevance to project
Great South Coast Regional Growth Plan	The Great South Coast Regional Growth Plan provides a 30-year vision of the land use planning framework to underpin a prosperous and sustainable future for the region. The plan supports economic and population growth, building on regional strengths and opportunities. It also identifies that infrastructure, services and workforce will be needed to harness the potential and benefits of growth.	The Great South Coast Regional Growth Plan recognises the role of wind projects in the regions and supports the development of value-adding opportunities in the future economic development of the region. The Great South Coast Regional Growth Plan has been considered in the design of the project and as part of the land use and planning assessment.
Council Plan 2021-25 (Moyne Shire Council, 2021c)	The Council Plan 2021-25 is a public statement of how Council will work in partnership with the community, agencies and partners to deliver the future Council aspires to. The Council Plan 2021-25 recognises the significant benefit to local communities from the investment and development in renewable energy projects across the Shire, however, the plan outlines there is continued opposition of new wind farm developments beyond those already proposed.	This plan has been considered in the design of the project and as part of the land use and planning assessment.

20.4 Investigation area

The investigation area for the land use and planning assessment included:

- The area of land contained within the project site, comprising of 349 titles held by 14 host landowner familes. The boundary of the project site aligns with the boundary of existing titles.
- Land immediately surrounding the project site, up to a distance of approximately two kilometres.

The location of the investigation area is shown in Figure 20.1.



Legend

- Wind farm boundary
- Study area

Scale 3,000 m

Data: State of Victoria (DECCA/Land Use Victoria), Commonwealth of Australia, Wind Prospect, and specialist studies/reports. Data is indicative only; accuracy and completeness are not guaranteed. © State of Victoria and other data providers

Figure 20.1 Land use and planning investigation area

20.5 Method

The land use and planning assessment considered the land use values of the project site and surrounding area, the applicable planning frameworks, and the potential implications of the project during its construction, operation and decommissioning phases. The assessment identified the potential long- and short-term effects of the project on existing and potential land uses including agricultural and residential, and developed measures to manage the residual effects associated with potential land use and planning impacts.

The assessment was structured around four key components, which are detailed in the following sections:

- defining an investigation area
- identifying current land uses and relevant planning controls
- evaluating the potential land use and planning impacts of the project and their significance
- considering the combined effects of the project alongside other nearby wind energy developments.

The legislative framework review included the provisions of the Moyne Planning Scheme, including the Planning Policy Framework, Zones, Overlays, Particular and General provisions, and any other relevant clauses. Other legislation and policies relevant to the land use and planning assessment have also been considered, as described in Section 20.3.

20.5.1 Existing conditions

To understand the potential land use and planning impacts of the project, existing conditions relevant to land use and planning were first identified through:

- defining the investigation area and identifying existing land uses
- reviewing the legislative framework relevant to the project and its immediate surrounds, including relevant Planning Policy Framework and the Municipal Planning Strategy, land use definitions, zones, overlays and other provisions of the Moyne Planning Scheme.

20.5.2 Impact assessment

An assessment of potential impacts associated with the construction, operation and decommissioning of the project was undertaken by:

- assessing how the project complies with the regulatory framework
- identifying relevant land use and planning impacts associated with the construction, operation and eventual decommissioning of the project
- assessing the magnitude, extent, duration and sensitivity of the of potential impacts, using the impact significance criteria as described in Table 20.3

Table 20.3 Significance criteria

Rating	Criteria
Negligible	No measurable impact on land use.
Minor	Short-term, reversible changes with localised impact or minor disruption to existing land use, which can be managed; or Temporary limited access to properties but with no disruption to existing land use; or May have minor inconsistencies with local policy and guidelines.
Moderate	Moderate and permanent disruption to land use; or Moderate, permanent disruption to access to properties resulting in acquisition of up to five properties; or Result in significant inconstancies with relevant local policy and guidelines
High	Long-term, significant changes or significant permanent disruption to land use (more than five properties); or Result in significant inconsistencies with relevant state policy and guidelines.
Severe	Irreversible, significant changes and significant permanent disruption to land use; or Can not comply with all relevant legislative requirements and conflicts with all relevant policy and guidelines.

20.5.3 Cumulative impacts

An assessment of neighbouring wind energy projects within 25 kilometres of the project site was undertaken to determine potential cumulative impacts. This process involved identifying and mapping the location, size and proximity of surrounding proposed, under construction and operational wind energy projects (at the time of the assessment), and assessing impacts to agriculture and residential land uses during each phase of the project.

Neighbouring wind energy projects relevant to this assessment were identified through a desktop review of publicly available information published by the Department of Transport and Planning, including the Ministerial Permits Register, Environment Effects Statement (EES) Projects and Referrals database, and Renewable Energy Projects Victoria online map.

20.6 Existing conditions

20.6.1 Moyne Planning Scheme

The project site is within Moyne Shire and is subject to the provisions of the Moyne Planning Scheme. The planning scheme sets out the planning requirements and policy considerations for any planning application for a wind farm and associated infrastructure. Responsible authorities must consider the matters outlined in the planning scheme when administering the use and development of land and their impacts as relevant to the EES. Planning schemes are prepared, approved and implemented under the *Planning and Environment Act 1987*.

The planning scheme includes the following sections, each of which contain several clauses that provide a clear and consistent framework within which decisions about the use and development of land can be made.

Project land use terms

The land use for the project works are defined under Clause 73.03 (Land use terms) of the Moyne Planning Scheme as:

- **Wind energy facility:** Land used to generate electricity by wind force. It includes land used for:
  a) any turbine, building or other structure or thing used in or in connection with the generation of electricity by wind force
  b) an anemometer.

  This land use is applicable to the wind turbines, access tracks and ancillary facilities, and meteorological monitoring masts.
- **Utility installation:** Land used:
  a) to transmit, distribute or store power, including battery storage.

  This land use is applicable to the battery energy storage system and on-site substation.
- **Earth and energy resources industry:** Land used for the exploration, removal or processing of natural earth or energy resources. It includes any activity incidental to this purpose including the construction and use of temporary accommodation.

  This land use is applicable to the proposed on-site quarry.

Planning Policy Framework

The Planning Policy Framework outlines state-wide and regional strategic planning issues and is common in content across all Victorian planning schemes. The Planning Policy Framework seeks to ensure the objectives of planning in Victoria are adopted through appropriate land use and development that considers relevant environmental, social and economic factors to benefit the community and promote sustainable development.

Clauses of the Planning Policy Framework relevant to land use and planning for the project are:

- Clause 12 Environmental and landscape values

- Clause 13 Environmental risks and amenity
- Clause 14 Natural resource management
- Clause 15 Built environment and heritage
- Clause 17 Economic development
- Clause 18 Transport
- Clause 19 Infrastructure.

An assessment of how the project responds to these clauses is provided in Appendix H – ***Land Use and Planning Report***.

Municipal Planning Strategy

The Municipal Planning Strategy provides the vision (objectives and strategies) for land use and development in Moyne Shire.

Clauses of the Municipal Planning Strategy relevant to land use and planning for the project are:

- Clause 02.02 Vision
- Clause 02.03-1 Settlement
- Clause 02.03-2 Environment and landscape values
- Clause 02.03-3 Environmental risks and amenity
- Clause 02.03-4 Natural resource management
- Clause 02.03-5 Built environment and heritage
- Clause 02.03-6 Housing
- Clause 02-03-7 Economic development
- Clause 02.03-8 Transport
- Clause 02.03-9 Infrastructure.

An assessment of how the project responds to these clauses is provided in Appendix H – ***Land Use and Planning Report***.

Planning controls

Zones and overlays are contained within the state-wide Planning Policy Framework. 'Schedules' to zones or overlays are specific to the Moyne Planning Scheme and may, for example, refer to specific properties or exemption provisions relevant to the specific municipal planning scheme.

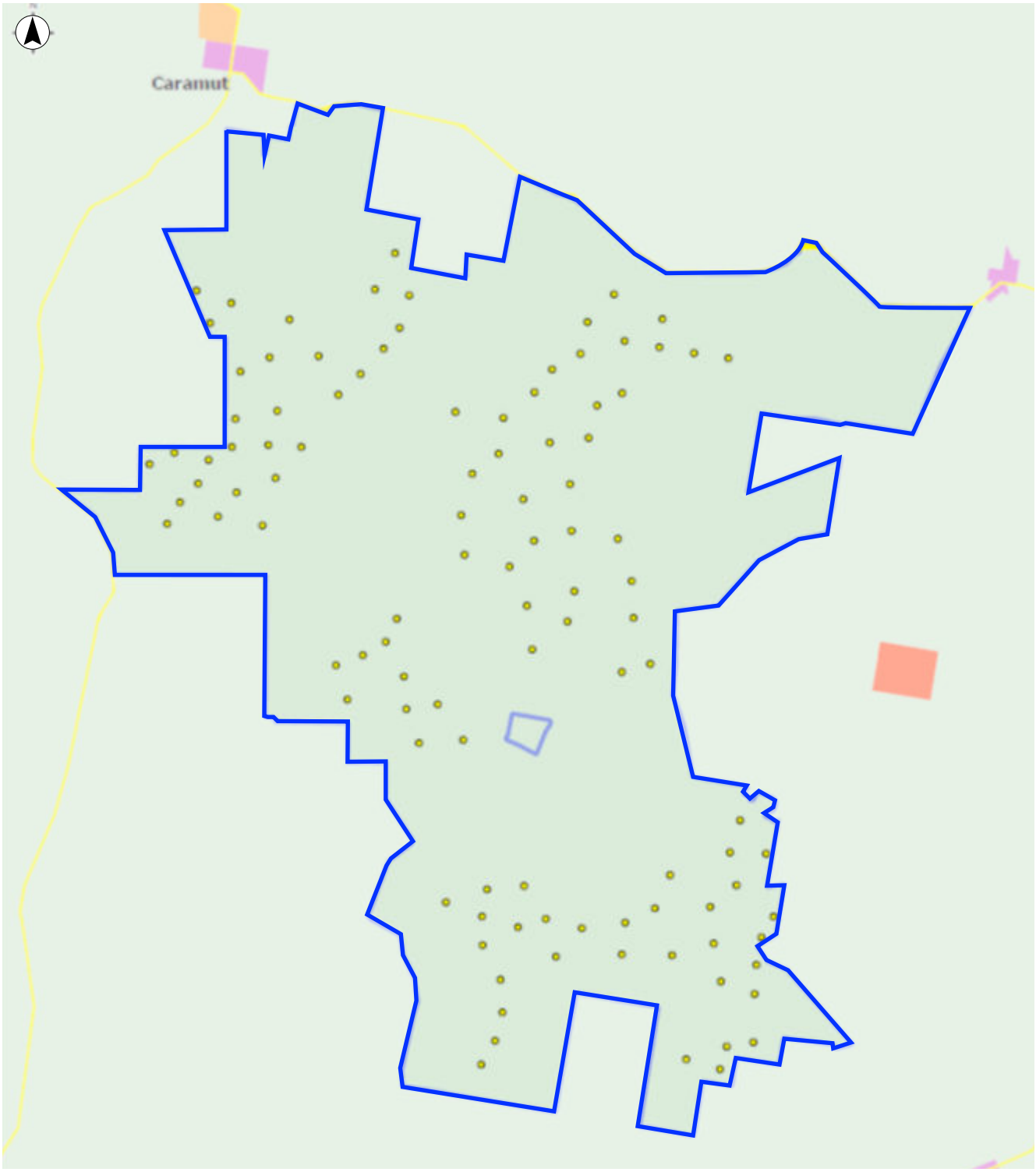
Zones

All land in Victoria is covered by planning 'zones'. These are defined by local councils and determine the use of the land and can influence whether a planning permit is required to construct a building or carry out works. Zones may include uses such as residential, industrial or public use.

The project site is primarily within the Farming Zone, with small areas of land affected by the Transport Zone 2, as described in Table 20.4 and shown in Figure 20.2.

Table 20.4 Summary of zoning permit triggers

Planning Zone	Proposed Land Use	Provisions	Planning Permit Trigger
Clause 35.07 **Farming Zone**	Wind Energy Facility	A permit is required for the use and development of land for a wind energy facility (which is a Section 2 use) and must meet the requirements of Clause 52.32 (Wind Energy Facility)	Yes
	Utility Installation	A permit is required for the use and development of land for a Utility Installation.	Yes
	Quarry/Earth and Energy Resource Industry	Clause 52.08 Earth Energy Resource Industry states: *No permit is required to use and develop land for an earth and energy resources industry if the conditions that the quarry complies with Section 77T of the Mineral Resources (Sustainable Development) Act 1990 is met.*	No
Clause 36.04 **Transport Zone 2 (Principal Road Network)**	Wind Energy Facility	Wind Energy Facility is included in 'any other use' of Section 1 of Clause 36.04. A permit is required if the below condition is not met: *The use must be for a transport purpose and carried out by or on behalf of a relevant transport manager.* Transport manager, in this context, refers to: *a Minister; or* *government department; or* *Administrative Office under the Public Administration Act 2004; or* *public authority; or* *any person that has responsibility under an Act for the care or management of land that forms part of Victoria's transport system.*	Yes
	Utility Installation	A permit is required to use land within the Transport Zone 2 for a utility installation if the use is not carried out on or behalf of the relevant transport manager.	Yes

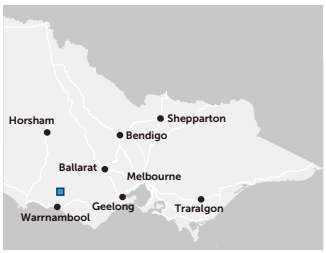


Legend

- Wind turbine generator
- Wind farm boundary

Planning Zones

- Farming zone
- Transport zone
- Rural living zone
- Special use zone - schedule 1
- Township zone



Scale 3,000 m

Data: State of Victoria (DECCA/Land Use Victoria), Commonwealth of Australia, Wind Prospect, and specialist studies/reports. Data is indicative only; accuracy and completeness are not guaranteed.

Figure 20.2 Zoning plan of project site

Overlays

In addition to zones, land can also be covered by one or more planning 'overlays', which apply additional controls to the use and development of land. While all land has a zone, not all land is affected by overlays. In rural environments, they generally relate to physical environment constraints but can also relate to built form outcomes.

A small area of the project site, on the south-eastern perimeter, is located within the Bushfire Management Overlay (BMO) however no wind turbines are proposed to be located within the BMO. Additionally, a Heritage Overlay applies to three locations within the project site in Caramut (HO35 and two sites covered by HO37). The project site abuts a large site affected by the Heritage Overlay on its eastern boundary (HO4), however the project will not disturb any land affected by the Heritage Overlay control. Figure 20.3 shows the overlays relevant to the project site, and Table 20.5 provides a summary of permit triggers relevant to planning overlays.

Table 20.5 Summary of overlay permit triggers

Planning Overlay	Proposed infrastructure	Purpose and relevance	Planning Permit Trigger
Clause 44.06 **Bushfire Management Overlay**	Wind Energy Facility	No permit is required. All wind turbines are proposed outside of this area	No
	Utility Installation	No permit is required	No
Clause 43.01 **Heritage Overlay HO35** Burchett Creek Bridge, over Burchett Creek, off Hamilton Highway	No infrastructure or works proposed within HO35	This site is included on the Victorian Heritage Register (Ref no: H1856)	No – Disturbance of land affected by the Heritage Overlay is not proposed
Clause 43.01 **Heritage Overlay HO37** Stone Mileposts, Warrnambool- Caramut Road and Keillors Road (also in Minjah and Woolsthorpe)	No infrastructure or works proposed within HO37	These sites are included on the Victorian Heritage Register (Ref no: H1700)	No – Disturbance of land affected by the Heritage Overlay is not proposed
Clause 43.01 **Heritage Overlay HO4** Merrang Homestead, 1830 Woolsthorpe-Hexham Road	No infrastructure or works proposed within HO4	This site is included on the Victorian Heritage Register (Ref no: HO322)	No – Disturbance of land affected by the Heritage Overlay is not proposed

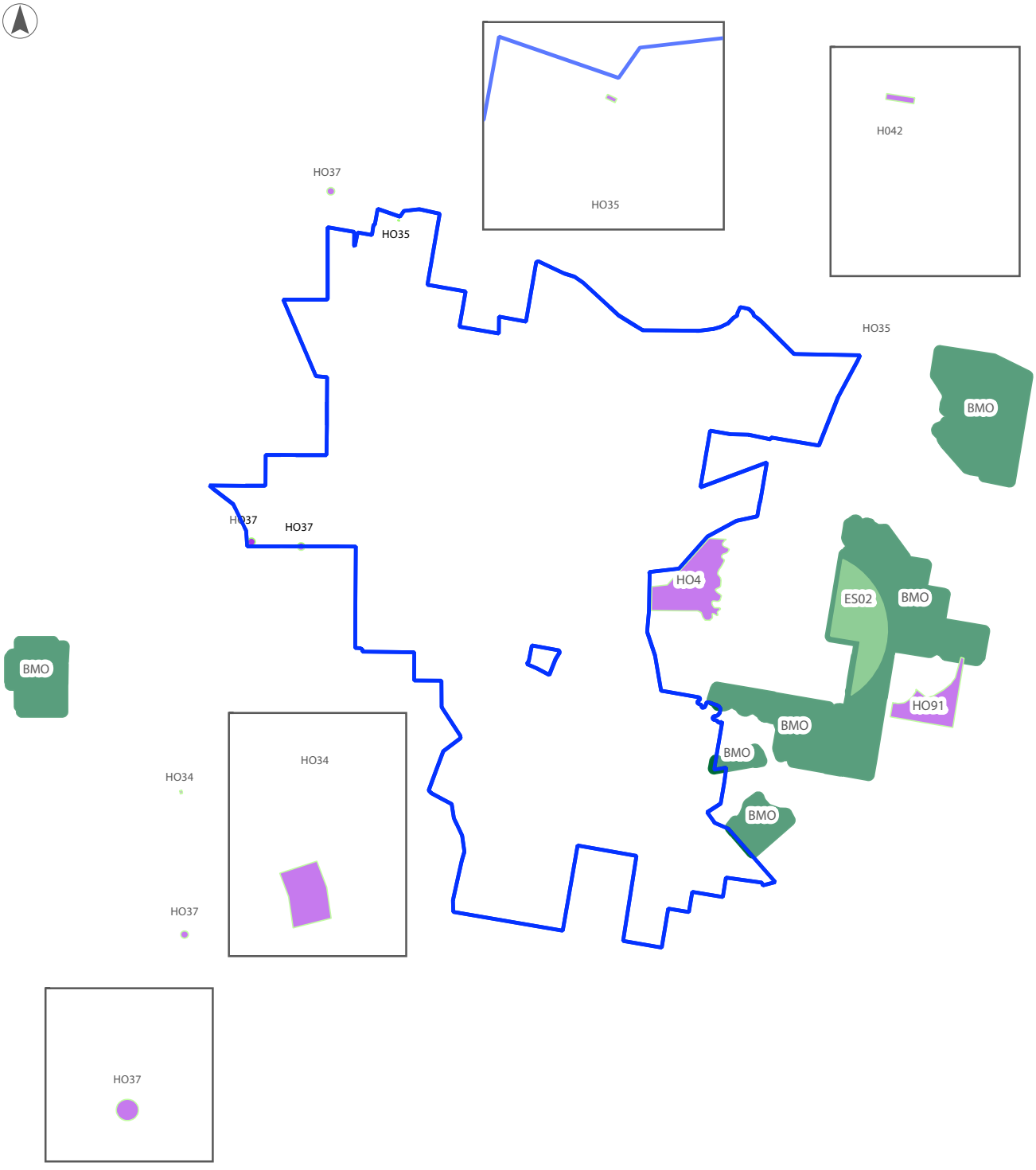


Figure 20.3 Overlay plan of project site

Particular, general and operational provisions

Particular provisions (Clauses 50 to 59) are planning provisions that apply in certain circumstances and are in addition to any zone and overlay controls.

General provisions (Clauses 60 to 67) outline the technical details of the planning scheme, including how the planning scheme is to be administered, permit exemptions, existing use rights and ancillary land use.

Operational provisions (Clauses 70 to 74) relate to administration and enforcement of the planning scheme.

The requirements of particular provisions apply to the specified categories of use and development and other matters. These are in addition to any provisions which apply due to any other provision of the planning scheme. The particular provisions relevant to the project are summarised in Table 20.6.

Table 20.6 Summary of relevant particular provisions

Provision (clause)	Relevance	Permit requirement	Planning Permit Trigger
Clause 52.05 Signs	Pursuant to Clause 35.07-7, the project site is located within Category 4 – Sensitive areas.	Pursuant to Clause 52.05-14 Category 4 – Sensitive Areas, a permit is required for a 'Business Identification Sign' with a condition that the total display area to each premises must not exceed 3 square metres.	Yes
Clause 52.08 Earth and Energy Resources	An on-site quarry is proposed to supply crushed rock for project construction, primarily access tracks and hardstands.	Pursuant to Clause 52.08-1, a permit is not required to use and develop land for extractive industry if the following condition is met: • Complies with Section 77T of the *Mineral Resources (Sustainable Development) Act 1990*.	No
Clause 52.09 Extractive Industry and Extractive Industry Interest Areas	Clause 52.09 – Stone Extraction Decision Guidelines outlines a range of considerations, which have been considered in relation to the proposed on-site quarry.	The proposed on-site quarry will be considered as part of the EES and as such a planning permit for the use and development is not required in accordance with Section 77T of the *Mineral Resources (Sustainable Development) Act 1990*. A response to Clause 52.09 -4 (Decision Guidelines) is provided in the Appendix H – ***Land Use and Planning Report*** to demonstrate consistency with matters addressed under the work plan for work authority.	No
Clause 52.17 Native Vegetation	Between 7.895 and 8.190 hectares of native vegetation would be cleared to construct the project, depending on the transport route approved.	Pursuant to Clause 52.17, a planning permit is required to remove, destroy or lop native vegetation, including dead native vegetation. This also triggers a planning permit application to the Southern Grampians Shire based on native vegetation removal associated with the transporting of project components to the project. This application will be called in by the Minister for Planning to facilitate a coordinated assessment of the project under the *Planning and Environment Act, Environment Effects Act 1978* and the *Environment Protection and Biodiversity Conservation Act 1999*.	Yes

Provision (clause)	Relevance	Permit requirement	Planning Permit Trigger
Clause 53.22 Significant Economic Development	This clause aims to facilitate the planning, assessment and delivery of projects that will make a significant contribution to Victoria's economy. The proposed use of a wind energy facility and a utility installation meets the criteria of Clause 53.22 and applies to the planning permit application to the Minister via the Development Facilitation Program. The application will be exempt from the decision requirements of sections 64(1), (2) and (3), and the review rights of sections 82(1) of the Act.	The planning permit application for the project will be made pursuant to Clause 53.22 of the planning scheme.	Yes
Clause 52.29 Land Adjacent to the Principal Road Network	An access point and turn-out from the Transport Zone 2 is proposed along the Hamilton Highway and Warrnambool – Caramut Road.	A permit is required to create or alter access to a road in a Transport Zone 2.	Yes
Clause 52.32 Wind Energy Facility	The project is defined under the planning scheme as a 'wind energy facility'.	A permit is required under this clause to use and develop land for a wind energy facility.	Yes

Before deciding on an application or approval of a plan, the responsible authority must decide whether a proposal will produce acceptable outcomes in terms of the decision guidelines of Clause 65 of the Moyne Planning Scheme. Under Clause 66 (Referral and Notice Provisions), applications must be referred to the relevant authority for recommendations or determinations on specific matters (e.g., DEECA for native vegetation removal, AusNet Services for electricity infrastructure, and Transport for Victoria for Transport Zone 2 matters).

The Minister for Planning is the responsible authority for wind energy facility applications and utility installation used to transmit or distribute electricity generated by a wind energy facility, as defined under operational provision Clause 72.01-1 (Responsible Authority for this Planning Scheme).

20.6.2 Land use

Surrounding area

Covering an area of about 5,478 square kilometres, Moyne Shire has a largely agriculturally-based economy including dairy, beef and sheep and vegetable production. As stated in the Moyne Council Plan, 37% of the municipality's workforce is employed in agriculture, forestry and fishing.

Project site

The project site consists of broad acre agricultural land holdings. The agricultural land use includes livestock production and associated grazing of cattle and sheep, as well as cropping of grains and cereals. Land use within two kilometres of the project site is also consistent with broad acre agricultural faming, with the exception of the two small towns of Hexham and Caramut.

There is a small area of land east of the project site that accommodates land for timber plantation.

Land within the project site consists of 349 titles held by 14 landowners within the project site consisting of 42 dwellings, 37 of these are in current use and five are dilapidated dwellings not in use. The pattern of subdivision provides for rural and agricultural allotments, ranging from three to 30 hectares.

The land is highly altered from its original form due to the clearance of remnant native vegetation for agricultural land use. Little canopy vegetation is present in the landscape, except for trees located on road reservations and surrounding existing dwellings. There are some examples of vegetation planted for wind breaks.

There are few built structures in the landscape, with the majority constructed to accommodate agricultural families in dwellings and associated outbuildings for agricultural stock and machinery.

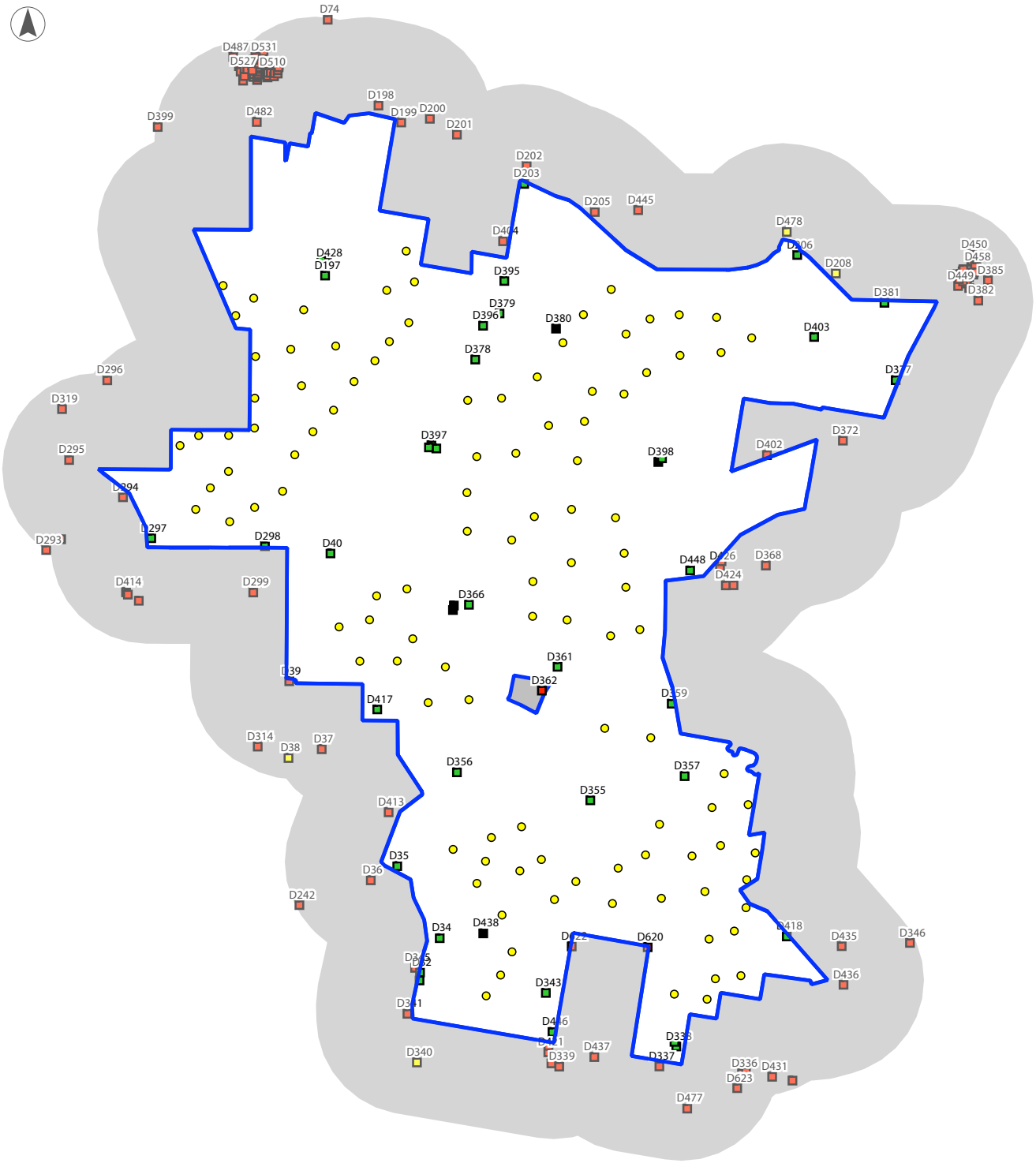
Service infrastructure such as roads and transmission lines are present in the landscape. The Hamilton Highway forms the northern boundary of the project site, Woolsthorpe-Hexham Road and Hexham-Ballengeich Road to the east, Gordons Lane to the south and Warrnambool-Caramut Road to the west.

The project site accommodates a variety of waterbodies and government mapped wetlands. Smaller creek and gullies include Station Creek, Mustons Creek, Limestone Creek and Tea Tree Creek. Details of the wetlands and watercourse that traverse the project site are included in Chapter 12 – ***Surface water***.

The 500-kilovolt Moorabool-Heywood high voltage transmission line easement (67.5 metres wide) is located in the southern section of the project site, with 5.8 kilometres of the transmission line traversing the site from east to west. The presence of the transmission infrastructure on the landscape is noticeable due to its scale, the absence of remaining mature vegetation and its location on the flatter contours of the land. It is noted that land contained within the easement is accessible to agricultural land use and does not restrict or conflict the operation this land use.

20.6.3 Dwellings in proximity to wind turbines

The indicative layout of wind turbines and their proximity to dwellings is shown in Figure 20.4 and described in Table 20.7. Dwellings in proximity to the project site are low in number in comparison to the number of individual titles, representative of large agricultural holdings consisting of multiple titles. Dwellings on these titles are usually used by people farming the land. A total of 11 dwellings are within 1,000 metres of a proposed wind turbine, with an additional 23 dwellings located within 1,000 and 1,500 metres.



Legend

- Wind turbine generator
- Wind farm boundary
- Non-host dwelling
- Host dwelling
- Offsite host dwelling
- Study area

Scale 3,000 m

Data: State of Victoria (DECCA/Land Use Victoria), Commonwealth of Australia, Wind Prospect, and specialist studies/reports. Data is indicative only; accuracy and completeness are not guaranteed.
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Figure 20.4 Dwellings within the investigation area

Table 20.7 Distance from wind turbine locations to dwellings

Distance (m)	Host dwelling	Host dwelling (offsite)	Dilapidated dwelling (host)	Non-host dwelling	Total
0 –1,000	9	0	2	0	**11**
1,000 –1,500	18	0	3	2	**23**
1,500 – 2,000	7	0	0	18	**25**
2,000 – 2,500	0	3	0	18	**21**
2,500 – 3,000	2	1	0	11	**14**
3,000 – 3,500	1	1	0	10	**12**
3,500 – 4,000	0	0	0	6	**6**
4,000 – 4,500	0	0	0	25	**25**
4,500 – 5,000	0	0	0	80	**80**
Total	**37**	**5**	**5**	**170**	**217**

20.7 Impact assessment

This section describes the potential impacts to land use and planning from the project construction, operation and decommissioning.

When evaluating the potential impacts of the project on land use and planning, the significance ratings outlined in Section 5.4.3 were considered.

20.7.1 Impact pathways

The use and development of the project site for a wind farm is a permissible use within the Farming Zone, subject to a permit being issued. Potential impacts on the agricultural land use of the site during construction and decommissioning include interference with agricultural management activities such as stock grazing, access to gates for movement and stock safety. Construction would result in a small reduction in agricultural land available for production, with the construction disturbance area representing 2.7% of the project site.

During the operation of the project, permanent infrastructure is anticipated to occupy less than 1% (approximately 0.9%) of the project site. This area will remain unavailable for agricultural land use for the duration of the project and therefore result in a small reduction in land available for agricultural production.

A small parcel of land (61.7 hectares), relative to the size of the project site, will be removed from existing agricultural uses for approximately two years to accommodate a proposed on-site quarry. Following construction of the project, the proposed on-site quarry will be remediated and repurposed as an agricultural dam, supporting surrounding agricultural land uses. The short-term duration of the proposed on-site quarry's operation will extend during the construction stage only and will equate to approximately 21.5 hectares for extraction and 38.8 hectares total disturbance, which would have a modest impact on agricultural productivity as it would reduce the land area available for farming. Once the proposed on-site quarry is no longer needed, the area would be rehabilitated and filled with water which would be used for farming operations.

The project, including both the wind farm and the proposed on-site quarry, has the potential to impact land use through the following impact pathways:

- agricultural land use:
  - reduction of available land for agricultural land use (i.e. growing of crops and grazing of stock) (during construction, operation and decommissioning phases)
  - continuation or disruption of existing agricultural land use / land use incompatibility (during operation phase)
  - property access disruption impacting on existing agricultural land use operations (during construction and decommissioning phases)
- residential land use of existing dwellings:
  - continuation or disruption of existing residential land use / land use incompatibility (during construction, operation and decommissioning phases)
  - property access disruption impacting on existing residential land use operations (during construction and decommissioning phases)
- potential new dwellings:
  - introduction of new dwellings or sensitive receivers in proximity to the project / land use incompatibility (during construction, operation and decommissioning phases).

20.7.2 Design mitigation

The wind farm and proposed on-site quarry have been designed in consultation with participating landowners. Through the design process, a range of environmental, social and infrastructure constraints were considered as part of the planning and design process and, in many cases, buffers were applied to known or modelled sensitive areas (including townships and dwellings, and land where the agricultural activities can continue around the turbines) (refer to Chapter 5 – ***Project alternatives and design development***). The project has been designed to retain access to properties during the construction phase with access tracks following fence lines and property boundaries where practicable.

The proposed on-site quarry has been proposed in a part of the project site away from occupied dwellings. The closest occupied dwelling is 2.6 kilometres from the proposed on-site quarry boundary. Concrete batching plants have also been located away from sensitive receivers, such as dwellings and waterways, and will be designed and operated to adequately control dust emissions in accordance with the relevant EPA Victoria guidelines.

20.7.3 Environmental management measures

Where feasible, design measures have been included to avoid potential impacts to land use and planning. To further minimise potential impacts to land use and planning, management measures would be implemented during the construction, operation and decommissioning of the project.

Management measures for most impacts that relate to land use and planning are contained within the discipline-specific EES chapters and summarised in Chapter 28 – ***Environmental management framework***. These include management measures for aviation, noise, landscape and visual, and socio-economic impacts. Management measures that are not dealt with in other discipline-specific chapters are included in Table 20.8.

Table 20.8 Land use and planning management measures

Land use impact	Project phase	Management measures	Number
Reduction of available land for agricultural land use (i.e. growing of crops and grazing of stock) Property access disruption impacting on existing agricultural and residential land use operations.	Construction	**Construction Environmental Management Plan** 1. Prior to the commencement of construction, develop and implement a Construction Environmental Management Plan to minimise, manage and monitor environmental impacts associated with construction activities, including significant cumulative impacts associated with the construction of other nearby projects that may be occurring simultaneously. The Construction Environmental Management Plan would include following associated sub-plans (with corresponding EMMs) that outline specific requirements to manage potential environmental impacts associated with project construction: a. Water Management Plan (GW01) b. Sediment, Erosion and Water Quality Management Plan (SW04) c. Acid Sulfate Soil Management Plan (LS03) d. Spoil Management Plan (LS04) e. Air Quality Management Plan (AQ02) f. Construction Noise and Vibration Management Plan (NV01) g. Heritage Management Plan (HH01) h. Agricultural Management Plan (LUP01) i. Traffic Management Plan (TT01) 2. The Construction Environmental Management Plan will address requirements of relevant EMMs, including those related to the storage and handling of hazardous substances, creek crossings, discharge of collected water, and unstable soils. 3. The Department of Energy, the Environment and Climate Action will be consulted in the preparation of relevant sections of the Construction Environmental Management Plan. 4. The Construction Environmental Management Plan and associated sub-plans will require review, input and endorsement from statutory authorities and relevant stakeholders as described in relevant EMMs. 5. The Construction Environmental Management Plan and associated sub-plans will be reviewed and verified by the Independent Environmental Auditor prior to construction commencing. 6. The implementation of and adherence to the Construction Environmental Management Plan and associated sub-plans will be enforced, monitored and audited by the Proponent.	EMM01

Land use impact	Project phase	Management measures	Number
	Construction	**Agricultural Management Plan** 1. Prior to the commencement of construction, develop and implement an Agricultural Management Plan as a sub-plan to the Construction Environmental Management Plan (EMM01), in consultation with landowners, outlining the existing land use of surrounding agricultural practices and management commitments to reduce impacts on operations, such as the sowing and harvesting of crops. 2. The Agricultural Management Plan will also identify processes for movement of stock during construction to avoid adverse impacts on animal welfare.	LUP01
	Construction	**Quarry Work Plan** 1. Prior to the development of an on-site quarry, the Preliminary Draft Quarry Work Plan (provided in Attachment II) will be finalised and submitted to Resources Victoria (Department of Energy, Environment and Climate Action) for approval. 2. The Quarry Work Plan will include measures to: a. manage and monitor surface water impacts b. manage noise emissions, in accordance with a Quarry Noise Management Plan (NV02) c. control emissions of dust or other particulates d. manage the carriage and deposition of dust, silt and clay by vehicles existing the work authority area e. manage erosion from topsoil and overburden stockpiles f. manage site rehabilitation (in accordance with LUP02). 3. Prior to blasting, the affected areas will be pre-wet to minimise dust emissions. Blasting would occur when winds are blowing away from the nearest sensitive receptors (i.e. from the north, south or west), and are consistent enough to encourage movement of dust away from the nearest receptors, but light enough to minimise emission generation and transport of dust off-site.	EMM07
	Construction	**Quarry Work Plan - Remediation** 1. The Quarry Work Plan (EMM07) will require the on-site quarry to be remediated following completion of materials extraction. 2. Remediation of the proposed on-site quarry will include filling the extraction area with water, to be used as a farm irrigation dam unless otherwise specified by the landholder. The remaining area would be returned to pasture.	LUP02

Land use impact	Project phase	Management measures	Number
Continuation or disruption of existing agricultural and residential land use / land use incompatibility	Construction Operation Decommissioning	Management plans associated with traffic, dust and water and soil will be implemented in accordance with management controls for the relevant disciplines. These management plans will seek to minimise impacts on existing residential and agricultural land use, and will include: • Water Management Plan (EMM GW01) • Sediment, Erosion and Water Quality Management Plan (EMM SW04) • Acid Sulfate Soil Management Plan (EMM LS03) • Spoil Management Plan (EMM LS04) • Air Quality Management Plan (EMM AQ02) • Operations Environmental Management Plan – Air quality management (EMM AQ03) • Construction Noise and Vibration Management Plan (EMM NV01) • Quarry Work Plan - Quarry Noise Management Plan (EMM NV02) • Concrete Batching Plants - Noise management (EMM NV03) • Operational Noise Management Plan (EMM NV06) • Heritage Management Plan (EMM HH01) • Agricultural Management Plan (EMM LUP01) • Traffic Management Plan (EMM TT01).	The full content of these management controls is detailed in Chapter 28 – ***Environmental management framework***.
Introduction of new dwellings or sensitive receivers in proximity to project/ Land use compatibility impact	Construction Operation Decommissioning	**Monitor the development of new dwellings or sensitive receivers** 1. Monitor and review new planning permit applications for dwellings within proximity to the project site and make submissions to the Responsible Authority when required.	LUP03

20.7.4 Residual impacts

Agricultural land use

Reduction of available land for agricultural land use (i.e. growing of crops and grazing of stock)

The extent, magnitude and duration of impacts on agricultural land use is largely confined to the construction and decommissioning phase, which would both be relatively short in duration in comparison to the project's operational life of 25 years. Approximately 440 hectares, or 2.7% of the project site, would be required for the construction of the project. Most land within the project site would remain unaltered, allowing for farming practices to continue.

The impact associated with the construction phase (two years) would be minimised given the staging of construction whereby construction activities would progressively move across the project site. To further manage impacts to agricultural land use, an Agricultural Management Plan [EMM LUP01] will be prepared in consultation with adjoining landowners to outline management commitments to reduce impacts on operations and identify processes for movement of stock during construction to avoid adverse impacts on animal welfare. The implementation of the Construction Environmental Management Plan [EMM01] will also outline specific requirements to manage potential environmental impacts associated with project construction.

The extent, magnitude and duration of impacts associated with agricultural land availability would significantly reduce following the completion of construction and decommissioning.

During the operation of the project, the magnitude of the impact on surrounding agricultural land use would be negligible, however for land used for project infrastructure, the impact would be moderate. Approximately 0.9% of the project site would be unavailable for agricultural land use for the duration of the project based on the current design, resulting in a small reduction in land available for agricultural production. Residual impacts to agricultural land use due to the project during construction, operation and decommissioning are assessed as minor.

Approximately 61.7 hectares of land would be occupied by the proposed on-site quarry, resulting in a change in land use for approximately two years during construction. However, this change to existing land use will be temporary and the loss of a small parcel of land for the extraction of materials to be used for project construction would not result in the loss of a significant area of agricultural land. The extraction area would be around 21.5 hectares, with a total disturbance area of 38.8 hectares.

Following construction, the proposed on-site quarry would be remediated to service future agricultural operations [EMM LUP02]. This will allow for agricultural uses to be restored through the rehabilitation and repurposing of the proposed on-site quarry as an agricultural dam.

Given the short-term duration of the proposed on-site quarry operation, limited to the construction of the project, and the magnitude and extent of disturbance, the residual impact would be minor.

Continuation or disruption of existing land use / land use incompatibility

Agricultural cropping, grazing and wind energy land uses are considered compatible.

The project allows for farming land uses to continue within the project site, with limited impact to the existing agricultural land use function. The agricultural land use is supported by diversification of the local rural economy through income from the wind farm.

Outside of the operational footprint, the project (including wind turbines and underground cabling) would not result in ongoing restrictions to current land-based agricultural land uses, with grazing and cropping able to continue alongside the project. No agricultural land use buffers are proposed to be implemented around the wind turbines or underground cabling. As such, the impact is considered negligible. Impacts to aerial agricultural operations are discussed separately in Chapter 22 – ***Aviation***.

The proposed on-site quarry would be remediated following completion of construction [EMM LUP02]. The duration of impacts to agricultural land use associated with the proposed on-site quarry would be limited to the construction phase, with the residual impact considered to be minor.

Property access disruption impacting on existing land use operations

The project has been designed to avoid impacts to vehicle and machinery access. Where disruptions to access to agricultural land cannot be avoided, they would be minimised via the implementation of a Traffic Management Plan [EMM TT01]. The residual impact is considered minor.

Residential land use of existing dwellings

Continuation or disruption of existing land use / land use incompatibility

The potential impacts associated with construction and decommissioning noise, dust, traffic, water and soil would be managed in accordance with relevant legislative/policy and guidelines requirements through the implementation of a Construction Environmental Management Plan [EMM01]. This will address requirements of relevant technical management measures including those related to environmental impacts of construction and decommissioning. As such, residual impacts to the residential land use of existing dwellings during project operation is anticipated to be negligible. Although land use functionality of existing dwellings during operation would not be impacted, amenity factors such as landscape and visual impacts, shadow flicker, and operational noise may affect residential experience. The potential for these impacts is discussed separately in Chapter 14 – ***Landscape and visual***, Chapter 15 – ***Shadw flicker and blade glint***, and Chapter 17 – ***Noise and vibration***.

The closest dwelling to the proposed on-site quarry is 2,200 metres to the east, and is the landowner of the proposed quarry site. The proximity of the land use to other dwellings is generous, which would assist in minimising impacts during quarry operation. Given the proposed, relatively short duration of quarry operation (approximately two years), this would further minimise impacts of the proposed on-site quarry on dwellings, particularly in relation to the transport of materials on local roads. Potential impacts to residential land use due to blasting and extraction will be managed through an approved Quarry Work Plan [EMM07], developed in accordance with Section 77G of the *Mineral Resources (Sustainable Development) Act 1990*. The residual impacts to existing land use associated with the proposed on-site quarry is considered minor given the proposed extent of extraction and distance to dwellings and management measures contained within the Quarry Work Plan [EMM07].

Property access disruption impacting on existing land use operations.

The project has the potential to impact vehicle access to dwellings during construction and decommissioning due to surrounding roads servicing an increased number of large and over-sized construction vehicles, resulting in changes to traffic management conditions. It is considered that short-term, reversible changes with localised impact or minor disruption to existing land use can be managed. The residual impact is considered minor.

Proposed Land Uses

Proposed land uses in proximity to the project were considered including:

- agricultural land use;
- dwellings constructed just prior to the gazettal of amendment VC212 to the Moyne Planning Scheme;
- the location of surrounding wind energy facilities (approved, operational and proposed) and;
- planning permit applications listed on Council's application register.

The project enables the successful continuation of both existing and proposed agricultural land uses with the two land uses considered to be compatible.

No planning permit applications for land use in proximity to the project were listed on Council's planning permit application register.

Potential new dwellings

Introduction of new dwellings or sensitive receivers in proximity to project / land use incompatibility

The development of new dwellings in proximity to the project wind turbines could significantly impact the operation of the project due to compliance requirements associated with noise, shadow flicker, Clause 52.32 Wind Energy Facility and Clause 25.07 Farming Zone of the Victorian Planning Provisions. The residential land use of new dwellings could also be compromised depending on their proximity to the wind turbines.

Changes to the Farming Zone require various forms of accommodation, including dwellings, to locate more than one kilometre from the nearest title boundary of land subject to a wind energy facility, or otherwise obtain a planning permit. The requirement for a planning permit enables the project, or other third parties, to object to the dwellings development and, if necessary, seek review through the Victorian Civil and Administrative Tribunal (VCAT).

To manage potential impacts, planning permit applications for dwellings within proximity to the project site will be actively monitored and reviewed. Where appropriate, submissions will be made to the Responsible Authority to enable the ongoing compliance and operation of the project. Depending on the location of a new dwelling, the impacts could be managed via a planning permit application process. It is considered that residual impact on both the project and a new dwelling is moderate to severe, with the potential to prohibit

the operation of a wind turbine if compliance with technical requirements cannot be achieved.

20.7.5 Cumulative impacts

Potential cumulative effects, considering the ten existing and planned wind farms within 25 kilometres of the project site, have the potential to impact agricultural and residential land use values through the following impact pathways:

- reduced availability of land for agriculture (i.e. growing of crops and grazing of stock) during construction, operation and decommissioning
- disruption or continuation of existing land use due to potential incompatibilities during operation
- disruption due to property access impact on existing land use operations during construction and decommissioning

The relevant wind farms are listed in Table 20.9

Additional information on the status and location of these wind farms, and potential cumulative impacts to land use values is provided in Chapter 26 – ***Cumulative effects***. Six of the ten projects are operational, and are not anticipated to contribute to cumulative construction-phase impacts. However, the four approved or proposed projects, alongside this project, may result in overlapping construction periods.

It is noted that the only operating wind farm in Victoria, which has announced its decommissioning, is the Codrington Wind Farm located west of Yambuk, set to decommission in 2027. As Codrington Wind Farm is located beyond 25 kilometres of the project site, it is not included in this assessment.

Table 20.9 Surrounding Windfarms

Wind Farm	Distance from project site (km)	Number of turbines	MW	Status
Mortons Lane	12	13	19.5	Operational
Salt Creek	10	15	54	Operational
Dundonnell	24	80	336	Operational
Mortlake South	13	35	157.5	Operational
Macarthur	24	140	420	Operational
Hawkesdale	12	23	96.6	Operational
Woolsthorpe	15	20	72	Approved
Mt Fyans	5	81	400	Approved
Darlington	20	45	330	Proposed
Swansons Lane	20	39	39	Proposed

During construction and decommissioning, the potential cumulative impacts of the project on agricultural and residential land use are considered to be negligible to minor in a scenario where multiple projects are under construction and decommissioning simultaneously, with overlap requiring management and coordination. However, cumulative impacts are not expected to exceed those already approved for each individual project. Where construction and decommissioning phases do not overlap, impacts are anticipated to be negligible.

During operation, the potential for cumulative impacts on agricultural land use is considered to be minor, as land uses will coexist with operational project infrastructure. Over the long-term, land use can ultimately revert back to agriculture following decommissioning. With regard to the use of residential dwellings, existing residential use will remain unaltered during the operation of cumulative wind energy projects and the impact is considered to be negligible.

As detailed in Table 20.9, six of 11 projects are currently operational, which means the cumulative construction impacts of these six projects are irrelevant to the consideration of cumulative impacts relating to Hexham Wind Farm.

The one remaining approved project, together with the Hexham Wind Farm and possibly three other proposed projects, could potentially result in an overlap in construction. However, the cumulative impact of the construction of these projects is considered to have an impact to the same degree as expected and outlined in each project's consent. The level of impact is not expected to increase due to simultaneous construction periods.

20.7.6 Impact assessment summary

Table 20.10 summarises the potential land use impacts of the project.

Table 20.10 Summary of potential project impacts and significance ratings

Value	Impact pathway	Project phase	Mitigation and management measures	Likely impact (considering magnitude, extent and duration)	Residual impact
Agricultural land use	Reduction of available land for agricultural land use (i.e. growing of crops and grazing of stock)	Construction and decommissioning	The Construction Environmental Management Plan will define areas for construction, storage of materials and management techniques to minimise areas of impact. The Agricultural Management Plan, developed in consultation with landowners, will outline specific land use operation of surrounding agricultural practices and management commitments during construction to reduce impacts on operations such as the sowing and harvesting of crops. The plan will identify processes for movement of stock during construction to avoid adverse impacts on animal welfare.	Construction would occur using a staged approach, which would lessen the impact. The area of construction equates to approximately 2.7% of the project site, which allows most of the land to remain unaltered and farming practices to continue.	**Minor** – Short-term, temporary and reversable localised impacts would occur to approximately 300 hectares, with an additional 140 hectares that will continue to be impacted during operation. Impacts can be managed.

Value	Impact pathway	Project phase	Mitigation and management measures	Likely impact (considering magnitude, extent and duration)	Residual impact
		Construction and operation	Land immediately surrounding permanent infrastructure can be utilised for agricultural purposes following the completion of construction. The operation of the project will not restrict the continuation of cropping or grazing of the land. Remediation of the proposed on-site quarry will include filling the extraction area with water for a farm irrigation dam. The remaining area will be returned to pasture. The Work Plan will require management measures to remediate the land following completion of extraction.	During operation the impact on agricultural land use would be negligible. However, for the 1-3% of the land that would be occupied by project infrastructure the impact would be moderate. A small percentage of land within the project site (approximately 0.9%) would not be available for agricultural land use for the duration of the project and therefore reduce a small proportion of land for agricultural yield. The operation of the proposed on-site quarry operation would only occur during construction of the project. It would result in the loss of 61.7 hectares of land, which is not considered a significant area of agricultural land in the context of the surrounding land use.	**Minor** – Short-term, reversible changes with localised impact and minor disruption to existing land use. Impacts can be managed.

Value	Impact pathway	Project phase	Mitigation and management measures	Likely impact (considering magnitude, extent and duration)	Residual impact
	Continuation or disruption of existing land use / land use incompatibility	Operation		Agricultural cropping and grazing and wind energy land uses are compatible. The project allows for the retention of farming land uses within the project site with limited impact to the existing agricultural land use function. The agricultural land use is supported by diversifying the local rural economy from income from the wind farm. There will be no ongoing restrictions to current agricultural land uses as a result of project infrastructure or underground cabling. The project will not require the imposition of agricultural land use buffers around infrastructure as both grazing and cropping will be able to continue alongside the project.	**Negligible** – No measurable land use compatibility impacts.
		Construction	Remediation of the proposed on-site quarry will include filling the extraction area with water for a farm irrigation dam. The remaining area will be returned to pasture. The work plan will require management measures to remediate the land following completion of extraction.	Impacts to land within the proposed quarry site would be short-term and managed via remediation following completion of project construction. The proposed on-site quarry will be rehabilitated as a farm irrigation dam following the completion of mining works and construction.	**Minor** – Short-term, and localised impacts. The existing land use (agriculture) will be restored through construction of a farm irrigation dam resulting in a minor level of disruption to land uses. Impacts can be managed.
	Property access disruption impacting on existing land use operations	Construction and decommissioning	The Construction Environmental Management Plan will define areas for site access. The Agricultural Management Plan will outline the specific land use operation of surrounding agricultural practices and management commitments during construction/ decommissioning to avoid and reduce impacts on operations and site access.	The project has been designed to avoid impacting on vehicle and machinery access to land. Where disruptions to access to agricultural land cannot be avoided, they can be minimised via the use of management plans.	**Negligible –** Potential impacts can be avoided and minimised through the use of management plans.

Value	Impact pathway	Project phase	Mitigation and management measures	Likely impact (considering magnitude, extent and duration)	Residual impact
		Operation		Current agricultural operations of cropping and grazing can remain in operation during the life of the projects. The predominant land use of agricultural land will remain and co-exist with each wind energy project.	**Minor –** A limited extent and magnitude of change over a long-term time frame which can ultimately revert to agricultural land following decommissioning.
Residential land use of existing dwellings	Continuation or disruption of existing land use / land use incompatibility	Construction and decommissioning	Various management plans will ensure that matters such as traffic, dust, construction and environmental management minimise impacts on residential land use.	Surrounding farming land uses provide a buffer from construction and decommissioning activities within the project site to rural dwellings. The potential for noise, dust, traffic and construction/decommissioning impacts will be managed in accordance with relevant legislative/policy and guidelines requirements. The extent and magnitude of the proposed on-site quarry is considered to be minor based on the quarry's small area of extraction and distance to dwellings.	**Negligible/Minor** – Potential for minor, short-term and localised impacts to existing land use. Impacts can be managed. Complies with relevant legislative requirements and is consistent with relevant policy and guidelines.
		Operation	Relevant specialist studies have developed management measures to ensure compliance.	The use of existing dwellings will not be impacted. The magnitude, extent and duration of the project will not impact on the residential land use of dwellings during operation. However, amenity factors such as landscape and visual impacts, shadow flicker, and operational noise may affect residential experience. The potential for these impacts is discussed separately in Chapter 14 – ***Landscape and visual***, Chapter 15 – ***Shadow flicker and blade glint***, and Chapter 17 – ***Noise and vibration***.	**Negligible** – No impact to residential land use. Complies with all relevant legislative requirements and is consistent with relevant policy and guidelines.

Value	Impact pathway	Project phase	Mitigation and management measures	Likely impact (considering magnitude, extent and duration)	Residual impact
	Property access disruption impacting on existing land use operations	Construction and decommissioning	Traffic modelling and management via the specialist study to investigate the extent and magnitude for the potential for this short-term access impact to dwellings.	There is potential for the project to impact vehicle access to dwellings due to an increased number of large and oversized construction vehicles using surrounding roads, causing changes in traffic conditions. Traffic modelling and management via the specialist study should investigate the extent and magnitude for the potential for this short-term impact.	**Minor** – Short-term, reversible changes with localised impact or minor disruption to existing land use. Impacts can be managed
Potential new dwellings	Introduction of new dwellings or sensitive receivers in proximity to project / land use incompatibility	Construction, operation and decommissioning	Monitor any new planning permit applications for dwellings within close proximity to the project and make submissions to the Responsible Authority (Council) when required.	The development of new residential dwellings within close proximity of the wind turbines could impact both the project and potential residents due to rules about noise, shadow flicker, and planning requirements under Clauses 52.32 and 35.07 of the Victorian Planning Provisions. Residential dwellings proposed within one kilometre of a wind turbine would require a planning permit. Permit applications will be monitored and responded to as required by the project to enable continued operation and compliance.	**Potential for Moderate to Severe** – Potential for significant impacts on both the project and new dwellings. Has the potential to result in significant inconsistencies or an inability to comply with relevant state and local policy and guidelines. May be able to be managed via the planning permit process.

20.8 Conclusions

The land use and planning assessment has documented the potential land use and planning impacts associated with the construction, operation and decommissioning of the project. Impacts associated with the project have been minimised and avoided via landowner consultation, improvements to the design, siting of infrastructure, and the implementation of management measures including the use of construction and decommissioning management plans.

The project's impacts on the reduction of available agricultural land during construction, decommissioning and operation are found to be minor with a short-term reversable localised impact on a small percentage of project site. Further, the proposed use of the land is compatible with the existing agricultural land use and will have a negligible impact on agricultural land use during the operation of the project and will provide diversification of the local agricultural economy supporting the enhanced agricultural production of the land

The potential impacts on the continuation or disruption of the residential land use of existing dwellings during construction, operation and decommissioning is found to be negligible with minor potential for short term and localised impacts which can be managed.

In relation to the residential land use of new dwellings, the location of new dwellings in proximity to the project has the potential to result in significant inconsistences or inability to comply with relevant state and local policy and guidelines, resulting in a residual impact of moderate to severe. Depending on the location of a new dwelling, the impacts could be managed via a planning permit application process.

In relation to the proposed on-site quarry, the potential land use disruption, compatibility and reduction of agricultural land impacts during the construction of the project are considered to be minor, and potential impacts on the residential land use of dwellings during construction of the project is considered to be minor due to the distance to dwellings, the short-term nature of the operation and the proposal to return the land to agricultural uses.

Cumulative impacts in relation to the project's proximity to ten other windfarms raises the potential for impact in a scenario where multiple projects are constructed and/or decommissioned simultaneously. While there is no finding that simultaneous construction or decommissioning will increase impacts beyond what is approved by each project, it is recommended that coordination between projects should be considered for the approved and yet to be constructed projects to minimise all the individual expected impacts of projects occurring simultaneously. Potential cumulative impacts during these phases will be addressed within the Construction and Environmental Management Plan [EMM01].

The land use and planning assessment did not find any significant disruption to existing and /or proposed land uses.