REFERRAL OF A PROJECT FOR A DECISION ON THE NEED FOR ASSESSMENT UNDER THE *ENVIRONMENT EFFECTS ACT 1978*

REFERRAL FORM

The *Environment Effects Act 1978* provides that where proposed works may have a significant effect on the environment, either a proponent or a decision-maker may refer these works (or project) to the Minister for Planning for advice as to whether an Environment Effects Statement (EES) is required.

This Referral Form is designed to assist in the provision of relevant information in accordance with the *Ministerial Guidelines for assessment of environmental effects under the Environment Effects Act 1978* (Seventh Edition, 2006). Where a decision-maker is referring a project, they should complete a Referral Form to the best of their ability, recognising that further information may need to be obtained from the proponent.

It will generally be useful for a proponent to discuss the preparation of a Referral with the Impact Assessment Unit (IAU) at the Department of Environment, Land, Water and Planning (DELWP) before submitting the Referral.

If a proponent believes that effective measures to address environmental risks are available, sufficient information could be provided in the Referral to substantiate this view. In contrast, if a proponent considers that further detailed environmental studies will be needed as part of project investigations, a more general description of potential effects and possible mitigation measures in the Referral may suffice.

In completing a Referral Form, the following should occur:

- Mark relevant boxes by changing the font colour of the 'cross' to black and provide additional information and explanation where requested.
- As a minimum, a brief response should be provided for each item in the Referral Form, with a more detailed response provided where the item is of particular relevance. Cross-references to sections or pages in supporting documents should also be provided. Information need only be provided once in the Referral Form, although relevant cross-referencing should be included.
- Responses should honestly reflect the potential for adverse environmental effects. A Referral will only be accepted for processing once IAU is satisfied that it has been completed appropriately.
- Potentially significant effects should be described in sufficient detail for a reasonable conclusion to be drawn on whether the project could pose a significant risk to environmental assets. Responses should include:
    - a brief description of potential changes or risks to environmental assets resulting from the project;
    - available information on the likelihood and significance of such changes;
    - the sources and accuracy of this information, and associated uncertainties.
- Any attachments, maps and supporting reports should be provided in a secure folder with the Referral Form.
- A USB copy of all documents will be needed, especially if the size of electronic documents may cause email difficulties. **Individual documents should not exceed 10MB as they will be published on the Department's website.**

- A completed form would normally be between 15 and 30 pages in length. Responses should not be constrained by the size of the text boxes provided. Text boxes should be extended to allow for an appropriate level of detail.
- The form should be completed in MS Word and not handwritten.

The party referring a project should submit a covering letter to the Minister for Planning together with a completed Referral Form, attaching supporting reports and other information that may be relevant. This should be sent to:

Postal address

Minister for Planning
PO Box 500
EAST MELBOURNE VIC 8002

Couriers

Minister for Planning
Level 16, 8 Nicholson Street
EAST MELBOURNE VIC 3002

In addition to the submission of the hardcopy to the Minister, separate submission of an electronic copy of the Referral via email to ees.referrals@delwp.vic.gov.au is required. This will assist the timely processing of a referral.

PART 1 PROPONENT DETAILS, PROJECT DESCRIPTION & LOCATION

1. Information on proponent and person making Referral

Name of Proponent:	**Delburn Wind Farm Pty Ltd**
Authorised person for proponent: **Position:** **Postal address:** **Email address:** **Phone number:** **Facsimile number:**	Peter Marriott Director, Delburn Wind Farm Pty Ltd Level 3, 150 Chestnut Street, Cremorne, VIC 3121 petermarriott@osmi.com.au 0438 635 276 NA
Person who prepared Referral: **Position:** **Organisation:** **Postal address:** **Email address:** **Phone number:** **Facsimile number:**	Mandy Elliott Director EnviroME Pty Ltd mandy@envirome.com.au M: 0421980512
Available industry & environmental expertise: (areas of 'in-house' expertise & consultancy firms engaged for project)	Delburn Wind Farm Pty Ltd is a member entity of OSMI Australia Pty Ltd (OSMI) group of companies. OSMI is a renewable energy development company bringing together over 25 years of wind farm development experience in Victoria. OSMI works with highly qualified and experienced consultants with specialist expertise in wind farm development. Specialist studies completed to date for the proposed project include: Attachment A: Biodiversity Assessment: Delburn Wind Farm, Ecology and Heritage Partners Pty Ltd Attachment B: Preliminary Planning Assessment (Dec 2019), Debra Butcher Consulting Attachment C: Preliminary Landscape and Visual Impact Assessment, (Oct 2019), Jacobs Attachment D: Preliminary Traffic Impact Assessment, (Aug 2019), Jacobs Attachment E: Preliminary Shadow Flicker Assessment, (Aug 2019), K2 Management Attachment F: Preliminary Economic Impact Assessment, (Aug 2019), Jacobs Attachment G: Desktop Cultural Heritage Management Plan, Archaeology at Tardis

	Attachment H: Preliminary Noise Assessment, (July 2019), Marshall Day Acoustics Attachment I: Preliminary EMI Assessment, (July 2019), DNV GL Australia Pty Ltd Attachment J: Desktop Assessment of Potential Geotechnical, Contaminated Land and Hydrogeological Constraints, (Nov 2019), Golder Associates Pty Ltd Attachment K: Bushfire Risk Assessment and Mitigation Plan (February 2020), Fire Risk Consultants Pty Ltd Attachment L: Aeronautical Impact Assessment (November 2019), Chiron Aviation Consultants Pty Ltd

2. Project – brief outline

Project title: Delburn Wind Farm
Project location: (describe location with AMG coordinates and attach A4/A3 map(s) showing project site or investigation area, as well as its regional and local context) The site of the proposed Delburn Wind Farm in southeast Victoria, is in the Strzelecki Ranges to the south of the Latrobe Valley. The site is approximately 8 km south of Moe and 150 km southeast of Melbourne CBD. The site is situated within a timber plantation owned by Grand Ridge Plantations Pty Ltd (a wholly owned subsidiary of HVP Plantations) on rolling hills either side of the Strzelecki Highway. The site is generally bound by Hernes Oak to the north, Coalville, Narracan and Thorpdale to the west, Darlimurla to the south, and Driffield, Boolarra and Yinnar to the east. The site is approximately 5000 hectares in area. The closest large population centres to the site are Morwell (6km), Moe (6km) and Traralgon (20km) all of which sit within the Latrobe City Council. **Refer to Figure 1: Wind Farm Site Location**
Short project description (few sentences)**:** The Delburn Wind Farm involves the installation of up to 35 turbines and associated infrastructure, including the wind turbine hardstands, upgrades to existing public and private roads and access tracks, construction of new access tracks, installation of underground cabling, electrical substation(s), connection to the existing overhead 220 kV transmission network, battery storage facility, operations and maintenance centre, meteorological masts, and temporary construction hardstands and facilities throughout the project area.

3. Project description

Aim/objectives of the project (what is its purpose / intended to achieve?):

The objective of the proposed Delburn wind farm is to identify and develop a viable wind energy facility as a source of renewable energy for export to the transmission network to supplement Victorian and National energy needs.

Background/rationale of project (describe the context / basis for the proposal, eg. for siting):

Selecting a site to develop an onshore wind farm requires careful balancing of several different factors. These include:

- Adequate wind resource to power the turbines;
- Access to the electricity grid to export the power generated;
- Suitable terrain, land ownership and zoning;
- Adequate distance from dwellings so amenity impacts are acceptable - as defined by planning policy guidelines;
- Ability to avoid or minimise impacts on ecology, waterways and other environmental values; and
- Suitable road access to the site.

The Delburn area has enough wind to power an economically viable wind farm. The existing grid infrastructure from the Latrobe Valley runs through the northern end of the site allowing connection to the grid without the need for a major grid extension to be constructed, and this infrastructure has capacity for new connections following the closure of Hazelwood Power station. The existing pine plantation provides a large area of private property with no dwellings on it and land that has already been highly disturbed resulting in relatively low ecological values across the site.

The Delburn site has an existing over-dimensional access route to the site and an extensive road network within the plantation which can be used subject to some upgrading, allowing access to and within the project area with minimal disruption to local communities.

One of the challenges of ensuring renewable energy is reliable and viable into the future is the need for diversity in energy source. The majority of the existing or approved wind farms in Victoria are located in the west of the state. The Delburn site complements the existing wind farm infrastructure in western Victoria; being in a more easterly location it is subject to different weather regimes and wind patterns.

It is estimated that the wind farm will generate 620,000 MWh providing clean energy for over 125,000 Victorian households and reduce the emissions of greenhouse gas by over 620,000 tonnes of CO_2 annually. Additionally, the proposed wind farm will offer the following benefits:

- Contribute to Victoria's Renewable Energy Targets of 40% by 2025 and 50% by 2030
- Support Victoria's new energy transition in the Latrobe Valley and contribute to the growth of the renewable energy industry in the Gippsland region
- Invest $53 million into the regional economy, an additional $95 million into the Victorian economy and generate up to 180 direct and indirect jobs during construction
- Provide an annual benefit of approximately $1.7 million to the Gippsland region and 19 full time jobs during its operational life of 25-30 years
- Fund a neighbourhood benefits scheme for neighbours within 2-3 km (depending on the wishes of the community) of up to $500,000 per annum
- Establish a community benefits fund of approximately $150,000 per annum for the life of the project
- Provide the opportunity for the community to invest in the project

Main components of the project (nature, siting & approx. dimensions; attach A4/A3 plan(s) of site layout if available):

The wind farm comprises the construction of the following permanent infrastructure:

- Wind turbines with a maximum rotor diameter of 180m, a maximum overall tip height of 250m and a minimum rotor ground clearance of 40m, including concrete foundations

approximately 25m in diameter;
- Hardstand areas of approximately 80m x 50m adjacent to each wind turbine foundation;
- Approximately 41 km of site access tracks (comprising upgrades to 30km of existing forestry tracks and construction of 11km of new tracks)
- Approximately 120 km of underground cabling;
- Electrical substation;
- Battery storage facility;
- Connection to the overhead Hazelwood Power Station to Rowville 220 kV transmission line that runs through the project area;
- Operations and maintenance facility;
- Up to three permanent anemometry masts; and
- Ancillary works.

Temporary infrastructure will include site and construction compounds; turbine component lay down areas; and 2 concrete batching plants. An existing on-site basalt quarry which has sufficient stone resource to supply the project from within its existing Work Authority is expected be used during construction for the supply of aggregates.

Wind turbines
The facility will consist of up to 35 wind turbines with underground electrical lines to connect to the on-site substation. Each wind turbine will comprise a tower, nacelle and blades with a maximum blade tip height of 250 metres. The towers will be mounted onto a concrete pad footing and there will be an adjacent hardstand area of up to approximately 80 x 50 metres.

Access tracks
Much of the wind farm access will be provided by upgrades to the existing track network within the plantation (approximately 30km), however approximately 11 km of new access tracks within the site boundary will be built to provide for construction and maintenance access to each wind turbine and battery and terminal station. The tracks will be upgraded/constructed to a trafficable width of approximately 6m plus shoulders and drainage. A total disturbance and clearance corridor of 20m width has been assumed. The arrangement of the tracks has been designed to minimise the removal of native vegetation where possible as well as minimise the length of access track required.

Turbine electricity connection, sub-station and external connection
Each wind turbine will be connected to an on-site substation by a combination of approximately 120km of underground cabling in total. Cable alignments have been chosen to run parallel to new or existing forestry tracks and parallel with other cables where alignments coincide, and to avoid native vegetation impacts where possible. A total disturbance and clearance corridor of 10m width has been assumed. Up to 4 new HV towers will be required to connect to the existing overhead 220kV transmission infrastructure (HWPS – ROTS No. 1 and 2 220kV lines) that runs through the project area.

Temporary construction facilities
During construction of the Wind Farm, temporary infrastructure would include:
- Two construction compounds with office facilities, associated parking and toilet facilities;
- Temporary laydown areas for wind turbines and electrical equipment; and
- Two temporary concrete batching plants.

Figure 2 Infrastructure Layout shows the infrastructure within the Site.

Ancillary components of the project (eg. upgraded access roads, new high-pressure gas pipeline; off-site resource processing):

The project will require minor upgrades to approximately 6km of local roads and 2 intersection upgrades off the Strzelecki Highway.

The site will be accessed via the Strzelecki Highway and the following secondary local roads:
- Deans Rd;
- Golden Gully Rd;
- Smiths Rd; and

- Creamery Rd.

Some road pavement strengthening, addition of overtaking bays and/or corner widening may be required on some of these roads (subject to further civil design).

Intersections of the Strzelecki Hwy and Deans Rd, Golden Gulley Rd and Smiths Rd already have existing pavement and turning lane configurations to accommodate terminal station and wind turbine component delivery. The intersection between Strzelecki Highway and Creamery Rd will need to be upgraded and a new intersection is required at the existing forestry access points at the South Gippsland and Latrobe City LGA boundary.

Key construction activities:

Key construction activities are outlined below including a description of the activity:

- *Site preparation*: creation of entrances from public roads, land clearance for compounds and laydown areas, and establishment of construction compounds.
- *Site tracks*: land/vegetation clearance and removal and stockpiling of topsoil for future use, excavation, filling, laying bedding materials and track surface materials.
- *Foundations*: land clearance and removal and stockpiling of topsoil at foundation locations. Installation of steel reinforcement and pouring of concrete to form turbine gravity base. Curing of concrete and then backfilling and replacing topsoil to ground level.
- *LV Electrical works*: trenching of cable routes (or directional drilling, where required), laying bedding materials, cables and engineered backfill, replacement of top soil to ground level.
- *HV Electrical works*: land/vegetation clearance and removal and stockpiling of topsoil for future use, excavation, filling, laying bedding materials, installation of steel reinforcement and pouring of concrete to form terminal station and up to 4 new 220kV tower bases, delivery of HV equipment to the terminal station site, installation of HV equipment.
- *Turbines*: delivery of turbine components to the wind farm site, installation of turbines at each location involving placement of tower sections on foundations followed by the nacelle, hub and blade assembly.
- *Battery storage*: land/vegetation clearance and removal and stockpiling of topsoil for future use, excavation, filling, laying bedding materials, installation of steel reinforcement and pouring of concrete to form battery facility base, delivery of equipment to the site, installation of equipment.
- *Commissioning*: testing of all electrical and mechanical systems from each turbine through the reticulation system to the substation to the metering and connection point. testing of substation and 220kV switchyard components, connecting to the existing 220kV transmission line.
- *Post-construction*: removal of temporary structures, plant and equipment. Site clean-up, top soiling and revegetation (where required).
- *Transportation*: the construction activities described above would involve transport to the wind farm site, including for materials, turbine components and plant and equipment. It is expected that site personnel would also commute to and from the site.

Key operational activities:

Operational activities include the ongoing monitoring and maintenance of the wind farm. This work would comprise:

- routine inspections;
- servicing and repair of the equipment and control systems; and
- maintenance of access tracks and adjoining land management activities.

Operational activities would be coordinated from a works compound located centrally within the project area accommodating up to 12 staff for the 25 to 30-year operational life of the project.

Key decommissioning activities (if applicable):

At the end of the operational life of the Project, the wind farm and the battery storage facility will either be decommissioned or upgraded with new turbines and/or ancillary infrastructure.

Upgrading (or repowering) the Project will extend the operational period of the Project.

Key decommissioning activities will include:

- Removal of all above ground non-operational equipment;
- Removal and clean up any residual contamination; and
- Rehabilitation of all storage areas, construction areas, access tracks and other areas affected by the decommissioning of the turbines (if those areas are not otherwise useful to the ongoing use of the land or decommissioning of the wind farm).

The Project will comply with any relevant requirements for decommissioning as prescribed under any planning approval or subsequent permit or licence.

Is the project an element or stage in a larger project?

☒ No ☐ Yes If yes, please describe: the overall project strategy for delivery of all stages and components; the concept design for the overall project; and the intended scheduling of the design and development of project stages).

Is the project related to any other past, current or mooted proposals in the region?

☒ No ☐ Yes If yes, please identify related proposals.

What is the estimated capital expenditure for development of the project?

Approximately AUD $320 – 360 million total capital expenditure is expected to be invested across all project elements.

4. Project alternatives

Brief description of key alternatives considered to date (eg. locational, scale or design alternatives. If relevant, attach A4/A3 plans):

There are no alternative sites that have been considered for the site of this project, as each wind farm location is dependent on a number of siting criteria being met. However; the scale of the project has been reduced from an original concept design of 53 turbines to a revised design of 35 wind turbines based on the following inputs:

- Avoiding telecommunication pathways for existing point to point links within the region.
- Increasing set back from near neighbouring dwellings and nearby townships (while noting that both designs comply with a minimum setback of 1km from neighbouring dwellings). The reduction in the number of turbines has resulted in a number of neighbouring dwellings within 2km of a wind turbine dropping from approximately 180 to approximately 100;
- Reduction in wind farm noise levels at near neighbouring dwellings so 35 dB can be achieved at nearly all neighbouring dwellings with a likely candidate wind turbine (while ensuring compliance, with buffer, to the minimum requirement of 40 dB or background plus 5 dB with a worst case - highest sound power level – turbine option); and
- reduction in potential impacts to native vegetation and threatened species through the siting of access track and underground cable routes.

Figure 3 Concept Plan and Figure 4 Comparison Plan for Concept Design v Revised Design.

Brief description of key alternatives to be further investigated (if known)**:**

A further design refinement is expected for the proposed wind turbine layout prior to submission for a planning permit within the existing layout; noting that the number of wind turbines will not increase beyond 35 in total.

5. Proposed exclusions

Statement of reasons for the proposed exclusion of any ancillary activities or further project stages from the scope of the project for assessment:

NA

6. Project implementation

Implementing organisation (ultimately responsible for project, i.e. not contractor)**:**

Delburn Wind Farm Pty Ltd

Implementation timeframe:

Construction is proposed to commence in the first half of 2022 and the wind farm is expected to commence operations by early 2023.

Proposed staging (if applicable):
NA. The project will be built in one stage.

7. Description of proposed site or area of investigation

Has a preferred site for the project been selected?

☐ No ☒ Yes If no, please describe area for investigation.
If yes, please describe the preferred site in the next items (if practicable).

General description of preferred site, (including aspects such as topography/landform, soil types/degradation, drainage/ waterways, native/exotic vegetation cover, physical features, built structures, road frontages; attach ground-level photographs of site, as well as A4/A3 aerial/satellite image(s) and/or map(s) of site & surrounds, showing project footprint):

The proposed site comprises a mixture of pine and blue gum plantations and remnant native vegetation, located south of Moe and the Princess Freeway and north of Boolarra-Mirboo North Road. The proposed development site is located at the plantation land centred in the Delburn area, covering the HVP Plantations Thorpdale Tree Farm. Access to the site is expected to be via the Strzelecki Highway which runs through the centre of the site.

The mapped remnant native vegetation within the project area represents seven Ecological Vegetation Classes (EVCs) from two bioregions: Gippsland Plain and Strzelecki Ranges. Adjacent remnant native vegetation includes Sayers Trig Bushland Reserve (north), Darlimurla Forest Block (east) and Mirboo North Regional Park (west). In particular, the 340 ha Darlimurla Forest Block supports significant ecological values.

Tributaries of the Morwell River, Ten Mile Creek and associated wetlands intersect the project area. Artificial waterbodies including dams also provide habitat for waterbirds and other water dependent species.

Most of the terrain is an incised plateau, with low angle slopes at higher elevations and relatively steep slopes in the vicinity of water courses. The proposed wind farm is on a surface water divide, draining towards the north west and south east.

Published information indicates that the eastern part of the site is underlain by Pliocene to Miocene age dense sands and hard clays of the Latrobe Valley Group and the western side of the site is underlain by weathered Eocene age basalt of the Thorpdale Volcanics. The Thorpdale Volcanics weather to a high plasticity clay, which is expected to be encountered near the ground surface, but to be underlain by high strength basalt rock.

Site area (if known): approximately 5000 hectares
Route length (for linear infrastructure) NA (km) **and width** NA (m)

Current land use and development:
Pine and blue gum plantation and basalt quarries.

Description of local setting (eg. adjoining land uses, road access, infrastructure, proximity to residences & urban centres):

The surrounding landscape is mostly disturbed, having been cleared for agricultural and horticultural use.

Two coal fired power stations and associated coal mines, Hazelwood and Yallourn are located to the north and north-east of the project area. The Latrobe Valley to Melbourne HV electricity transmission infrastructure runs through the Delburn Wind Farm site.

The Strzelecki Highway, the principal access route from the Latrobe Valley to South Gippsland passes through the site.

There are approximately 2000 houses within 5 km of the project. The regional towns of Moe and Morwell are located respectively to the north and north east of the site, with the smaller towns of Boolarra, Yinnar, Thorpdale and Mirboo North within the vicinity of the project.

Several parcels of high value remnant native vegetation adjoin the site.

Planning context (eg. strategic planning, zoning & overlays, management plans):

The wind farm and associated infrastructure cover an area within three local government boundaries - Latrobe City Council, Baw Baw Shire Council and the South Gippsland Shire Council. The wind farm and associated infrastructure is predominantly within the Farming Zone across all three Shires. It is noted that within the Latrobe City area, the wind farm is also located in a part of the Special Use Zone Schedule 1 Brown Coal (SUZ1). The following overlays apply to the wind farm site:

Latrobe City:
- Bushfire Management Overlay (BMO)
- Design and Development Overlay Schedule 1 – Major Pipeline Infrastructure (DDO1)

Baw Baw Shire:
- Erosion Management Overlay (EMO)
- Bushfire Management Overlay (BMO)
- Development Contributions Plan Overlay Schedule 1 (DCPO1)

South Gippsland Shire:
- Environmental Significance Overlay Schedule 5 – Areas Susceptible to Erosion (ESO5)
- Bushfire Management Overlay (BMO)

Figure 5: Zones and Overlays Surrounding the Site.

The elements of the wind farm that are located within the Latrobe Planning Scheme area comprise the following:

- Up to 35 wind turbines
- operations and maintenance facility and an associated construction compound
- temporary concrete batching plant/s
- access tracks
- underground cabling between turbines
- terminal station
- transmission line connecting the terminal station to the existing lattice towers and transmission lines
- battery storage facility to be co-located with the terminal station

The elements of the wind farm that are located within the Baw Baw Planning Scheme area comprise one wind turbine, including hard stand area and associated access track and underground cabling and a permanent anemometer (met mast). From a definitional perspective this means that consideration needs to be given to the use of land for a Wind Energy Facility. There will also be vegetation removal in Baw Baw Shire.

The elements of the wind farm that are located within the South Gippsland Planning Scheme area comprise three wind turbines, including hard stand areas and associated access tracks and underground cabling, one permanent anemometer (met mast) and potentially a concrete batching plant. There will also be vegetation removal in South Gippsland Shire.

8. Existing environment

Overview of key environmental assets/sensitivities in project area and vicinity
(cf. general description of project site/study area under section 7)**:**

The site sits within the highly modified environment of a pine and blue gum plantation, largely surrounded by cleared agricultural land and abuts several small reserves and regional parks representing parcels of high value remnant vegetation.

Within the project footprint there are a number of areas of remnant vegetation within which seven Ecological Vegetation Classes (EVCs) of the Strzelecki bioregion have been identified during site surveys, namely; Aquatic Herbland (EVC 653), Damp Forest (EVC 29), Herb-rich Foothill Forest (EVC 23), Lowland Forest (EVC 16), Swamp Scrub (EVC 53), Swampy Woodland (EVC 937) and Tall Marsh (EVC 821).

While the native vegetation within the project area is patchy, much of it is connected to riparian corridors or the surrounding vegetation within the reserves or regional parks bordering the project area.

Two nationally significant species have been identified within the project area; namely Growling Grass Frog *Litoria raniformis* and Strzelecki Gum *Eucalyptus Strzelecki.* The project design has been modified to eliminate impact on Strzelecki Gum and minimise impacts on Growling Grass Frog habitat.

The project will require the removal of some native vegetation and has the potential to impact significant species. The area of native vegetation required to be cleared to construct the proposed wind farm is approximately 15.60 hectares. The break down of remnant native vegetation by EVC including areas proposed to be cleared is provided in section 12 below.

In considering areas for which offsets may be required a 17 metre buffer has been applied to the area to be cleared, to accommodate tree protection zones (TPZ) for large tress in patches, resulting in a likely offset requirement of 41.41 hectares. This represents a worst case scenario by assuming all areas of native vegetation adjacent to cleared areas contain large trees for which the TPZ buffer is required.

The geography of the project area consists of moderate to steep slopes with sandstone, siltstone, shales and swampy alluvial fans in the depressions.

The site is bordered by Ten Mile Creek to the west and Morwell River runs to the east of the site. Tributaries such as Stony Creek and associated wetlands intersect the site. Artificial waterbodies including dams are present in surrounding agricultural areas and provide limited suitable habitat for native species.

There are 47 registered Aboriginal cultural heritage sites within the project area and an additional 15 within 200 metres of the project area boundary.

9. Land availability and control

Is the proposal on, or partly on, Crown land?

☐ No ☒ Yes If yes, please provide details.

The site of the terminal station is located on Crown Land Allotment 52B Section A in the Parish of Narracan. Delburn Wind Farm Pty Ltd is negotiating access and subdivision rights for the portion of land required for the terminal station with DELWP, Department of Treasury and Finance and VicForests (current Lessee). This land is not subject to the provisions of the *Victorian Plantations Corporation Act* 1993 meaning an Energy Generation facility is a permitted use within this location.

Current land tenure (provide plan, if practicable):

The proposed wind energy facility is located entirely on private land owned by Grand Ridge Plantations Pty Ltd – a wholly owned subsidiary of HVP Plantations. Delburn Wind Farm Pty Ltd hold an exclusive Licence and Option for Lease with Grand Ridge Plantations Pty Ltd. DWF can enter the land for monitoring and surveys under the licence.

Intended land tenure (tenure over or access to project land):

Delburn Wind Farm Pty Ltd hold an exclusive Licence and Option for Lease with Grand Ridge Plantations Pty Ltd – a wholly owned subsidiary of HVP Plantations. If planning approval is obtained then the option will be exercised and the Project will be constructed and operated under a lease agreement with HVP Plantations.

Other interests in affected land (eg. easements, native title claims):

- 500 kV powerline easement
- 220kV powerline easement
- Gas pipeline easement

10. Required approvals

State and Commonwealth approvals required for project components (if known):

- Planning permits under three planning schemes discussed above are required under the Victorian *Planning and Environment Act 1987* for use and development of the site for a wind farm facility, installation of utility installation, and for removal of native vegetation.
- A CHMP is required under Aboriginal Heritage Act 2006. The activity is a high impact activity and part of the activity area is a legislated area of cultural heritage sensitivity; therefore, a mandatory CHMP is required (r.7 Aboriginal Heritage Regulations 2018). A wind farm is a high impact activity (r.46(1)(b)(xxx) Aboriginal Heritage Regulations 2018).
- Approval from the Department of Agriculture, Water and the Environment (Cth) under the *Environment Protection and Biodiversity Conservation Act* 1999 *may* be required.

Have any applications for approval been lodged?

☐ No ☒ Yes If yes, please provide details.

A referral under section 68 of the *Environment Protection and Biodiversity Conservation Act* 1999 ('EPBC Act') was submitted to the Department of the Environment and Energy on 21 January 2020. This referral states it is not considered that the proposal represents a controlled action for the purposes of the EPBC Act.

A Notice of Intention to prepare a voluntary CHMP has been submitted to Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC).

Approval agency consultation (agencies with whom the proposal has been discussed):

DELWP regional planning and biodiversity unit; South Gippsland Shire Council, Latrobe Shire

Council and Baw Baw Shire Council. The Commonwealth Department of Agriculture, Water and Environment was consulted prior to the submission of the EPBC Act referral.

Other agencies consulted:

Latrobe Valley Authority
West Gippsland Catchment Management Authority
Country Fire Authority
Sustainability Victoria
Air Services Australia
Earth Resources Regulation
Latrobe Valley Regional Airport
Latrobe Valley Health Advocate
Regional Roads Victoria
Gunaikurnai Land and Waters Aboriginal Corporation

PART 2 POTENTIAL ENVIRONMENTAL EFFECTS

11. Potentially significant environmental effects

Overview of potentially significant environmental effects (identify key potential effects and comment on their significance and likelihood, as well as key uncertainties):

Flora and Fauna

The project area comprises a mixture of HVP pine and blue gum plantations and remnant native vegetation in the form of forest fragments, road reserves and large trees. Extensive land clearing has occurred surrounding the project area, mainly for conversion to grazing land and other agricultural purposes and little of the pre-1750 extent of the EVCs remain within the project area and surrounds.

Flora surveys undertaken by Ecology & Heritage Partners (EHP) mapped a total of 241.04 hectares of native vegetation (excluding scattered trees) within the project area representative of seven EVCs of the Strzelecki bioregion.

The area of native vegetation likely to be directly impacted by the proposed wind farm is approximately 15.60 hectares. When accounting for both direct native vegetation loss and a 17-metre buffer to accommodate tree protection zones for large tress in patches, the total maximum impact area for native vegetation is calculated to be 41.41 hectares. This represents a worst-case scenario as not all patches of impacted native vegetation contain large trees for which this buffer is required.

Native vegetation considered to be of national conservation significance is directly adjacent to the project area; specifically, the Darlimurla Forest Block provides 340 hectares of high-quality habitat at the south-east boundary of the project area.

Two species of National significance were identified by surveys undertaken within the project area. A Growling Grass Frog population was identified at multiple sites within the project area during the 2019/2020 breeding period, and Strzelecki Gums were observed at multiple locations around the site (all Growling Grass Frogs and Strzelecki Gums observed have been recorded and mapped as part of the Biodiversity Assessment completed by Ecology and Heritage Partners). Matted Flax-Lily, Greater Glider, Swift Parrot and Grey-headed Flying-fox were also targeted during the survey period (2018-2019), due to either a high likelihood of occurrence or the presence of local populations nearby, however were not recorded during these surveys.
The project footprint has been modified to avoid all Strzelecki Gums. A small area of Growling Grass Frog habitat will be impacted as part of a proposed road upgrade to an existing waterway crossing.

No fauna species of State significance were identified within the project area. However, of the 36 fauna species of State significance that are known to, or are predicted to occur within the locality, the Biodiversity assessment identified 28 species that are considered to have a moderate or high likelihood of occurrence within the vicinity of the project area including known breeding pairs of the Powerful Owl in some of the adjoining parks and reserves.

One State significant flora species, Yarra Gum, was recorded in the study area.

While specific targeted surveys were not conducted for additional state significant species at this stage, there is a high likelihood that any species present would have been detected during the surveys conducted. A full list of nationally and state significant flora and fauna species, their likelihood of occurrence at the site, and the survey method used to detect them is provided in section 12.

The environment within the project area has undergone many land use changes which has resulted in land disturbance and native vegetation clearing and fragmentation. Given the disturbed nature of the project area in its current state, and the lack of suitable quality habitat within the impact area, the proposed action is not considered likely to have a significant impact on

the environment as a whole, or on any nationally or State significant flora and fauna.

The proposed project will be managed alongside an active plantation operation. Further disturbance to remaining native vegetation and habitat will be minimised by limiting impacts to native vegetation adjacent to existing roads and planning the installation of wind turbines within previously cleared pine plantation coupes.

The Biodiversity Assessment completed by Ecological Heritage Partners (Attachment A), concluded that potential impacts on biodiversity are not considered to be significant.

Landscape Values

The Preliminary Visual and Landscape Assessment suggests there will be 'high' landscape and visual impact to residents within close proximity of the wind farm and a range of low to medium effects on other types of landscape values. The surrounding landscape is highly disturbed, primarily by previous land clearing for agriculture, and the proximity of two coal fired power stations Hazelwood and Yallourn power stations and associated coal mines to the north and north-east of the project area. Existing overhead electrical infrastructure crosses the site which will be utilised for the proposed Delburn Wind Farm.

Cultural Heritage

The project is located within the traditional lands of the Gunai Kurnai and consultation has been undertaken with the GLaWAC the relevant Registered Aboriginal Party for the site. An Aboriginal Cultural Heritage Management Plan (CHMP) has been prepared which identified 47 registered Aboriginal cultural heritage sites within the project area and an additional 15 within 200 metres of the project area boundary. Within the geographic region of the project, three sites have been recorded having more than 100 stone artefacts (VAHR 8121-0054 [Golden Gully Pastoral 2], VAHR 8121-0077 [Varys Track Pines 1] and VAHR 8121- 0081 [Varys Track Pines 5]) the latter two of which are located within the project area.

12. Native vegetation, flora and fauna

Native vegetation

Is any native vegetation likely to be cleared or otherwise affected by the project?

☐ NYD ☐ No ☒ Yes If yes, answer the following questions and attach details.

What investigation of native vegetation in the project area has been done? (briefly describe)
Ecology and Heritage Partners (EHP) have undertaken several extensive ecological assessments associated with the proposed project between 2018 and 2019. A detailed Biodiversity Assessment is attached (Attachment A).

Targeted surveys for both nationally and state significant flora and fauna species were undertaken in habitat within or adjacent to the impact area based on which species are considered to have a moderate to high likelihood of occurrence, or have been previously recorded in or adjacent to the impact area, and whether their habitat was likely to be impacted by the project. Further detail regarding survey methodology can be found in the Biodiversity Assessment, including a discussion on the method for arriving at the decision on likelihood of occurrence.

One species of National significance, Strzelecki Gum, and one species of state significance, Yarra Gum, were recorded during the surveys.

What is the maximum area of native vegetation that may need to be cleared?

☐ NYD Estimated area 15.6 hectares (max.)

How much of this clearing would be authorised under a Forest Management Plan or Fire Protection Plan?

☐ N/A . approx. percent (if applicable)

Which Ecological Vegetation Classes may be affected? (if not authorised as above)

☐ NYD ☒ Preliminary/detailed assessment completed. If assessed, please list.

Seven EVCs of the Strzelecki bioregion were mapped within the project area, with a focus on areas in or adjacent to the project footprint. These EVCs are:

- Aquatic Herbland (EVC 653)
- Damp Forest (EVC 29)
- Herb-rich Foothill Forest (EVC 23)
- Lowland Forest (EVC 16)
- Swamp Scrub (EVC 53)
- Swampy Woodland (EVC 937)
- Tall Marsh (EVC 821)

Have potential vegetation offsets been identified as yet?

☒ NYD ☐ Yes If yes, please briefly describe.

Preliminary native vegetation offsets have been calculated in the Biodiversity Assessment report prepared by Ecology and Heritage Partners, attached. Once a final layout and design has been approved, native vegetation offsets will be finalised and sourced.

Other information/comments? (eg. accuracy of information)

NYD = not yet determined

Flora and fauna

What investigations of flora and fauna in the project area have been done?
(provide overview here and attach details of method and results of any surveys for the project & describe their accuracy)

Table 1: Summary of field surveys

Category	Survey dates	Number of survey days and approximate hours
Native vegetation and Large Tree assessments, general fauna assessments	- 17-19 July 2018 - 18-20 March 2019 - 5-7 August 2019 - 19-20 February 2020	11 survey days (2 surveyors), 176 hours (average 8 hour day)
Significant flora species surveys	- 12-16 November 2018 (Strzelecki Gum *Eucalyptus strzeleckii*, Matted Flax-lily *Dianella amoena* and other significant species) - 18-20 March 2019 - 5-7 August 2019 - 19-20 February 2020 (Strzelecki Gum)	13 survey days (2 surveyors), 208 hours (average 8 hour day)
Arboreal Mammals and Forest Owl surveys	- 12-16 November 2018 - 2-4 October 2019 - 30-31 October 2019 and 1 November 2019	8 nights (2 surveyors), 144 hours (average 9 hour day)
Ground-dwelling mammal surveys	- 12-16 November 2018 - Between 2 October 2019 and 1 November 2019	29 days cameras were recording (15 hours to set up and pick up camera traps)
Targeted Growling Grass Frog *Litoria raniformis* surveys	- 12-16 November 2018 - 2-4 October 2019	8 days and 6 nights (2 surveyors), 144 hours (average 9 hour day)
Bird Utilisation Surveys (winter and spring)	- 4-6 June 2019 - 11-13 June 2019 - 2-4 October 2019 - 30-31 October 2019 and 1 November 2019 - 6-8 November 2019	15 survey days (2 surveyors), 540 hours (average 9 hour day)
Bats surveys	- 2 October 2019 to 1 November 2019	29 days (15 hours Anabat set up and pick up)

Ecology & Heritage Partners (EHP) were commissioned to complete a Biodiversity Assessment for the project included as Attachment A. **Table 1** above includes a summary of field surveys completed within the study area.

In addition to the vegetation surveys described in the previous section (and detailed further in the Biodiversity Assessment), a number of fauna surveys were completed over a range of times to capture seasonal and diurnal variations.

The majority of the project area has been cleared of native vegetation and little of the pre-1750 extent of EVCs remain within the study area and immediate surrounds. Potential impacts to flora and fauna associated with the proposed development include the removal of remnant native

vegetation and fauna habitat, decreases in population sizes of local flora species as a consequence of habitat loss, further spread of noxious and environmental weeds from on-site activities, and subsequent degradation of remaining native vegetation, an increase in sedimentation and deterioration in water quality as a result of water runoff during construction, and direct mortality of fauna species during construction.

Based on the site conditions and the results of the desktop analysis and detailed field surveys, EHP concluded there is a low likelihood that the proposed wind farm development will impact any significant flora or fauna, including bird and bat species.

In addition, no other projects have been identified within the broader region which are likely to lead to significant cumulative impacts on the species and communities identified in this assessment.

The infrastructure layout will continue to be refined, to minimise the impact on ecological values and once finalised, any biodiversity offset requirements for the project will be determined. After the finalisation of the infrastructure layout a detailed CEMP (or similar document/s) relating to the construction and operational phases of the project will be prepared for the project to minimise impacts such as sedimentation and introduction of noxious and environmental weeds as well as management of impacts on bats and avifauna.

Summary of approach

A desk-based assessment was undertaken to provide an initial assessment of flora and fauna values associated with the project area. Detailed field assessments were then undertaken between July 2018 and February 2020 over multiple survey periods, and during different seasons and conditions to determine the extent and quality of native vegetation, including the mapping of large trees, to record flora and fauna species, and to assess fauna habitats within the project area.

Targeted surveys for significant species such as Strzelecki Gum, Growling Grass Frog and forest owls were also undertaken in known or potentially suitable habitats. Targeted surveys were conducted for species considered to have a moderate to high likelihood of occurrence and where there was potential for the habitat to be impacted by the project. For example, targeted surveys were not conducted for most aquatic species (fish, riparian flora) as only one small, localised area of riparian habitat is likely to be impacted (road widening over a creek crossing).

Bird utilisation surveys were conducted over Winter and Spring 2019, to document the species composition of birds, the frequency with which each of those species use the project area, bird height and the distribution of these species across the landscape. Conducting bird utilisation survey point counts in plantation has the potential to obscure the ecologist's view of birds, however given the location of the project it was appropriate to compete the counts within the plantation area. To counter this potential, the locations chosen to conduct the counts were strategically selected in higher more open areas to maximise sight lines while remaining within the project area. The results of the bird utilisation survey are found in section 3.2.1 of Attachment A.

Bat surveys were undertaken in accordance with Commonwealth Survey Guidelines for Australia's threatened bats (DEWHA 2010b). To detect the presence of microbat species bat detectors were deployed for 29 days during October 2019. The methodology for the surveys are found in section 2.7 Bats and Avifauna in Attachment A and the results of this survey are included in section 3.2.2 of Attachment A.

Flora

Surveys of the project area recorded 65 species of flora including 51 native species and 14 introduced species.

The project area intersects two bioregions: the Gippsland Plain and Strzelecki Ranges. However, the native vegetation identified and geographic context of the project area, provided justification to map all EVCs according to the Strzelecki Ranges bioregion. The native vegetation assessment identified 241.04 ha of native vegetation representative of seven EVCs, broken down as shown in Table 2. This table also includes the breakdown by EVC of the 16.9 Ha proposed to be cleared

for the project referenced in Section 8.

Table 2: Breakdown of EVCs

Bioregion	EVC	BCS	Mapped area (ha)	Area proposed to be cleared (ha)
Strzelecki Ranges	Aquatic Herbland (EVC 653)	Not Specified	0.69	0.15
	Damp Forest (EVC 29),	Endangered	66.62	9.03
	Herb-rich Foothill Forest (EVC 23),	Endangered	115.00	17.26
	Lowland Forest (EVC 16)	Vulnerable	44.53	11.55
	Swamp Scrub (EVC 53)	Endangered	0.11	0.11
	Swampy Woodland (EVC 937)	Endangered	14.34	2.94
	Tall Marsh (EVC 821)	Not Specified	0.75	0.37

The majority of mapped patches of native vegetation within or adjacent to the impact area were of moderate to high quality, based on the habitat condition score for each habitat zone using the Vegetation Quality Assessment method.

The Victorian Biodiversity Atlas (VBA) contains records of four nationally significant and 35 state significant flora species previously recorded within 10 kilometres of the project area. The majority of these species are located in areas of relatively high quality, undisturbed habitat such as the Morwell National Park located to the east of the project or waterways and roadsides. The Commonwealth Protected Matters Search Tool (PMST) predicted an additional five nationally significant species which have not been recorded in the locality but have the potential to occur. Of the nine nationally significant flora species that are known to, or are predicted to occur within the locality, four were considered to have a moderate or higher likelihood of occurrence within the project area namely Strzelecki Gum *Eucalyptus strzeleckii,* River Swamp Wallaby-grass *Amphibromus fluitans,* Matted Flax-lily *Dianella amoena* and Dwarf Cypress-pine *Callitris oblonga* subsp. *oblonga*.

Scientific name	Common name	Survey	Total # of documented records	Last documented record	EPBC	FFG	DEPI	Likely occurrence in study area*
Amphibromus fluitans	River Swamp Wallaby-grass	Native vegetation surveys over multiple seasons and days	6	2003	VU	X	-	3-4
Caladenia tessellate #	Thick-lip Spider-orchid	Native vegetation surveys over multiple seasons and days	-	-	VU	-	-	4
Callitris oblonga subsp. *oblonga*	Dwarf Cypress-pine	Native vegetation surveys over multiple seasons and days	2	1998	EN	-	-	3-4 (non-indigenous)
Dianella amoena	Matted Flax-lily	Native vegetation surveys over multiple seasons and days	22	2012	EN	L	e	3-4
Prasophyllum frenchii #	Maroon Leek-orchid	Native vegetation surveys over multiple seasons and days	-	-	EN	L	e	4
Eucalyptus strzeleckii	Strzelecki Gum	Native vegetation surveys over multiple seasons and days	75	2012	VU	L	v	1
Glycine latrobeana #	Clover Glycine	Native vegetation surveys over multiple seasons and days	-	-	VU	L	v	4
Pterostylis chlorogramma #	Green-striped Greenhood	Native vegetation surveys over multiple seasons and days	-	-	VU	L	v	4
Xerochrysum palustre #	Swamp Everlasting	Native vegetation surveys over multiple seasons and days	-	-	VU	L	v	4

Table 3: National significant flora species recorded for the area

* 1 = known occurrence; 2 = high likelihood of occurrence; 3 = moderate of likelihood of occurrence; 4 = low likelihood of occurrence, and; 5 = unlikely to occur.

The Victorian Biodiversity Atlas contains records of 35 State significant flora species within 20

kilometres of the study area (Appendix 2.4 of Attachment A to this referral). The majority of these species are located in areas of relatively high quality, undisturbed habitat (i.e. Morwell National Park) or waterways and roadsides.

In addition to the nationally significant flora species, there is suitable habitat for 16 State species within the study area (Appendix 2.5 of Referral Attachment A). However, none of these species were detected within the study area despite active searching during appropriate times of the year. Based on the habitat type and vegetation quality throughout the study area there are varying degrees of likelihood for each of these species within the study area (Table 4).

Table 4: State significant flora recorded for the study area

Scientific name	Common name	Survey	Likelihood of occurrence*
Acacia howittii	Sticky Wattle	Native vegetation surveys over multiple seasons and days	3
Austrostipa rudis subsp. *australis*	Veined Spear-grass	Native vegetation surveys over multiple seasons and days	4
Brachyscome salkiniae	Elegant Daisy	Native vegetation surveys over multiple seasons and days	4
Caladenia aurantiaca	Orange-tip Finger-orchid	Native vegetation surveys over multiple seasons and days	4
Caladenia australis	Southern Spider-orchid	Native vegetation surveys over multiple seasons and days	3
Caladenia vulgaris	Slender Pink-fingers	Native vegetation surveys over multiple seasons and days	3
Callitriche umbonata	Winged Water-starwort	Native vegetation surveys over multiple seasons and days	4
Cardamine paucijuga s.s.	Annual Bitter-cress	Native vegetation surveys over multiple seasons and days	4
Cardamine tenuifolia	Slender Bitter-cress	Native vegetation surveys over multiple seasons and days	4
Chiloglottis jeanesii	Mountain Bird-orchid	Native vegetation surveys over multiple seasons and days	3
Craspedia canens	Grey Billy-buttons	Native vegetation surveys over multiple seasons and days	3
Cyathea cunninghamii	Slender Tree-fern	Native vegetation surveys over multiple seasons and days	4
Cymbonotus lawsonianus	Bear's-ear	Native vegetation surveys over multiple seasons and days	3
Desmodium varians	Slender Tick-trefoil	Native vegetation surveys over multiple seasons and days	3
Diuris X *palachila*	Broad-lip Diuris	Native vegetation surveys over multiple seasons and days	4
Eucalyptus fulgens	Green Scentbark	Native vegetation surveys over multiple seasons and days – habitat hectares and tree assessment	3
Eucalyptus ignorabilis s.s.	Grey Scentbark	Native vegetation surveys over multiple seasons and days – habitat hectares and tree assessment	3

Eucalyptus kitsoniana	Bog Gum	Native vegetation surveys over multiple seasons and days – habitat hectares and tree assessment	4
Eucalyptus yarraensis	Yarra Gum	Native vegetation surveys over multiple seasons and days – habitat hectares and tree assessment	1
Geranium solanderi var. *solanderi* s.s.	Austral Crane's-bill	Native vegetation surveys over multiple seasons and days	3
Grevillea rosmarinifolia	Rosemary Grevillea	Native vegetation surveys over multiple seasons and days	4
Lasiopetalum ferrugineum	Rusty Velvet-bush	Native vegetation surveys over multiple seasons and days	4
Leionema bilobum subsp. *serrulatum*	Toothed Leionema	Native vegetation surveys over multiple seasons and days	4
Marsilea mutica	Smooth Nardoo	Native vegetation surveys over multiple seasons and days	4
Melaleuca armillaris subsp. *armillaris*	Giant Honey-myrtle	Native vegetation surveys over multiple seasons and days	3
Oxalis thompsoniae	Fluffy-fruit Wood-sorrel	Native vegetation surveys over multiple seasons and days	4
Platysace ericoides	Heath Platysace	Native vegetation surveys over multiple seasons and days	3
Potamogeton australiensis	Thin Pondweed	Native vegetation surveys over multiple seasons and days	4
Pterostylis grandiflora	Cobra Greenhood	Native vegetation surveys over multiple seasons and days	3
Pultenaea juniperina s.s.	Prickly Beauty	Native vegetation surveys over multiple seasons and days	3
Pultenaea prolifera	Otway Bush-pea	Native vegetation surveys over multiple seasons and days	4
Sowerbaea juncea	Rush Lily	Native vegetation surveys over multiple seasons and days	3
Thelymitra incurva	Swamp Sun-orchid	Native vegetation surveys over multiple seasons and days	3
Tmesipteris elongata	Slender Fork-fern	Native vegetation surveys over multiple seasons and days	4
Tmesipteris ovata	Oval Fork-fern	Native vegetation surveys over multiple seasons and days	4

* 1 = known occurrence; 2 = high likelihood of occurrence; 3 = moderate of likelihood of occurrence; 4 = low likelihood of occurrence, and; 5 = unlikely to occur.

Fauna

Surveys of the project areas have identified 77 species of fauna comprising 70 native species and seven introduced species.

The project area contains patches of remnant native vegetation with a high density of large trees, which provide important habitat for an array of native species. Arboreal mammals such as gliders and many species of birds (i.e. parrots, owls) utilise tree hollows for nesting and/or denning. The largest patch (320 hectares in area) adjoining the eastern boundary of the project area is referred to as the Darlimurla Forest Block. Sayers Trig Bushland Reserve (north) and Mirboo North Regional Park (south) are also directly adjacent to the project area and combined with remnant

vegetation in road reserves (e.g. large trees), act as dispersal corridors for fauna. While the native vegetation within the project area is patchy, much of it is connected along road reserves, to riparian corridors or the surrounding vegetation within reserves or regional/state parks bordering the project area.

Fifty-five native species of birds were recorded, comprising 1,285 individual birds, during the 64 fixed-point bird counts and incidental surveys. Four bird species were recorded 50% or more of the time during the survey period: Australian Magpie *Gymnorhina tibicen* 78%, Crimson Rosella *Platycercus elegans* 97%, Superb Lyrebird *Menura novaehollandiae* 59% and Yellow-tailed Black Cockatoo *Calyptorhynchus funereus* 67%. No significant bird species were observed during the fixed-point count surveys.

A total of 64% (289 of 449) of bird observations made during the point counts were of individuals that were either on the ground or flying at or below the Rotor Swept Area. Birds observed flying at Rotor Swept Area include Yellow-tailed Black Cockatoo, Little or Australian Raven and Australian Magpie. All species observed within the Rotor Swept Area were common birds and not listed as threatened on DELWP's Advisory list or listed under the EPBC Act or FFG Act. No birds recorded during the bird utilisation surveys or recorded during the detailed field surveys are defined as 'species or interest' as outlined in Lumsden *et al.* (2019).

Although nocturnal surveys and active searching for evidence of the targeted forest owl species (i.e. pallets, white-wash, prey remains and/or use of hollows) in suitable habitats was undertaken across suitable habitats within the study area none of the targeted owls were detected. There is a moderate to high likelihood that Powerful Owl uses native vegetation within the study area for foraging and roosting activities, although the other owl species are less likely to occupy habitat within the study area.

Five native bat species (all common in the local area) were detected during the Anabat surveys, including White-striped Freetail Bat *Tadarida australis*, Eastern False Pipistrelle *Falsistrellus tasmaniensis*, Gould's Wattled Bat *Chalinolobus gouldi*, Chocolate Wattled Bat *Chalinolobus morio* and Little Forest Bat *Vespadelus vulturnus*. With the exception of White-striped Freetail Bat, which is known to regularly fly within Rotor Swept Area, the remainder are expected to forage at lower heights around vegetation and waterbodies. Although nocturnal and Anabat surveys were undertaken across the study area over several nights, no significant species (e.g. Grey-headed Flying-fox, Common Bent-wing Bat or Yellow-bellied Sheathtail-bat) were detected within, or adjacent to the study area.

The VBA contains records of six nationally significant, 35 state significant and nine regionally significant fauna species previously recorded within 10 kilometres of the project area. The PMST nominated an additional 11 nationally significant species which have not been previously recorded but have the potential to occur in the locality. The majority of these species are located in areas of relatively high quality, undisturbed habitat such as Morwell National Park and Mirboo North Regional Park or waterways and roadsides.

One nationally significant fauna species (Growling Grass Frog *Litoria raniformis*) was recorded within the project area during the targeted surveys. This species is listed as vulnerable under the EPBC Act, threatened under the FFG Act and vulnerable on the Victorian Advisory List.

Of the 18 nationally significant fauna species that are known to, or are predicted to occur within the locality, two additional species have a high (Grey-headed Flying-fox) or moderate likelihood (Greater Glider) of occurring / using habitat resources within the project area.

Table 5: Nationally Significant fauna species predicted to occur in the area

Common Name	*Scientific Name*	Survey	Total no. of documented records	Last documented record	EPBC	FfG	Depi	Likelihood of occurrence in study area*
Australasian Bittern	*Botaurus poiciloptilus #*	Bird utilisation surveys and general fauna surveys	1	2009 (Morwell Bridge – Birdline Victoria	EN	L	EN	3
Australian Grayling	*Prototroctes maraena*	No targeted surveys undertaken. However, all areas potential habitat is proposed to be avoided	2	1981	VU	L	VU	4
Australian Painted Snipe	*Rostratula australis #*	Bird utilisation surveys and general fauna surveys	1	-	VU	L	CR	4
Broad-toothed Rat	*Mastacomys fuscus mordicus #*	Ground-dwelling mammal surveys (camera traps)	1	-	VU	L	EN	4
Curlew Sandpiper	*Calidris ferruginea #*	Bird utilisation surveys and general fauna surveys	1	-	CR	-	EN	4
Dwarf Galaxias	*Galaxiella pusilla*	No targeted surveys undertaken. However, all areas potential habitat is proposed to be avoided	7	2012	VU	L	EN	3
Eastern Curlew	*Numenius madagascariensis #*	Bird utilisation surveys and general fauna surveys	1	-	CR	-	VU	4
Eastern Quoll	*Dasyurus viverrinus*	Arboreal Mammals and Forest Owl surveys – nocturnal surveys	1	-	EN	L	RX	4
Greater Glider	*Petauroides Volans*	Arboreal Mammals and Forest Owl surveys – nocturnal surveys	25	2012	VU	-	VU	2
Grey-headed Flying-fox	*Pteropus poliocephalus #*	Anabat surveys	-	-	VU	L	VU	2
Growling Grass Frog	*Litoria raniformis*	Targeted surveys	15	2010	VU	L	EN	1
Long-nosed Potoroo	*Potorous tridactylus tridactylus*	Ground-dwelling mammal surveys (camera traps)	1	-	VU	L	NT	4
Painted Honeyeater	*Grantiella picta #*	Bird utilisation surveys and general fauna surveys	1	-	VU	L	VU	4
Regent Honeyeater	*Anthochaera phrygia #*	Bird utilisation surveys and general fauna surveys	1	-	CR	L	CR	4

Smoky Mouse	*Pseudomys fumeus #*	Ground-dwelling mammal surveys (camera traps)	1	-	EN	L	EN	4
Southern Brown Bandicoot	*Isoodon obesulus obesulus*	Ground-dwelling mammal surveys (camera traps)	4	1978	EN	L	NT	3
Spot-tailed Quoll	*Dasyurus maculatus maculatus #*	Arboreal Mammals and Forest Owl surveys – nocturnal surveys	3	-	EN	L	EN	4
Swift Parrot	*Lathamus discolor*	Bird utilisation surveys and general fauna surveys	3	1977	CR	L	EN	4

* 1 = known occurrence; 2 = high likelihood of occurrence; 3 = moderate of likelihood of occurrence; 4 = low likelihood of occurrence, and; 5 = unlikely to occur.

The VBA contains records of 36 State significant fauna species previously recorded within 20 kilometres of the study area. The majority of these species are located in areas of high quality, undisturbed habitat (i.e. Morwell National Park and Mirboo North Regional Park), or waterways and roadsides.

No state significant fauna species were identified within the study area. However, of the 36 State significant fauna species that are known or predicted to occur within the locality a number of species have a moderate or high likelihood of occurrence within the study area (Table 6 below).

Common Name	Scientific Name	Surveys	Likelihood of occurrence within the study area*
Anas rhynchotis	Australasian Shoveler	Bird utilisation / general fauna surveys	2
Falco subniger	Black Falcon	Bird utilisation / general fauna surveys	2
Oxyura australis	Blue-billed Duck	Bird utilisation / general fauna surveys	2
Climacteris picumnus victoriae	Brown Treecreeper (south-eastern ssp.)	Bird utilisation / general fauna surveys	4
Phascogale tapoatafa	Brush-tailed Phascogale	Arboreal Mammals and Forest Owl surveys – nocturnal surveys	4
Hydroprogne caspia	Caspian Tern	Bird utilisation / general fauna surveys	4
Calamanthus pyrrhopygius	Chestnut-rumped Heathwren	Bird utilisation / general fauna surveys	4
Miniopterus schreibersii	Common Bent-wing Bat	Anabat surveys	4
Actitis hypoleucos	Common Sandpiper	Bird utilisation / general fauna surveys	4
Stagonopleura guttata	Diamond Firetail	Bird utilisation / general fauna surveys	4
Ardea modesta	Eastern Great Egret	Bird utilisation / general fauna surveys	1
Stictonetta naevosa	Freckled Duck	Bird utilisation / general fauna surveys	3
Tandanus tandanus	Freshwater Catfish	Bird utilisation / general fauna surveys	4
Engaeus hemicirratulus	Gippsland Burrowing Crayfish	No targeted surveys undertaken. However, all areas potential habitat is proposed to be avoided	2
Pseudemoia rawlinsoni	Glossy Grass Skink	No targeted surveys undertaken. However, all areas potential habitat is proposed to be avoided	2
Accipiter novaehollandiae novaehollandiae	Grey Goshawk	Bird utilisation / general fauna surveys	2
Gelochelidon nilotica macrotarsa	Gull-billed Tern	Bird utilisation / general fauna surveys	3
Aythya australis	Hardhead	Bird utilisation / general fauna surveys	1
Melanodryas cucullata cucullata	Hooded Robin	Bird utilisation / general fauna surveys	3
Ardea intermedia	Intermediate Egret	Bird utilisation / general fauna surveys	3
Varanus varius	Lace Monitor	General and targeted diurnal surveys. Negligible to Low impact to this	1
Lewinia pectoralis pectoralis	Lewin's Rail	Bird utilisation / general fauna surveys	2

Ixobrychus minutus dubius	Little Bittern	Bird utilisation / general fauna surveys	2
Egretta garzetta nigripes	Little Egret	Bird utilisation / general fauna surveys	2
Tyto novaehollandiae novaehollandiae	Masked Owl	Bird utilisation / general fauna surveys	2
Biziura lobata	Musk Duck	Bird utilisation / general fauna surveys	2
Engaeus phyllocercus	Narracan Burrowing Crayfish	No targeted surveys undertaken. However, all areas potential habitat is proposed to be avoided	3
Ninox strenua	Powerful Owl	Forest Owl surveys. No suitable nesting habitat is proposed to be impacted	1
Euastacus neodiversus	South Gippsland Spiny Crayfish	Bird utilisation surveys and general fauna surveys	2
Pseudophryne semimarmorata	Southern Toadlet	No targeted surveys undertaken for this species. There is potential habitat for this species in the form of ephemeral drainage lines. Areas of potential habitat has been avoided.	3
Engaeus rostrogaleatus	Strzelecki Burrowing Crayfish	No targeted surveys undertaken. However, all areas potential habitat is proposed to be avoided	2
Lissolepis coventryi	Swamp Skink	Active searching during the surveys. No targeted surveys undertaken as potentially suitable habitats are proposed to be avoided	2
Haliaeetus leucogaster	White-bellied Sea-Eagle	Bird utilisation surveys and general fauna surveys	2
Climacteris affinis	White-browed Treecreeper	Bird utilisation surveys and general fauna surveys	2
Sminthopsis leucopus	White-footed Dunnart	Ground-dwelling mammal surveys (camera traps)	4
Hirundapus caudacutus	White-throated Needletail	Bird utilisation surveys and general fauna surveys	1

Table 6 State significant fauna recorded for the area

* 1 = known occurrence; 2 = high likelihood of occurrence; 3 = moderate of likelihood of occurrence; 4 = low likelihood of occurrence, and; 5 = unlikely to occur.

Ecological communities

One EPBC Act-listed ecological community: Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*) Grassy Woodland and Associated Native Grassland, predicted to potentially occur within the project area. Due to the absence of Gippsland Red-gum (Plains Grassy Woodland EVC) and other key indicator species, Gippsland Red Gum Grassy Woodland and Associated Native Grassland is not present within the project area. It is unlikely that Gippsland Red Gum Grassy Woodland would ever have occurred within the project area, as the project area is located in the Strzelecki Ranges, rather than the flatter plains geography, and there are no plains grassy woodlands or plains grassland in the area.

The native vegetation within and adjacent to the impact area did not meet the descriptive characteristics of Herb-rich Plains Grassy Wetland (West Gippsland) Community, which is an FFG Act-listed ecological community. As such, this listed FFG Act-listed ecological community, or any other listed communities do not occur within the project area.

Have any threatened or migratory species or listed communities been recorded from the local area?

☐ NYD ☐ No ☒ Yes If yes, please:

- List species/communities recorded in recent surveys and/or past observations.
- Indicate which of these have been recorded from the project site or nearby.

Growling Grass Frog, and Strzelecki Gum were identified during studies completed for this project. Matted Flax-lily has been previously reported within the vicinity of the project area, however was not identified in the surveys completed for this project.

Several EPBC Act-listed migratory species have previously been recorded within a 10-kilometre radius of the study area. Suitable habitat within the study area for EPBC Act migratory species is limited to the small low-lying areas (drainage lines and creeks) that would be inundated periodically, and the primary species that would use these habitats include Latham's Snipe. The main areas of suitable habitat for migratory species is approximately 30 kilometres to the south of the study area (i.e. in intertidal areas along the coast and throughout Corner Inlet and also Gippsland Lakes Ramsar sites located further to the east).

If known, what threatening processes affecting these species or communities may be exacerbated by the project? (eg. loss or fragmentation of habitats) Please describe briefly.

The project has the potential to result in fragmentation of habitat, however this is considered unlikely and any impact is not considered to be significant.

There are a number of habitat corridors around and within the project area, in particular along waterways and drainage lines. The project is unlikely to have a significant impact on species utilising these habitat corridors for movement and dispersal, as the project has been designed to minimise disturbance to native vegetation and in particular waterways. Following the existing corridors will not take these species within close proximity of the turbines, and the project footprint has been designed to avoid significant impacts on any habitat corridors. The habitat in and around the project is already highly modified and fragmented, and the project is not expected to contribute to further fragmentation.

Are any threatened or migratory species, other species of conservation significance or listed communities potentially affected by the project?

☐ NYD ☐ No ☒ Yes If yes, please:

- List these species/communities:
- Indicate which species or communities could be subject to a major or extensive impact (including the loss of a genetically important population of a species listed or nominated for listing) Comment on likelihood of effects and associated uncertainties, if practicable.

The proposed development will have an impact on a small area of Growling Grass Frog habitat through the widening of an existing road waterway crossing. This is not considered likely to have a significant impact on the Growling Grass Frog population as it avoids the important breeding populations elsewhere within the project at Luxford Pond and the wetland Site E.

The potential to impact on Strzelecki Gum, described above, has been largely avoided by ensuring the project footprint avoids all identified Strzelecki Gum.

The closest Ramsar wetland is the Corner Inlet, located approximately 30 kilometres to the south of the study area. The proposed development will not impact this Ramsar site or any other Ramsar wetlands. While migratory bird species (e.g. Latham's Snipe *Gallinago hardwickii*) may occasionally inhabit the study area, the study area is not considered to be classed as an 'important habitat' as defined under the EPBC Act Policy Statement 1.1 Principal Significant Survey Guidelines (DoE 2013).

Is mitigation of potential effects on indigenous flora and fauna proposed?

☐ NYD ☐ No ☒ Yes If yes, please briefly describe.

The project design has been significantly modified to avoid impacts on ecological values of the

site to the maximum extent possible. These modifications resulted in eliminating impacts to Strzelecki Gum and minimising impacts on Growling Grass Frog habitat. Any residual impacts will be mitigated through appropriate on-site management via a Construction Environmental Management Plan and development of an offset management plan.
Other information/comments? (eg. accuracy of information)

13. Water environments

Will the project require significant volumes of fresh water (eg. > 1 Gl/yr)?

☐ NYD ☒ No ☐ Yes If yes, indicate approximate volume and likely source.

The project is not expected to require significant volumes of fresh water. Principle uses of water will be the two onsite concrete batching plants, potable water for the works compound and a requirement to access water for dust suppression and road construction. It is estimated that approximately 3 ML of water will be required for concrete batching. The report by Golder Associates (Attachment J) suggests that there is availability of groundwater for construction purposes.

Will the project discharge waste water or runoff to water environments?

☐ NYD ☒ No ☐ Yes If yes, specify types of discharges and which environments.

There is considered to be a minimal risk of waste water runoff due to the relatively low volumes of waste water generated during construction. The Construction Environment Management Plan will ensure mitigation measures typical for projects of this scale and complexity are implemented.

Are any waterways, wetlands, estuaries or marine environments likely to be affected?

☐ NYD ☐ No ☒ Yes If yes, specify which water environments, answer the following questions and attach any relevant details.

The project area is bordered by Ten Mile Creek to the west and Morwell River, located outside the eastern boundary. Morwell River drains north into the Latrobe River which flows east to the Gippsland Lakes Ramsar site, including Lake Wellington (approximately 95 kilometres away).

Tributaries such as Stony Creek and associated wetlands intersect the project area. Artificial waterbodies including dams are present in surrounding agricultural areas and provide limited suitable habitat for native species.

Wetlands in the project area include Luxford Pond, Silver Creek, and a tributary of Ten Mile Creek, flows south into Luxford Pond. Additionally a water body know as Wetland site E within the project area is fed by a network of creeks to the south of the project area.

Unless impacted by a waterway crossing, all watercourses (including unnamed drainage) lines have a minimum setback of 20m. Formal drainage lines registered as areas of cultural significance have a 200m setback. There will be one section of road widening required at an existing creek crossing on an existing forestry road to the north of Luxford Pond. Although unlikely, potential impacts could include removal of habitat, sedimentation, reduced water quality and disturbance of water flows. Any impacts to hydrology (sedimentation, water flows, water quality) will be minimised through the implementation of a Construction Environmental Management Plan, during the proposed works. No aspect of the operational phase of the project is expected to impact on waterways.

Are any of these water environments likely to support threatened or migratory species?

☐ NYD ☐ No ☒ Yes If yes, specify which water environments.

Both Luxford Pond and Wetland site E have been identified as habitat for the Growling Grass Frog,

Are any potentially affected wetlands listed under the Ramsar Convention or in 'A Directory of Important Wetlands in Australia'?

☐ NYD ☒ No ☐ Yes If yes, please specify.

The nearest Ramsar wetland from the project area is Corner Inlet located approximately 30 km south of the project area and the Gippsland lakes are located approximately 95 km down-stream to the east. Due to the distance from the project area, the proposed development is considered unlikely to have a significant impact to these Ramsar wetlands.

Could the project affect streamflows?

☐ NYD ☒ No ☐ Yes If yes, briefly describe implications for streamflows.

The wind farm will not generate significant run off or alter stream flows. Other than the turbine footing (a 15 – 20m metre diameter concrete pad), all infrastructure will be of permeable materials and designed not to significantly alter surface water flows.

Could regional groundwater resources be affected by the project?

☐ NYD ☒ No ☐ Yes If yes, describe in what way.

Golder Associates (Attachment J) concluded that regional groundwater is unlikely to be impacted as a result of the project. Depth to groundwater across the project area is likely to range from less than 5 metres, in topographically lower areas close to streams, to over 100 metres in areas of higher elevation across the site. Based on Golders' assessment, depth to groundwater at eight of the proposed wind turbine locations (WTG16, WTG 21, WTG 34, WTG 35, WTG 36, WTG 38, WTG 43, WTG 49) may be less than 20 metres below ground level and these turbine locations may require further assessment during detailed design. However, given the expected excavation depth for the wind turbine foundations is approximately 5m, intersection with groundwater during construction is considered to be a very low risk.

Could environmental values (beneficial uses) of water environments be affected?

☐ NYD ☒ No ☐ Yes If yes, identify waterways/water bodies and beneficial uses (as recognised by State Environment Protection Policies)

Could aquatic, estuarine or marine ecosystems be affected by the project?

☐ NYD ☒ No ☐ Yes If yes, describe in what way.

Is there a potential for extensive or major effects on the health or biodiversity of aquatic, estuarine or marine ecosystems over the long-term?

☒ No ☐ Yes If yes, please describe. Comment on likelihood of effects and associated uncertainties, if practicable.

No. The project is located at sufficient distance from both minor and major waterways that it will be unlikely to have a significant impact on any aquatic ecosystems. There is potential for short term, minor sedimentation impacts from run-off during the construction period. This will be minimised through the implementation of appropriate sediment controls to be detailed in the Construction EMP. Major rivers, wetlands, estuarine and marine environments are located a significant distance downstream of the project.

Is mitigation of potential effects on water environments proposed?

☐ NYD ☐ No ☒ Yes If yes, please briefly describe.

Environmentally sensitive construction measures will be employed including sediment and erosion controls to ensure that the wind farm does not discharge wastewater and runoff to water environments. These measures will be detailed within the Construction Environmental Management Plan (CEMP), including a sediment, erosion, and water quality management plan, to be implemented via Planning Permit conditions.

Other information/comments? (eg. accuracy of information)

Golders note that natural geological hazards including landslide and earthquake are to be considered in detailed design as the site is in one of the most seismically active areas in Victoria and that the Thorpdale Volcanics are susceptible to landslide.

Notwithstanding, Golders state the seismic risk is low relative to more active seismic areas elsewhere in the world and Australia. Whilst seismic loading will need to be considered in the engineering design, it is unlikely to preclude the development.

14. Landscape and soils

Landscape

Has a preliminary landscape assessment been prepared?

☐ No ☒ Yes If yes, please attach.

A Preliminary Landscape and Visual Impact Assessment is provided in Attachment C.
The PLVIA assessed the visual impact of the project from indicative viewpoints within the public domain. An assessment of individual residential dwellings has not been undertaken by the PLVIA. Rather, a selection of views from localities and nearby towns has been included to assist with determining the location of the residential clusters and dwellings to be considered by the final Landscape and Visual Impact Assessment which will accompany the planning permit application.

The assessment of visual impact from residences is different to that undertaken from publicly accessible viewpoints in that visitor numbers is not applicable and landscape sensitivity is also always rated as 'high'. It is recognised that people feel most strongly about the view from their house and areas or attached outdoor living spaces. There are no dwellings within 1km of the wind farm and approximately 100 dwellings within 2km.

Photomontages are used within the report to show the anticipated change in views that might be brought about by the Project. Photomontages can assist in visual assessment by illustrating the scale and location of the proposed wind turbines. Photomontages can also demonstrate how landscape screening can assist filter or screen views to a 250 metre high wind turbine. The Photomontages are included in the Preliminary Landscape and Visual Impact Assessment.

The predominant land uses within the viewshed of the Project include:

- Plantations and forestry.
- Townships;
- Open-cut coal mines;
- Coal fired power stations.
- State and National parks
- Farming and agriculture; and
- Water storage / cooling ponds.

Landscape Sensitivity

The landscape within the view shed includes many constructed elements including new dwellings, structures and sheds, high voltage transmission line towers, mining activities, power infrastructure and other interventions. The landscape sensitivity of the Cleared Farmland Landscape Unit is considered low. It is not a rare or threatened land-use or character and is common across a large area of Victoria. This landscape undergoes visually apparent change both on a regular basis and progressively over time. Rural activities such as grazing, tractors, crop cycles and other farming changes associated with farming and agriculture are constant reminders of human influence on the landscape. However, it must be recognised that some people value the cleared farmland with minimal signs of mechanised construction such as houses, farm sheds and the like. The presence of wind turbines may be perceived as a high visual impact due to the presence of large-scale structures on a rural landscape to these viewers, notwithstanding that the landscape is already highly modified by human activity.

The landscape sensitivity of the Forested Hills (Natural) Landscape Unit is considered medium to high, as although it too is relatively common, it appears more pristine or natural than the Forested Hills (Plantation) and Cleared Farmland landscape units.

The Townships Landscape Unit is considered to have a medium sensitivity. This is based on the higher number of residents and the historical setting. The village settlement has limited views to the surrounding landscape which is screened by buildings and roadside vegetation.

Is the project to be located either within or near an area that is:

- **Subject to a Landscape Significance Overlay or Environmental Significance Overlay?**

☐ NYD ☐ No ☒ Yes If yes, provide plan showing footprint relative to overlay.
Schedule 1 to the SLO of the Baw Baw Planning Scheme (SLO1) is located to the south of the

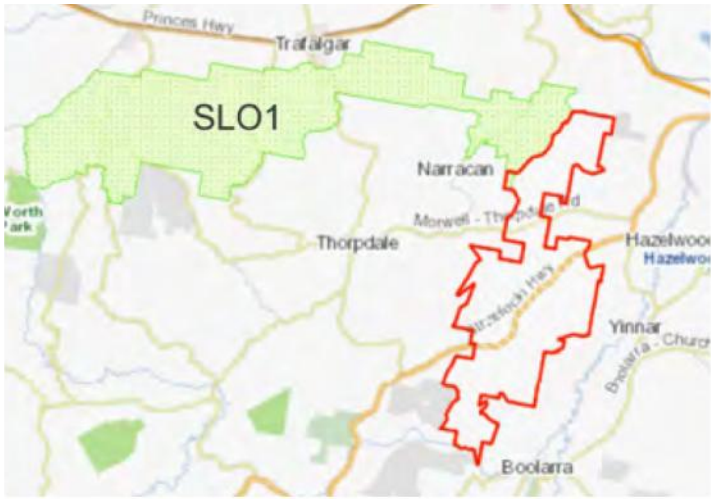
Princes Highway between the shire boundary near the Project site to Hazeldean Road to the west and applies to a broad area approximately 15 km in length and up to 4 km deep behind Yarragon South.

SLO1 applies to the northern foothills of the Strzelecki Ranges. The Statement of significance states that:

The north face of the Strzelecki Ranges presents a landscape of diversity where cleared land, remnant vegetation and timber plantations co-exist. No dominant built development exists and yet houses, and narrow roads climb from the valley floor and foothills adjoining the Princes Highway between Yarragon and Trafalgar.

The Landscape Character objective to be achieved within SLO1 is:

- *To protect the natural beauty and landscape form of the Strzelecki Range.*
- *To protect the rural landscape from insensitively designed development.*
- *To maintain and protect the diversity of landscapes, native fauna, remnant vegetation and sites of historical, botanical and zoological significance.*
- *To provide for the development of tourism-oriented activities which complement the landscape of the Strzelecki Ranges.*
- *To recognise and protect the landscape and conservation features of the Strzelecki Ranges.*
- *To protect the Ranges and the surrounding landscapes from visual intrusion and inappropriate development.*



SLO 1 seeks to, amongst other things, protect the landscape form of the Strzelecki Ranges and the rural landscape from insensitively designed development and to protect the Ranges and the surrounding landscapes from visual intrusion and inappropriate development. The proposed wind farm will not alter the landform of the Strzelecki Range and no turbines will be located within the SLO1.

- **Identified as of regional or State significance in a reputable study of landscape values?**
  ☐ NYD ☒ No ☐ Yes If yes, please specify.

The wind farm site is not within an area of State or regional landscape significance.

- **Within or adjoining land reserved under the *National Parks Act 1975* ?**
  ☐ NYD ☒ No ☐ Yes If yes, please specify.

- **Within or adjoining other public land used for conservation or recreational purposes ?**
  ☐ NYD ☐ No ☒ Yes If yes, please specify.

Adjoining the eastern boundary of the project area is approximately 320 hectares of remnant vegetation, referred to as the Darlimurla Forest Block. Sayers Trig Bushland Reserve (north), Mirboo North Regional Park (south) is also directly adjacent to the project area and allows the connectivity of native vegetation and dispersal corridors for fauna. While the native vegetation

within the project area is patchy, some of it is connected to riparian corridors or the surrounding vegetation within reserves or regional parks bordering the project area.

Is any clearing vegetation or alteration of landforms likely to affect landscape values?
☐ NYD ☒ No ☐ Yes If yes, please briefly describe.

Is there a potential for effects on landscape values of regional or State importance?
☐ NYD ☒ No ☐ Yes Please briefly explain response.

Is mitigation of potential landscape effects proposed?
☐ NYD ☐ No ☒ Yes If yes, please briefly describe.

The wind farm site is within an area of plantation, which provides a measure of buffer regarding potential landscape impacts associated with the wind farm.

It is recognised that wind turbines are unavoidably visible and often contrast with the environments in which they are situated. The assessment and approvals process are required to consider the acceptability of impacts on landscape values, the amenity of communities and residential dwellings and the ability of mitigation to manage these impacts.

The undulating terrain and extensive existing native vegetation (particularly along road sides) provide some screening of visibility of the proposed wind turbines.

Mitigation options available to manage visual impact from locations that are considered to be significantly visually affected by a wind farm include:

- vegetation screening to filter or screen to the proposed wind turbines from dwellings or areas of private open space;
- re-siting of turbines to locations where they will have less visual impact (or removal if necessary).

Other information/comments? (eg. accuracy of information)

Areas that have the potential to be most visually affected by the proposed turbines are those within 6.0 km of the nearest turbine, while areas that may have potentially noticeable visual impacts associated with the project extend out to 28.6 km. On clear days, turbines may still be visible beyond 28.6 km. However, they would be a small element within views.

A further, more detailed assessment will be prepared in accordance with the requirements set out in Clause 52.32 (Wind Energy Facilities) of the Planning Schemes and Section 5.1.3 of the *Policy and Planning Guidelines for development of wind energy facilities in Victoria*.

Note: A preliminary landscape assessment is a specific requirement for a referral of a wind energy facility. This should provide a description of:

- The landscape character of the site and surrounding areas including landform, vegetation types and coverage, water features, any other notable features and current land use;
- The location of nearby dwellings, townships, recreation areas, major roads, above-ground utilities, tourist routes and walking tracks;
- Views to the site and to the proposed location of wind turbines from key vantage points (including views showing existing nearby dwellings and views from major roads, walking tracks and tourist routes) sufficient to give a sense of the overall site in its setting.

Soils

Is there a potential for effects on land stability, acid sulphate soils or highly erodible soils?

☐ NYD ☒ No ☐ Yes If yes, please briefly describe.

Golder Associates prepared a desktop assessment of geotechnical, contaminated land and hydrogeological constraints (Attachment J). The anticipated geological units near the surface of the wind farm project are:

Table 7: Geological Units near Surface

Age	Unit reference	Map symbol	Description
Quaternary (Holocene)	Unit 1	Qra	Alluvium – gravel, sand, silt and clay (fluvial deposits)
Latrobe Valley Group (Pliocene to Miocene)	Unit 2	Tph	Sand, silt, gravel and ferruginous sand. Interbedded with sand and clay in varying proportion.
Thorpdale Volcanics (Eocene to Oligocene)	Unit 3	Tvd	Basic Lava and associated pyroclastics, basic plugs, dykes, interbedded clay and coal.

Golders' report suggest that although the area can be susceptible to landslips, particularly areas of Thorpdale Volcanics, they noted that no evidence of recent landslide activity was observed at any of the wind turbine generator locations visited during the site visit and that erosion risk can be managed through design of drainage and appropriate batter slopes.

Are there geotechnical hazards that may either affect the project or be affected by it?

☐ NYD ☒ No ☐ Yes If yes, please briefly describe.

Other information/comments? (eg. accuracy of information)

A Desktop Assessment of Potential Geotechnical, Contaminated Land and Hydrogeological Constraints has been prepared and is found at Attachment J. In summary, the assessment found:

- There are no sites of geological significance within the project boundaries
- The CSIRO Acid Sulfate Soils Probability map indicate generally a "low probability of occurrence" to "extremely low probability of occurrence" in the vicinity of the site. However, discrete localised areas of "high probability of occurrence" are present in the vicinity of the site located near waterbodies, however turbines are located a minimum of 100 meters from waterways.
- There are no groundwater quality restricted use zones within 1 km of the site
- None of the turbine locations currently proposed are within landslide susceptible areas.

The proposed wind farm is located in one of the most active seismic areas in Victoria. Notwithstanding this, the seismic risk is low relative to more active seismic areas elsewhere in the world and Australia. Whilst seismic loading will need to be considered in the engineering design, it is unlikely to preclude the development.

15. Social environments

Is the project likely to generate significant volumes of road traffic, during construction or operation?

☐ NYD ☐ No ☒ Yes If yes, provide estimate of traffic volume(s) if practicable.

Based upon a construction phase of 18-24 months, Jacobs (Traffic Impact Assessment, Attachment D) modelled traffic generated by the construction of the Project.

Traffic generated by the Project will mainly be construction vehicles delivering materials and construction workers. The construction process will bring larger volumes of vehicles of varied types with heavier and a significant number of oversize loads. This amount and type of traffic will vary in the construction period. Table 8 below lists the main construction activities involved and key trip generation assumptions.

Table 8: Break down of Delburn Wind Farm construction activities

Construction task	Task duration (months)	Start and end dates	Vehicle transport type(s)	Other assumptions
Site establishment	1	1 Jan 2022 To 1 Feb 2022	Various	
Public/private road upgrades	3	1 Feb 2022 to 1 May 2022	Truck & dog trailer Rigid truck	☐ Materials will be largely sourced from the on-site quarry, otherwise they will be delivered from the Port of Hastings ☐ Water will be sourced from local standpipes ☐ It is assumed that only 6.2km of road upgrades are required over a three-month period for the Project
Site access track and hardstand construction	6	1 Feb 2022 to 1 Aug 2022	Truck & dog trailer	☐ Materials will be largely sourced from the on-site quarry, otherwise they will be delivered from the Port of Hastings
Turbine foundation excavation and construction	6	1 Feb 2022 to 1 Aug 2022	B-Double Rigid truck Truck & dog trailer Concrete agitator Semi-trailer	☐ Some materials will be sourced from the on-site quarry, otherwise they will be delivered from the Port of Hastings ☐ Water will be sourced from local standpipes
Electrical infrastructure construction (including a substation)	10	1 Feb 2022 to 1 Dec 2022	OD trailer Semi-trailer B-Double Rigid truck	☐ Some materials will be sourced from the on-site quarry, otherwise they will be delivered from the Port of Hastings ☐ Water will be sourced from local standpipes
Wind turbine component delivery	6	1 Feb 2022 to 1 Aug 2022	OD trailer Various heavy vehicles	☐ 12 OD vehicles and 48 other heavy vehicles (e.g. support vehicles) are required to transport one turbine
Wind turbine erection	10	1 Jul 2022 to 1 May 2023	Various	☐ 50 heavy vehicles are required to erect one turbine
Dust suppression	17	1 Feb 2022 to 1 May 2023	Rigid truck	☐ Water will be sourced from local standpipes ☐ Four water trucks will be used and deliver water five times daily each
Site clean-up	2	1 May 2023 to 30 Jun 2023	Various	☐ 100 one-way trips assumed for site clean-up tasks
Construction workforce commute	18	1 Jan 2022 to 30 Jun 2023	Light weight service van Ute Private car	☐ Vehicle occupancy is one staff per vehicle ☐ Only 50% of the total workforce is required during the first and last month of construction

Based on the key project, traffic generation and distribution assumptions, it is expected that a total of approximately 152,500 one-way trips (i.e. over 18 months) will be required to be made by

construction vehicles (16,500 trips) and workforce vehicles (136,000 trips).

During the expected peak construction months (February 2022 to April 2022), a maximum of 519 one- way daily trips are expected to be made (119 construction vehicles and 400 worker vehicles). In terms of the estimated traffic distribution across the road network of interest, there is expected to be a maximum of 160 additional vehicles traversing westbound along the Strzelecki Highway and 181 additional vehicles traversing eastbound in the AM peak one-hour period.

The Creamery Road, Smiths Road and Golden Gully Road intersections off the Strzelecki Highway are key access points and will see both additional heavy and light vehicles turning in and out from these intersections. Smiths Road intersection is expected to carry the highest amount of turning construction traffic. These key intersections are expected to operate within their service levels; however some upgrades are expected at the Creamery Rd intersection and some re-sheeting works may be required on Creamery Road, Smiths Road, Golden Gully Road and Deans Rd to increase structure strength of the pavement to cater for the wind farm construction traffic movements.

Once the project is fully operational, traffic to and from the site is anticipated to be minimal.

A traffic (capacity and intersection performance) and transport (swept path) assessment will potentially be required at these three nominated key intersections. Other intersections where left or right turns are required by construction related traffic (OD vehicles in particular) along the Port of Hastings route may also require a traffic and transport assessment. A mid-block traffic (capacity) and transport (bridge assessment, overhead clearance and pavement condition), i.e. road sections between intersections, may also be required. Jacobs recommend that these assessments be undertaken as part of preparing a Traffic Management Plan (TMP) for the project. A TMP for the Project is likely to be required under an approved planning permit and should be completed prior to the construction phase commencing, in collaboration with appointed contractor for the project.

Is there a potential for significant effects on the amenity of residents, due to emissions of dust or odours or changes in visual, noise or traffic conditions?

☐ NYD ☐ No ☒ Yes If yes, briefly describe the nature of the changes in amenity conditions and the possible areas affected.

A Preliminary Noise Assessment (July 2019) undertaken by Marshall Day Acoustics is attached at Attachment H. Operational noise from the proposed wind turbines has been assessed in accordance with the New Zealand Standard 6808:2010 *Acoustics – Wind farm noise* (NZS 6808:2010), as required by the Victorian Government's *Development of Wind Energy Facilities in Victoria - Policy and Planning Guidelines* dated March 2019.

In summary, the assessment found the noise modelling for the Delburn Wind Farm demonstrates that the predicted noise levels for the proposed turbine layout (35 turbines) and candidate turbine model achieves the noise limits determined in accordance with NZS 6808:2010 at all neighbouring noise sensitive receiver locations. It states that the predicted noise levels from the proposed Delburn Wind Farm are below the base noise limit of 40 dB L_{A90} at all receivers.

The noise assessment therefore demonstrates that the proposed Delburn Wind Farm can be designed and developed to achieve Victorian policy requirements for operational noise. Further detailed assessment is required as part of the planning permit process.

Is there a potential for exposure of a human community to health or safety hazards, due to emissions to air or water or noise or chemical hazards or associated transport?

☐ NYD ☒ No ☐ Yes If yes, briefly describe the hazards and possible implications.

Is there a potential for displacement of residences or severance of residential access to community resources due to the proposed development?

☐ NYD ☒ No ☐ Yes If yes, briefly describe potential effects.

Are non-residential land use activities likely to be displaced as a result of the project?

☐ NYD ☐ No ☒ Yes If yes, briefly describe the likely effects.

An area of the plantation will be leased to the wind farm and therefore some area of plantation is to be 'displaced'.

Do any expected changes in non-residential land use activities have a potential to cause adverse effects on local residents/communities, social groups or industries?

☐ NYD ☒ No ☐ Yes If yes, briefly describe the potential effects.

The construction and operation of the wind farm will not cause changes to the existing operations of the pine plantation.

Is mitigation of potential social effects proposed?

☐ NYD ☐ No ☒ Yes If yes, please briefly describe.

The proposed wind farm will offer the following key social and economic benefits to the region and Victoria:

- Contribute to Victoria's Renewable Energy Targets of 40% by 2025 and 50% by 2030;
- Support Victoria's new energy transition in the Latrobe Valley and contribute the growth of the renewable energy industry in the Gippsland region;
- Invest $53 million into the regional economy, and additional $95 million into the Victorian economy and generate approximately up to 200 direct and indirect jobs during construction;
- Provide an annual benefit of approximately $1.7 million to the Gippsland region and up to 20 full time jobs during its operational life of 25-30 years;
- Fund a neighbourhood benefits scheme for neighbours within 2-3 km (depending on the wishes of the community) of up to $500,000 per annum;
- Establish a community benefits fund of approximately $150,000 per annum for the life of the project;
- Provide the opportunity for the community to invest in the project.

The community is expected to benefit from 6.2km of local road upgrades and repairs to support the construction of the wind farm and the reinstatement of roads.

Other information/comments? (eg. accuracy of information)

The Preliminary Economic Impact Assessment (Attachment F) states that Latrobe's major industry is electricity generation, with three large brown coal power stations in operation: Loy Yang A, Loy Yang B and Yallourn. This industry is in decline: Hazelwood Power Station closed in March 2017, resulting in approximately 750 job losses and Yallourn and Loy Yang A are set to close by the middle of the century.

Latrobe has a significantly higher rate of unemployment than the Victorian average, and this gap has been widening for the past 6 years. This gap was exacerbated by the closure of Hazelwood Power Station where the unemployment rate in Latrobe increased from 7.1% in 2016 to 10.6% in 2017, while the Victorian unemployment rate remained steady at 5.9% during this time.

Cultural heritage

Have relevant Indigenous organisations been consulted on the occurrence of Aboriginal cultural heritage within the project area?

☒ No If no, list any organisations that it is proposed to consult.
☒ Yes If yes, list the organisations so far consulted.

The Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) is the responsible RAP and have been consulted in the preparation of the Cultural Heritage Management Plan (CHMP).

What investigations of cultural heritage in the project area have been done?
(attach details of method and results of any surveys for the project & describe their accuracy)

A desktop assessment and Cultural Heritage Management Plan in consultation with the GLaWAC has been undertaken and prepared by Archaeology at Tardis (Attachment G).
The majority of the places were recorded during the 1980s (61%) by Wesson and Beck (1981) for the Driffield EES project for the State Electricity Commission.

Is any Aboriginal cultural heritage known from the project area?

☒ NYD ☒ No ☒ Yes If yes, briefly describe:

- Any sites listed on the AAV Site Register
- Sites or areas of sensitivity recorded in recent surveys from the project site or nearby
- Sites or areas of sensitivity identified by representatives of Indigenous organisations

The desktop CHMP assessment (Attachment G) found there are 154 registered Aboriginal places in the geographic region including 47 in the wind farm activity area and 15 registered Aboriginal places within 200m of the wind farm area boundary. Most areas of sensitivity relate to artifact scatter in a disturbed context in ridgeline areas dominated by sandy soils, particularly along areas of Deans Rd, Golden Gulley Rd and other sandy ridgelines.

In the geographic region, place types are dominated by artifact scatters (including associated soil deposits) and LDADs (96%) followed by scarred trees (3%) and one quarry (<1%). In the activity area, all but one of the registered Aboriginal places are artifacts scatters or LDADs. There is one quarry site VAHR 8121-0087 [Varys Track Pines 11]. No scarred trees are registered within the activity area.

The majority of the places were recorded during the 1980s (61%) by Wesson and Beck (1981) for the Driffield EES project for the State Electricity Commission. The remaining sites were recorded during survey and monitoring primarily related to coal mining and electricity generation for Hazelwood. Recently there have been a limited number of CHMP investigations for road upgrades and local industry development.

Archaeology at Tardis concluded that the desktop assessment demonstrated that Aboriginal cultural heritage is both known to be present in the activity area and is likely to be present in the activity area. Map 4a, 4b and 4c within the Archaeology at Tardis report (Attachment G) indicates the extent of known or potential Aboriginal cultural heritage over the wind farm site.

Is mitigation of potential cultural heritage effects proposed?

☒ NYD No ☒ Yes If yes, please briefly describe.

CHMP 16429 is being prepared in consultation with the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) and the CHMP will outline the required avoidance, mitigation and management actions required during construction of the project to appropriate manage impacts on known and potential heritage. .

Other information/comments? (eg. accuracy of information)

Previous reports have been extensive as part of the Driffield EES project for the State Electricity Commission undertaken by Wesson and Beck (1981).

16. Energy, wastes & greenhouse gas emissions

What are the main sources of energy that the project facility would consume/generate?

- ☒ Electricity network. If possible, estimate power requirement/output .
- ☐ Natural gas network. If possible, estimate gas requirement/output ...
- ☒ Generated on-site. If possible, estimate power capacity/output .
- ☐ Other. Please describe.

Please add any relevant additional information.

The wind farm will generate approximately 620,000 GWh of electricity per year (which will power approximately 125,000 households.

What are the main forms of waste that would be generated by the project facility?

- ☒ Wastewater. Describe briefly.
- ☐ Solid chemical wastes. Describe briefly.
- ☒ Excavated material. Describe briefly.
- ☐ Other. Describe briefly.

Please provide relevant further information, including proposed management of wastes.

The majority of waste will be generated by the wind farm during construction and will principally comprise excess fill material from on-site excavations. Detailed design will be used to optimise cut and fill balances and maximise onsite reuse for site rehabilitation. There may, however, be small quantities of excavated material to be removed which would be disposed of to a suitably licensed landfill facility at the completion of the construction works.

Waste water generated on site will be limited to sewage from onsite facilities for the construction workforce. Temporary on site sewage collection and storage facilities that will be installed and pumped out for off-site disposal at an appropriate facility to avoid any risks to ground water.

General refuse generated will be managed as identified in the CEMP to be implemented via Planning Permit conditions.

During operation, the Wind Energy Facility will not generate any significant volume of waste and it will operate under an Operational Environmental Management Plan.

What level of greenhouse gas emissions is expected to result directly from operation of the project facility?

- ☒ Less than 50,000 tonnes of CO_2 equivalent per annum
- ☐ Between 50,000 and 100,000 tonnes of CO_2 equivalent per annum
- ☐ Between 100,000 and 200,000 tonnes of CO_2 equivalent per annum
- ☐ More than 200,000 tonnes of CO_2 equivalent per annum

Please add any relevant additional information, including any identified mitigation options.

Non-material levels of CO_2 emissions will occur during the construction and operation of the wind farm through the use of vehicles, plant and equipment. This generation is significantly offset by the production of clean energy.

17. Other environmental issues

Are there any other environmental issues arising from the proposed project?

☐ No ☒ Yes If yes, briefly describe.

EMI and Telecommunications

If not properly designed, wind farms have the potential to interfere with radio communication services. Two services that are most likely to be affected are television broadcast signals and fixed point-to-point signals. Terrestrial broadcast signals are commonly used to transmit domestic television, while point-to-point links are used for line-of-sight connections for data, voice, and video. The interference mechanisms are different for each of these and, hence, there are different ways to avoid interference.

The Delburn wind farm has been designed to specifically avoid all major point to point links. The potential remains to interfere with several point-to-multipoint links operated by Gippsland Water. These will be addressed through micro siting during detailed design

There is one radio communication tower located within 2 km of the proposed turbine locations (site ID 47336). This tower is a commercial FM radio broadcasting tower operated by Southern Cross Austereo Group (includes Kids FM, Latrobe Valley 91.9 HMz, 1936 Southern Cross Austereo Group).

There is also potential for interference to wireless internet signals received from the Boolarra NBN tower at several dwellings in the vicinity of the Project. If interference to the NBN wireless internet service is experienced, mitigation options could include installing a new NBN tower to service the affected houses or relocating the antennas at those houses to achieve a clearer signal. Although NBN Co has been consulted on these options it has not as yet confirmed the viability of these mitigation options.

Turbines within the project may interfere with digital television broadcast signals received from nearby towers at a number of houses surrounding the Project. Coverage maps suggest that, for most of these towers, many of the potentially affected houses are located in areas with limited to no signal coverage and therefore may not be receiving signals from that tower. However, interference to the signals from Latrobe Valley tower, which appears to be the primary transmitter for the area, could have a significant impact on local residents. Interference to mobile phone signals is also possible, particularly in areas that already experience marginal coverage. If interference to these services is experienced, a range of options are available to rectify difficulties and these will be addressed in detailed design. An assessment is found at Attachment I.

Shadow Flicker

Shadow-flicker modeling at the Delburn Wind Farm (Attachment E), has been undertaken in accordance with the National and Victoria State planning guidelines. The assessment confirms compliance with the specified limit of 30 hours per year for all dwellings within the assumed shadow flicker zone of 1192.5 metres. Therefore, shadow flicker is not considered to be an impact from the Delburn Wind Farm.

Aviation

An aviation impact assessment has been prepared by Chiron Consultants (Attachment L). The aviation impact assessment found that there are two Registered Aerodromes within 30nm (56km) of the Delburn Wind Farm (DWF). These are LaTrobe Valley (YLTV) and Yarram (YYRM) aerodromes, both of which are equipped with lights and have published instrument approach procedures.

The Leongatha uncertified aerodrome (YLEG) is also within 30nm of the wind farm. The Aviation Impact Statement (AIS) concluded that the DWF will not impact upon the following:

- The Lowest Safe Altitude (LSALT) of nearby published air routes;
- The Obstacle Limitation Surface (OLS) of any registered, certified or military aerodrome;
- The YLTV NDB Approach;

- The YYRM Instrument Approach Procedures; and
- The performance of civil ATC Communications, Navigation and Surveillance facilities.

The AIS concluded that the DWF will impact on the following:

- The PANS-OPS surface for the LaTrobe Valley YLTV RNAV RWY03 non-precision approach.

An amendment to this Instrument Approach Procedure will be required to overcome the PANS-OPS penetration. Airservices Australia advise that the RNAV RWY21 Overshoot decision height requires amending.

The Obstacle Lighting Review for the Delburn Wind Farm finds that in accordance with the NASF Guideline D risk assessment:

- Obstacle lighting is not required as the risk to aviation is low and no additional mitigating strategies are necessary.

The Delburn Wind Farm turbines and meteorological monitoring masts are considered to be tall structures, therefore they must be appropriately coloured to enhance visibility to aircraft and be reported to the Vertical Obstacle Database, managed by Airservices Australia.

The Department of Defence has advised that the Delburn Wind Farm will not impact upon any of their facilities including at RAAF Base East Sale.

Bushfire Risk

A Bushfire Risk Assessment has been prepared by Fire Risk Consultants (Attachment K). The risk assessment concluded that the Delburn Wind Farm proposal would not increase the bushfire risk in the landscape if recommendations during the distinct phases of development, construction and operation are implemented.

Specific design measures incorporated into the project to reduce bush fire risk include:

- The transmission network from all turbines to the terminal station and subsequent connection to the existing 220V network has been designed to place all powerlines underground consistent with the recommendations of the Victorian Bushfires Royal Commission which identified powerline failures during severe weather to have caused several of the Black Saturday fires.

- Each turbine will be equipped with built in fire suppression and alarm systems

- All turbines will be fitted with lightning conductors reducing the likelihood of fire starts from ground strikes

Some elements of the project design contribute to a reduction fire risk, from either design as above or infrastructure development and through management collaboration with HVP during the operational life of the project These include

- greater surveillance resulting from an increased workforce presence within the forest and remote cameras installed on all turbines increasing the likelihood of early detection of any fire starts and providing an increased deterrent against arson

- an increase in personnel within the forest trained in and equipped for fire suppression

- provision of an enhanced road and track network increasing accessibility and shortening response times in event of a fire and increasing number and effectiveness of roads as fire breaks

- the provision of additional static water supply at strategic locations throughout the project area

- opportunities to enhance planning and annual exercising for bushfire response with HVP.

The risk to aerial firefighting operations was also considered in the risk assessment in line with guidance provided by the Australasian Fire and Emergency Service Authorities Council (AFAC). This assessment concluded that wind turbines are not expected to pose an unacceptable risk to aerial firefighting operations and that pilots and Air Operations Managers must assess the risk as part of routine procedures on a case by case basis, treating turbine towers in the same way as other tall obstacles. In the event of a fire, the turbines would be shut off and parked in the Y position to further reduce the risks to aircraft operations from wake turbulence and moving blades. Several examples of successful aerial fire suppression operations in both Victoria and South Australia are highlighted in the risk assessment.

18. Environmental management

What measures are currently proposed to avoid, minimise or manage the main potential adverse environmental effects? (if not already described above)

☒ Siting: Please describe briefly

Efforts have been made throughout the project planning and design stages, to avoid and minimise native vegetation loss, including the reduction of the number of wind turbines from 53 to 35 turbines. This has reduced the extent of access roads which require widening and subsequent loss of native vegetation.

The project area has been chosen because it has excellent characteristics for a high performing wind energy facility but low adverse environmental impacts. The layout included with this EES Referral incorporates turbine siting and layout design that avoids or minimises environmental impacts. Nevertheless, a micro-siting allowance of 100 metres radius will be sought in the Planning Permit application which will provide for minor adjustments to turbine and access track siting to mitigate any unforeseen effects, such as may result during the finalisation of assessments (which will be completed as part of the detailed design stage of the wind farm following the issue of a Planning Permit/s), to ensure compliance with conditions or to further achieve improved project efficiencies and avoid / minimise impact on biodiversity (e.g. significant species or habitat).

☒ Design: Please describe briefly

The actual area of disturbance associated with the construction and operation of the wind farm will be optimised for minimal impact pending final major procurement decisions, detailed civil and electrical design and timing of project construction.

☒ Environmental management: Please describe briefly.

A CEMP will be implemented during the construction phase and an Operational Environmental Management Plan for the operations phase to monitor and control residual environmental issues associated with the wind farm. A site-specific CEMP will be prepared post Planning Permit approval, incorporating any condition of that permit, as well as the measures as outlined within this referral.

Other environmental management plans (ie erosion control, water/drainage management, etc) may be required as conditions of Planning Permit as outlined throughout this Referral document.

☐ Other: Please describe briefly

19. Other activities

Are there any other activities in the vicinity of the proposed project that have a potential for cumulative effects?

☐ NYD ☒ No ☐ Yes If yes, briefly describe.

There are no other known major projects in the region that are likely to contribute to any cumulative impacts.

20. Investigation program

Study program

Have any environmental studies not referred to above been conducted for the project?

☒ No ☐ Yes If yes, please list here and attach if relevant.

A complete list of studies for the proposed Delburn wind farm is listed in Part 1 of this referral.

Has a program for future environmental studies been developed?

☐ No ☒ Yes If yes, briefly describe.

In addition to the studies provided in support of this Referral, all studies will be updated and progressed to a greater level of detail suitable for assessment for planning consent and to reflect the final design details. This includes:

- Biodiversity Assessment, including design refinements and additional avoidance and mitigation measures to further reduce impacts on native vegetation;
- Noise Assessment including background noise measurements;
- A peer review of the noise assessment and S53V Audit;
- Geotechnical and Hydrogeological assessment
- Landscape and Visual Impact Assessment, including assessment of visual impacts from neighbouring dwellings;
- Traffic Impact Assessment, including swept paths and concept designs for key intersections to accommodate over dimensional movements;
- EMI and telecommunications assessments, including any additional consultation with service operators;
- Aviation risk assessment
- Bushfire risk assessment;
- Shadow flicker assessment; and
- Economic impact assessment;

Cultural Heritage Management Plan 16429 is being progressed in consultation with Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC), including standard and complex assessments.

Consultation program

Has a consultation program conducted to date for the project?

☐ No ☒ Yes If yes, outline the consultation activities and the stakeholder groups or organisations consulted.

A comprehensive community and stakeholder consultation program is being implemented as part of the Delburn Wind Farm proposal.

As a signatory to the Clean Energy Council's Best Practice Charter for Renewable Energy Developments the OSMI has publicly committed to:

- Encouraging stakeholder and community input to the project;
- Ensuring the community has access to accurate project information;
- Acknowledging local concerns and issues raised by the community in relation to the project;
- Seeking to address, resolve and/or mitigate community concerns or issues in a timely manner;
- Providing open and transparent information by publishing all technical reports and consultative committee meeting minutes on the project website;
- Providing proactive and cooperative communication with the local community, consultative committee members and other project stakeholders;
- Always treating members of the local community, consultative committee members and other stakeholders fairly, courteously and in a consistent and ethical manner;

Since May 2019, a Project Office and Information Centre has been open in the town of Boolarra – one of the small communities in close proximity to the project. This office is open to the public to allow the community and stakeholders to obtain information about the project and talk to project staff.

As the project has developed successive iterations of the project design and detailed impact assessments reports have been made available to the community both in full and summary form on the project https://osmi.com.au/delburn-wind-farm/ and at the project Information Centre.

Attempts have been made to contact all members of the community surrounding the proposed windfarm to provide information on the project and answer their questions. Over 500 individuals have be engaged in face -to-face or on-line communications via the project's web site and social media channels. All bar a very small number of households within 2km of the project have taken up the opportunity to engage with the project in some way.

Over 250 people have attended community information sessions held in each of the small townships/communities surrounding the project at which detailed project information was made available and the subject matter experts who have completed the preliminary impact assessments were on hand to answer the community's questions.

Tours of the Bald Hills Wind Farm have been conducted to provide the community with the opportunity to experience first-hand the nature of an operating wind farm. Over 60 members of the community have taken up the opportunity to visit Bald Hills. Additional tours had been scheduled however these needed to be postposed as a result of the COVID-19 outbreak.

The area surrounding the project has a very active and engaged community and is well represented across a large number of community groups and associations ranging from sporting clubs, to environment groups and community development associations. Engagement has been initiated with a number of these groups with a focus on local, regional and state based environmental groups and local community development associations. These groups are listed below:

- Australian Wind Alliance
- Baw Baw Sustainability Group
- Boolara Community Development Group
- Boolara South Landcare
- Boolarra Historical Society
- Earthworker Co-operative
- Eco Innovation Co-op
- Friends of the Earth
- Gippsland Climate Change Network
- Greening Australia
- Latrobe Valley Community Power Hub
- Latrobe Valley Sustainability Group
- Mirboo Country Development Inc.
- Mirboo North and District Community Foundation
- Preserve Our Forests
- Strzelecki Sustainable Futures
- Voices of the Valley
- yes 2 renewables
- Yinnar and District Community Association

Two new community groups have been established in the local area as a result of the proposal. One opposing and one supporting the Delburn wind farm project. Each group claims significant community representation from within the local area however these claims are difficult to validate.

- The Strzelecki Community Alliance are opposed to the project and have established a website setting out their concerns which covers the full range of potential impacts from a wind farm. They also highlight what they perceive to be deficiencies in the Victorian regulatory framework for wind farms as a basis for their opposition to the project.

- The Strzelecki Sustainable Futures is a Latrobe Valley based group established in support of the project on a platform of clean energy and just transition away from coal fired power for the Latrobe Valley.

Issues of greatest community concern to the community appear to be impacts from noise, health impacts of infrasound and concerns about fire risk from the plantation which are likely heightened as a result of trauma suffered within the community as a result of the 2009 Delburn complex of fires.

Has a program for future consultation been developed?

☐ NYD ☐ No ☒ Yes If yes, briefly describe.

As the project progresses future community engagement plans include continuation of the activities undertaken to date as described above. Additional activities to be undertaken include:

- Establishing a Community and Stakeholder Consultative Committee with an Independent Chair
- Establishment of a Community Benefits Fund that will invest up to $750 per MW installed ($150,000 per year based on a 200 MW project) into the community surrounding the Delburn Wind Farm once the project is constructed that will operate for the life of the project. The area to be included and the manner in which these funds are invested will be determined in collaboration with the community through a Community Benefits Committee.
- Offering a profit-sharing program for neighbours within 2km, and potentially up to 3km, of the project for the life of the project (of approximately $500,000 annum). The distribution formula for this program will be developed in consultation with the community.
- Provide the opportunity for community co-investment in the project to enable community members to share directly in the profits of the wind farm.

Authorised person for proponent:

I, Peter Marriott (full name),

Director (position), confirm that the information contained in this form is, to my knowledge, true and not misleading.

Signature 

Date 30 April 2020

Person who prepared this referral:

I, Mandy Elliott (full name),

Director, EnviroME Pty Ltd (position), confirm that the information contained in this form is, to my knowledge, true and not misleading.

Signature 

Date 30 April 2020