

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* (Eighth Edition, 2023). 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 Transport and Planning (DTP) 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:	Atmos Renewables (Atmos) on behalf of Macorna SPV - Atmos MWV Pty Ltd as trustee for the Atmos MHV Trust
Authorised person for proponent:	Kate Munro
Position:	Head of Development
Postal address:	Level 9, 123 Pitt Street, Sydney NSW 2000
Email address:	Kate.munro@atmosrenewables.com.au; mailto:alex.barker@atmosrenewables.com.au
Phone number:	0431703035; 0434554802
Facsimile number:	n/a
Person who prepared Referral:	Rebecca Wardle and Gabi Coddington
Position:	Co-Founder & Director and Associate Planner
Organisation:	Cogency Australia Pty Ltd (Cogency)
Postal address:	Level 6, 84 William Street, Melbourne, Victoria, 3000
Email address:	rebecca@cogencyaustralia.com.au; gabi@cogencyaustralia.com.au
Phone number:	0400 797 106; 0412 632 575
Facsimile number:	n/a
Available industry & environmental expertise: (areas of 'in-house' expertise & consultancy firms engaged for project)	Atmos Renewables is a highly capable Australian renewable energy company with a strong track record in the development, ownership and operation of utility-scale wind, solar and battery projects. Backed by Igneo Infrastructure Partners, Atmos brings a long-term owner's perspective to project development, supported by an experienced in-house team with deep expertise in planning approvals, environmental management and stakeholder engagement. As a signatory to the Clean Energy Council Best Practice Charter, Atmos demonstrates a clear commitment to responsible development, strong community and Traditional Owner engagement, and high environmental and governance standards. Atmos has partnered with local brothers, Don and Graham Webb, of WindFarmers Energy Group to develop the Macorna Wind Farm. Don and Graham grew up in the region, and had connections with the Macorna Football Netball Club. Don also has 20 years of wind farm delivery experience, whilst Graham ran an irrigation design, supply and installation business in Cohuna called G&M Poly, and installed much of the landowners irrigation infrastructure within the project area.

	This capability is complemented by the use of leading specialist consultants, including (but not limited to): • Cogency – Planning, Environmental Assessment and Engagement • Nature Advisory – Ecology • Extent Heritage – Heritage • Ag-Challenge – Agronomy • RMCG – Strategic Assessment of Irrigation • Lecroma – Socio-economic • Amber – Traffic • Aviation Projects – Aviation • Peter Haack – Landscape and visual • SLR - Noise, air quality, electromagnetic interference shadow flicker, blade throw, hydrogeology • DCE – Hydrology • Douglas Partners – Geotechnical
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2. Project – brief outline

Project title: Macorna Wind Farm (the Project)
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) <u>Project Area</u> The proposed location of the Project at Faulkner Road, Tragowel 3579, is within and surrounding the locality of Macorna in the Gannawarra Shire and Loddon Shire, local government areas (LGAs). The Project is located in Victoria's Loddon Mallee Region. The Project comprises 26 landholdings within the localities of Macorna, Tragowel, Mincha West and Macorna North. The Project Area is approximately 23,000 hectares (ha), with an expected development or construction footprint of 749.75 ha. The Project is sited predominately within the North West Renewable Energy Zone (REZ). The Project Area Plan (provided at Figure 1, below, and on page 1 of Attachment A – Mapping), outlines the various features of the Project Area including: • The Study Area – Approximately 26,000 ha – the broad area investigated for the Project • The Project Area – Approximately 23,000 ha – the properties investigated for inclusion in the Project • Temporary construction footprint – 749.75 ha – the maximum extent of land proposed to be disturbed for the purposes of construction of the Project • Operational footprint – an estimated 40% of the temporary construction footprint will remain as the development footprint for use during operation of the Project. The majority of land within the Project Area would remain undeveloped and used exclusively for existing agricultural and farming practices during the construction and operations phases of the Project. Immediately adjacent to the Project Area are the Hird and Johnson Swamps which form part of the Ramsar listed Kerang Wetlands. The land parcels within the Project Area adjacent to these swamps are not proposed to be developed, allowing for a minimum of 2 km setbacks between the closest turbine and Hird and Johnson Swamps and at least 8 km from the closest turbines to other wetlands within the Kerang Wetlands.

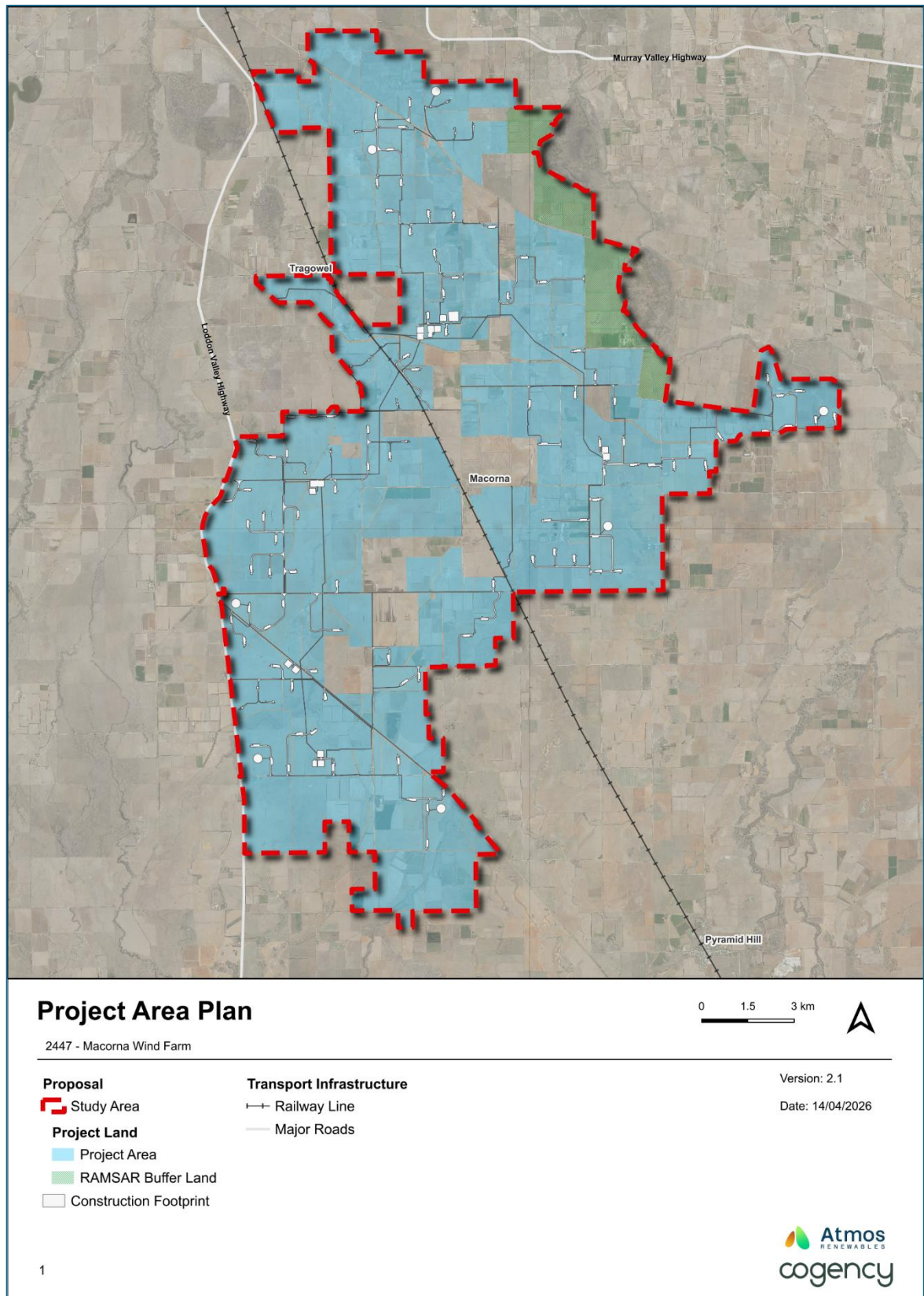


Figure 1 – Project Area Plan

Traditional Custodians

The Project Area is located on Barapa Barapa Country, a region that spans across present-day Victoria and New South Wales and encompassing parts of Gannawarra, Loddon and Campaspe shires. The Barapa Barapa people are the Traditional Custodians of the land on which the Project is located.

The Barapa Country Aboriginal Corporation (BCAC) is one representative of the Barapa Barapa people. BCAC is not recognised as a Registered Aboriginal Party (RAP), and the Project Area sits within a non-RAP area.

The Wamba-Wemba Aboriginal Corporation (WWAC), Barapa Land and Water (unincorporated) and Barapa Ltd (unincorporated) and Kowang Community and Traditional Owner Group (Kowang Coop Ltd) groups are also identified as having cultural interests in the Project Area (including for engagement purposes).

Short project description (few sentences):

The Macorna Wind Farm Project is a proposed approximately 820.8 megawatt (MW) wind farm comprised of up to 114 wind turbine generators (turbines) (the Project). The Project impacts have currently been assessed using the proposed Vestas V172 7.2 MW with a hub height of 166 metres (m) and a blade length of up to 86 m, resulting in an uppermost blade tip of 252 m above foundation level. The lower tip sweep will be not less than 60 m above foundation level. The final wind turbine model will be selected at a later point, and impacts reconsidered to ensure there is no substantial change as a result.

Atmos Renewables (Atmos) on behalf of the Macorna Special Purpose Vehicle – Atmos MWV Pty Ltd as trustee for the Atmos MHV Trust (Proponent) is the Project's implementing organisation.

The Project is proposed to be located within and surrounding the locality of Macorna in the Gannawarra Shire and Loddon Shire, local government areas, within Victoria's Loddon Mallee Region. The Project comprises approximately 26 landholdings. The Project Area is approximately 23,000 ha, with an expected development or construction footprint of 749.75 ha. The operational footprint will comprise approximately 40% of the construction footprint.

Development of the Project is expected to involve:

- Foundations, crane hardstand, crane boom laydown blade laydown and a rotor assembly area (for each turbine location, with an area of approximately 1 – 4 ha depending on the access and construction methodology requirements, noting that in more constrained locations, a reduced footprint has been adopted)
- Access tracks, including:
 - new and upgraded tracks within Project Area generally comprising a nominal 6.5m wide access track for light vehicles
 - Typical 30-40 m wide corridor for oversize overmass (OSOM) vehicles within the Project Area
- Upgrades to the proposed transport access route, as required
- Underground cabling (low voltage (LV) and medium voltage (MV)) and overhead transmission lines (MV and high voltage (HV)) within the Project Area
- Up to four collector substations (each approximately 4 ha), with associated battery energy storage systems (BESS) (nominally 150 MW / 600 megawatt-hour (MWh), each in areas of approximately 4 ha)
- Connection to the grid via the adjacent proposed Victoria to New South Wales Interconnector (VNI) West Tragowel terminal station
- Electrical switching station (noting that the switching station infrastructure will be constructed, owned and operated by the electricity provider, rather than the Proponent)
- Up to seven permanent meteorological masts
- Up to six construction compounds and laydown areas, each approximately 4 – 5 ha in size
- Up to two concrete batching plants, each between 2 and 5 ha in size
- Operational and maintenance facilities

- Potential construction workers accommodation facility (subject to REZ requirements and workforce accommodation assessment)
- Potential communications towers
- Native vegetation removal and vegetation screening as required and identified by technical assessments
- Fencing, gates and signage.

The construction footprint (749.75 ha) developed to inform this referral and technical assessments has allowed for the above expected works, within the Project Area. Where final dimensions of Project elements are not yet known, a conservative assumption has been made to ensure that the 'worst-case' construction footprint or Project impact, within the Project Area has been considered.

An indicative layout plan, including the ancillary infrastructure and construction footprint is shown at Figure 2, below, and on page 2 of Attachment A – Mapping, more zoomed in plans of the layout are provided at Figures 3 to 10 and on pages 3 – 10 of Attachment A – Mapping.

Construction is expected to commence in 2029 (subject to planning and environmental approvals). The construction phase is expected to be completed over 3.5 years, with initial energisation/operations expected to occur from late 2030. The Project may be delivered in stages. It is also noted that the Project's schedule is currently aligned to the delivery of the VNI West project, which provides the proposed connection point for the Project.

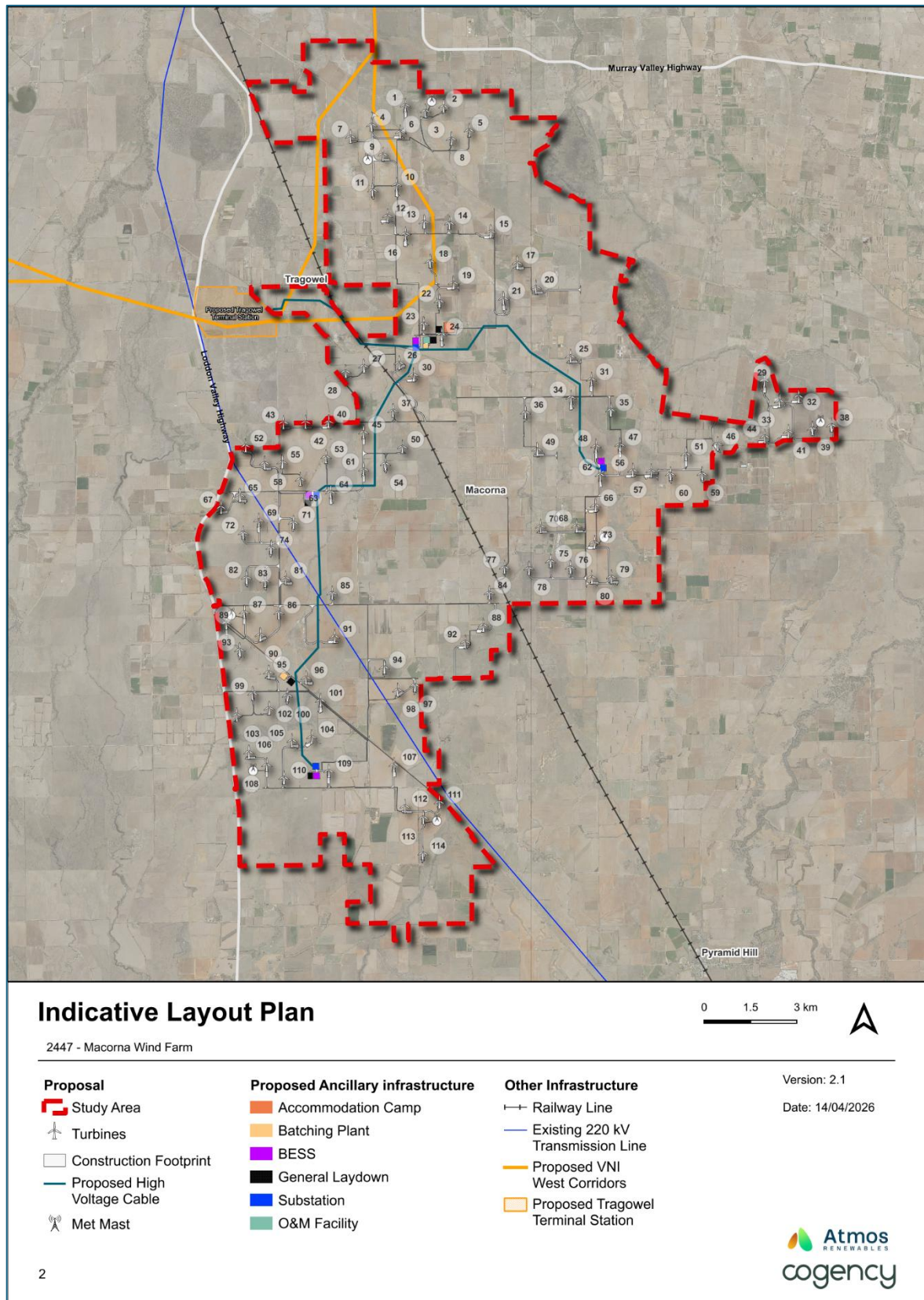


Figure 2 – Indicative Layout Plan

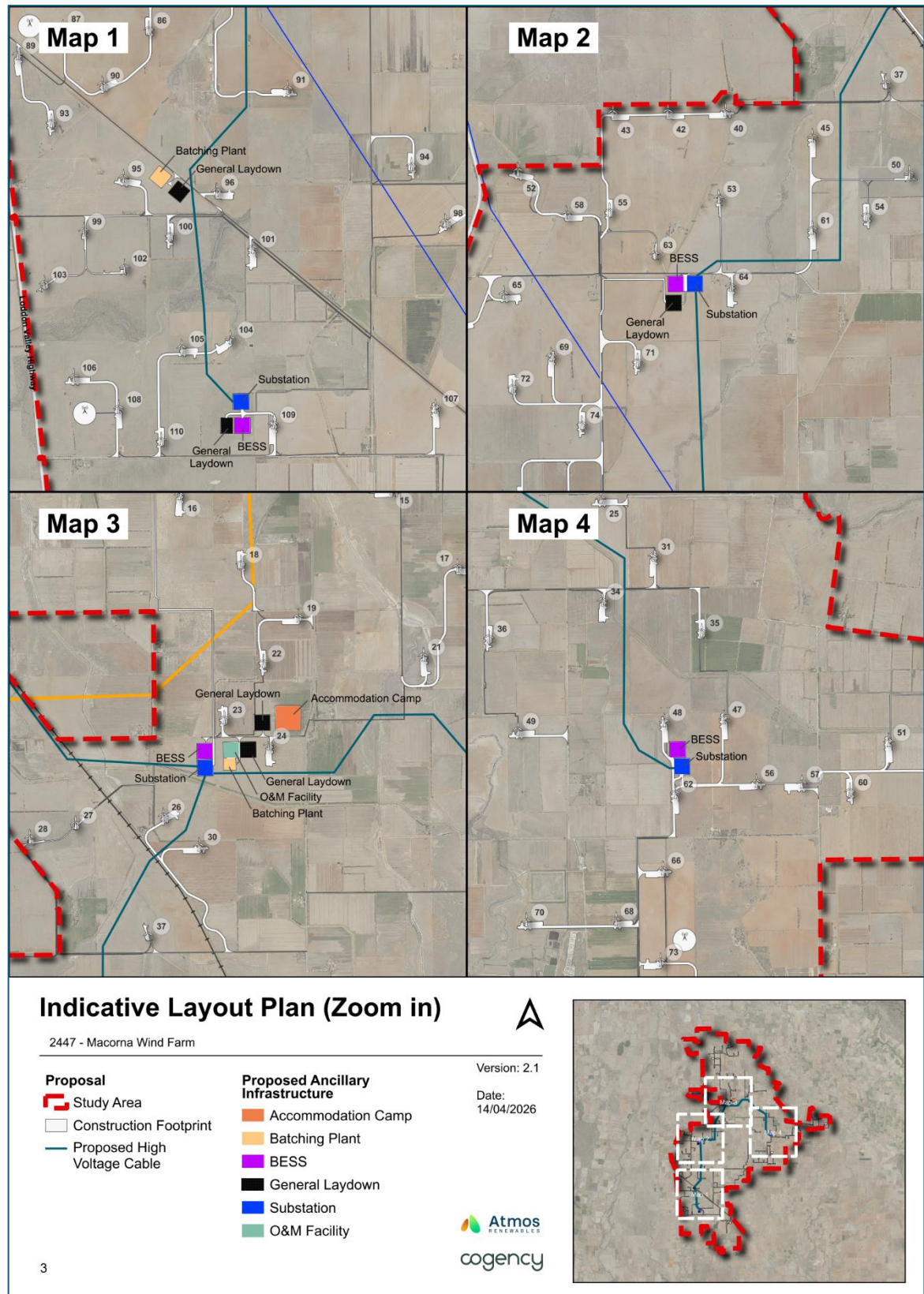


Figure 3 – Indicative Layout Plan (zoom in of key ancillary infrastructure)

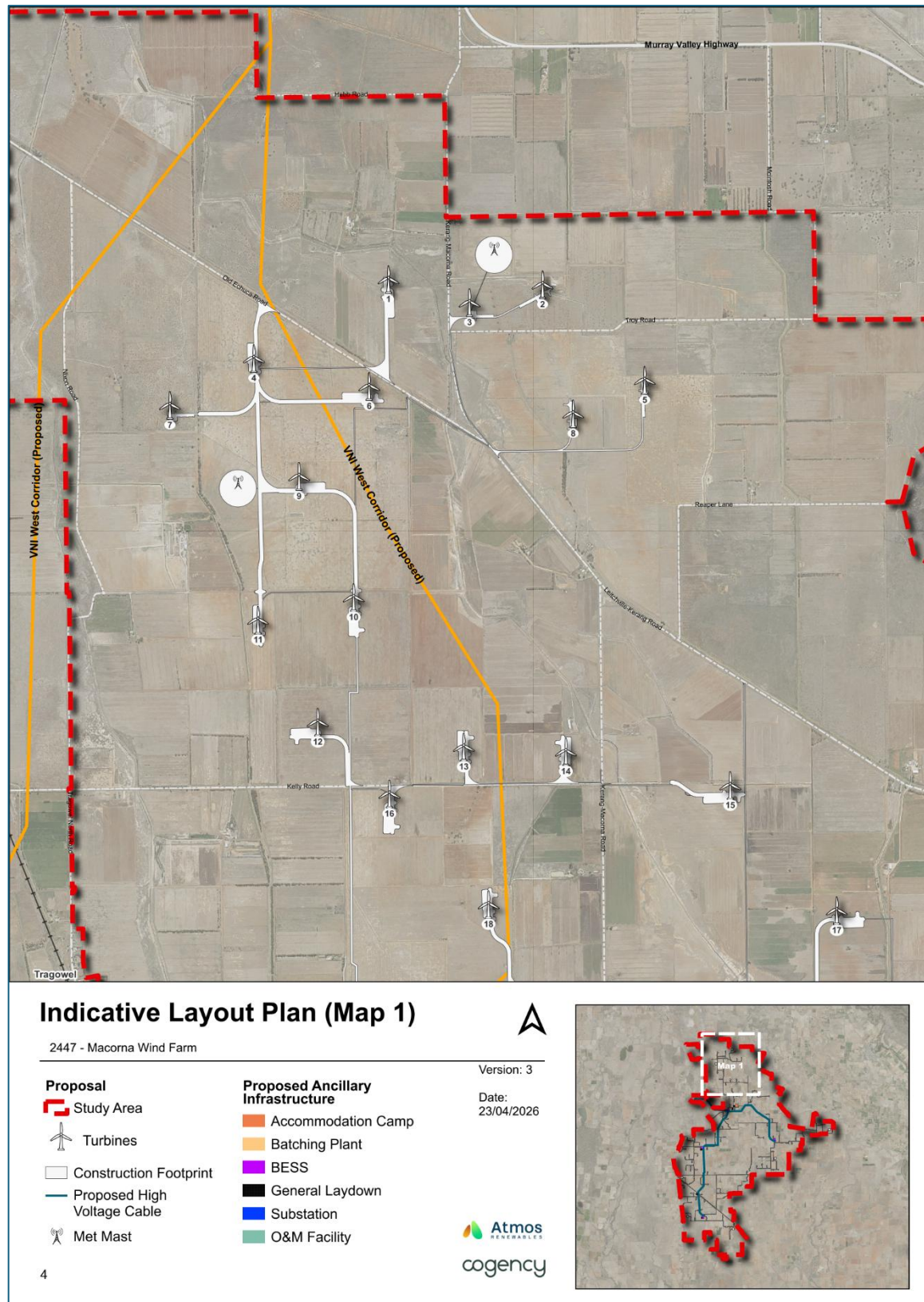


Figure 4 – Indicative Layout Plan (Map 1)

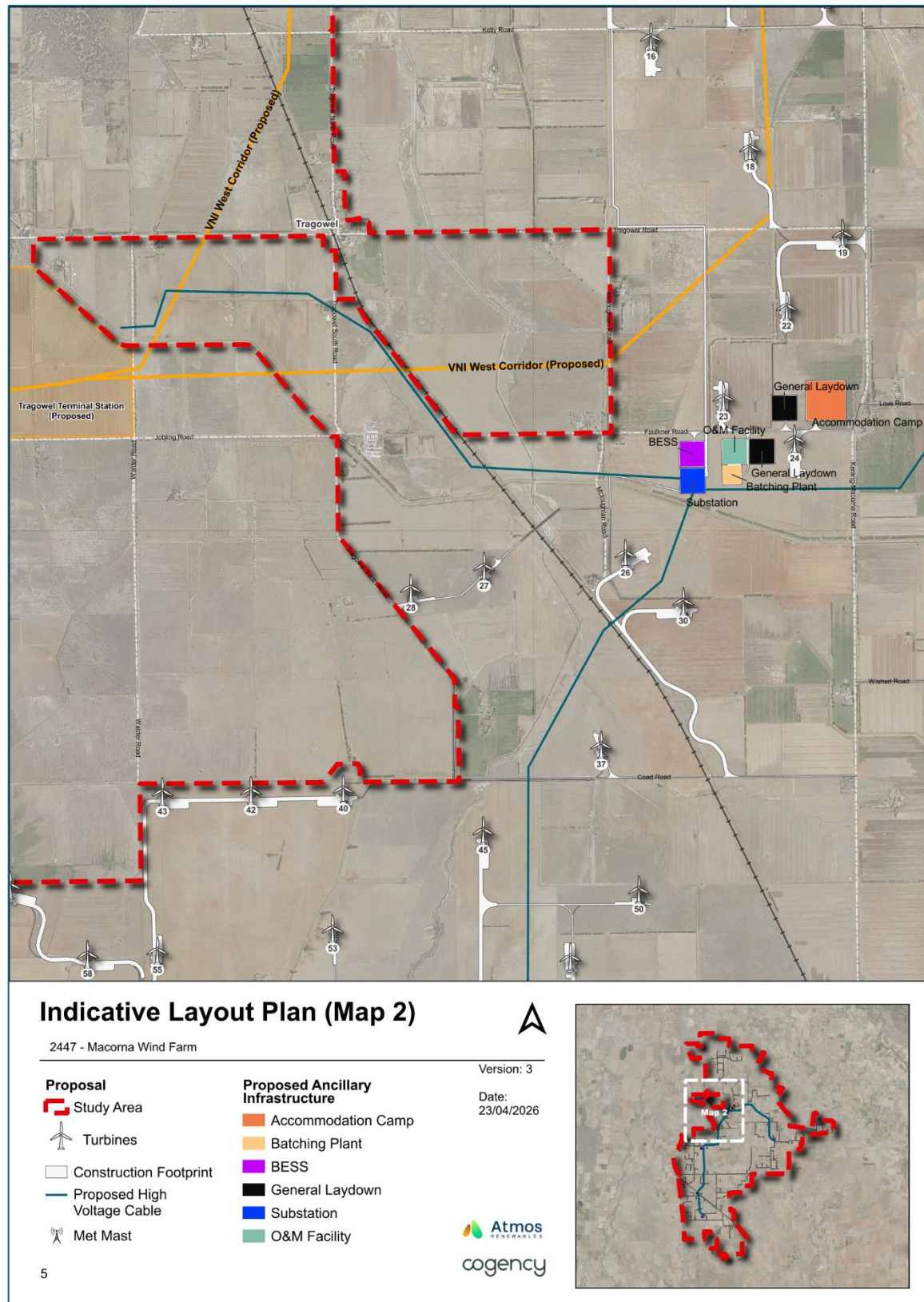


Figure 5 – Indicative Layout Plan (Map 2)

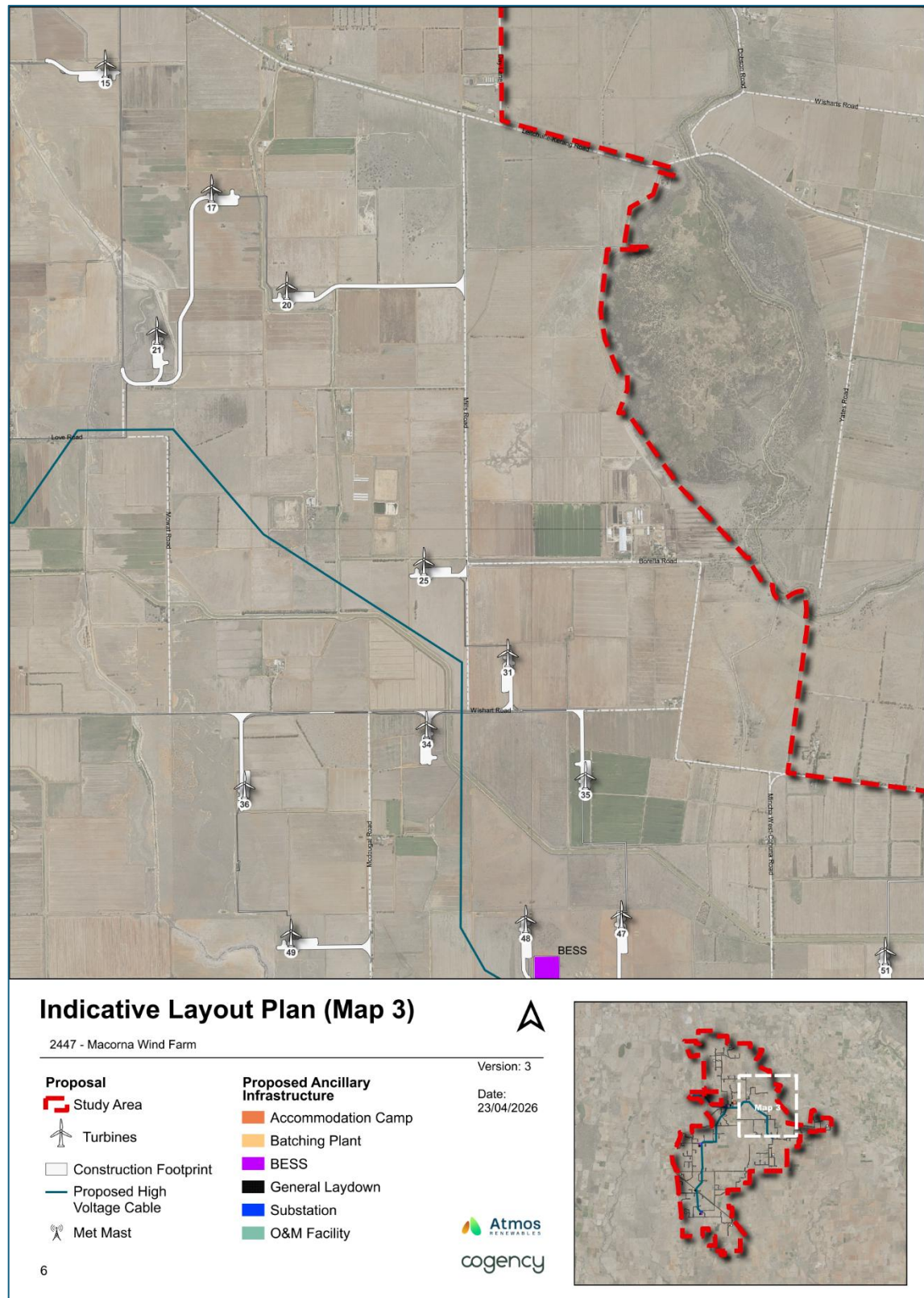


Figure 6 – Indicative Layout Plan (Map 3)

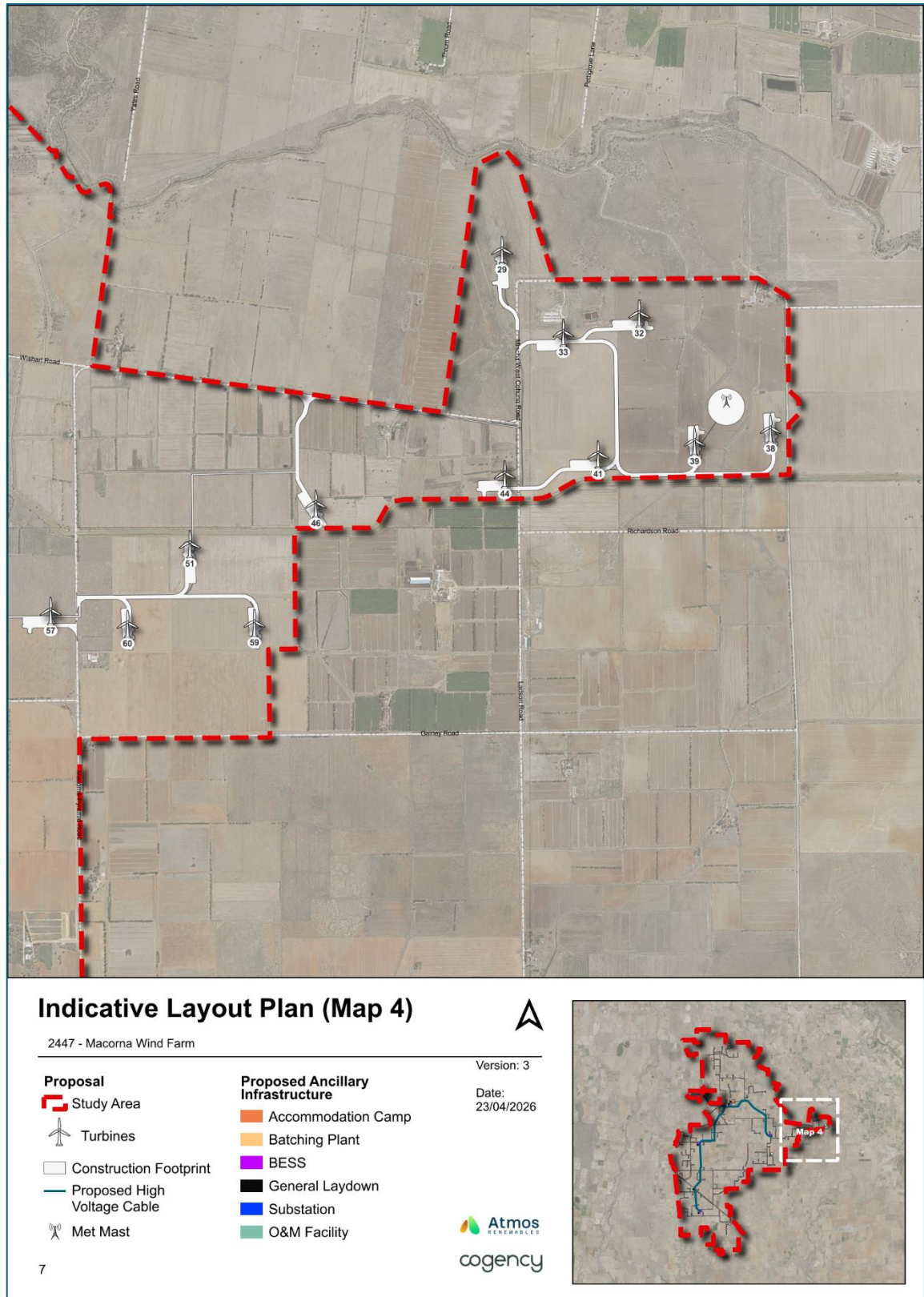


Figure 7 – Indicative Layout Plan (Map 4)

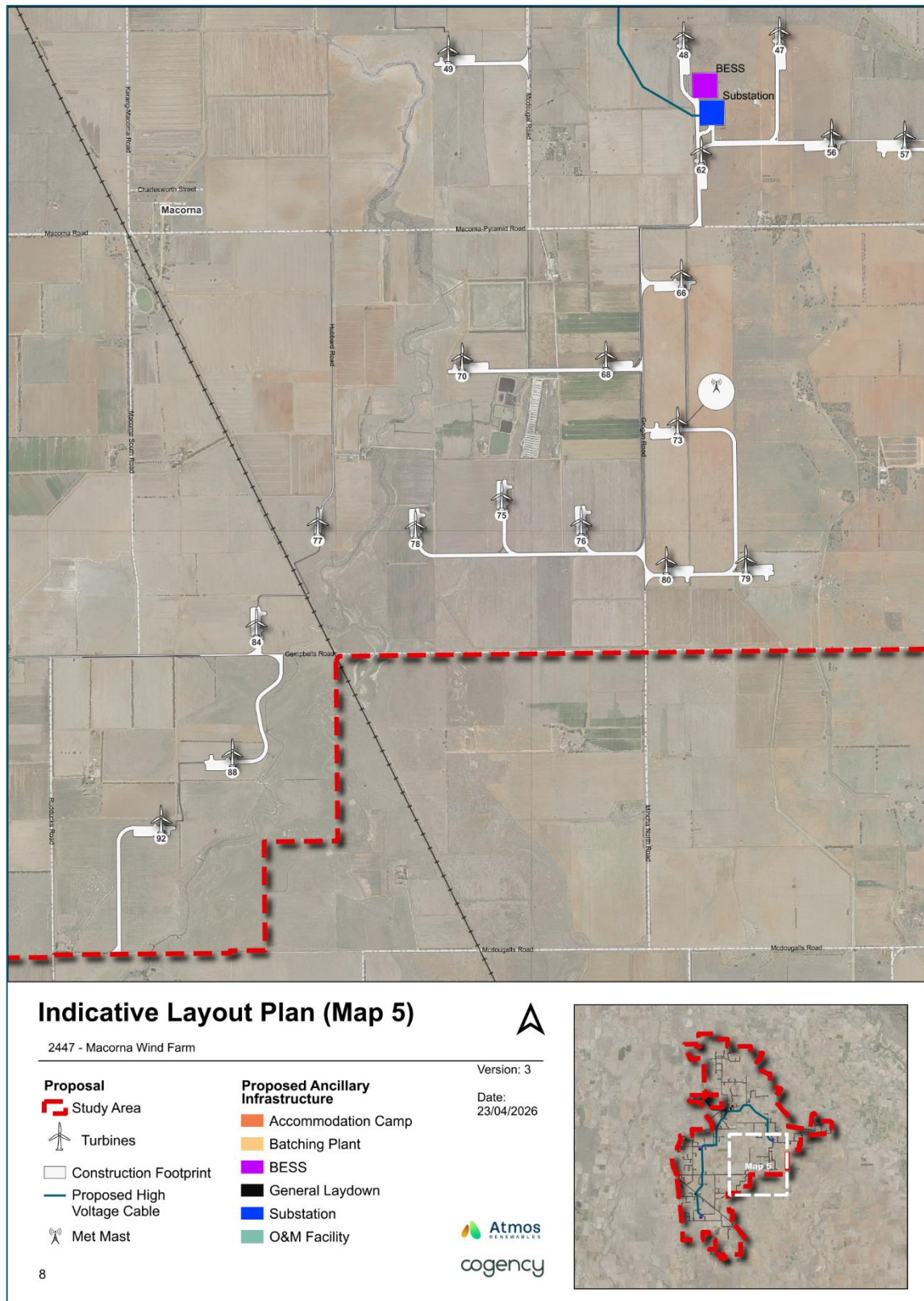


Figure 8 – Indicative Layout Plan (Map 5)

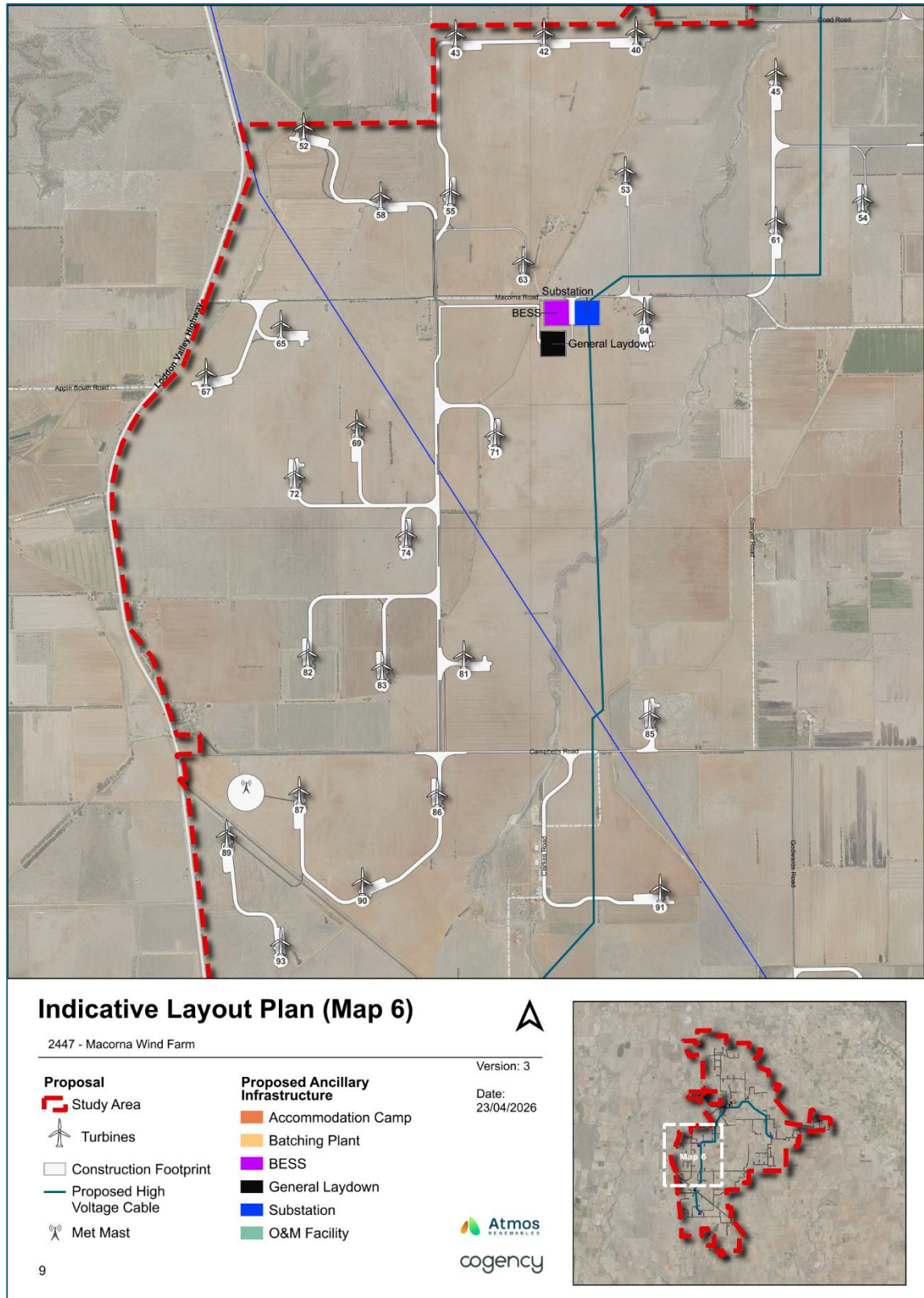


Figure 9 – Indicative Layout Plan (Map 6)

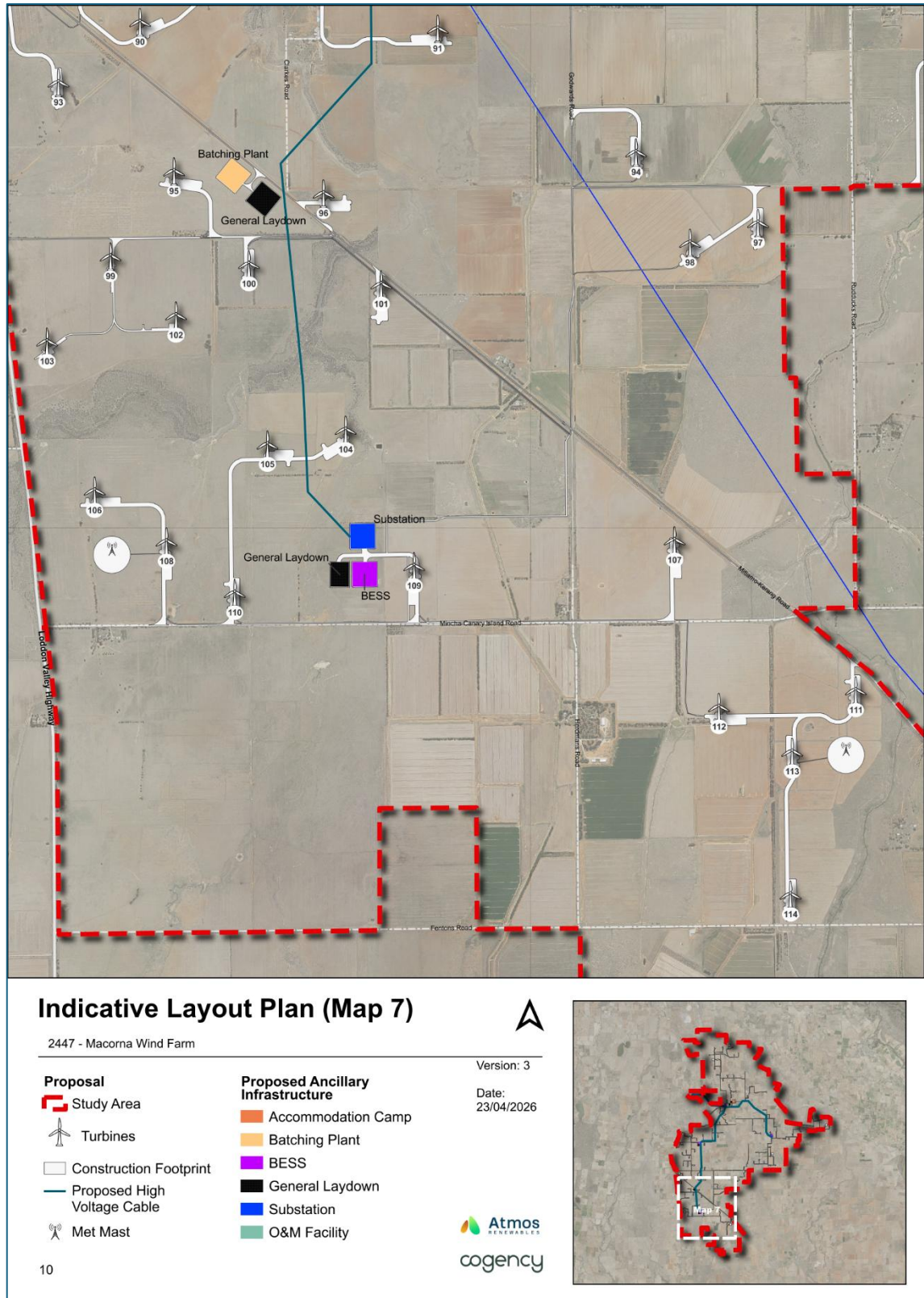


Figure 10 – Indicative Layout Plan (Map 7)

3. Project description

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

The Project's primary objective is to contribute to the Victorian and National energy needs through the National Energy Market (NEM), by providing 820.8 MW of renewable energy capacity and powering approximately 590,000 Victorian homes a year.

The Project includes up to 4 BESS (co-located with the collector substations for the Project) that would help provide greater security in energy supply and may aid the Australian Energy Market Operator (AEMO) in the management of the Frequency Control Ancillary Services (FCAs).

If approved, the Project would contribute to the Victorian Renewable Energy Target of 95% renewable electricity by 2035 and the long-term target of net zero emissions by 2045. It would also support the State Government's 2035 Emissions Reduction Target, to reduce Victoria's emissions by 75 – 80% below 2005 levels by 2035.

The Project will also increase security of the State's electricity supply, support the renewable energy transition, reduce greenhouse gas emissions (the Project is expected to contribute approximately 2,800,000 tonnes of carbon dioxide emissions reductions), and contribute to the mitigation of the projected impacts of climate change.

Further, the Project will:

- Provide local employment opportunities, including approximately 375 jobs during the construction phase of the Project and approximately 18 permanent jobs for the life of the Project (expected to be 30 – 35 years). A Local Industry Engagement Plan is under development, and a supplier register has been implemented for local suppliers to register interest. Additionally, the Proponent has a sustainable procurement policy which provides preference to suppliers that support local jobs, invests in local communities, underrepresented and disadvantaged groups, and enhance regional capabilities.
- Deliver local economic benefits, including by servicing the increased workforce in the region through accommodation, hospitality and amenity
- Contribute a \$2-2.5 billion investment to regional Victoria
- Establish and deliver a community benefits program, providing ongoing funding to support local projects and initiatives, community organisations and groups over the life of the Project. The community benefits are proposed in two streams:
 - Development Community Benefits – being benefits available to the community during the development of the Project (pre-construction), this includes:
 - Community Sponsorship Fund of \$50,000 per year during development of the Project (prior to construction), to date, this has included:
 - \$25,000 for Macorna Netball Court resurfacing
 - \$2,000 for the Kerang Show
 - \$46,000 for Northern District Community Health to support local nursing and the fit out of a local facility
 - Additional Targeted Programs including:
 - \$5,000 contribution to an Apprenticeship for underrepresented applicants
 - Construction and Operation Community Benefits, including:
 - Nearby Neighbour Program, providing payments to nearby neighbours of up to \$20,000 for eligible dwellings within 3.5 km of a wind turbine
 - Community Benefit Fund, of \$3,000 per turbine per year during construction and operation for eligible dwellings within 6 km of a wind turbine
 - Annual Energy Offset, of up to \$1,000 per annum for each existing neighbouring dwelling within 6km of an installed wind turbine
 - Payments in Lieu of Rates (PiLOR), fixed charge of \$67,300 plus a variable charge of \$1,510 per MW
 - Renewable Energy Zone fund – details to be confirmed in liaison with VicGrid

Excluding the PiLOR and REZ fund, benefits represent about \$1,800 per MW, per year for the life of the Project.

The structure and scope of the benefit sharing scheme has been developed in consultation with and through comprehensive engagement with the surrounding residents, community and local government stakeholders.

Figure 11, below, provides a visual summary of the Project community benefit commitments.

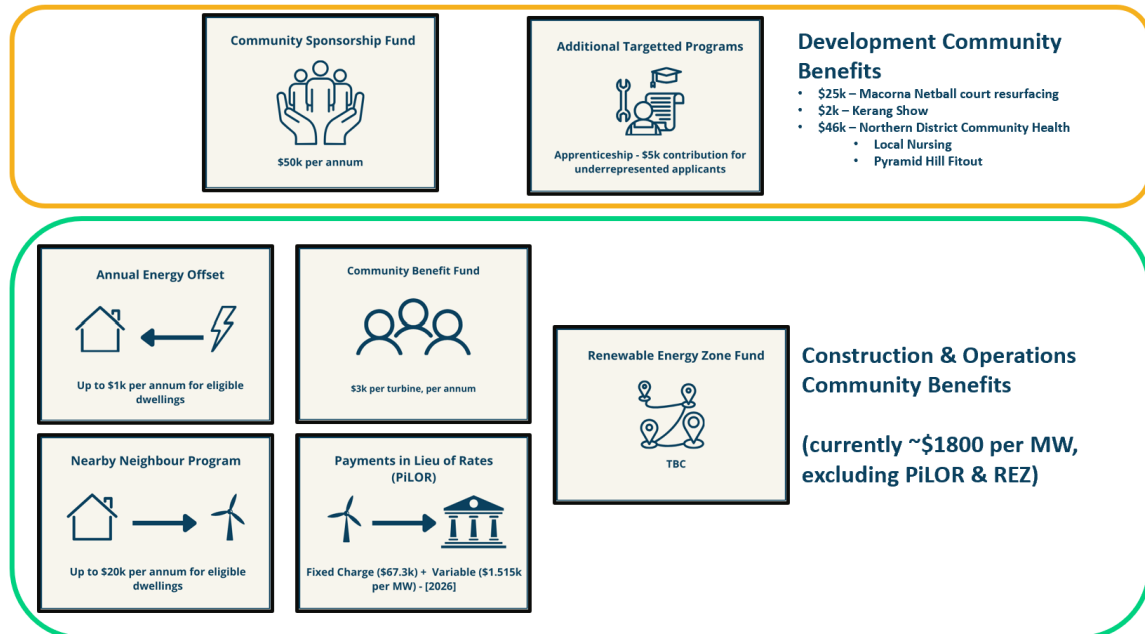


Figure 11 – Overview of Project Community Benefit Commitments

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

Don and Graham Webb, of WindFarmers Energy Group, initiated the Project after identifying the region as suitable for the development of a wind farm and commencing early, proactive discussions with landowners. The Project was therefore established as a landowner-led initiative, with site identification and early layout considerations informed by a detailed understanding of local conditions, land use practices and community values.

This early engagement has been fundamental in shaping a Project layout that is responsive to landholder preferences and sensitive to local environmental, farming and social constraints, supporting the achievement of a strong social licence. Ongoing collaboration with participating and neighbouring landowners has enabled a design approach that seeks to balance technical requirements with minimising impacts on surrounding residents and agricultural operations.

WindFarmers Energy Group was joined by Atmos in 2024 to deliver the Project for the community. This early partnership supports the integrated development of the Project and will facilitate continuity between development, construction and operation, including the establishment of long-term relationships with landholders and the broader community.

The following locational factors were considered in determining the suitability of the Project Area:

- Strong and reliable wind resource, including strong reliable wind speeds across flat, cleared farmland.
- Site suitability, with the predominant land use being agriculture (primarily cropping and grazing with isolated pockets of dairy and intensive animal use). The land is generally flat and cleared of native vegetation, with considerably reduced ecological values due to historical land use, supporting its capacity to accommodate wind energy infrastructure on already highly modified land.

- Proximity to the proposed VNI West infrastructure, including the proposed Tragowel terminal station, negating the need for external transmission lines to be constructed as part of the Project.
- Access to the transport network from surrounding major roads, including the Loddon Valley Highway, that will facilitate construction activities and minimise the use of local roads.
- A large Project Area allowing substantial setbacks from sensitive receptors, specifically the minimum 2 km setback between the closest turbine and the nearby Hird and Johnson Swamps that form part of the Ramsar listed Kerang Wetlands, at least 8 km from the closest turbines to other wetlands within the Kerang Wetlands, approximately 2.25 km setbacks from Macorna and other townships, and generally 1.5 km setbacks from non-involved dwellings.
- Support from landowners and other stakeholders in developing social licence and social value from the Project.

The North West REZ is identified in the 2025 Victorian Transmission Plan (VicGrid, 2025), which establishes a coordinated, long-term approach to the development of renewable energy generation and transmission infrastructure required to meet Victoria's energy needs over the next 15 years. The Plan identifies six REZs across the State as the most suitable locations to host new renewable energy development, based on a strategic assessment of resource potential, network capacity, environmental constraints and community considerations. While the REZ boundaries remain in draft form pending final declaration (expected mid-2026), they have been informed by extensive technical analysis and stakeholder engagement and are not anticipated to change substantially.

This strategic, constraint-led approach to defining the REZ provides a high level of confidence that land within the draft boundary – including the Project Area - is inherently well-suited to renewable energy development, with comparatively lower environmental and social constraints than alternative locations.

Additionally, the Victorian Access Regime encourages development in REZs and sets out requirements and expectations for projects to gain access to the grid. The Regime includes Draft Community Engagement and Social Value Guidelines for Renewable Energy and Transmission Projects which set expectations for how renewable energy and transmission project developers will be expected to engage with and deliver social value and economic benefits to landholders, Traditional Owners and communities. The Regime also offers a more streamlined access process for projects within a REZ, whereby they do not have to undertake a Grid Impact Assessment process compared to projects outside a REZ.

Accordingly, the Project's location predominantly within the North West REZ provides strong strategic justification for its development. It reflects alignment with State energy policy, optimises use of planned transmission infrastructure, and situates the Project within an area specifically identified as having high renewable energy potential and relatively low environmental and social constraints.

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

Permanent infrastructure

Wind turbine generators

The wind farm component of the Project will involve the development and use of up to 114 turbines. Each turbine will comprise a tower, nacelle, hub, rotor, and a hardstand at the base. The Project impacts have currently been assessed using the proposed Vestas V172 7.2 MW with a hub height of 166 metres (m). The final wind turbine model will be selected at a later point, and impacts reconsidered to ensure there is no substantial change as a result. Additional specifications are set out in the table below.

Element	Maximum specification
Number of WTG	Up to 114
Rotor diameter	Up to 172 m
Blade length	Up to 86 m
Uppermost blade tip	Up to 252 m above foundation level
Lower tip sweep	Not less than 60 m above foundation level
Hub height	Up to 166 m
Foundation	Typical excavation depth of up to 3.5 m

An indicative turbine layout plan is also provided at Figure 2, above, and on page 2 of Attachment A – Mapping, enlarged plans of the layout are provided at Figures 3 to 10 and on pages 3 – 10 of Attachment A – Mapping. The final number and location of the turbines is subject to further investigation and will be informed by technical assessments, environmental values and other constraints.

During construction, the hardstand will include a laydown area for turbine components (blades) and access tracks for the delivery of components. Each hardstand area would be used for assembly of the turbines.

Following construction, the areas free of obstacles, blade laydown areas and boom pads may be rehabilitated, depending on the Project needs and requirements, and would be able to continue to be used for former agricultural uses or otherwise by the landowners.

Battery energy storage system

Up to four BESS are proposed within the Project Area (see Figures 2 and 3 above and pages 2 and 3 of Attachment A for the indicative locations), co-located next to each collector substation. Each BESS will have a capacity of up to 150 MW and storage up to 600 MWh of dispatchable energy. The BESS will charge energy from the grid during periods of high supply/low demand, and discharge energy during periods of low supply/high demand, supporting the grid and providing greater electricity security and reliability. A BESS at each collector station has been provisioned for at this early stage of design, to provide flexibility in staging and delivery of the Project. It is anticipated that this may be consolidated at a future design stage, following final turbine model selection.

Each BESS, including associated hardstand and ancillary infrastructure, will cover a 4ha area. Multiple BESS locations have been proposed to provide future flexibility for staging and grid considerations. It is possible that a BESS will be consolidated into a single site at a future design stage which would reduce the overall footprint. The final location and layout of the BESS is subject to further investigation and will be informed by technical assessments, as well as environmental and other constraints.

Operations & Maintenance Area

The operations and maintenance (O&M) facility will comprise an office building and a workshop building with a building height of approximately 6 m. The O&M facility will also include external storage space, associated fencing and landscaping. The O&M facility will be approximately 200 x 200 m and is proposed to be located near Faulkner Road – see Figure 3, above, and page 3 of Attachment A – Mapping.

Substations

The Project will include up to four collector substations, refer to page 3 of Attachment A – Mapping. The substations are expected to be up to 200 x 200 m in footprint with associated fencing and landscaping.

The proposed connection point is the Tragowel terminal station, which will be constructed as part of the delivery of the VNI West project. It is anticipated that switchgear for the Project will be located within this footprint and will be constructed, owned and operated by the transmission network service provider.

Underground electrical network

The turbine and BESS will be connected to the substation(s) via a network of underground nominally 33 kV electrical and communication cables (reticulation). Cables will be installed via open trenching or be direct-buried, with individual single-circuit trenches typically 1 m in depth and 3 m in width. Horizontal directional drilling may be implemented in crossing sensitive areas (such as native vegetation, irrigation channels, waterways and major roads) to reduce impacts. Greater depths are likely to be required to cross Goulburn Murray Water (GMW) irrigation channels in isolated circumstances, and consultation with GMW is ongoing.

Transmission lines

The Project proposes to connect into the proposed VNI West Tragowel terminal station, adjacent to the Project Area's western boundary. Internal overhead transmission lines will be required to connect the wind farm collector stations to the proposed Tragowel VNI West terminal station.

Figure 3, above and page 3 of Attachment A – Mapping shows the proposed internal overhead transmission route. While the tower details have not yet been finalised, the construction footprint has allowed for disturbance to occur along the entire route, noting that this is a 'worst-case' scenario as impacts will only occur at tower locations and for the development of access tracks as required.

During operation, an easement will apply over the transmission lines and up to 35 m either side of the lines to allow for maintenance access and control development underneath the lines. Land underneath the lines and within the easement will be able to be used by landowners as per the existing condition. All landowners with the proposed transmission lines and easements have been consulted regarding the alignment of the lines and the operational land controls proposed.

Meteorological masts

The Project is expected to include up to seven permanent meteorological (wind monitoring) masts, at up to 166 m above natural ground level. The mast is required for the ongoing monitoring of wind conditions for power performance measurements and short-to-long term wind energy output forecasting for the facility. The masts will require an underground power and communications cable to be installed to be nearest wind turbine.

Access tracks

Access tracks are required to support both construction and operations and maintenance activities. The access tracks include:

- New and upgraded access tracks within the Project Area, comprising a nominal 6.5 m wide access track for light vehicles
- A general 30-40 m wide corridor for oversize and/or overmass (OSOM) vehicles within the Project Area, except in sensitive areas where a reduced footprint is proposed.

The location of and requirement for any new access tracks will be determined in consultation with relevant stakeholders, including host landowners as required.

Temporary infrastructure

The main temporary components of the Project are:

- Construction site compound, including site offices, storage and car parking
- Construction laydown areas
- Turbine component laydown areas
- Washdown areas
- Fences and hoarding
- Earthworks and bunding
- Up to two concrete batching plants

- Construction workers accommodation facilities (subject to further assessment and consultation)

The temporary infrastructure will largely be sited adjacent to the BESS, O&M facility, and substation locations, and associated with each turbine and has been included within the construction footprint for the Project.

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

No ancillary components are currently proposed.

An offsite Transport Route Assessment has been completed which confirms that limited upgrades are required to facilitate delivery of Project components to the Project Area. Some minor modifications may be required to allow for turbine movements at a handful of locations, which shall be finalised at the detailed design stage, and relevant approvals will be sought to facilitate any modifications required.

Key construction activities:

Construction is expected to commence in 2029 (subject to planning and environmental approvals). The construction phase is expected to be completed over 3.5 years, with initial energisation/operations expected to occur from late 2030. The Project may be delivered in stages. It is also noted that the Project's schedule is currently aligned to the delivery of the VNI West project, which provides the proposed connection point for the Project.

The construction phase is expected to employ a peak workforce of approximately 375 full-time employees (FTE), across the construction, transport, professional and technical services, and administrative and support services industries.

Given the size of the expected workforce, and the known accommodation and housing pressures within the region, Atmos has allowed for development of a construction workers accommodation facility as part of the Project and included this within the construction footprint.

It is noted that Atmos's objective and preference is to work with the Loddon and Gannawarra Shire's, VicGrid and other renewable energy developers within the North West REZ on a coordinated accommodation solution which will have long term legacy for the region.

The development of a coordinated accommodation facility, if undertaken, would be subject to separate assessments and approvals.

This referral has allowed for the 'worst-case' scenario in relation to accommodation and its impacts on a discipline-by-discipline basis. For example, the Traffic Assessment assumes that all workers will come from an off-site location, and the Flora and Fauna Assessment allows for the disturbance of land for an on-site location.

A worker accommodation strategy will be prepared at the next stage of planning, as recommended in the Social and Economic Impact Assessment Report (Attachment R).

The Project is expected to require the following pre-construction and construction activities:

- Site establishment works, including temporary site fencing, hoarding, erection of site offices and vehicle parking areas
- Site clearance and levelling
- Construction of temporary access roads, diversion roads and vehicle parking areas
- Construction, protection, modification, removal or relocation of utility services

- Establishing environmental and traffic controls, including designation of 'no-go' development zones
- Establishing erosion and sediment control measures
- Clear and remove vegetation where required
- Earthworks, including for construction of internal roads, drainage, laydown areas, wind turbine foundations and assembly areas
- Pavement construction, including for internal roads, drainage, laydown areas and wind turbine assembly areas
- Drainage for the construction for roads, waterways and site flood mitigation
- Delivery of turbine components to site
- Construction, assembly and erection of turbines
- Construction of electrical reticulation from turbines to substation, including trenching and directional drilling for underground cabling
- Construction of O&M facility and site office
- Construction of the BESS, and ancillary infrastructure, including all earthworks, benching, pavement, drainage, concrete foundations, steel structures and all electrical equipment installation
- Construction of overhead transmission infrastructure, including concrete foundations, steel towers and overhead lines
- Installation of meteorological masts
- Site investigation, and quality assurance inspections and testing activities, including geotechnical testing, permanent works materials sampling and testing
- Commissioning and energisation activities
- Removal of temporary works and construction facilities
- Reinstatement of temporarily disturbed land

Key operational activities:

The Project's operational life is expected to be between 30 and 35 years.

The Project is expected to employ approximately 18 FTE staff during the operations and maintenance phase, covering electricity generation, professional and technical services, and administrative and support services industries.

During this period, operation, maintenance and monitoring of the wind farm would include the following activities:

- Service of the wind turbines and associated infrastructure
- Ongoing maintenance of on-site facilities, internal access tracks and electrical infrastructure
- Administrative tasks
- Use and maintenance of buildings and plant, including the O&M facility
- Ongoing environmental monitoring in accordance with operational requirements and relevant approval conditions.

A Supervisory Control and Data Acquisition (SCADA) system and other site equipment, including the meteorological masts, would enable remote monitoring and control of the Project's electricity generation. Underground assets, including cables and joints, are not expected to require maintenance.

Key decommissioning activities (if applicable):

The turbines have a typical life of 30 to 35 years. At the end of its wind farm's operational life, there are three main options available:

- Repair or replace any required main components and continue to use the existing turbines
- Replace the turbines with new technology at that time and continue the wind farm use (which may be subject to new planning permit applications)
- Decommission the wind farm and remove the turbines and infrastructure in accordance with the provisions of the landowner agreements.

Decommissioning activities will adopt a similar method to those utilised in the construction phase of the Project. When decommissioning occurs:

- Key stakeholders, landholders and community members will be consulted
- All above ground structures not required for the ongoing agricultural use of the land will be removed and the land rehabilitated to ensure it can be returned to agricultural use
- Access tracks and hardstands that are not required or requested by the landowners to be retained will be removed and land rehabilitated and returned to a suitable condition for agricultural use
- Associated below ground infrastructure, including cabling and turbine foundations, would be left in place below a certain depth and appropriately managed to avoid further disturbance, and minimise clearing of revegetated areas
- Rehabilitated areas will be adequately graded to reflect the slope of the surrounding area and mitigate risk of soil erosion
- All materials removed will be sorted for reuse and/or recycling where possible or adequately disposed of in accordance with applicable policy and regulations.

The Project will comply with all relevant requirements for decommissioning under the planning approval and / or any permit or licence that may be required. The decommissioning process will be carried out in line with the Project's decommissioning and rehabilitation plan, that will be prepared in accordance with relevant regulatory requirements and the best practice methods available at the time of decommissioning.

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

☒ No ☐ Yes

The Project is not part of an element or stage in a larger project.

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

☒ No ☐ Yes

The Project is not related to other current, past, mooted or withdrawn proposals in the region.

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

Based on preliminary calculations, total capital expenditure for the Project is estimated to be \$2-2.5 billion.

4. Project alternatives

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

The Project's turbine layout (Figure 2 to 10 above, and on pages 2 – 10 of Attachment A – Mapping) has been the subject of an iterative design process, considering multiple factors. A summary of the iterative design process is provided as follows.

Summary of Design Evolution

The design evolution process has been guided by the objective of avoiding and minimising impacts to existing natural environment as well as impacts to neighbouring communities and infrastructure.

Methodology

The Project has undertaken a significant amount of assessment to understand the existing land use values and conditions. These assessments include:

- Flora and Fauna surveys.
- Hydrology assessments.
- Dwelling mapping and ground truthing within 10km of the study area.
- Historic land use investigations and interviews with landowners.
- Aviation assessment (Kerang Aerodrome).
- Other assessments, including: Electro-magnetic Interference Noise, Hydrogeology, Landscape and visual impacts, Traffic, Agriculture, Blade Throw, Cultural Heritage, and Geotechnical.

As a result of these assessments, the Project sought to avoid significant impacts as far as practicable at this early development stage.

The concept design development process for the Project has been the result of a number of iterative steps, with rounds of assessment at every stage. These stages are outlined within this Referral, including:

- Site selection
- Buffer analysis
- Turbine siting
- Balance of plant refinement
- Construction footprint development

Within each step, multiple site or layout options were and will continue to be investigated and assessed. As of April 2026, a preferred layout has been determined for the purpose of avoiding and minimising any impacts to environmental values that may require project referral under the Environment Effect Statement (EES) and *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) referrals. The refinement process is ongoing with minor adjustments to the preferred layout and construction footprint expected to further minimise impacts of the Project on the existing environment and agricultural practices of the landowners. These further refinements will continue throughout the planning and environmental approvals assessment process, with input from additional detailed impact assessments.

Detailed assessments prepared to inform the design, the preparation of this referral, and likely to be updated to support future design and planning include:

- Ecological Assessment – refer to Attachment D and an overview of the assessment findings as relevant to this referral at Section 12

- Hydrology and Stormwater Constraints Investigation – refer to Attachment E and an overview of the assessment findings as relevant to this referral at Section 13
- Hydrogeological Assessment – refer to Attachment F and an overview of the assessment findings as relevant to this referral at Section 13
- Landscape and Visual Impact Assessment – refer to Attachment G and an overview of the assessment findings as relevant to this referral at Sections 14 and 15
- Geotechnical Assessment – refer to Attachment Ha and Hb and an overview of the assessment findings as relevant to this referral at Section 14
- Traffic Impact Assessment – refer to Attachment I and an overview of the assessment findings as relevant to this referral at Section 15
- Air Quality Assessment – refer to Attachment J and an overview of the assessment findings as relevant to this referral at Section 15
- Shadow Flicker Assessment – refer to Attachment K and an overview of the assessment findings as relevant to this referral at Section 15
- Noise Impact Assessment – refer to Attachment L and an overview of the assessment findings as relevant to this referral at Section 15
- Blade Throw Assessment – refer to Attachment M and an overview of the assessment findings as relevant to this referral at Section 15
- Technical Assessment & Potential Agricultural Impact and Irrigation Context – refer to Attachments N and O and an overview of the assessment findings as relevant to this referral at Sections 14 and 15
- Aviation Impact Assessment – refer to Attachment P and an overview of the assessment findings as relevant to this referral at Section 15
- Electromagnetic Interference Assessment – refer to Attachment Q and an overview of the assessment findings as relevant to this referral at Section 15
- Social and Economic Impact Assessment – refer to Attachment R and an overview of the assessment findings as relevant to this referral at Section 15
- Cultural Heritage Management Plan – refer to Attachment S and an overview of the assessment findings as relevant to this referral at Section 15

The following sections provide an overview of each of the stages outlined above.

1. Site selection

The Macorna Wind Farm was initially selected for prospecting and development by WindFarmers Energy Group Pty Ltd, for two key factors:

- Co-location to the proposed Victoria to New South Wales Interconnector West (VNI West) transmission project: The proposed infrastructure and co-location to the VNI West terminal station in Tragowel, allowed for the avoidance of any additional external transmission lines for the Project. This increased social license for the Project, whilst improving the economic viability of the Project through reduced Capital expenditure (CapEx).
- Extensive knowledge of land use and existing relationships of the landowners within the project area: Don and Graham Webb (WindFarmers Energy Group) were uniquely positioned to understand and appreciate the capacity for coexistence of a wind farm with the existing land use. Don & Graham grew up in the region, and had connections with the Macorna Football Netball Club. Further, Don brought 20 years of wind farm delivery experience, whilst Graham ran an irrigation design, supply and installation business in Cohuna called G&M Poly, and installed much of the landowners irrigation infrastructure within the project area.

Following the initial identification, desktop due diligence was conducted by WindFarmers Energy Group Pty Ltd and Atmos Renewables to assess the Project's feasibility which included

benchmarking against alternative project locations within the region. The Macorna Wind Farm site was deemed preferable on the following basis:

- Proximity to existing and proposed transmission infrastructure: An existing 220 kV electrical line crosses the site (Bendigo – Kerang), and the proposed VNI West transmission line would traverse the site. The Project proposes to connect to the proposed Tragowel terminal station adjacent to the site.
- Wind Speed: Regional wind speed mapping showed the Macorna Wind Farm project area as having the highest wind speed within the broader region (generally the North West Renewable Energy Zone).
- Existing land use: Knowledge of irrigation infrastructure, existing land use, and design criteria of a wind project making the site highly compatible for a wind project.
- Limited Ecological Values: desktop analysis showed a relatively low abundance of ecological values across the site (native vegetation, threatened flora and fauna records).
- Project Capacity: In order to have an economically competitive project, an area with approximately 1000 MW of potential capacity was selected to provide economies of scale to reduce CapEx for the Project.

Alternative locations were considered from a planning, social, environmental, constructability and grid connection perspective. From this assessment it was determined that the Project Area, was the most appropriate option.

Figure 12, below, shows the regional context of the Project Area, including key site selection considerations of the location within the REZ and the proximity to transmission infrastructure. This figure is also provided at page 11 of Attachment A – Mapping.

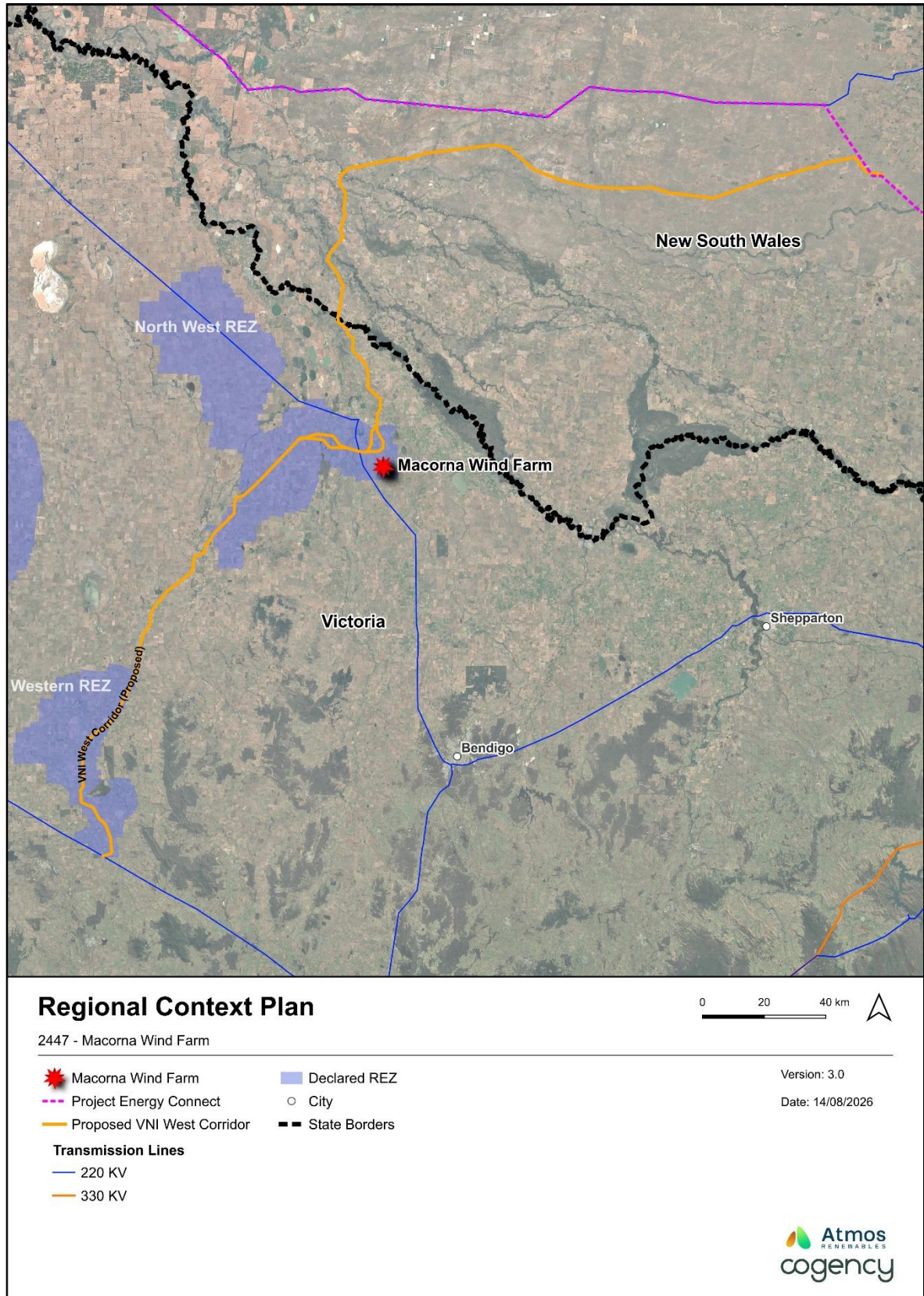


Figure 12 – Regional Context Plan

2. Buffer analysis

A detailed analysis of key constraints and identification of suitable buffers was undertaken to define the area of investigation for wind turbines within the Project Area. The buffers are outlined in the table below.

Analysis of the buffer areas resulted in an area of investigation for wind turbines, presented in Figure 13 (also provided at page 12 of Attachment A – Mapping).

Turbine Buffers		
Design Consideration	Turbine Buffer / Concept Design Impact	
Involved Dwellings	1000 m	Except where agreed or requested by landowner
Non- Involved Dwellings	1550 m	Minimum buffer except where agreed by neighbour agreement. Minimum distance may be extended subject to impact assessment, siting or consultation.
Macorna Township	2000 m	Minimum initial design buffer
Road Casement Boundaries	100 m	Avoidance of blade overfly
Major Road & Railway	300 m	Tip Height + 10 % minimum.
Proprietor Boundaries	100 m	Avoidance of blade overfly
Wetlands & Watercourse	25 m (minor) / 50m (wetlands) 100 m (named watercourse)	Avoidance of hardstand impacts on watercourses
RAMSAR Wetland	2000 m	To reduce ecological impacts.
Distribution Lines	50 m	For turbine location. Some exceptions for hardstands, subject to refinement/realignment under detailed design
Transmission Lines	300-400 m	Tip Height + 10 % minimum from edge of easement. Includes VNI West Route
EMI Link	Link Specific	Minimum link buffers vary based on frequency of communication link.
EMI/Communications Tower	720 m	*Reduced to 380m for one communication tower in western portion of project based on SLR advice for no potential impacts based on reduced buffer for this location.
Airport Buffer	Various based on runway approach/departure	Indicative runway areas based on aerial mapping and confirmed by Aviation projects for compliance.
Landowner Exclusion Areas	25 m	Avoidance of no-go areas agreed with landowners

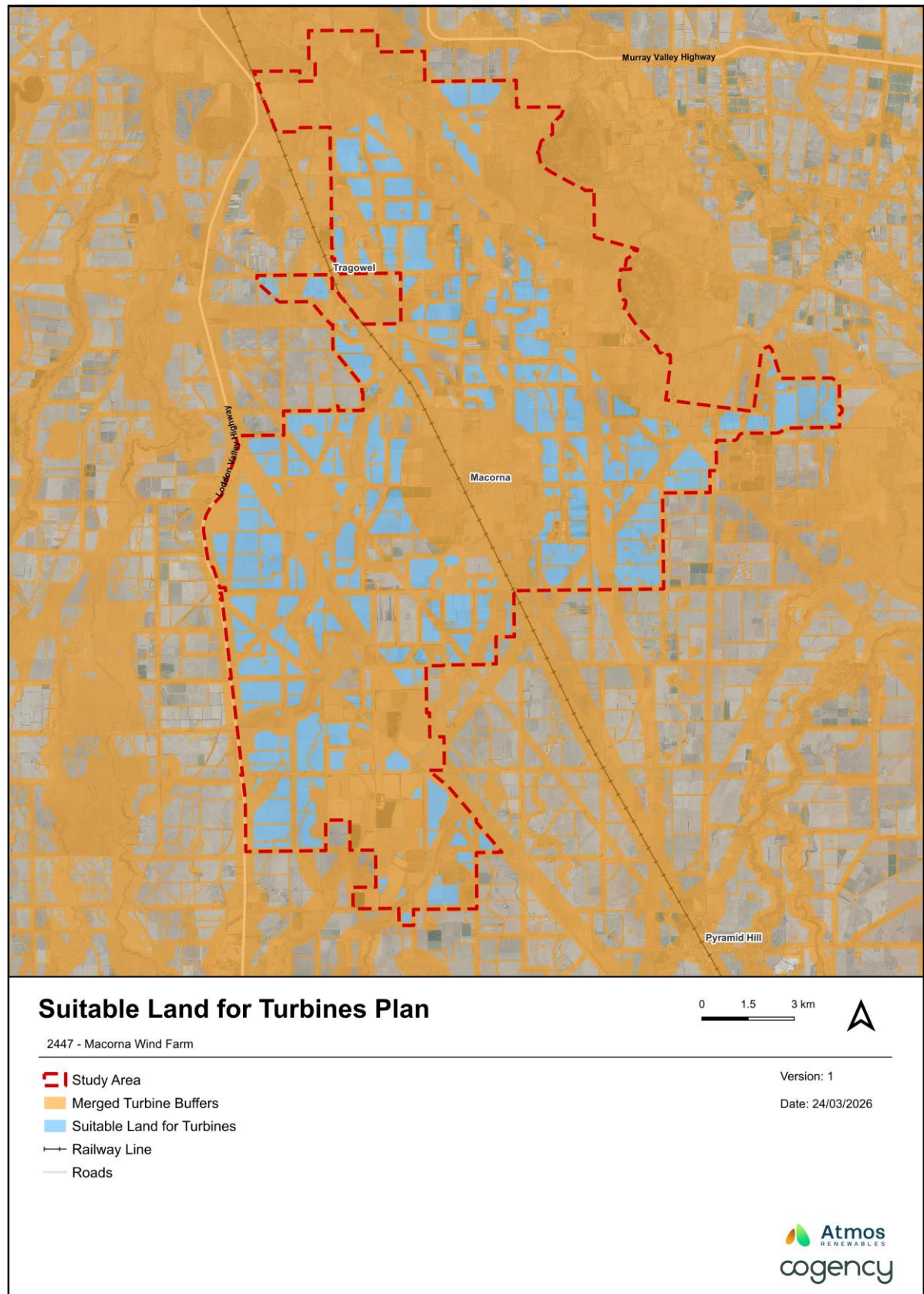


Figure 13 – Suitable Land for Turbines

3. Turbine siting

Landowner, community and stakeholder consultation and technical assessments were undertaken to further inform an understanding of constraints and determine turbine and other infrastructure siting within the project boundary.

Key considerations are outlined in the table below and shown in Figure 14 (also provided at page 13 of Attachment A – Mapping).

Discipline	Key Consideration
Engineering	The engineering Balance-of-Plant (BoP) design has been implemented using minimum Vestas design specifications for the candidate wind turbine model for the project, the Vestas V172-7.2 MW. There is substantial scope to reduce the footprint and impacts of the project through detailed design and optimisation of the project which could include: ▪ Reduced corridors ▪ Refinement of turn radius, road widths, construction buffers
Utilities	Transmission and distribution line buffers applied to electrical infrastructure. Consideration to cross any Goulburn Murray Water (GMW) assets perpendicular, and avoiding installation of electrical cables within 10 m of an existing culvert/bridge at the request of GMW.
Landowner	As part of the design refinement process and finalisation of land tenure: ▪ Two landowners elected not to proceed with the project on their land ▪ Two other landowners approached Atmos to join the project and were included following desktop assessments and due diligence ▪ Substantial refinement of access tracks and other infrastructure to accommodate landowner requests and minimize any impacts on existing agricultural operations
Community, Dwellings and sensitive receptors	Following consultation with near neighbours and the broader community, Atmos incorporated layout updates to: ▪ Increase the dwelling buffer from 1.5 to 2 km around receiver H0269 to address property specific feedback ▪ Removal of the southernmost turbine from the project, to protect a near neighbours view of Pyramid Hill/Mount Hope. ▪ Increase in the minimum distance of turbines to Pyramid Hill from ~7.5 km to ~9.2 km ▪ Reduction in the number of turbines within ~10 km of Pyramid Hill township from 9 to 3. ▪ Incorporation of a minimum 2 km buffer around the Macorna township
Ecology	Significant refinement to reduce native vegetation impacts which included: ▪ Removal of 12 turbines within areas of greater ecological sensitivity ▪ Relocation of all turbines within native vegetation, where a viable alternative was available ▪ Substantial refinement of all other infrastructure to avoid native vegetation, Brolga Breeding and potential Brolga Breeding Wetland buffers and fauna habitat impacts as far as practicable ▪ Refinement of entranceways, optional laydown areas and turning bays near turbines in areas of native vegetation. ▪ Removal of 1 turbine within the Brolga Homerange identified adjacent to Hird and Johnson Swamps
Heritage	GIS sensitivity model for turbine and infrastructure siting including siting of infrastructure on lowest sensitivity land as much as practicable.
Agriculture	Site visit and landowner discussions to assist understanding of historical trend in reduced irrigation across the project area. General siting of infrastructure to protect high production areas, and incorporation of restricted areas for the project in consultation with landowners. See landowner excerpt in Attachment A for obligations.
Traffic	Refinement and reduction of site entrances to reduce local road impacts and avoid native vegetation impacts.

Aviation	Removal of 6 turbines in north of project area, plus refinement of 2 others to avoid Kerang aerodrome flight paths.
Landscape and visual	Additional buffer from Macorna township.
EMI	EMI buffers to include additional 100m to allow for a full micro-siting buffer free of potential impacts where possible. A limited number of turbines were not able to be sited to achieve this, however no impacts to the links themselves are expected: T50, T54, T68, T80, T119, T27, T17, T134, T14, T1, T5, T7.
Noise	Current layout likely considers inclusion of 5 neighbouring dwelling agreements for increased amenity limits. This includes an additional dwelling at proposed Tragowel Solar Farm that is abandoned and permitted to be removed as part of the solar farm.
Hydrology	Avoidance of 1% AEP for bench areas and turbines where possible and/or 2011 and 2022 Flood extent.
Shadow flicker	Re-siting of turbines T075, T076, T083, T085.
Blade throw, hydrogeology, geotechnical	Initial constraints, buffers and design considered adequate following impact assessment.

At the commencement of the turbine siting process, Atmos was considering a 140 turbine layout and has since reduced the number of turbines to 114 as a result of the above considerations.

Figure 14 shows the changes to the turbine layout throughout the refinements process, along with the key avoidance inputs. The following table sets out the WTG that have been removed from the Project and why. The turbines highlighted below were initial progressed into the subsequent Balance of Plant design outlined in the following section.

No of Turbines	Reasons for removal of turbine
Turbines x 6	Aviation impacts
Turbines x 6	Native Vegetation avoidance, Pyramid Hill buffer
Turbines x 6	Native Vegetation avoidance
Turbine x 1	Brolga buffer wetland
Turbines x 6	Landowner no longer involved, noise impact reduction
Turbines x 5	Additional buffer around sensitive receiver H0269, landowner no longer involved
Turbine x 1	Removal of turbine from other side of Loddon Valley Highway

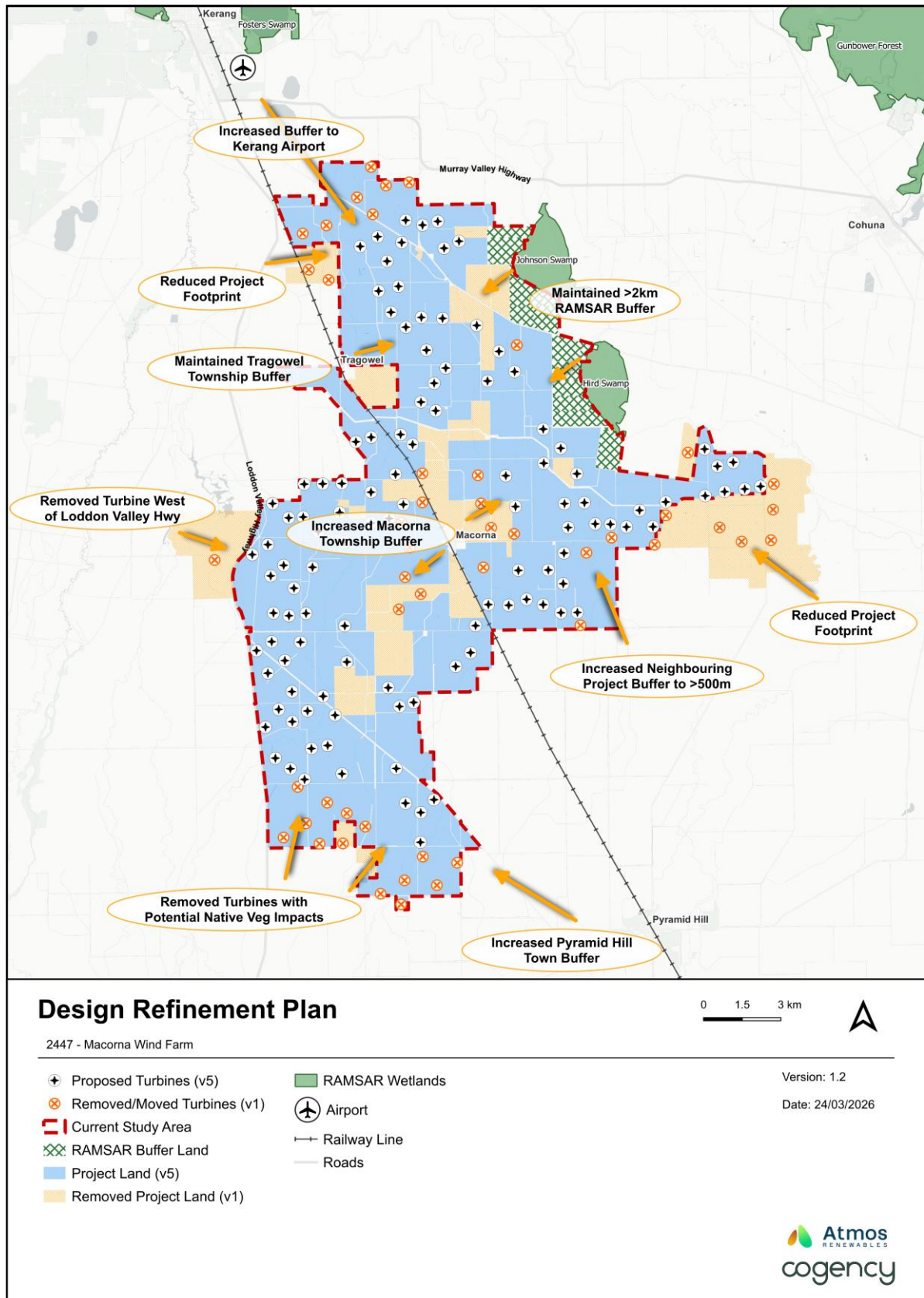


Figure 14 – Design Refinement Plan

4. Balance of Plant Refinement

As the turbine siting process reached its current stage, the civil and electrical balance of plant infrastructure design commenced. Atmos generally considered the minimum design specifications for the candidate wind turbine model (Vestas V172 – 7.2 MW @ 166 m hub height) as an initial basis of design. An initial civil balance of design was produced for 133 turbines, which included 13 turbines removed for ecology (highlighted in Figure 15, below and at page 14 of Attachment A – Mapping), and 6 for landowner/noise considerations which are highlighted in the above table.

Habitat Hectare Assessments were commenced on the initial civil balance of plant design, with progressive refinement of the layout occurring as surveys were completed over a 5 month period. The most substantive revision occurred between design 00 and 02 and then 04 to 05, a summary of the changes is documented in the table below. It is noted that these figures do not consider electrical balance of plant, transmission line or offsite impacts.

A similar design refinement of the proposed underground cabling for the Project was undertaken, with an estimated reduction in approximately 15.7 Ha (approximately 55 %) of native vegetation impacts from the initial design. Note these figures do not consider overlapping disturbance between the civil footprint impact areas and may differ from those presented in the Flora and Fauna assessment based on the total project footprint.

Layout Revision	Turbine Qty	Estimated Native Vegetation Impact (ha)	Key Consideration
Civil Design 00	133	130.8	- Refinement of location T040 for reduction of 1.74 ha - Refinement of access track arrangement to T091 to avoid native vegetation impacts (~2 ha) - Refinement of turbine location 101 (~2.8 ha) - Refinement of turbine locations 47 and 48 (~2.8 ha) - Relocation of turbine 57 (1 ha)
Civil Design 01	133	123.7	- Removal of 12 turbines with ecological impacts (38 ha) - Relocation of T110 (2.75 ha) - Realignment of access track to T105 & T104 (4.6 ha) - Removal of roadside entrance for T090 and T087 (0.73 ha) - Realignment of access track T041 to T044 (0.1 ha)
Civil Design 02	115	72.4	Minor refinement of Bench locations for native vegetation avoidance (1.8 ha)
Civil Design 03	115	70.2	- Deletion of T015 – avoidance of Brolga buffer - Micrositing of T069, T072, T082 and T083 for shadow flicker compliance (no vegetation impacts)
Civil Design 04	114	70.5	- Refinement of all entranceways impacting native vegetation from dual oversize overmass (OSOM) vehicle access to single OSOM vehicle access in the direction of travel for proposed delivery - Removal or relocation of turning bays and optional hardstand storage in areas of native vegetation - Refinement of cable alignments to avoid native vegetation

			▪ Reduction in proposed construction corridor for areas impacting native vegetation
Civil Design 05	114	28.4	A design review for this iteration has not yet occurred, however it is expected that opportunities exist for further native vegetation avoidance through: ▪ Refined entranceway designs and optimised access ▪ Localised refinement of the construction footprint during detailed design for areas of the construction footprint that partially impact native vegetation • Optimisation of the proposed transmission line route, and identification of disturbed areas during detailed design

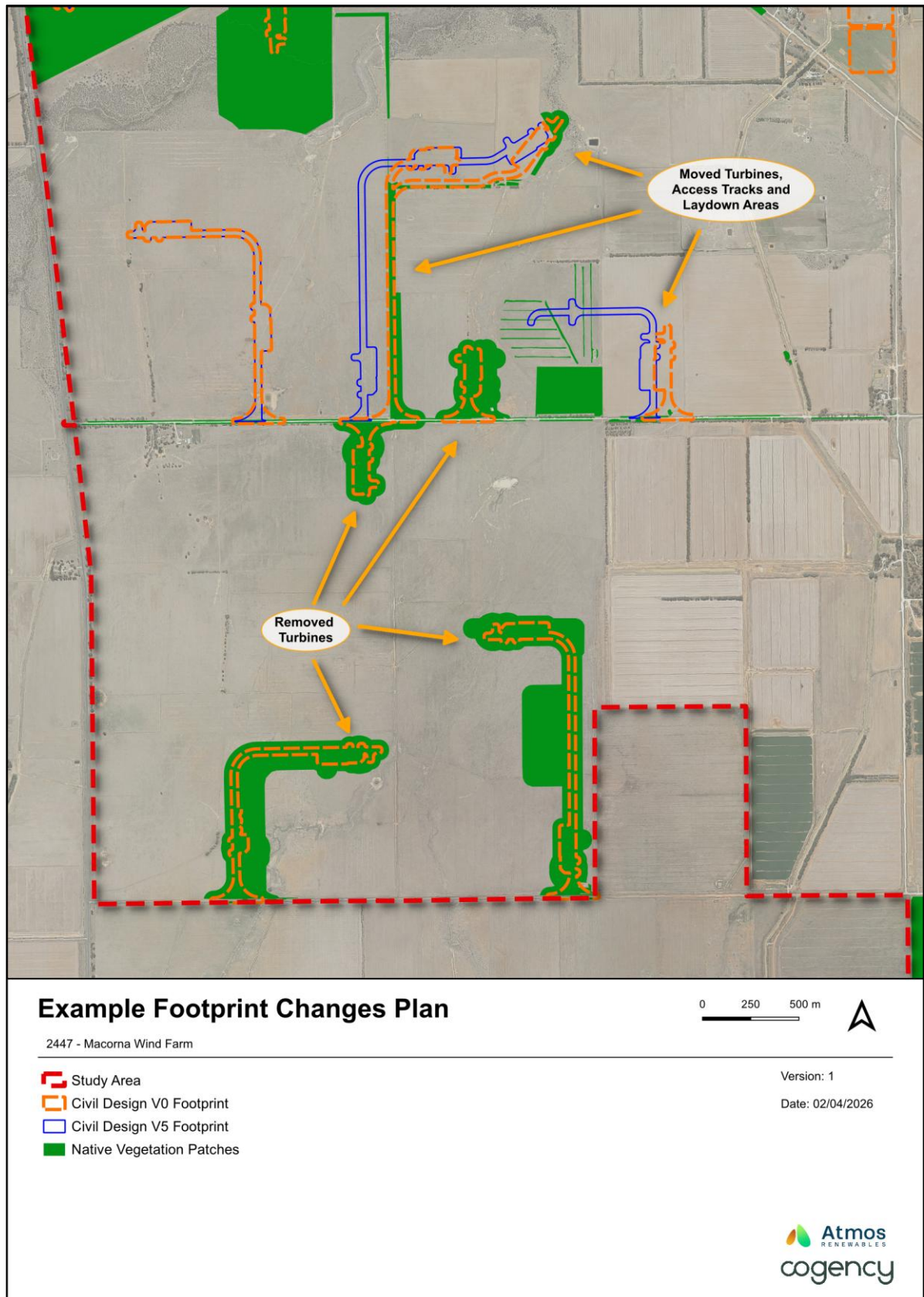


Figure 15 – Example Footprint Changes

5. Construction footprint development

Atmos has developed the construction footprint for the Project, to further inform the impact assessments for the EES and EPBC Act referrals, and eventual planning approval.

Atmos has developed a variable envelope for the construction footprint, which is responsive to the known environmental values of the Project Area.

The construction footprint comprises approximately 749.75 ha. This area has accounted for consequential impacts, which are generally summarised below:

- A 5m buffer has been applied to all bench areas (substation, BESS, laydown etc).
- A 13m buffer has been applied to all other civil works areas (turbine hardstands, crane pads, access tracks). This provides a general works corridor of 34m in areas that have an access track with a finished width of approximately 8m. A reduction in this buffer and general works corridor has been proposed in more sensitive areas.
- A 10m corridor has been applied to the HV overhead line route.
 - Note: This represents a conservative approach as it allows for a road to be built along the entire length of transmission. An optimised design may allow for additional avoidance by using existing roads and tracks to access the pole locations where feasible.
- A 6m corridor has been allowed for all UG cables, with a 3m buffer on each side.
- A 7m wide corridor has also been included for internal public roads (within the study/project area) that have been identified as requiring widening.

Development of the construction footprint also made the following changes to minimise ecological impacts:

- Removed dual passageways for OSOM vehicles (LV still able to turn both directions) based on delivery direction proposed by the Transport Impact Assessment
- Removed some turning bays
- Rerouted a small number of cables

The construction footprint remains indicative and will continue to be refined as the detailed design process continues.

An overview of the key remaining impacts of the Project as a result of this construction footprint, following the design evolution process is provided at Section 11 of this referral.

‘Do nothing’ alternative

A ‘do nothing’ alternative is considered for the purpose of fully understanding alternatives to the Project. Under a ‘do nothing’ alternative, Federal, State, Regional and Local Strategic objectives for additional renewable energy generation and electricity decarbonisation and climate change action will not be met. Specifically, the main disadvantage of this alternative is that the benefits of the Project would be forgone. This includes the reduction in greenhouse emissions associated with climate change, achievement of Federal and State renewable energy targets and policy, supporting international commitments such as the Paris Agreement, and employment and economic benefits that flows from such a significant investment in the local and regional economy, including benefit sharing funds. Considering the strategic need for additional renewable energy capacity and electricity decarbonisation, and Atmos’s efforts to contribute to both, a ‘do nothing’ scenario was not considered a reasonable or viable alternative.

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

As outlined above, it is expected that there will be further micro-siting of turbine and infrastructure location, including following ongoing landowner, community and stakeholder consultation, and further technical assessments.

The turbine concept layout and ancillary infrastructure will continue to be refined through the planning and environmental approvals process, in response to environmental, land and topographical constraints, landholder co-design and technical and operational requirements.

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:**

The Project will connect directly to the VNI West transmission line, at the proposed VNI West Tragowel terminal station. The VNI West project, including proposed terminal station, will not be delivered by the Proponent. Any works related specifically to the delivery of the VNI West project do not form part of this Project.

6. Project implementation**Implementing organisation (ultimately responsible for project, ie. not contractor):**

Atmos Renewables (Atmos) on behalf of Macorna SPV - Atmos MWV Pty Ltd as trustee for the Atmos MHV Trust is the Project's implementing organisation.

Construction is expected to commence in 2029 for a period of 3.5 years. Construction is expected to be staged.

Implementation timeframe:

The current proposed timeline for construction, commissioning and operation of the Project is provided below. This timeline is subject to change and dependant on the timing and outcomes of the planning and other approvals processes along with the delivery of the VNI West project, which provides the proposed connection point for the Project.

Phase	Activity	Timing
Construction	Construction commences	2029 (for period of 3.5 years, potentially delivered in stages) – subject to planning and environmental approvals
Operation	Commence operation	2030 (for a period of 30-35 years)

Proposed staging (if applicable):

Construction is likely to be staged. Details of the proposed staging will be defined through the detailed design process and subject to any outcomes of the Victorian Access Regime which shall manage grid connections and access to the VNI West project.

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 location of the Project at Faulkner Road, Tragowel 3579, is within and surrounding the locality of Macorna in the Gannawarra Shire and Loddon Shire local government areas (LGAs). The Project is located in Victoria's Loddon Mallee Region. The Project comprises approximately 26 landholdings properties within the localities of Macorna, Tragowel, Mincha West and Macorna North. The Project Area is approximately 23,000 hectares (ha), with an expected development or construction footprint of 749.75 ha. The Project is proximate to the Kerang Lakes Ramsar wetland group, with the Johnson Swamp and Hird Swamp located to the northeast of the Project Area. A 2km turbine free buffer has been instated to this boundary, and it is expected that the Proponent will amend the Project Area subject to planning approval to not include any parcel directly adjacent to either wetland. Several drainage channels and creeks, including the Calivil and Nine Mile Creeks, intersect the Project Area. Pyramid Creek is located along the eastern boundary of the Project Area, and the Loddon River is to the west. The Project is strategically located in close proximity to existing and proposed electrical and transport infrastructure. The proposed VNI West transmission line corridor traverses the northern section of the Project Area. The Project Area boundary also directly abuts the proposed VNI West Tragowel terminal station. The Project is located in the North West REZ set out in the draft Victorian Transmission Plan, noting that the REZ boundaries have not yet been finalised. The Project Area includes a State Government declared state highway, the Loddon Valley Highway, that traverses the west of the Project Area. The regional Swan Hill railway line also intersects the Project Area in a north-south direction. The Kerang aerodrome is located approximately 8.3 km north west of the Project Area. The Site Features, Context, Natural Features and Existing Infrastructure Plans are provided at Figures 16 – 19, below and pages 15 – 18 of Attachment A – Mapping.
Site area (if known): ...23,000..... (hectares)
Route length (for linear infrastructure)N/A..... (km) and widthN/A..... (m)

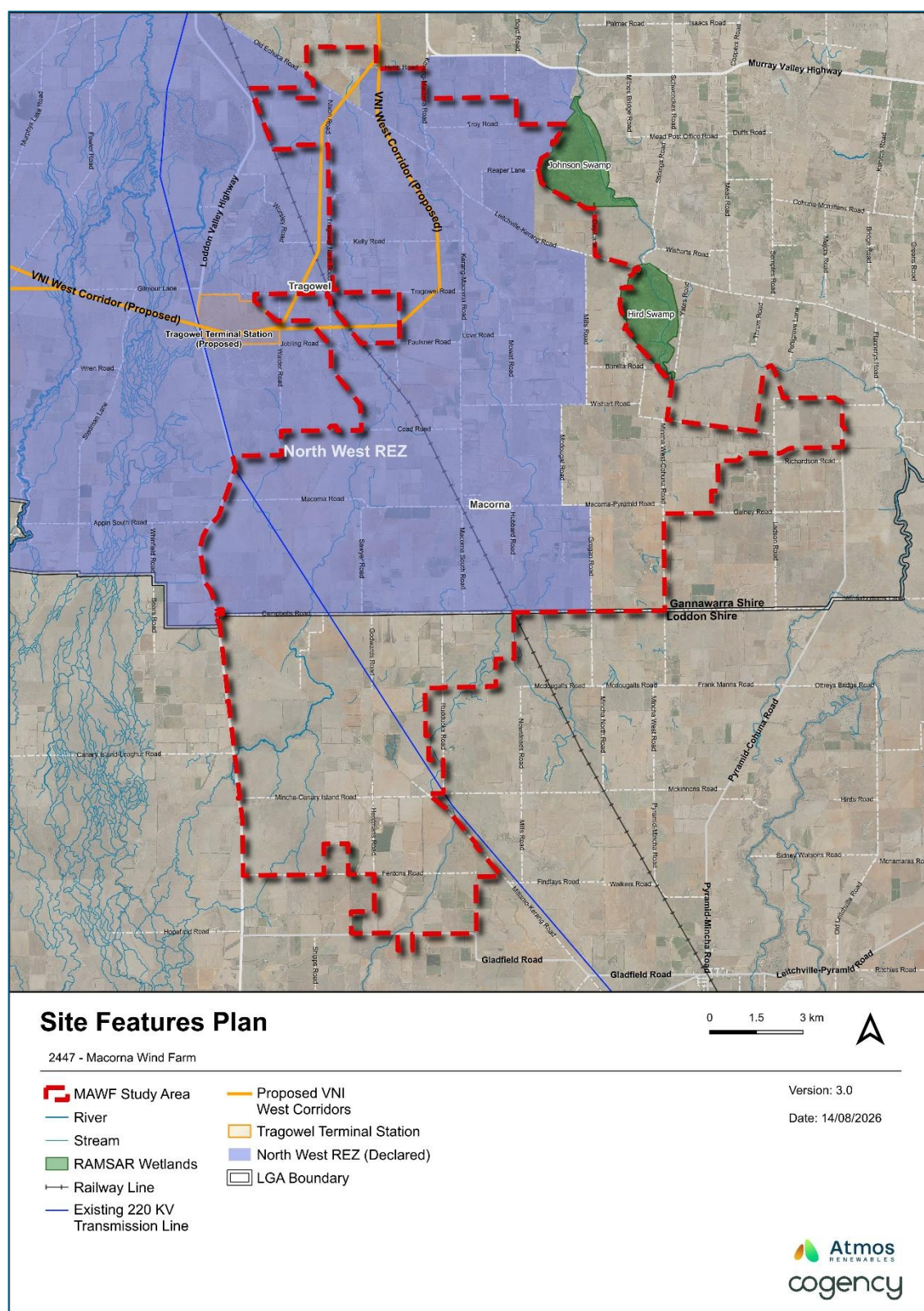


Figure 16 – Site Features Plan

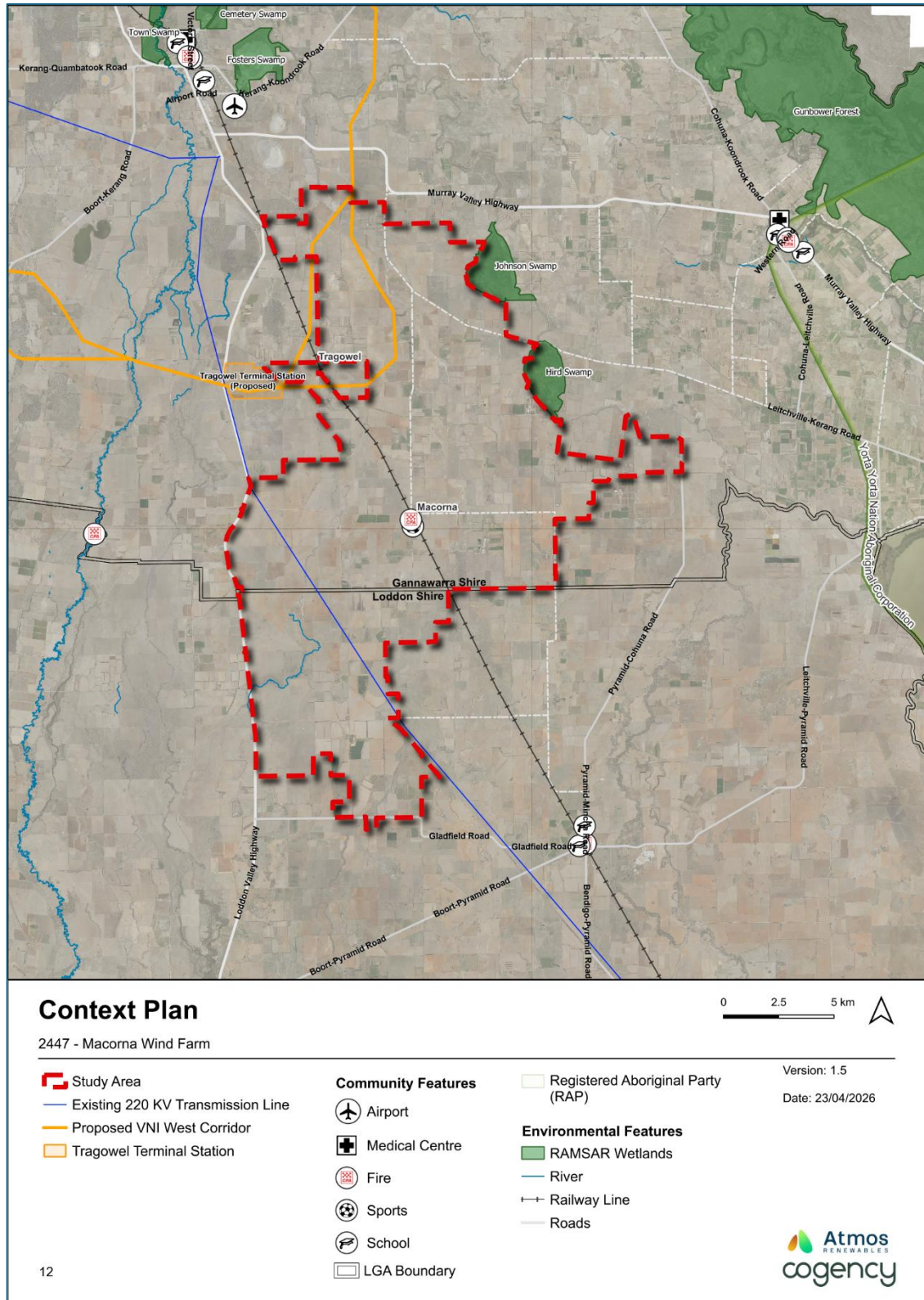


Figure 17 – Context Plan

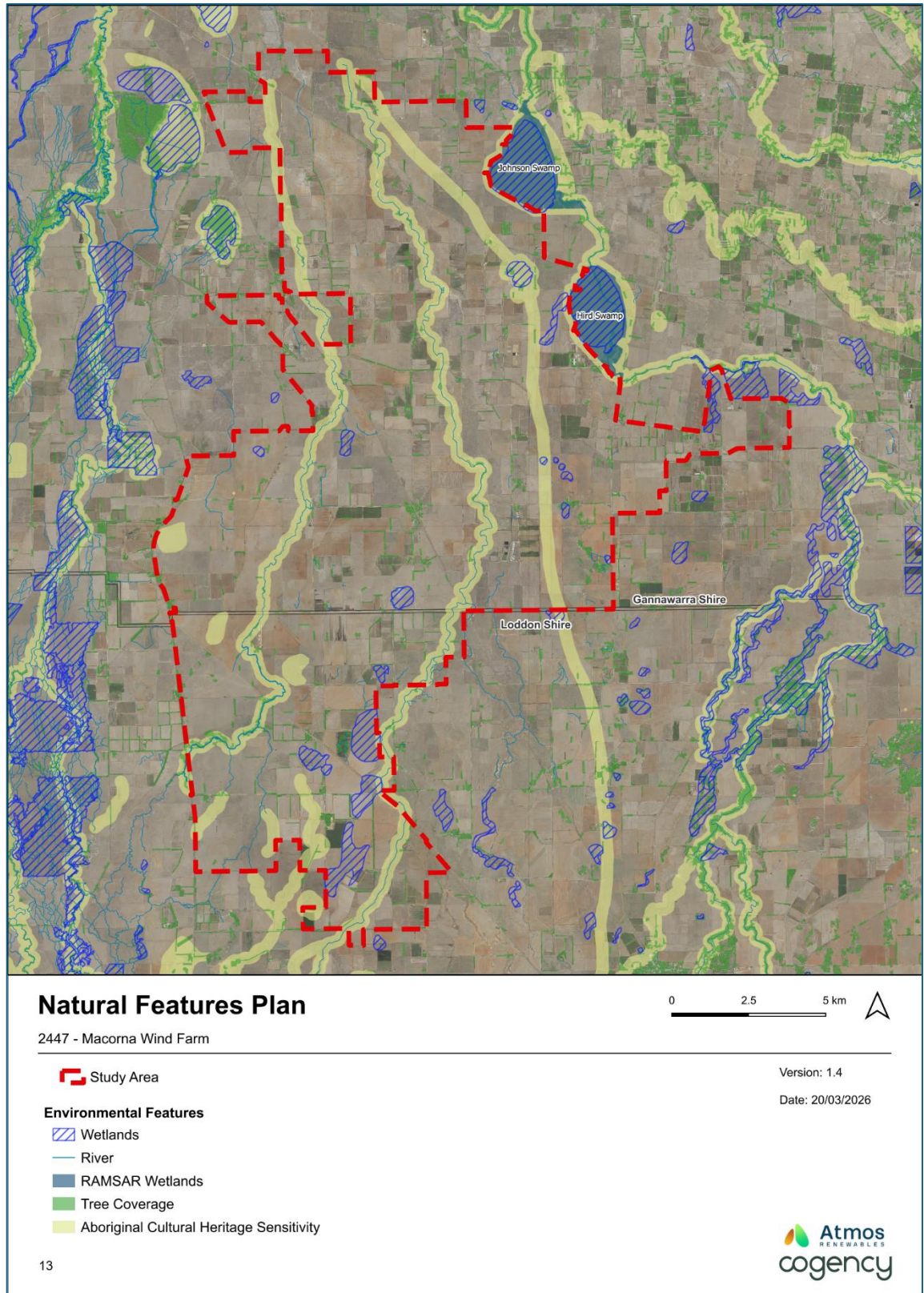


Figure 18 – Natural Features Plan

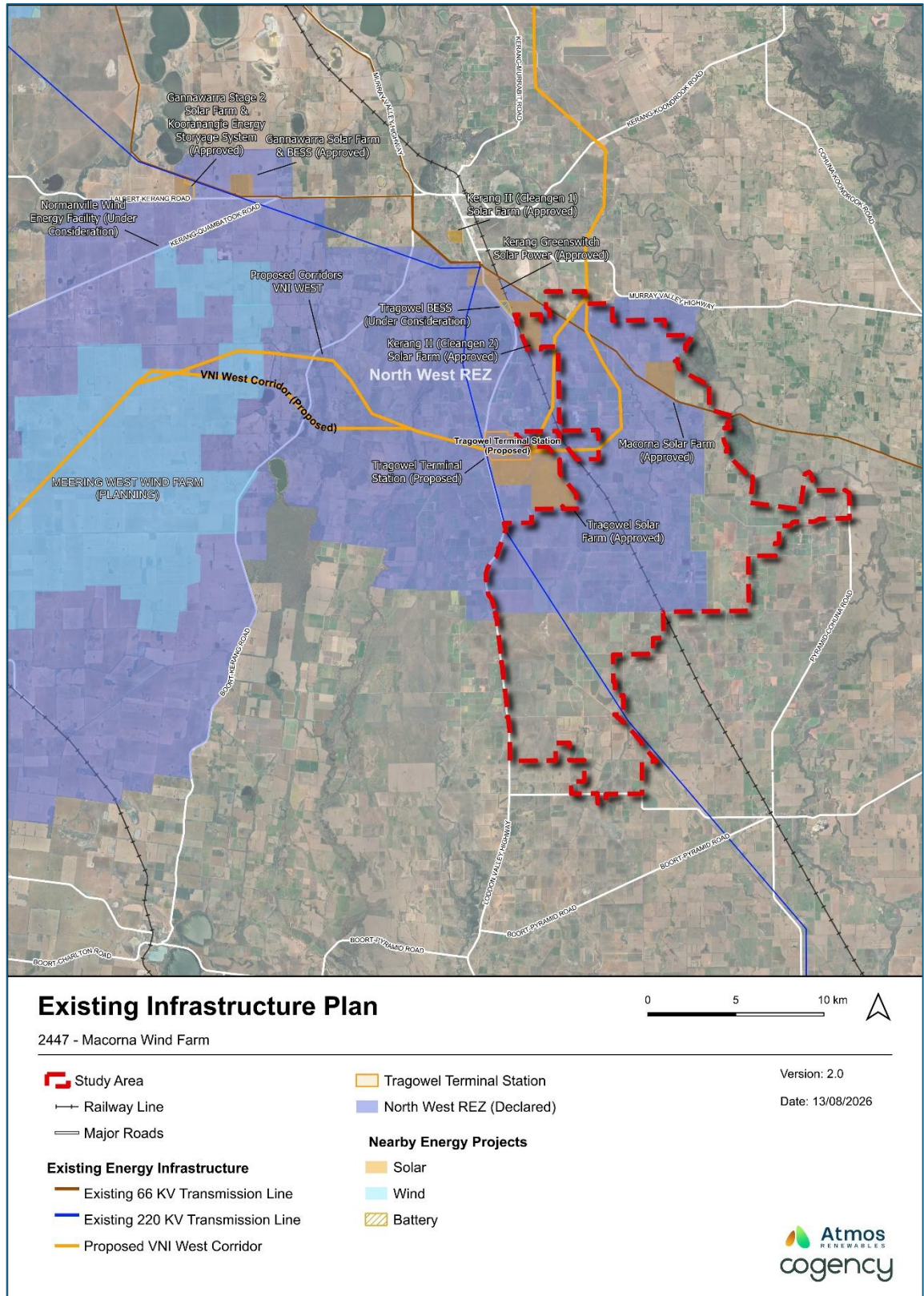


Figure 19 – Existing Infrastructure Plan

Current land use and development:

The land within the Project Area is predominantly farmland, with pockets of remnant vegetation. The land uses include mixed farming, dairy, grazing and cropping. Much of the land within the Project Area is or was historically farmed using irrigation practices.

Of the land within the Project Area:

- ~30% of the land is currently actively irrigated
- ~25% of the land is irrigated infrequently, pending water allocations, season or other factors
- 30% of the land is not irrigated, but was historically. Equipment has been decommissioned or removed.
- 10% of the land was never irrigated.

Based on conversations with landowners, areas that have been historically irrigated but are no longer irrigated are to remain as dryland farming moving forward. There is also a general trend of further reduction in irrigation in the area, and much of the land that is irrigated infrequently is also expected to be converted to dryland.

Figure 20, presented below and provided at page 19 of Attachment A – Mapping.

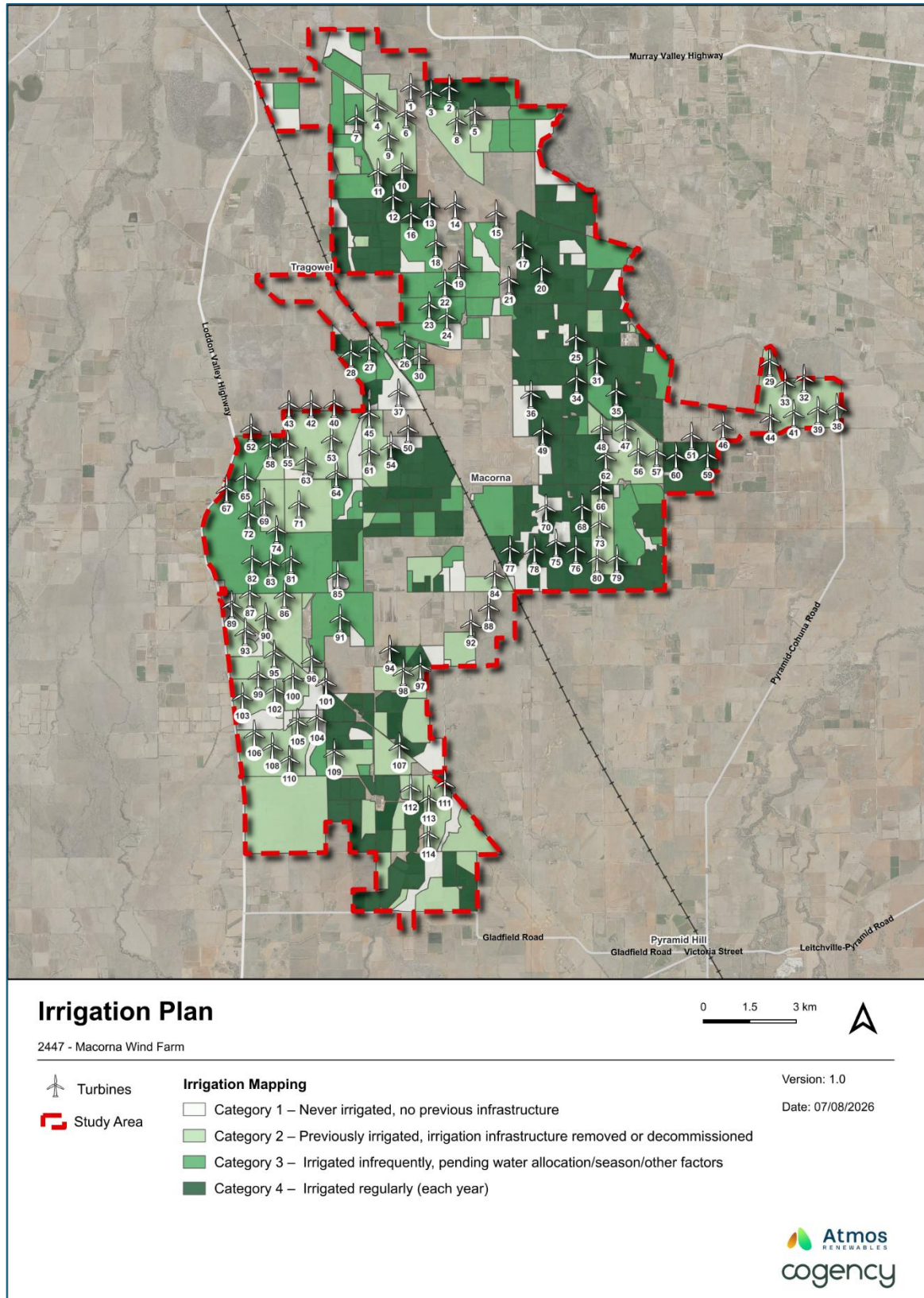


Figure 20 – Irrigation Plan

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

The site is situated on Barapa Barapa Country, a region which spans across present-day Victoria and New South Wales, encompassing parts of Gannawarra, Loddon and Campaspe. The Barapa Country Aboriginal Corporation is one representative of the Barapa Barapa people and are custodians of the land. Barapa Land and Water (unincorporated), Barapa Ltd (unincorporated) and Kowang Community and Traditional Owner Group (Kowang Coop Ltd) groups are also identified as having cultural interests in the Project Area (including for engagement purposes). At the time of writing there is no Registered Aboriginal Party (RAP) for the Project Area.

There are three RAPs within proximity to the Project Area:

- Yorta Yorta Nation Aboriginal Corporation – RAP area located approximately 7.8km east of the Project Area
- Dja Dja Wurrung Clans Aboriginal Corporation (DJAARA) – RAP area located approximately 9.5km south of the Project Area
- Wamba Wemba Aboriginal Corporation – RAP area located approximately 40km west of the Project Area

The Project Area is situated within the Macorna locality across the Local Government Areas (LGAs) of Gannawarra and Loddon and the broader Loddon Mallee North and South regions. The town of Macorna is central to the site, with Tragowel, Kerang and Pyramid Hill in proximity.

The Macorna locality (spanning over 13,000 ha across the Project Area) has a population of 67 people, within the broader Gannawarra and Loddon LGAs which have an estimated resident population of 10,683 and 7,759 people, respectively. There are less than 12 dwellings within the rural township of Macorna.

The Site Features, Context, Natural Features and Existing Infrastructure Plans are provided at Figures 15 – 18, above and pages 15 – 18 of Attachment A – Mapping.

A dwelling verification exercise has been undertaken by Atmos and the following dwellings have been determined for the purpose of planning and environmental assessments:

- Involved Dwellings
 - 52 Host dwellings – a dwelling on a property involved in the Project, including the development of wind turbines or associated infrastructure. Of these, 11 buildings on host landowner properties have been confirmed as non-habitable dwellings.
 - Six Involved dwellings – a dwelling on a neighbouring land parcel, not including development of wind turbines or associated infrastructure, but has executed or are proposed to execute an agreement with the project
- Non-involved Dwellings
 - 22 Dwellings – within 2 km of proposed turbines.
 - 78 Dwellings – between 2 km and 3.5 km of proposed turbines
 - 131 Dwellings – between 3.5 km and 6 km of proposed turbines

A single non-involved dwelling is located within 1 km of a proposed turbine. The non-involved dwelling is uninhabited and is in a derelict condition. The dwelling is located on the Tragowel Solar Farm site and is proposed to be demolished should the solar farm proceed to construction. Atmos has confirmed the status of this dwelling with the Tragowel Solar Farm, and shall provide relevant consent prior to approval for the Project to be developed within 1 km of this dwelling. Consents shall also be provided for any host dwellings within 1 km of a proposed turbine location.

All non-involved dwellings within 3.5 km of a turbine will be eligible for the Near Neighbour Program which will provide payments based on the distance to turbines. Further all non-involved dwellings within 6 km of a turbine will be eligible for the energy offset program.

Ground-truthing of the dwelling verification process is ongoing. A significant number of non-involved dwellings within 6km have been identified as uninhabited, derelict, or abandoned. For example, through the door knocking program it was found that ~25% of the nearby dwellings were either abandoned or appear to be uninhabited. Further, ABS data indicates that 22.2% of private dwellings in the Loddon municipality and 12.3% of private dwellings in the Gannawarra

municipality were unoccupied based on 2021 Census data. Additionally, host landowners involved in the Project have ownership of a number of dwellings in the locality surrounding the Project. For the purpose of this referral, Atmos has considered all uninhabited, derelict, abandoned or host owned dwellings up to 6km from turbines as non-involved dwellings and therefore sensitive receivers to provide a conservative impact assessment.

The Dwelling Plan is provided below at Figure 20 and at page 20 of Attachment A – Mapping.

Primary employment in the region is agriculture, specifically Dairy Cattle Farming, Grain-Sheep or Grain-Beef Cattle Farming, Sheep Farming (Specialised) and Other Grain Growing. The site comprises predominantly cleared farmland with pockets of remnant vegetation and has been improved by irrigation infrastructure. The land uses include mixed farming, dairy, grazing & cropping.

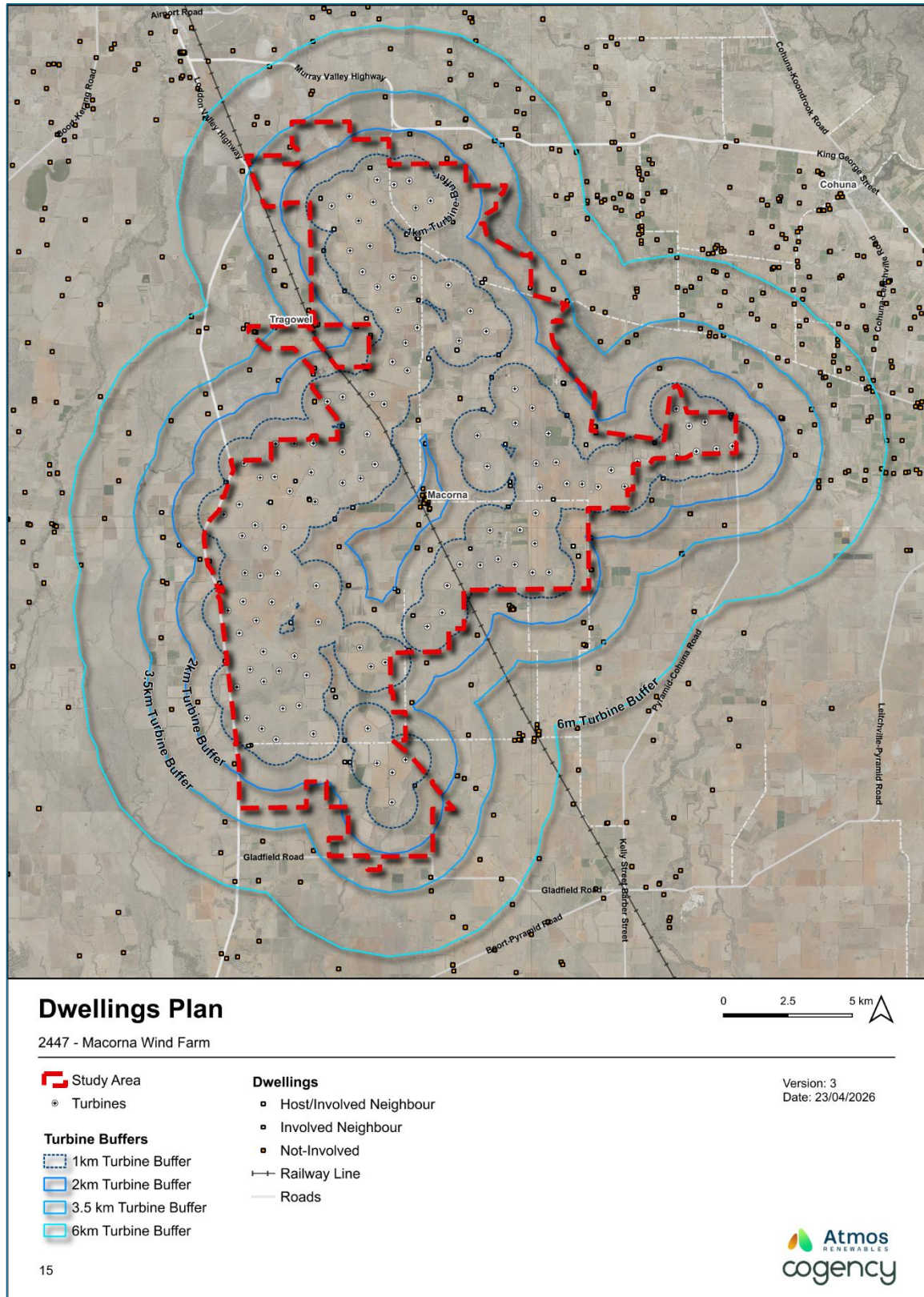


Figure 21 – Dwelling Plan

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

The Planning Policy Framework (PPF) contains statewide and regional planning policies, and may contain local policies, which articulate the land use and development outcomes sought by the planning scheme. Policies of relevance, for further consideration in the preparation of planning and environmental approvals documents, include:

- Clause 12 Environmental and Landscape Values, including Clause 12.01 Biodiversity
- Clause 13 Environmental Risks and Amenity, including Clause 13.02 Bushfire, Clause 13.03 Floodplains and Clause 13.05 Noise
- Clause 14 Natural Resource Management, including Clause 14.01 Protection of agricultural land Clause 14.02-3 Protection of declared irrigation districts
- Clause 15 Built Environment and Heritage, including Clause 15.03-2 Aboriginal cultural heritage
- Clause 19 Infrastructure, including Clause 19.01 Energy, Clause 19.02 Community Infrastructure and Clause 19.03 Development Infrastructure

The Municipal Planning Strategy operates in conjunction with the PPF and outlines the strategic direction for the municipality that has informed the preparation of the planning scheme. Policies of relevance, for further consideration in the preparation of planning and environmental approvals documents, include:

Gannawarra Municipal Planning Strategy

- Clause 02.02 Vision
- Clause 02.03 Strategic directions, including:
 - Clause 02.03-1 Townships, settlement and growth
 - Clause 02.03-2 Environmental and landscape values
 - Clause 02.03-3 Environmental risks and amenity
 - Clause 02.03-4 Natural resource management
 - Clause 02.03-5 Built environment and heritage, in particular, in relation to Aboriginal heritage
 - Clause 02.03-9 Infrastructure

Loddon Municipal Planning Strategy

- Clause 02.02 Vision
- Clause 02.03 Strategic directions, including:
 - Clause 02.03-2 Environmental and landscape values
 - Clause 02.03-3 Environmental risks and amenity
 - Clause 02.03-4 Natural resource management
 - Clause 02.03-5 Built environment
 - Clause 02.03-8 Infrastructure

The Study Area is predominantly comprised of land zoned Farming Zone (FZ), with small areas of:

- Transport Zone (TRZ) - applying to the rail corridor, Loddon Valley Highway and Leitchville – Kerang Road
- Township Zone (TZ) - applying to the Macorna township
- Public Conservation and Resource Zone (PCRZ) - applying to the Calivil Creek Water Frontage and the Macorna Revegetation Area. Land adjacent to the Project Area, associated with Hird and Johnson Swamps and Pyramid Creek are also within the PCRZ.
- Public Park and Recreation Zone (PPRZ) - applying to the Macorna Recreation Reserve

The PCRZ, PPRZ and TZ have been excluded from the construction footprint.

Small areas of the TRZ are included in the construction footprint where the Project crosses the railway corridor and intersects with major roads. Otherwise, the Project Area and construction footprint are entirely made up of land within FZ.

The purpose of the Farming Zone is to provide for the use of land for agriculture, and ensure that non-agricultural uses do not adversely affect the use of land for agriculture.

The Project has responded to the purpose and decision guidelines of the Farming Zone, by undertaking technical assessments to inform concept design development, with a view to avoid and minimise impacts of the Project. This has included:

- Working with landowners to minimise impacts to their agricultural operations, which will continue to operate while the wind farm is under construction and throughout operation
- Avoidance and minimisation of impacts to ecological and cultural heritage values
- Understanding hydrological, hydrogeological and geotechnical conditions to inform turbine siting and design requirements
- Understanding how the Project will interact with existing infrastructure to ensure the design does not compromise the infrastructure and inform relevant stakeholder engagement
- Identifying potential sensitive receptors and ensuring potential adverse effects (noise, visual, traffic, air quality, blade throw and shadow flicker)

In addition, the Project will support employment within the region through direct employment. A Local Industry Engagement Plan is under development, and a supplier register has been implemented for local suppliers to register interest. The Proponent also has a sustainable procurement policy which provides preference to suppliers that support local jobs, invest in local communities, underrepresented and disadvantaged groups, and enhance regional capabilities. Further, the Project has the potential to enhance agricultural production where involved landowners re-invest their income from hosting turbines back into their agricultural operations.

A wind energy facility is a *Section 2 – Permit required* use within the Farming Zone, meaning that planning approval is required for the use and development of land for the Project. Development of the Project must be in accordance with the requirements of Clause 52.32 Wind Energy Facility.

Clause 52.32 Wind Energy Facility sets out instances where a wind energy facility is prohibited, the following table sets out the Project response to these.

Wind energy facility prohibited on:	Project response
Land where any turbine (measured from the centre of the tower at ground level) that forms part of the facility is located within one kilometre of an existing dwelling. This does not apply where written consent of the owner is provided.	Within 1 km of proposed turbines there is one non-involved dwelling which is uninhabited and abandoned. Atmos is liaising with the landowner (Tragowel Solar Farm) to seek consent for the Project to be developed within 1 km of this non-involved dwelling. For any turbines located within 1 km of a host landowners dwelling an existing agreement is in place to provide written consent.
Land described in a schedule to the <i>National Parks Act 1975</i>	There is no land within the Project Area described in a schedule to the <i>National Parks Act 1975</i> .
Land declared a Ramsar wetland as defined under section 17 of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth) (EPBC Act)	There is no land within the Project Area declared a Ramsar wetland as defined under section 17 of the EPBC Act. It is noted that the Project Area adjoins the Hird and Johnson Swamps which form part of the Kerang Lakes Ramsar wetland. The Project has adopted a 2 km buffer for turbines from the wetlands, and does not propose any works within any land parcels directly adjacent to the wetlands.

Land listed in a schedule to Clause 52.32-2.

There is no land listed in the schedules to Clause 52.32-2 of the Loddon or Gannawarra Planning Schemes.

Further consideration of the Farming Zone and Clause 52.32 Wind Energy Facility application requirements and decision guidelines will be made as part of a future planning approval.

Planning approval of the Project will require referral to a number of authorities, including:

- Secretary to the Department of Environment, Land, Water and Planning (as constituted under Part 2 of the *Conservation, Forests and Lands Act 1987*) (now the Department of Energy, Environment and Climate Action (DEECA)) to remove, destroy or lop native vegetation.
- Relevant electricity transmission authority (AusNet) for works within 60 m of a major electricity transmission line or easement.
- Secretary to the Department administering the *Water Act 1989* (DEECA) to use and develop land for a renewable energy facility within an irrigation district.
- Relevant floodplain management authority (North Central Catchment Management Authority (NCCMA)) within the FO and LSIO.
- Head, TfV to create or alter access to an arterial road, and consent for works within the TRZ.

The Zone Plan is provided at Figure 22, below and page 21 of Attachment A – Mapping.

The following table sets out the overlays within the Project Area, their purpose and Project interaction.

Overlay	Scheme	Application and Purpose	Project interaction
Environmental Significance Overlay - Schedule 1 (ESO1)	Gannawarra	Applies to waterway environs. Seeks to protect water quality and environmental values of waterbodies, and provides for a level of flood protection.	The Project will have some interaction with the ESOs. Flora and Fauna, Hydrology and Landscape and Visual Assessments have been undertaken and attached (refer to Attachments C, D and F), having regard to the ecological and hydrological nature and amenity of the Project Area environs. An overview of the findings of the assessments, as relevant to this referral, are presented at Sections 12, 13 and 14.
Environmental Significance Overlay - Schedule 2 (ESO2)	Gannawarra	Applies to highway environs. Seeks to enhance the safety and amenity of main roads.	
Environmental Significance Overlay - Schedule 3 (ESO3)	Gannawarra	Applies to lake environs. Seeks to protect water quality and environmental values of waterbodies, and provide for a level of flood protection.	
Environmental Significance Overlay - Schedule 4 (ESO4)	Gannawarra	Applies to areas of poor drainage and potentially subject to inundation. Seeks to protect water quality and environmental values of waterbodies, and provide for a level of flood protection.	
Vegetation Protection Overlay – Schedule 1 (VPO1)	Loddon	Applies to significant remnant vegetation. Seeks to protect significant pockets of remnant native vegetation.	No works are proposed within the VPO1.
Heritage Overlay (HO)	Gannawarra	Applies to the Macorna Butter Factory (HO10) and Tragowel Cheese Factory (HO12). Seeks to conserve and enhance heritage places.	The HOs are located within the Macorna and Tragowel townships which the Project does not propose works within.

Rural Floodway Overlay (RFO) / Floodway Overlay (FO)	Gannawarra and Loddon	Applies to waterways and high hazard areas (including land associated with Calivil, Nine Mile and Pyramid Creeks). Seeks to minimise potential flood risk and protect water quality and waterways as natural resources.	The Project will have some interaction with the RFO / FO and LSIO. A Hydrology Assessment has been undertaken and attached (refer to Attachment D), having regard to the hydrological nature of the Project Area environs. An overview of the findings of the assessment, as relevant to this referral, are presented at Section 13.
Land Subject to Inundation Overlay (LSIO)	Gannawarra and Loddon	Applies to flood prone land as per the 1 in 100 year flood or as determined by a floodplain management authority. Seeks to minimise potential flood risk and protect water quality and waterways as natural resources.	
Specific Controls Overlay – Schedule 2 (SCO2)	Gannawarra and Loddon	Applies the <i>Goulburn-Murray Water: Connections Project and Water Efficiency Project Incorporated Document, November 2021</i> .	The project has since been complete and the Incorporated Document is no longer in effect.

Further consideration of the various overlay application requirements and decision guidelines will be made as part of a future planning approval.

Overlay Plans are presented at Figures 23 and 24 and pages 22 and 23 of Attachment A – Mapping.

A number of particular provisions may apply to the Project including:

- Clause 52.20 – Easements, Restrictions and Reserves
- Clause 52.05 – Signs
- Clause 52.06 – Car Parking
- Clause 52.17 – Native Vegetation
- Clause 52.29 – Land Adjacent to the Principal Road Network
- Clause 52.32 – Wind Energy Facility
- Clause 53.22 – Significant Economic Development

At the planning approval stage, the Project will be subject to review by a number of referral authorities, including DEECA, AusNet, NCCMA and Transport for Victoria.

A number of guidelines have and will continue to be considered throughout the development of the Project, including:

- *Planning guidelines for development of wind energy facilities in Victoria (2023)*
- *Ministerial guidelines for assessment of environmental effects under the Environment Effects Act 1978 (Eighth Edition, 2023)*
- *Matters of National Environmental Significance Significant Impact Guidelines 1.1 (2013)*
- *Guidelines for the removal, destruction or lopping of native vegetation V1.1 (DEECA 2024)*
- *Handbook for the development of renewable energy in Victoria (DEECA 2025)*
- *Design Guidelines and Model Requirements for Renewable Energy Facilities v4 (2023)*
- Noise protocol, including the *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues* (EPA Publication 1826.4), the *Wind Energy Facility - Turbine Noise - Technical Guideline*

(EPA 2024), and the *Civil construction, building and demolition guide* (EPA Publication 1834.2).

Local government area(s):

- Gannawarra Shire Council
- Loddon Shire Council

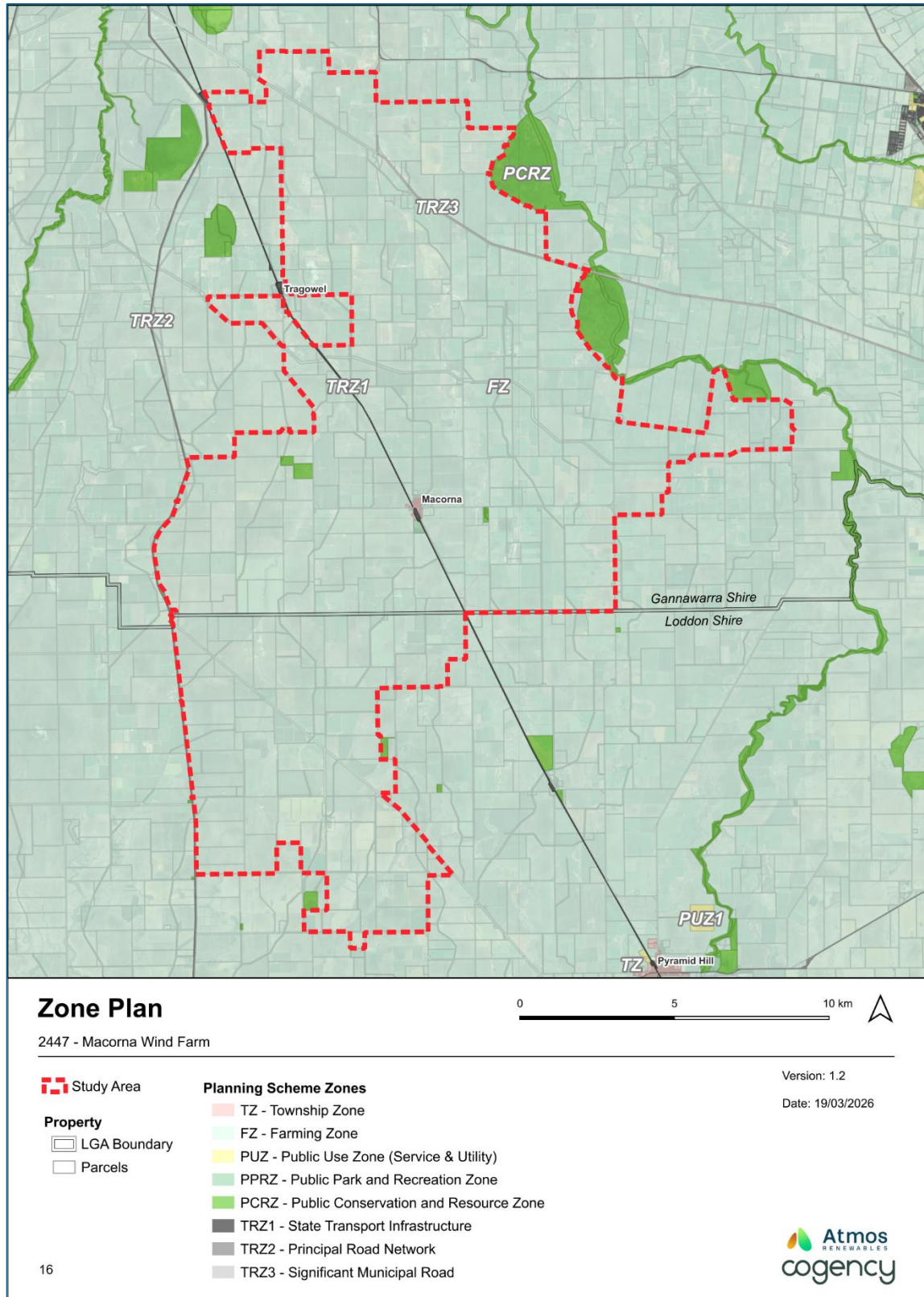


Figure 22 – Zone Plan

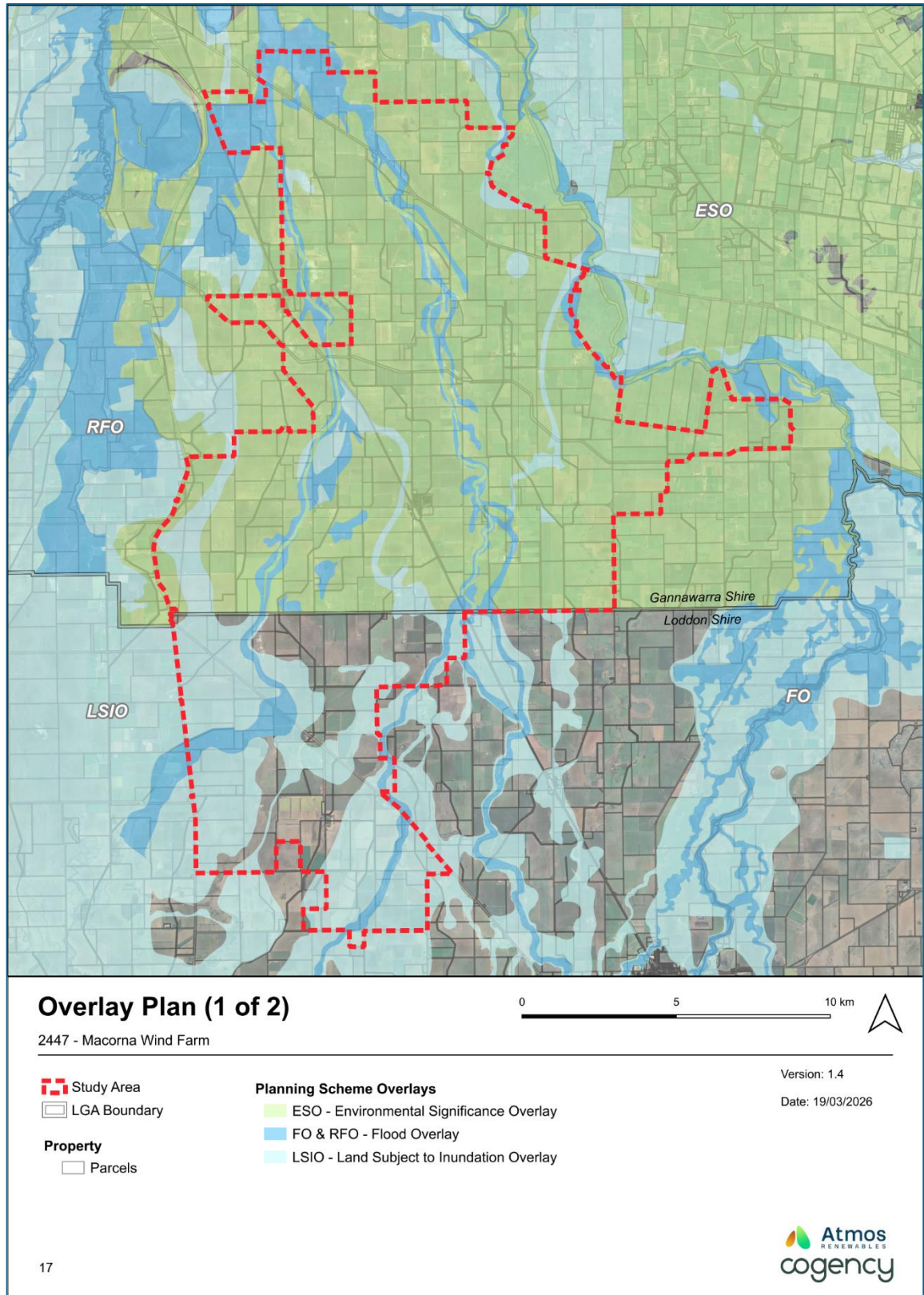


Figure 23 – Overlays Plan (Environmental and Flooding Overlays)

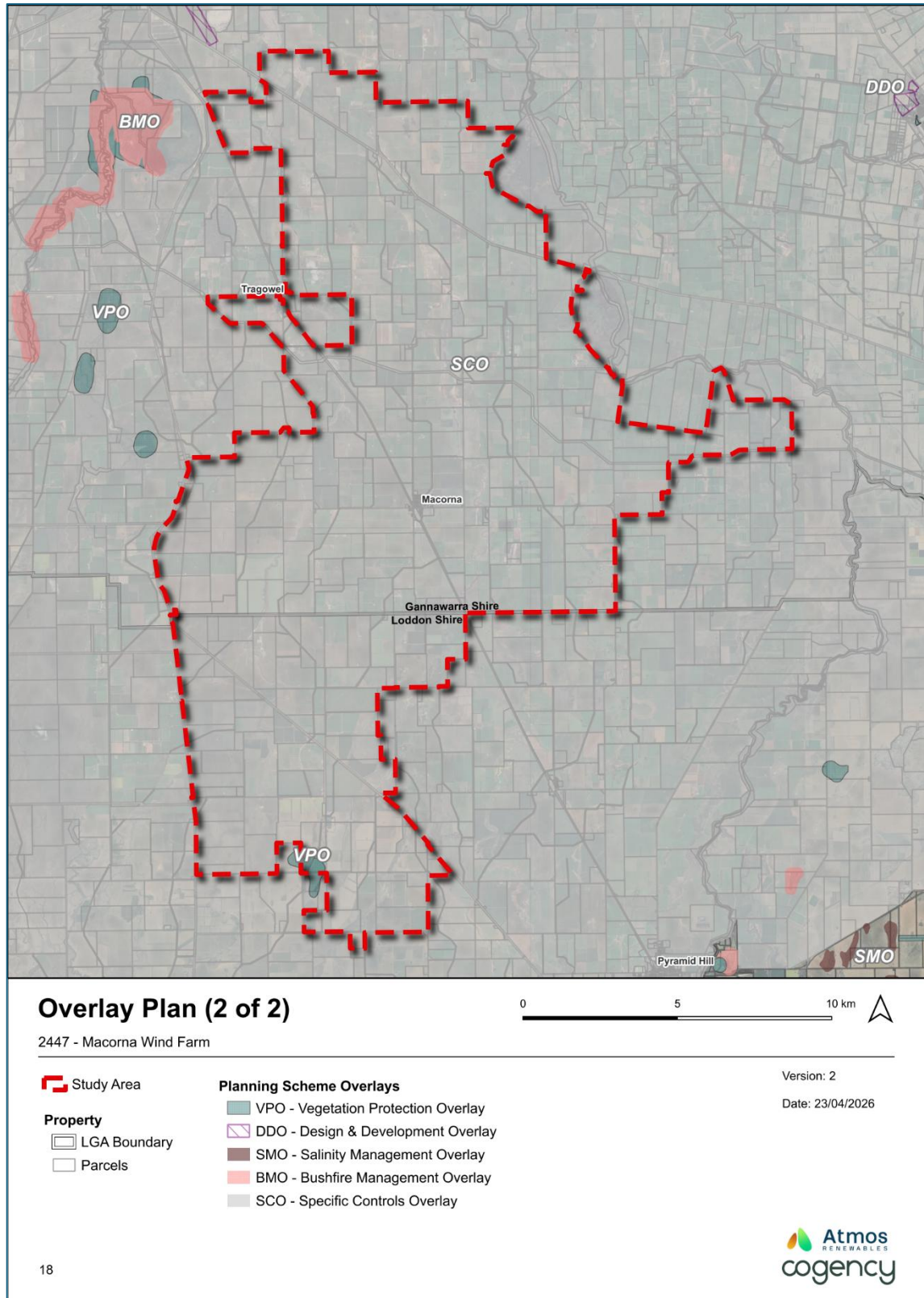


Figure 24 – Overlays Plan (Other Overlays)

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 technical assessments attached to this referral provide an overview of the key environmental assets and sensitivities in the Project Area and surrounds, which include:

- The Kerang Lakes Ramsar site – specifically Hird and Johnson Swamps which sit adjacent to the Project Area. The Kerang Wetlands comprise an internationally recognised system of 23 lakes, marshes and swamps, which provide important habitat for waterbirds and support a range of ecological values. Hird and Johnson Swamps are hydrologically managed by Goulburn Murray Water and provide an important source of water for regional fauna. Ecological assessments have found that Hird and Johnson Swamps are lower in habitat quality and utilisation than the balance of the waterbodies that form the broader Ramsar system which are generally located 10 – 40 kilometres to the north-west. Notwithstanding this, the Project has adopted a precautionary design response including a minimum buffer of 2 km between the wetlands (from the Ramsar boundary) and any proposed turbines to avoid impact to or interference with their ecological character. The 2km buffer has been applied to avoid impacts to migratory shorebirds, particularly those that use Hird Swamp, despite the low frequency of shorebird records at the swamp over the last 6 years. No migratory shorebird Habitat is directly impacted by the Project. Additionally, the 2km buffer is intended to avoid interference with the successful implementation of the *2017-2025 Kerang Wetlands Ramsar Site Action Plan* prepared by the North Central Catchment Management Authority, or subsequent Action Plans prepared for the Kerang Wetlands by state or federal regulatory authorities. Further, no works are proposed within any land parcels directly adjacent to the Hird and Johnson Swamp (refer to Figure 1 and Figure 2 for the Project Area Plan and Indicative Layout Plan, also provided at pages 1 and 2 of Attachment A - Mapping, showing the location of turbines in relation to the swamps). There is a minimum turbine buffer of approximately 8 km from the remaining Kerang Lakes Ramsar wetlands.
- Areas of archaeological sensitivity – areas of elevated Aboriginal cultural heritage sensitivity are primarily associated with landforms and features linked to historical and existing water regimes. This includes land within 280 m of a 'historical waterway', 100 m of an area of 'historical hydrology', and 60 m from an area of Topographic Wetness Index, including alluvial terraces and floodplains, lunettes adjacent to lakes and alluvial fans and aprons. These landforms are known to have a higher likelihood of containing Aboriginal cultural heritage due to their historical use as resource-rich environments, including access to water, food sources and movement corridors.
- Waterways – the Project Area is located within a highly modified agricultural landscape characterised by both natural waterways and an extensive irrigation network. The Loddon River forms a major regional watercourse to the west of the Project Area, supporting ecological values, irrigation supply and downstream connectivity within the Murray-Darling Basin. Pyramid Creek, located to the east, is a regulated waterway that conveys irrigation flows and provides habitat and connectivity for aquatic species. Within the Project Area, Calivil Creek and Nine Mile Creek represent smaller, modified watercourses that function as part of the broader drainage and irrigation system. These waterways, along with numerous constructed irrigation channels and drains, contribute to local hydrology, agricultural productivity and, in some cases, provide habitat for aquatic and semi-aquatic species. The presence of these waterways introduces sensitivities relating to hydrology, water quality, aquatic ecology and floodplain function, which have been considered in Project design and addressed through detailed assessments and proposed management measures.

9. Land availability and control

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

☐ No ☒ Yes If yes, please provide details.

The Project Area is largely comprised of freehold land.

Isolated parcels of Crown Land exist throughout the Project Area.

The following table provides a summary of the Crown Land within the Project Area, its reserved use and interaction with the Project. A map of Crown Land is presented below in Figure 25 and at page 24 of Attachment A – Mapping.

Crown Land (tenure ID)	Tenure / Reservation	Standard Parcel Identifier	Project interaction
2004797	Reserve (Delegated Mgt) Water Authority	20B1~C\PP3007	Yes – intersection with GMW Channel, works will be undertaken in consultation with GMW and the public land manager, if not GMW
0616640	Unused Road Licence – Primary Prod	n/a (road)	Yes – works will be undertaken in consultation with Council and the public land manager, if not Council
0602454	Unused Road Licence – Primary Prod	2028\PP3028 (partial)	
0611236	Unused Road Licence – Primary Prod	n/a (road)	
0601768	Unused Road Licence – Primary Prod	n/a (road)	
0613161	Unused Road Licence – Primary Prod	n/a (road)	
0611568	Unused Road Licence – Primary Prod	n/a (road)	
0607777	Grazing Licence	112B\PP3646	No
0607600	Reserve (Cofm – Council) Appointed	27B~A\PP3028	No
0609588	Reserve (Implied Mgt) Health	27D~A\PP3028	No
0602454	Unused Road Licence – Primary Prod	n/a (road)	No
0606616	Reserve (Cofm – Local) Public	25C~A\PP3028	No
0613758	Unused Road Licence – Primary Prod	2034\PP3108 (partial)	No
0601723	Unused Road Licence – Primary Prod	2014\PP3108 (partial)	No
0600350	Grazing Licence	2074\PP3646 & 2075\PP3646	No
2021764	Unused Road Licence – Primary Prod	2086\PP3007 (partial)	No
0617695	Reserve (Delegated Mgt) Water Authority	9E\PP3646	No
0601455	Unused Road Licence – Primary Prod	n/a (road)	No

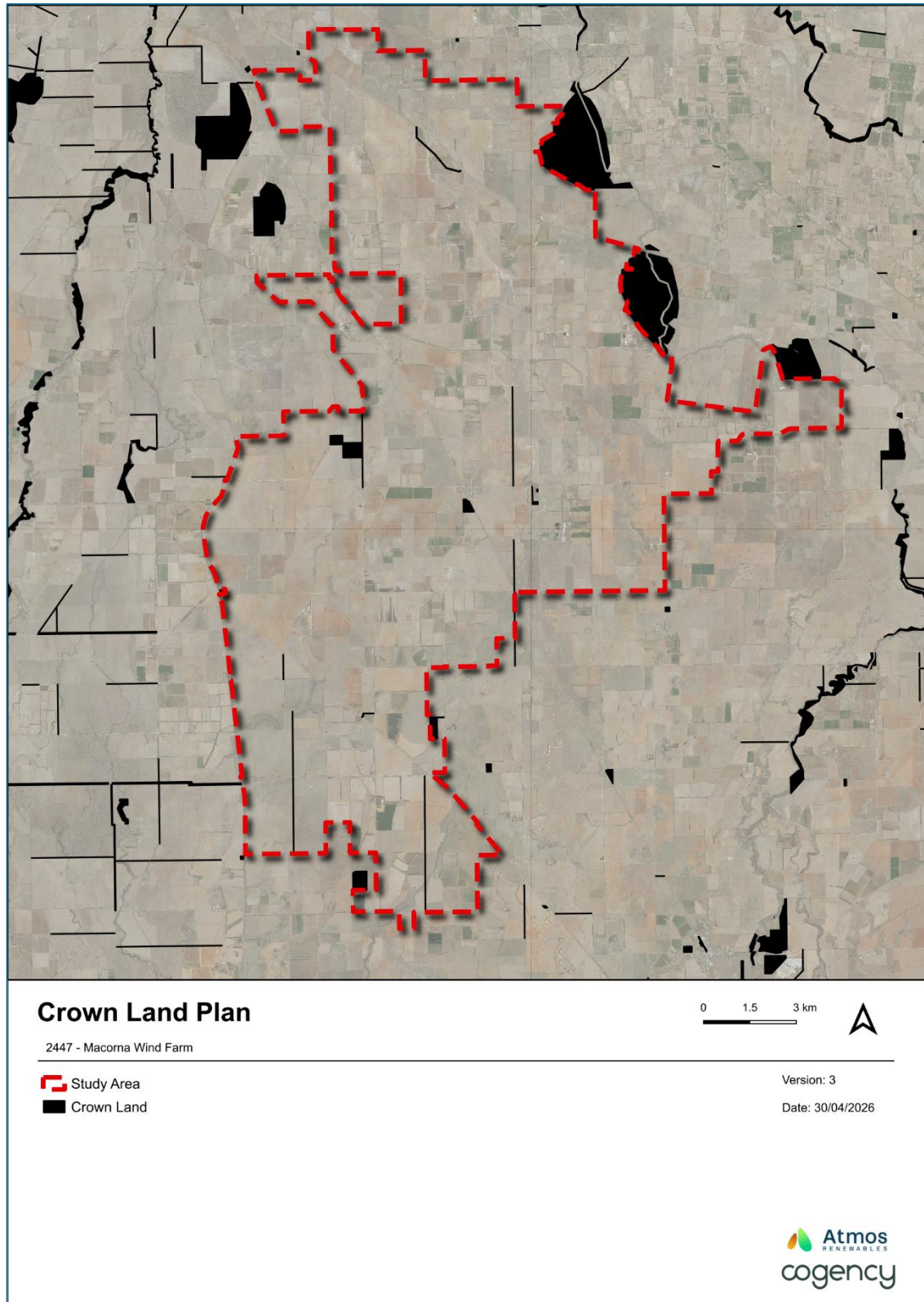


Figure 25 – Crown Land Plan

Current land tenure (provide plan, if practicable):

The majority of the Project Area is located on freehold land, comprised of 26 landholdings. The Project Area also contains isolated parcels of Crown Land, road and rail corridors and other publicly owned or managed land for utilities, reserves and recreation areas. The table, and Figure 25, above, provide details as to the Crown land and the Project interaction with them.

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

Project land requirements will be secured via commercial land lease/licence agreements applied to private freehold land. The agreements will provide for long term lease and easement arrangements that will extend for the operational life of the wind farm. Decommissioning obligations are covered under the main agreements.

Approvals (lease or otherwise) to undertake works (access tracks, installation of cabling etc) across existing road or rail corridors or intersecting with utilities will be obtained from the relevant authority as required. No permanent wind turbine infrastructure or significant ancillary infrastructure (i.e. substations or BESS's) proposed within Crown Land or roads (including blade overhang).

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

Public land within the site area includes:

- Crown land
- Government roads
- Rail line
- Major and minor roads

There was a Native Title claim over the site which has been struck out, a subsequent Native Title claim was filed in late 2025 but has not yet been determined or registered

Various utility easements are located within the Project Area. Should works to or movements of easements be required to facilitate construction, opportunities for co-locating Project infrastructure will be explored during future stages of design development and subject to consultation with relevant stakeholders.

10. Required approvals

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

The Project is expected to be referred under the EPBC Act to determine whether it constitutes a 'controlled action'. If deemed a controlled action, the Project will require approval from the Commonwealth Minister for the Environment under the EPBC Act.

The Project may also require approvals under the *Civil Aviation Safety Regulations 1998* (Cth) in relation to potential impacts on aviation safety, including obstacle lighting and airspace requirements for wind turbines.

State

The Project will require the following primary approvals:

- Planning approval in the form of a Planning Permit (one pursuant to each of the Gannawarra Planning Scheme and the Loddon Planning Scheme) or Planning Scheme Amendment for use and development of land pursuant to the *Planning and Environment Act 1987* (P&E Act)
- Approval of a Cultural Heritage Management Plan (CHMP) pursuant to the *Aboriginal Heritage Act 2006* (AH Act)

The Project may also require the following approvals, consents and authorisations:

- Consent for works within a road reserve pursuant to the *Road Management Act 2004*
- A works on waterways permit for works affecting designated waterways and take and use licences for dewatering and dust control during construction, if required, pursuant to the *Water Act 1989*
- A permit for works impacting historic heritage places pursuant to the *Heritage Act 2017*, where applicable
- Permit to take protected flora pursuant to the *Flora and Fauna Guarantee Act 1988* (FFG Act)
- Authorisation to take, control or manage protected wildlife under the *Wildlife Act 1975*
- A licence or lease for occupation and use of Crown land under the *Crown (Land Reserves) Act 1978* where works are required on Crown land
- Consent for works near electricity infrastructure and compliance with safety requirements under the *Electricity Safety Act 1998*
- A generation licence under the *Electricity Industry Act 2000* to generate, distribute and sell electricity
- Consent to occupy or use unreserved Crown land under the *Land Act 1958* for any works on unreserved Crown land and freehold land

Section 20, below, sets out the further investigations that are proposed to be undertaken to support detailed design and siting, construction and operation methodologies and management plans and the above approvals and consents.

Have any applications for approval been lodged?

☒ No ☐ Yes If yes, please provide details.

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

- National Environmental Protection Authority (EPA)
- Department of Transport and Planning (Impact Assessment and Renewables Development Assessment)
- Department of Energy, Environment and Climate Action – (Energy, Flora and Fauna and Rural Water Policy)
- First Peoples-State Relations
- North Central Catchment Management Authority
- Goulburn Murray Water

Other agencies consulted:

- Loddon Shire Council
- Gannawarra Shire Council
- Invest Victoria
- Country Fire Authority

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):

Overview

This section sets out a number of matters for consideration in relation to the potentially significant environmental effects of the Project which should be taken into account. The section includes:

- A **Summary of Design Evolution**
- An overview of the **Assessment approach and level of certainty**
- A **Summary of potential effects and their significance**
- An overview of the **Key residual impact area – native vegetation removal**
- A summary of **Strategic considerations**
- Consideration of **Uncertainty and risk management**

Summary of Design Evolution

Section 4, Project alternatives provided an overview of design evolution, which included the following:

- **Site selection** – involving the comparative assessment of multiple locations within the Loddon Mallee region, having regard to environmental constraints, planning context, social considerations, constructability and grid connection opportunities. The Project Area was determined following the outcomes of these preliminary assessments. The basis for the site selection is further detailed in section **Error! Reference source not found.** 'Background and justification' above.
- **Buffer analysis** – a detailed analysis of key constraints and identification of suitable buffers was undertaken to define the area of investigation for wind turbines within the Project Area.
- **Turbine siting** – landowner, community and stakeholder consultations and technical assessments were undertaken to further inform an understanding of constraints and determine turbine and other infrastructure siting.
- **Balance of plant refinement** – consideration of minimum design specifications for the construction of the candidate wind turbine model and associated infrastructure. An iterative refinement process was undertaken to reduce the spatial impact of plant based on ecological values.
- **Construction footprint development** – refinement of a construction footprint which has been carefully considered in order improve design and potential environmental impact assessment accuracy. The aim was to reduce the spatial extent and intensity of disturbance to ecological values, in particular within areas of mapped native vegetation, whilst also representing a realistic footprint in terms of constructability (i.e. sufficient area is provided to allow for the construction program¹).

The site selection process confirmed the Project Area as the most suitable location for the Project in this region. This is indicated by the Project's location within the North West REZ, locations specifically identified by VicGrid as being more suitable for renewable energy generation. Alternative sites were not seriously considered following this early site selection process.

¹ It is noted that approaches to defining construction footprints can vary between projects at this stage of the planning process. For this Project, the Proponent has adopted a deliberately conservative and realistic footprint to ensure the full extent of potential environmental impacts can be identified and assessed with a high degree of confidence.

The buffer analysis, turbine siting, balance of plant refinement and construction footprint development steps of the design evolution process have allowed for refinement of the Project to ensure environmental effects have been avoided and minimised as far as practical at this stage of project development. Key avoidance has included (but not limited to):

- Removal of 6 turbines due to aviation impacts
- Removal of 13 turbines to reduce native vegetation impacts and allow for appropriate buffers from a Brolga breeding wetland
- Removal of 12 turbines to increase buffers from townships and sensitive receptors

This process has resulted in a substantial reduction in potential impacts through macro Project infrastructure siting changes. Notably, the Project has reduced from an initial layout of approximately 140 turbines to 114 turbines, alongside targeted relocation and removal of infrastructure to avoid key environmental and social constraints.

Avoidance and minimisation measures embedded into the current design include:

- Substantial turbine setbacks from sensitive ecological receptors, including the Kerang Lakes Ramsar wetlands (>2 km) and named waterways (>100 m)
- Targeted avoidance of native vegetation, including the deletion or relocation of turbines and infrastructure from mapped vegetation and habitat areas
- Buffers to transmission (300 – 400 m) and distribution lines (50 m) and GMW assets (10 m buffer for electrical cables, crossing at perpendicular angles only and 25 m from minor waterways)
- Turbine buffers to major roads and rail corridor (300 m)
- Use of existing roads and access tracks along with refinement of proposed access tracks and other infrastructure to accommodate landowner requests and minimise impacts on existing agricultural operations, infrastructure or important vegetation (planted or native)
- Additional buffers and removal of turbines based on landowner, neighbour and community engagement
- Significant Project infrastructure siting refinements to reduce impacts to ecological values including the deletion of 12 turbines within areas of mapped native vegetation and one within the Brolga home range adjacent to Hird and Johnson Swamps, and relocation of a number of turbines and refinement of infrastructure including re-siting outside of native vegetation or reducing the footprint as far as practicable
- Re-siting turbines on land of lowest archaeological sensitivity where possible and avoiding areas of higher potential for Aboriginal cultural heritage sensitivity where practicable
- Refinement of infrastructure siting and access arrangements to minimise disruption to agricultural land use and landholder operations
- Refinement of site entrances, construction corridors and temporary disturbance areas to reduce the overall footprint
- Deletion of 6 turbines and refinement of two others to avoid Kerang aerodrome flight paths
- Increased turbine buffer from Macorna township
- Avoidance of flood extents for bench areas where possible
- Avoidance of EMI impacts to the extent possible

These measures demonstrate that impact avoidance and minimisation have been prioritised in accordance with the mitigation hierarchy through the Project's design. Furthermore, the consultative and iterative process has provided opportunities for the Proponent to develop a strong social license within the host community, demonstrated through the positive landowner negotiations.

As outlined in the various sections above, the turbine layout and construction footprint have been developed in consideration of competing constraints, engineering, landowner and commercial requirements. Nevertheless, development of the Project would require a small amount of interaction with some areas of native vegetation, threatened species habitat and waterways. The following tables provide further information regarding where these areas of impact remain, and provides justification for the proposed works in these locations.

The Project Area has been subject to drip irrigation farming practices historically. This farming practice typically involves laser levelling of land to effectively distribute water via the irrigation

system. As a result we expect that areas that have been subject to irrigation previously (~90 % of the Project Area – refer to Figure 20), have been historically cleared, and vegetation identified within these areas is non-remnant. Efforts have been undertaken to classify areas of native vegetation as regrowth vegetation, however where clear evidence was not available at the time of referral we have assumed mapped native vegetation was not regrowth in areas where irrigation infrastructure is present.

Of the 114 proposed turbines 15, or 13%, are proposed within patches of native vegetation. Of these:

- 11 have condition scores of less than 40
- 6 are proposed in patches of regrowth
- 8 are not 'regrowth' but would not constitute remnant vegetation based on historical land practices (non-remnant)
- 5 are proposed in smaller landholdings with no alternative turbine locations (one of which is not regrowth or non-remnant)

Of the native vegetation proposed to be impacted:

- ~34.8ha associate with turbine hardstands, and internal access tracks (approx 50% of this has been identified as regrowth or non-remnant)
- ~5ha associated with underground cables
- ~1ha associated with laydown areas
- ~1.6ha associated with transmission line
- ~3ha associated with internal road upgrades and turn treatments

The following table, and below Figures 26 to 28 provide a summary of the remaining native vegetation impacts associated with turbines. Figures 26 to 28 are also provided at pages 25 to 27 of Attachment A – Mapping.

Map ref	Native Vegetation Details	Proposed Development	Project response
26, 27	Plains Grassland (EVC 132); EPBC Act listed Natural Grasslands of the Murray Valley Plains community; FFG Act listed Northern Plains Grassland Community	WTG2 & WTG3 Results in impact to 2.7 Ha of native vegetation	▪ The patch has a condition score of 34 (out of 100), indicating low-medium quality vegetation ▪ The patch is partially considered non-remnant ▪ This paddock has flood irrigation installed which means it has historically been laser levelled (and as a result this is not remnant vegetation) ▪ Satellite imagery indicates regrowth development in last 5-7 years.
26, 27	Plains Grassland (EVC 132); FFG Act listed Northern Plains Grassland Community	WTG7 Results in impact to 0.9 Ha of native vegetation	▪ The patch has a condition score of 25 (out of 100), indicating lower quality vegetation ▪ Landowner indicates ploughing occurred in 2025 and is scheduled again for 2026. Satellite Imagery shows changes in canopy/understory at various intervals over the last 10 years ▪ We anticipate that this may be classified as regrowth subject to further landowner information ▪ Atmos also seeks to retain this infrastructure as this landowner has only one turbine proposed and no suitable alternatives are available to avoid this area of potential native vegetation.
26, 27	Plains Grassland (EVC 132); Partially potential EPBC Act listed Natural Grasslands of the Murray Valley Plains community;	WTG5 & WTG8 Results in impact to 3.6ha of native vegetation	▪ The patch has a condition score of 33 (out of 100), indicating low-medium quality ▪ The patch is considered regrowth

	FFG Act listed Northern Plains Grassland Community		- This paddock has flood irrigation installed which means it has historically been laser levelled (and as a result this is not remanent vegetation) - Clear evidence of cropping/land disturbance for WTG8 paddock (and those adjacent) in February 2021 - Evidence of periodic understory development for paddocks associated with WTG5 - Landowner notes indicate periodic development/land disturbance has occurred in these areas.
26, 27	Chenopod Grassland (EVC 829); FFG Act listed Northern Plains Grassland Community	WTG27 & WTG28 Results in impact to 2.9ha of native vegetation	- The patch has a condition score of 37 (out of 100), indicating low-medium quality - The patch is partially considered regrowth - The majority of this area has flood irrigation installed which means it has historically been laser levelled (and as a result this is not remnant vegetation) - Landowner notes indicate hay has been grow, involving ploughing & sewing – last ploughed 2-3 years ago.
26, 27	Chenopod Grassland (EVC 829); Likely EPBC Act listed Natural Grasslands of the Murray Valley Plains community; FFG Act listed Northern Plains Grassland Community	WTG37 Results in impact to 2.1ha of native vegetation	- The patch has a condition score of 34 (out of 100), indicating low-medium quality - The patch is considered regrowth - Landowner notes indicate this area was ploughed 2-3 years ago, and some saltbush was planted.
26, 27	Plains Grassland (EVC 132); EPBC Act listed Natural Grasslands of the Murray Valley Plains community; FFG Act listed Northern Plains Grassland Community	WTG50 Results in impact to 1.97 Ha of native vegetation	- The patch has a condition score of 33 (out of 100), indicating low-medium quality - Atmos seeks to retain this infrastructure as this landowner has only one other turbine proposed and no suitable alternatives are available to avoid this area of potential native vegetation.
26, 28	Chenopod Grassland (EVC 829); Small amount of likely EPBC Act listed Natural Grasslands of the Murray Valley Plains community; FFG Act listed Northern Plains Grassland Community	WTG53 & WTG63 Results in impact to ~4.5 Ha of native vegetation (inclusive of minor transmission line impacts)	- The patch impacted by WTG53 is considered regrowth - Satellite imagery confirms this occurred in 2021 and is supported by landowner notes of periodic rotation between cropping and grazing. - The patch impacted by WTG63 (and transmission line impacts) is considered non-remnant - Landowner notes confirm this is periodic rotation between cropping and grazing with last cropping/ploughing occurring 3 years ago. 2023 satellite imagery shows land disturbance. - The patches has a condition score of 29 and 31 respectively (out of 100), indicating low-medium quality.

			The majority of this area has flood irrigation installed which means it has historically been laser levelled (and as a result this is not remnant vegetation)
26, 28	Chenopod Grassland (EVC 829) Plains Grassland (EVC 132); Potential EPBC Act listed Natural Grasslands of the Murray Valley Plains community; FFG Act listed Northern Plains Grassland Community	WTG77 Results in impact to 1.5 Ha of native vegetation	- The turbine patch has a condition score of 27 (out of 100), indicating low-medium quality - The patch impacted by WTG77 (1.2 Ha) is considered regrowth - This patch has flood irrigation installed and was ploughed and laser levelled and is seeded. - An additional patch of 0.3 Ha, condition score 73 (out of 100) is higher value vegetation, however the impact is small and no alternative was available for this cable route to avoid this impact. - Landowner notes indicate this area has been periodically grubbed out as a feed pad.
26, 28	Plains Grassland (EVC 132); EPBC Act listed Natural Grasslands of the Murray Valley Plains community; FFG Act listed Northern Plains Grassland Community	WTG99, WTG102, WTG103 Results in impact to 4.6 Ha of native vegetation	- The patch has a condition score of 40 (out of 100), indicating low-medium quality - This paddock has flood irrigation installed which means it has historically been laser levelled (and as a result this is not remnant vegetation). The paddock was previously irrigated but has been decommissioned. - Land management practices including burning and sewing have occurred since decommissioning of the irrigation infrastructure in this paddock to support grazing. - Atmos seeks to retain this infrastructure as this lot belongs to a small landowner with limited other infrastructure and no suitable alternatives are available to avoid this area of potential native vegetation.

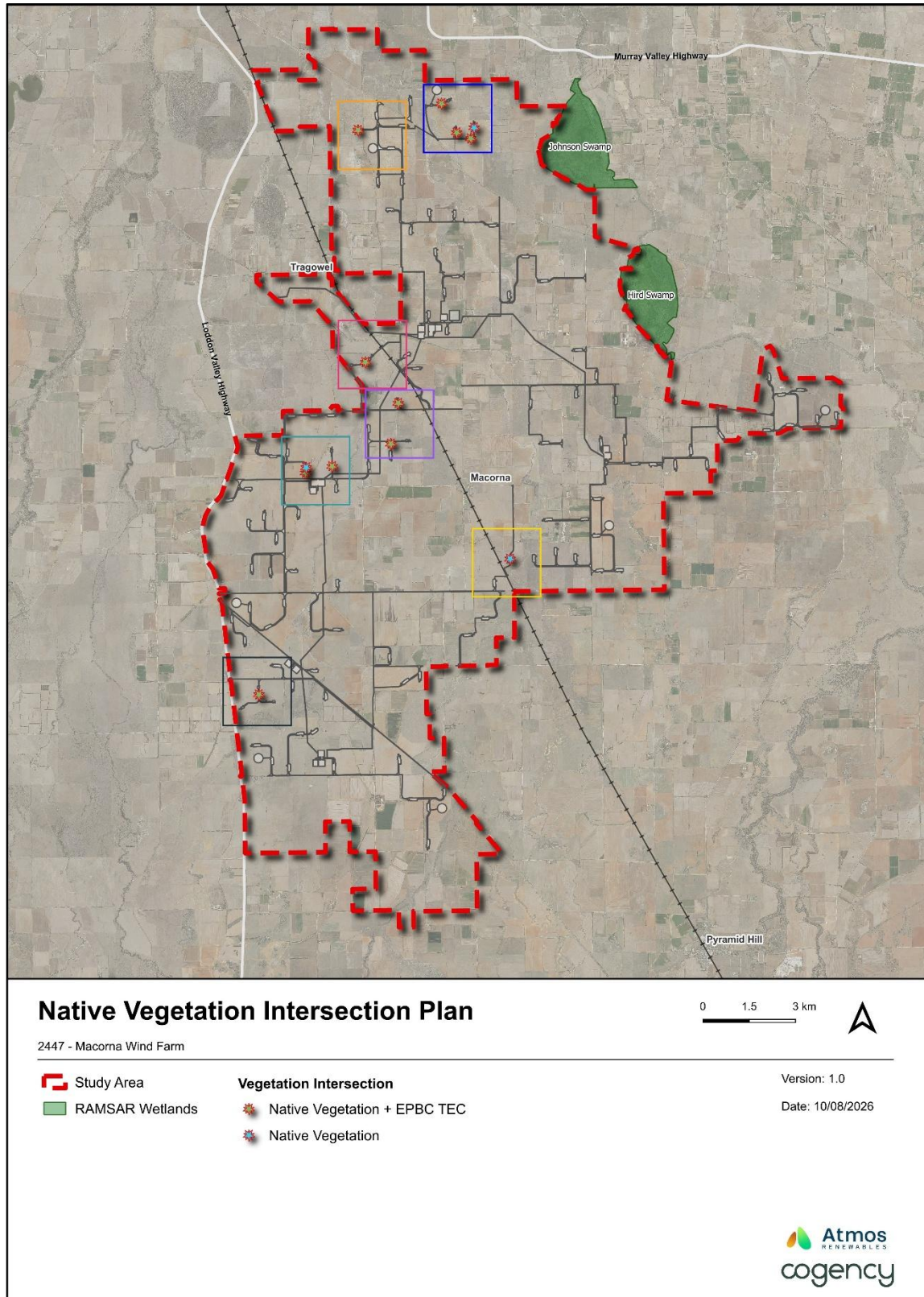


Figure 26 – Native Vegetation Map (overview)

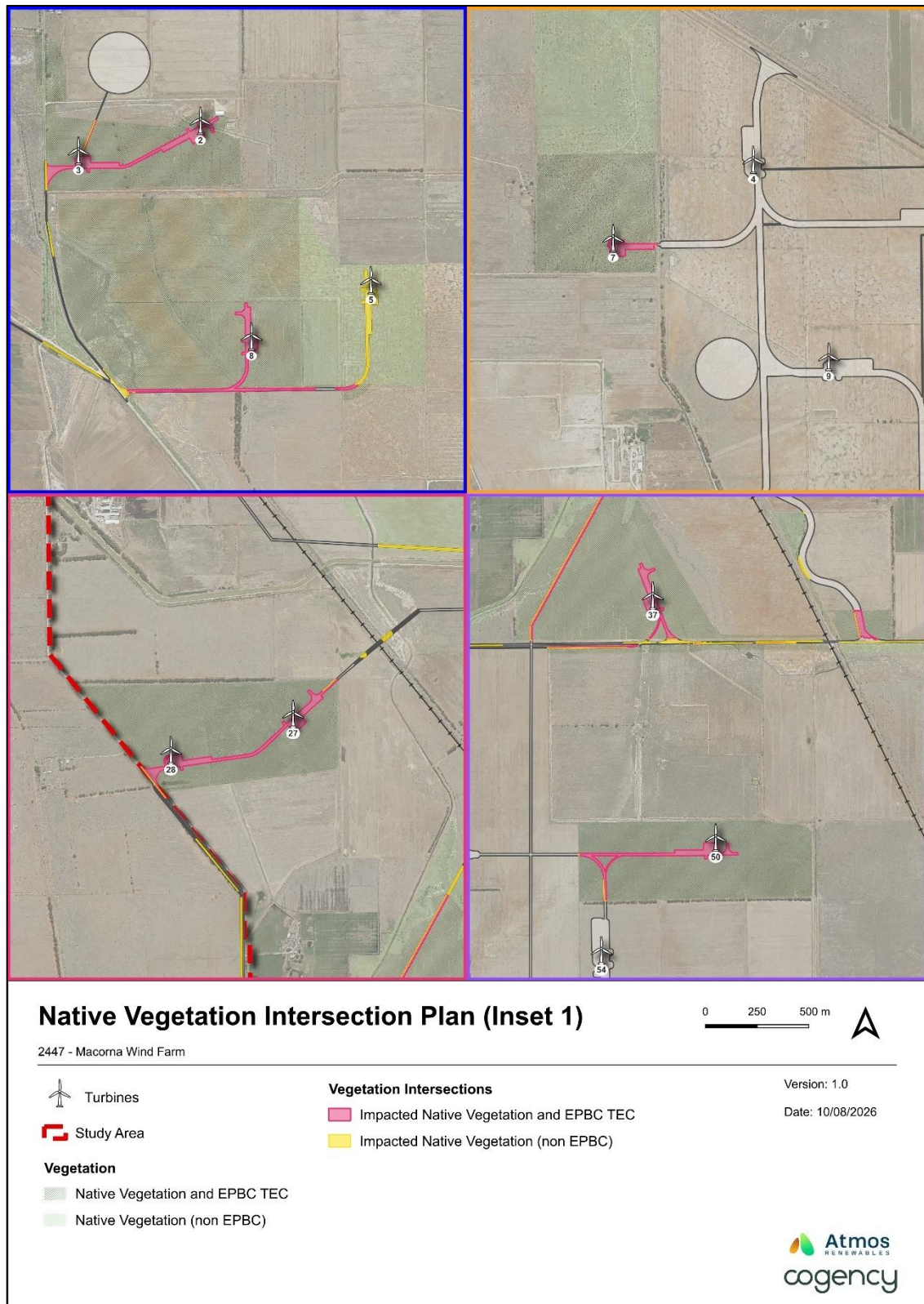


Figure 27 – Native Vegetation Map (inset – turbines 2, 3, 5, 8, 27, 28, 37 and 50)

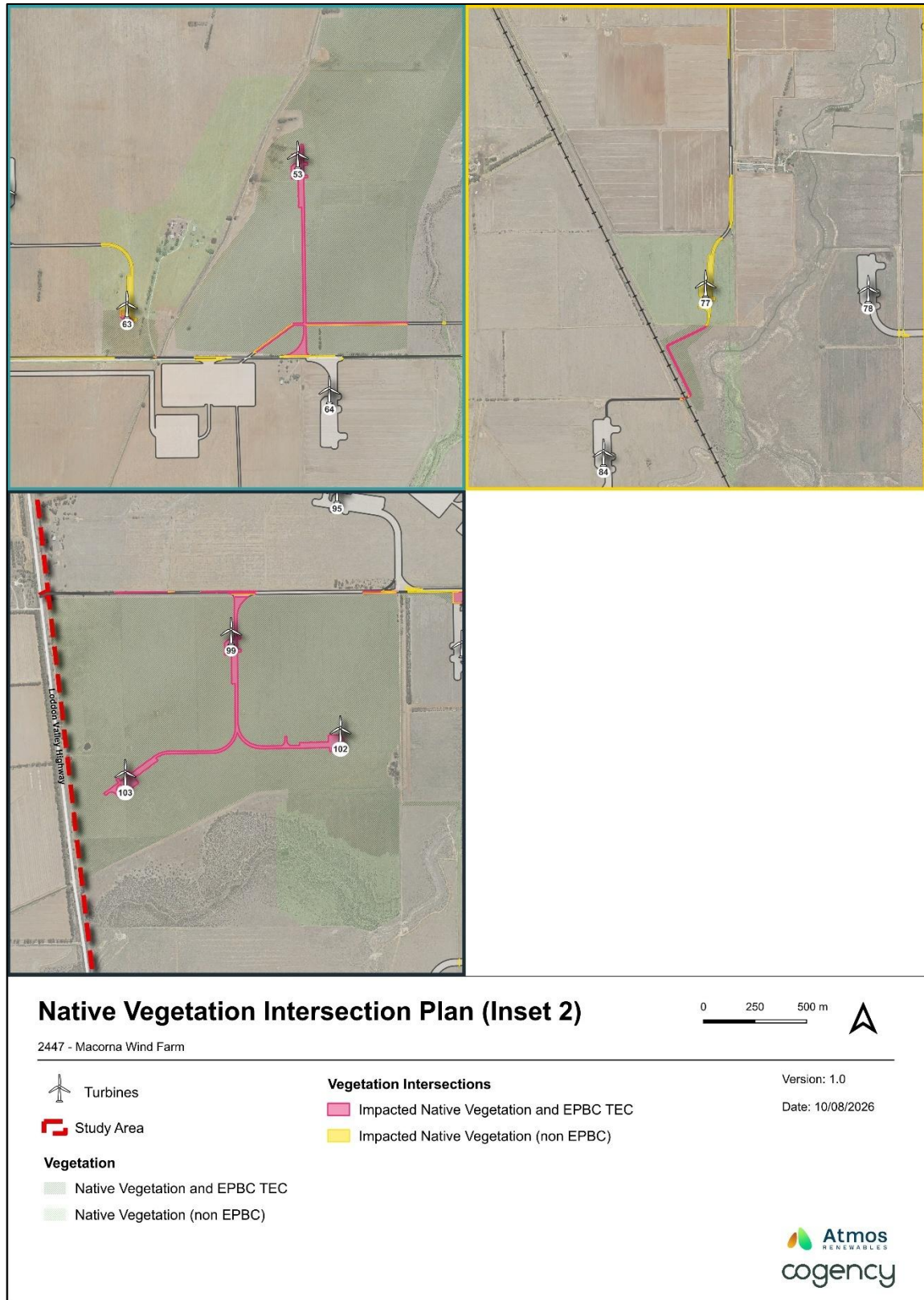


Figure 28 – Native Vegetation Map (inset – turbines 53, 63, 77, 99, 102, 103)

Of the 114 proposed turbines:

- Access and underground cabling to two turbines are within Brolga Breeding wetland buffers – it is expected that these infrastructure elements will be able to be micrositied post-referral lodgement, or would be subject to a mitigation and compensation plan with DEECA
- 7, or ~6%, are proposed within potential Brolga Breeding wetland buffers (conservative assumptions, subject to survey confirmation of wetlands), all of which will be able to be micrositied post-referral lodgement within a smaller distance (~<100m)

The following table, and below Figures 29 and 30, provide a summary of the remaining interactions with potential Brolga Breeding wetlands associated with turbines. Figures 29 and 30 are also provided at pages 28 and 29 of Attachment A – Mapping.

Proposed Development	Project response
WTG20	▪ Uncertainty remains around the status of this wetland as a potential Brolga Breeding wetland AND in regards to the boundary of the potential Brolga Breeding wetland. ▪ Once these details are confirmed if the proposed location of WTG20 is within the buffer we shall microsite out or delete this turbine from the layout should it not be possible.
WTG33	▪ This turbine is outside of the potential breeding wetland buffer, however the hardstand is within. ▪ Flipping the hardstand would resolve this conflict.
WTG37 & WTG 50 (hardstand only)	▪ At this stage the wetland in this area is subject to refinement based on surveys. Which will reduce the wetland and subsequently buffer area. Should this not resolve the conflict, options are available to microsite within the vicinity of these turbines. ▪ Should micro siting not remove the conflict, turbines could be omitted from the final development layout.
WTG78	▪ Turbine is not within potential brolga breeding buffer, only hardstand. ▪ If hardstand is not allowed within this area then realignment/minor micrositing (within 100m) will remove this conflict.
WTG107	▪ Turbine is not within potential brolga breeding buffer, only hardstand. If hardstand is not allowed within this area then 50m micrositing of turbine & hardstand north will resolve this issue.
WTG111	▪ WTG111 – only a minor infringement has been identified. Micrositing will remove this conflict at the next design stage alongside landowner negotiation for refinement.

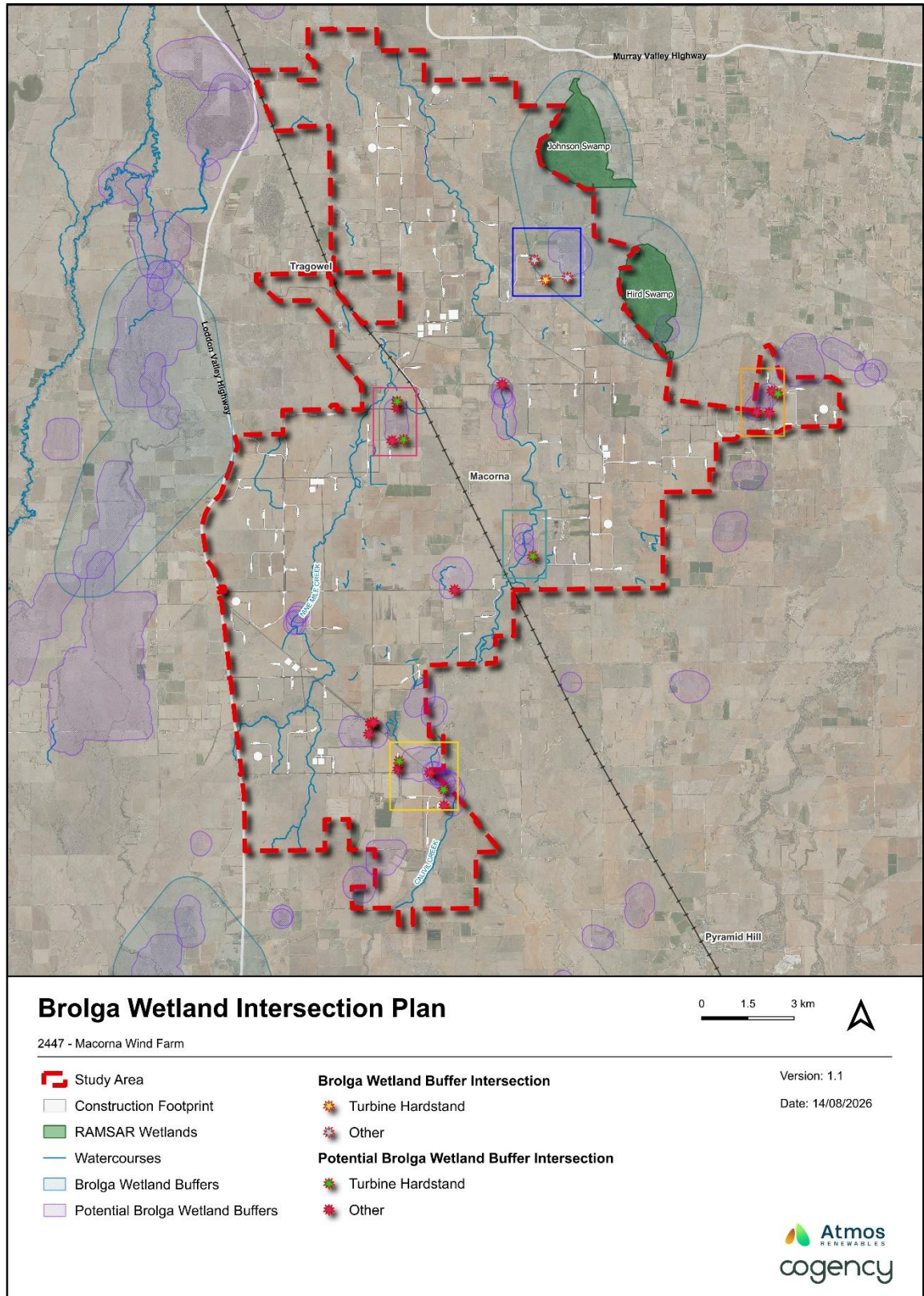


Figure 29 – Potential Brolga Breeding Wetland Map (overview)

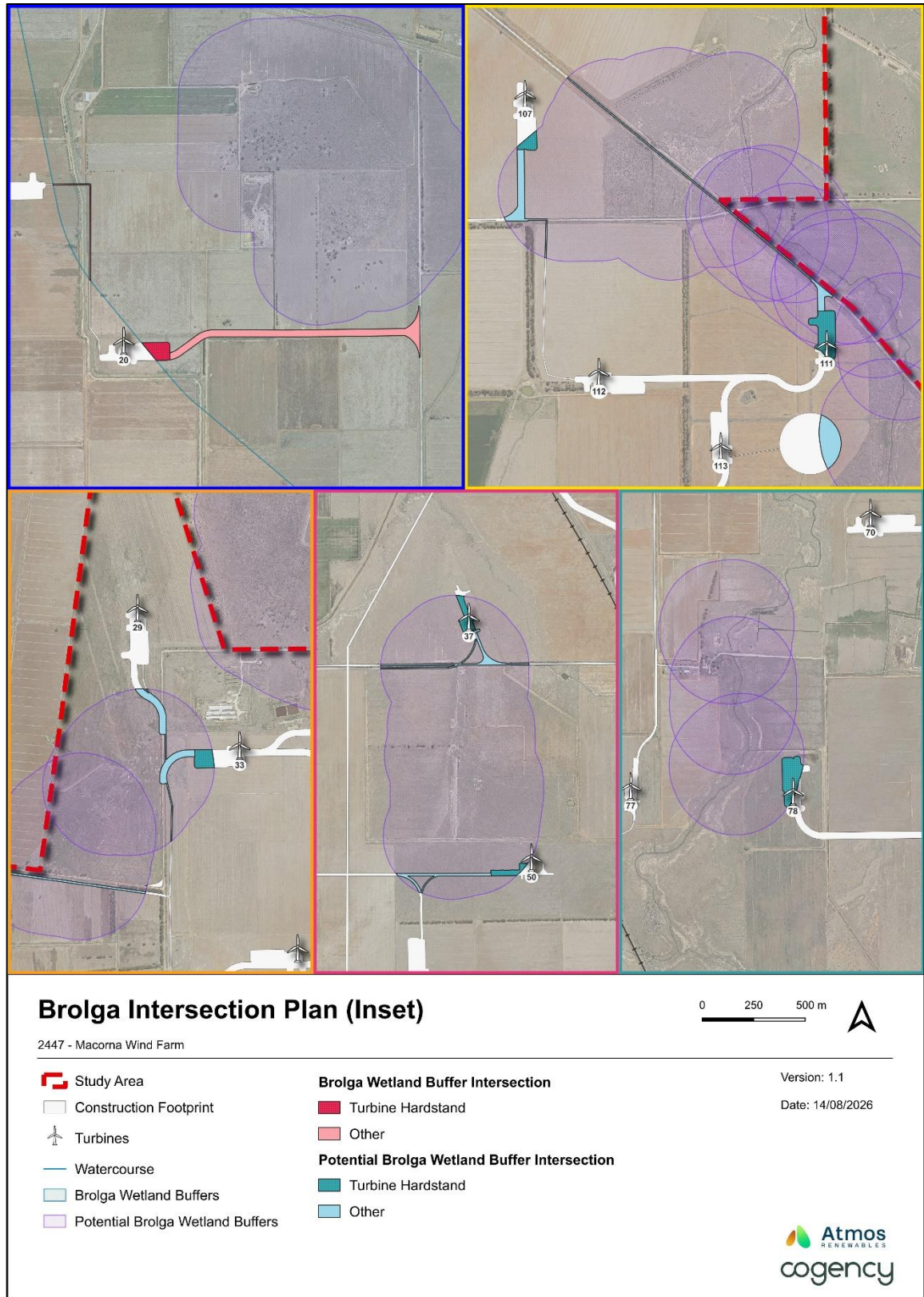


Figure 30 – Potential Brolga Breeding Wetland Map (inset)

The following table, and below Figure 31, provides a summary of the remaining interactions with potential Growling Grass Frog habitat. Figure 31 is also provided at page 30 of Attachment A – Mapping.

Potential Growling Grass Frog Habitat Details	Proposed Development	Project response
Calivil Creek 100m buffer proposed from potential GGF habitat	- Use of existing road crossings - Overhead transmission line and underground cables - New access track to WTG88 - New access track to WTG111	- Impacts to GGF habitat are not expected where use of existing infrastructure (existing road crossings) is proposed, or where habitat buffer extends across existing infrastructure (road) - Overhead transmission line will be designed for poles to avoid the habitat buffers - Underground cables will explore use of horizontal directional digging where possible - Access to WTG88 balances irrigation constraints
Nine Mile Creek 100m buffer proposed from potential GGF habitat	- Use of existing road crossings - Overhead transmission line and underground cables - New access tracks	- Impacts to GGF habitat are not expected where use of existing infrastructure (existing road crossings) is proposed, or where habitat buffer extends across existing infrastructure (road) - Overhead transmission line will be designed for poles to avoid the habitat buffers - Underground cable will explore use of horizontal directional digging where possible – in some instances there is no opportunity for avoidance but crossings have been minimized as far as practicable.
Wetlands and farm dams - Wetland 00930 - Wetland 01039 - Wetland 00198 - Wetland 00740 - Wetland 00494 100m buffer proposed from potential GGF habitat	Some interactions with turbine hardstands, existing or new access tracks, overhead line or underground	- Impacts to GGF habitat are not expected where use of existing infrastructure (existing road crossings) is proposed, or where habitat buffer extends across existing infrastructure (road) - Where mapped wetlands are farm dams, field assessments are ongoing to confirm potential as habitat, as a precautionary approach, the buffer has been applied



Figure 31 – GGF Habitat Maps

Calivil Creek and Nine Mile Creek are the two named waterways within the Project Area. The Project interacts with these creeks across the site, noting that the interactions are largely in locations of existing road crossings or overhead transmission lines and underground cables.

One new access track is proposed within proximity to Calivil Creek, to access WTG88, this access is sited to balance irrigation infrastructure constraints.

The following table, and below Figures 32 to 34, provide a further details regarding the remaining interactions with waterways. Figures 32 to 34 are also provided at pages 31 to 33 of Attachment A – Mapping.

Map ref	Waterway Details	Proposed Development	Project response
32, 33	Calivil Creek	- Existing road crossings - Overhead transmission line and underground cables - Access to WTG88	- Impacts to waterways are not expected where use of existing infrastructure (existing road crossings) is proposed - Overhead transmission line will be designed for poles to avoid the waterways and their riparian zones - Underground cables will explore use of horizontal directional digging where possible - Access to WTG88 has been designed to balance irrigation constraints
32, 34	Nine Mile Creek	- Existing road crossings - Overhead transmission line and underground cables	- Impacts to waterways are not expected where use of existing infrastructure (existing road crossings) is proposed - Overhead transmission line will be designed for poles to avoid the waterways and their riparian zones - Underground cables will explore use of horizontal directional digging where possible

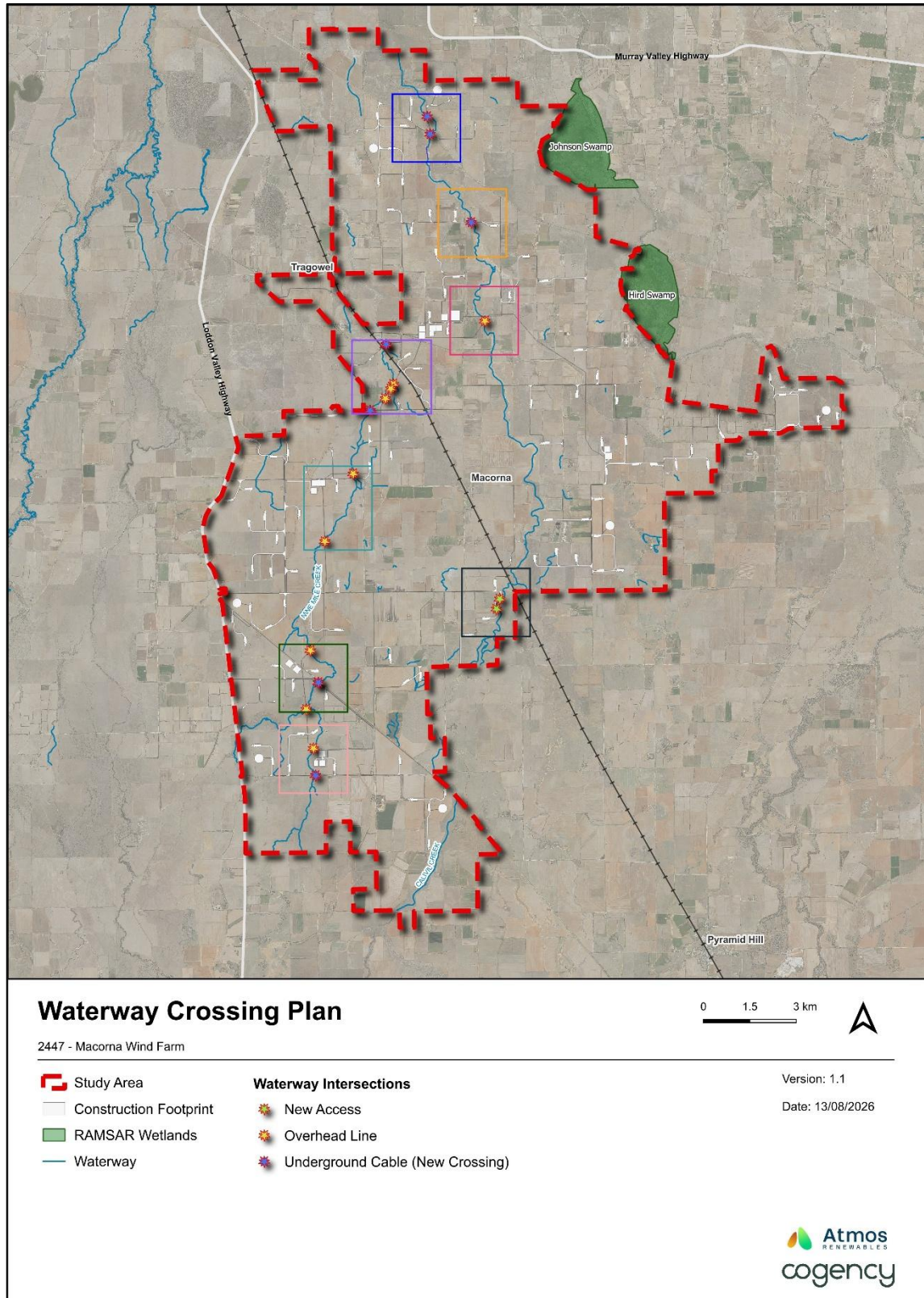


Figure 32 – Waterway Crossing Map (overview)

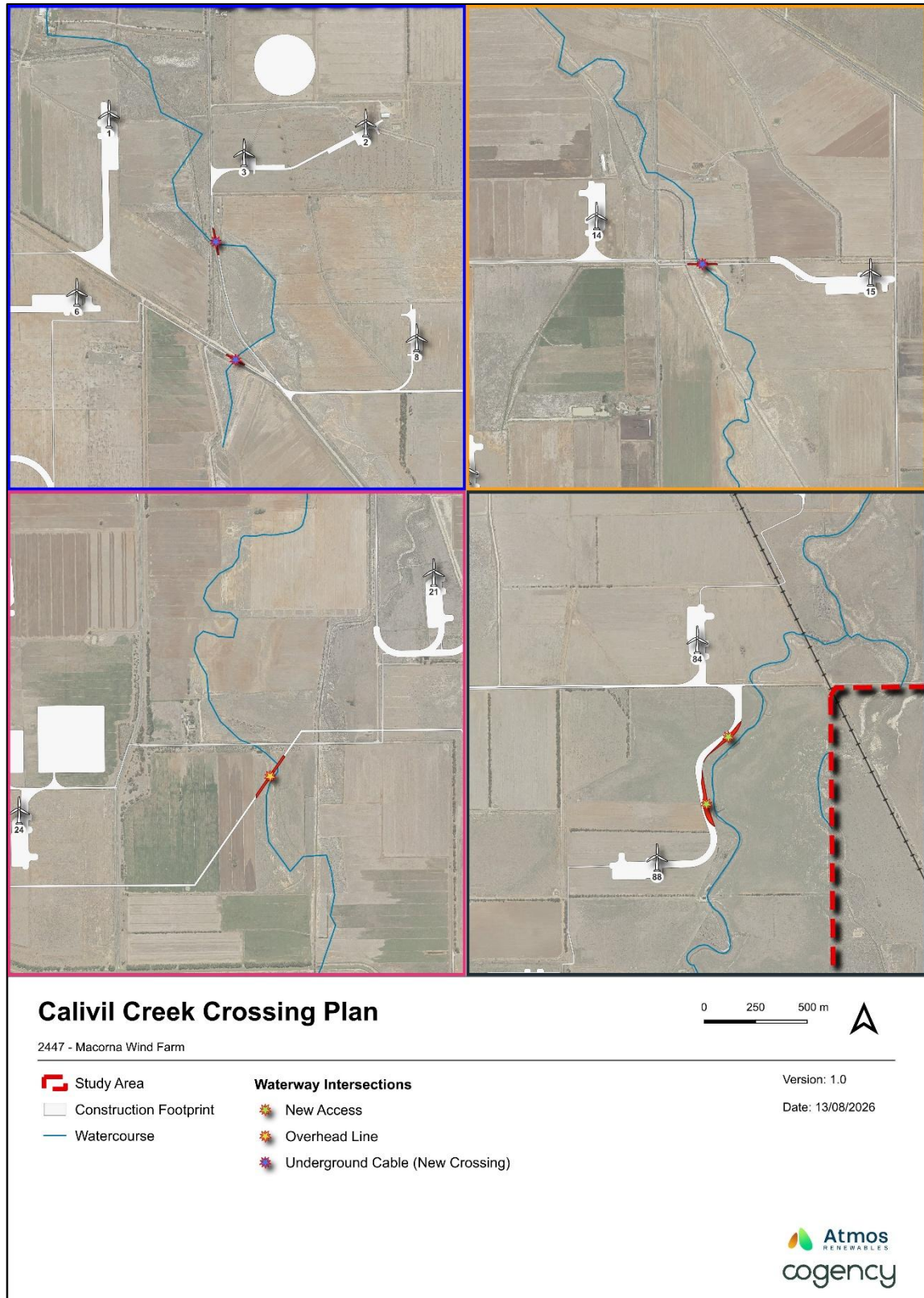


Figure 33 – Waterway Crossing Map (Calivil Creek insets)

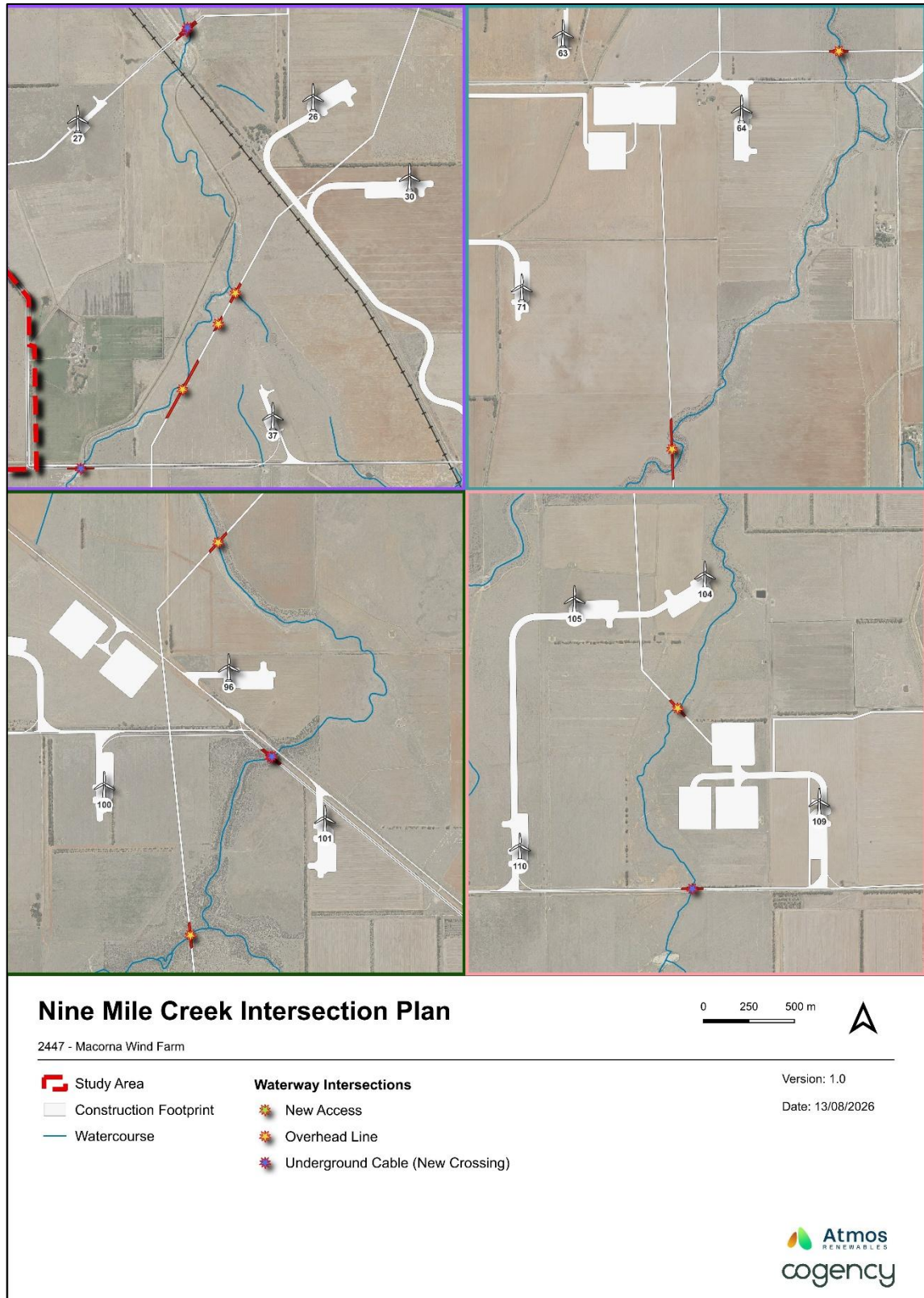


Figure 34 – Waterway Crossing Map (Nine Mile Creek inset)

Next steps

Atmos will continue to refine the concept layout and construction footprint throughout the environmental and planning approvals process, to ensure that the Project continues to avoid and minimise impacts on the existing environment and agricultural practices of the landowners. While the Project has undertaken a significant amount of work to site the turbines and set out the construction footprint, it is expected that as a result of the continued assessments being undertaken and through the environmental and planning processes, and in response to ongoing landowner and community consultation, that further micro-siting of the turbines will be required, mainly to further reduce impacts.

It is therefore proposed that the Environmental Management Framework (Attachment B) will set out a change management process which will allow for micro-siting of the turbines subject to the preparation and approval of Development Plans, compliance with mitigation measures, consultation with relevant agencies and stakeholders, assessment and approval by the Minister for Planning. The change management process will set out the level of assessment and approval required depending on the significance of the change, including whether it remains within the Project Area and construction footprint and whether the change results in a material adverse increase in impacts.

Assessment approach and level of certainty

The assessment of potential environmental effects is based on a defined **construction footprint**, representing a realistic estimate of the maximum extent of disturbance. This includes turbine infrastructure, access tracks, electrical infrastructure and temporary construction areas, with applied buffers to account for construction tolerances. It is expected that the final disturbance footprint will be smaller than that assessed as design and siting arrangement are refined. This conservative approach ensures that:

- Potential impacts are not underestimated
- Environmental risks are identified with a higher degree of confidence
- Opportunities for further design optimisation and impact avoidance or minimisation as the Project progresses can be accommodated
- There remains flexibility for further avoidance and reduction through detailed design.

Further, the Project and its construction footprint will continue to be refined through ongoing technical investigations, including ecological surveys throughout 2026, and through continued engagement with landowners, stakeholders and regulatory agencies. This is likely to result in additional micro-siting and design optimisation, further reducing potential impacts.

An Environmental Management Framework (EMF) has been prepared and is included with this referral as Attachment B. The EMF sets out a change management process, allowing for micro-siting of the turbines subject to the preparation and approval of Development Plans, compliance with the mitigation hierarchy, consultation with relevant agencies and stakeholders, assessment and approval by the Minister for Planning. The change management process sets out the level of assessment and approval required depending on the significance of the change, including whether it remains within the Project Area and construction footprint and whether the change results in a material adverse increase in impacts.

The EMF is structured to include:

- An outline of the purpose, structure and approval frameworks applicable to the Project.
- An overview of the governance framework and roles and responsibilities of the Project and Proponent.
- An outline of the relevant environmental management documentation, ongoing pre-approval avoidance and minimisation commitments, and comprehensive mitigation measures, including:
 - o Additional seasonal flora and fauna surveys to confirm presence of species and inform further design refinement and micro-siting
 - o Further design refinements and micro-siting decisions to avoid, minimise and mitigate impacts to Aboriginal Cultural Heritage, electro-magnetic interference
 - o Preparation of management plans, including Construction Environment Management Plan and Bat and Avifauna Management

- An overview of the change management process which is proposed to apply, following approval, should changes to the layout or associated construction footprint be warranted.
- A description of the process for evaluating performance and compliance.

Alongside the EMF, mitigation measures will be interrogated and updated throughout the development of the Project as the design refinements and technical assessments continue as the Project works through the planning approval process. Through a process of continuous improvement, the Project will seek to amend a mitigation measure, if required, for effectiveness and to continue to avoid impacts where possible.

Summary of potential effects and their significance

To inform the preparation of this referral, a self-assessment against the *Ministerial guidelines for assessment of environmental effects under the Environment Effects Act 1978* was undertaken, and a suite of technical assessments were prepared to inform the design and assessment.

Based on the technical assessments and self-assessments, the Project is **not expected to result in significant or extensive effects** across any of the environmental categories.

In particular, the Project is **not** expected to result in:

- Loss of a significant proportion (e.g. 1 percent or greater) of known remaining habitat or population of a threatened species within Victoria
- Clearing of an area determined as 'critical habitat' under the FFG Act
- Long-term change to the ecological character of a wetland listed under the Ramsar Convention or in *A Directory of Important Wetlands in Australia*
- Extensive or major effects on the use and environmental values of water resources due to changes in water quality, water availability, stream flows, water system function, or regional groundwater levels, or the health or biodiversity of aquatic, estuarine or marine ecosystems, over the long term
- Extensive or major effects to human health or the environment, or displacement of residents, from pollution or waste emitted to air, land, water or groundwater
- Greenhouse gas emissions exceeding 200,000 tonnes of carbon dioxide equivalent per annum (direct and indirect) attributable to the operation of the facility
- Matters listed under the FFG Act:
 - o potential loss of a significant area of a listed ecological community; or
 - o potential loss of a genetically important population of an endangered or threatened species (listed or nominated for listing), including from loss or fragmentation of habitats; or
 - o potentially significant effects on habitat values of a wetland supporting migratory bird species.
- Extensive or major effects on landscape values of regional importance, especially:
 - o where recognised by a planning scheme overlay;
 - o declared as a distinctive area and landscape under the P&E 1987; or
 - o within or adjoining land reserved under the *National Parks Act 1975*.
- Extensive or major effects to the environment due to changes in land stability, disturbance of acid sulphate soils or project induced soil erosion over the short or long term.
- Extensive or major effects on social or economic well-being due to direct or indirect displacement of non-residential land use activities
- Extensive displacement of residents or severance of residents' access to their community resources
- Significant effects on the amenity of a substantial number of residents, due to extensive or major, long-term changes in visual, noise and traffic conditions
- Extensive or major effects on Aboriginal cultural heritage values protected under the *Aboriginal Heritage Act 2006*
- Extensive or major effects on cultural heritage places and sites listed on the Victorian Heritage Register or the Victorian Heritage Inventory under the *Heritage Act 2017*.

These conclusions are supported by the technical assessments prepared to date and the embedded design mitigation measures.

Key residual impact area – native vegetation removal

Notwithstanding the above, the Project **does** have the potential to trigger referral criteria in relation to native vegetation removal, due to the scale of the Project and the extent of mapped vegetation within the broader site, specifically for:

- Removal, destruction or lopping of 10 hectares or more of native vegetation, that consists of, or comprises a combination of:
 - o an ecological vegetation class (EVC) classified as endangered; or
 - o an EVC that is classified as vulnerable (with a condition score of 0.5 or more) or rare (with a condition score of 0.6 or more); and
 - o that is not authorised for removal under an approved forest management plan or fire protection plan
- Removal, destruction or lopping of 10 hectares or more of native vegetation, unless it is authorised for removal under an approved forest management plan or fire protection plan.

The construction footprint has been prepared to identify the maximum area of ground disturbance and native vegetation removal anticipated for the Project, and technical assessments indicate that this may exceed the relevant referral thresholds under the Ministerial Guidelines. It is expected that the construction footprint will continue to be refined and that actual ecological impacts will be less than what is presented in this form. The construction footprint currently comprises 749.75 ha in area, including laydown areas and access requirements, resulting in 45.523 ha of native vegetation removal.

The 45.523 ha of native vegetation impact (made up of 45.210 ha of native vegetation in patches, and five scattered trees equating to 0.313 ha). The details of the native vegetation proposed to be impacted, and its conservation status is provided at Section 12.

It is important to note that:

- a substantial proportion of mapped vegetation has already been avoided through design refinement – only 2.73% of the native vegetation mapped within the Project Area is proposed to be impacted by the construction footprint
- the environment within the Project Area has been historically and significantly disturbed as a result of land use practices (irrigation farming), meaning native vegetation which persists is generally of low quality and less likely to support significant habitat
- a large portion (roughly one third) of the native vegetation identified within the footprint would qualify as regrowth exempt from offset requirements under Clause 52.17, highlighting the low quality of this native vegetation.
- further field verification and seasonal surveys are expected to refine and reduce the extent of impact.

Any residual impacts will be addressed through:

- further micro-siting and design refinement
- implementation of appropriate mitigation measures during construction and operation
- securing of native vegetation offsets in accordance with Victorian policy. Where possible, first party offsets will be identified and secured.

A detailed ecological assessment will continue to be refined based on surveys which are proposed to continue through 2026. The detailed ecological assessment may result in further micro-siting to reduce impacts. It is therefore expected that the actual native vegetation removal and impacts to threatened flora, fauna and ecological communities for the Project will be less than what is described above.

The detailed ecological assessment will be prepared using the *Guidelines for the removal, destruction or lopping of native vegetation* (Guidelines) with consideration given to the three-step approach of avoidance, minimisation and offsetting. The detailed ecological assessment will also be used to inform the future planning approval. The planning approval mechanism (Incorporated Document or Planning Permit) will include conditions to control the assessment, removal and offsetting of native vegetation.

An EPBC Act referral will be lodged to consider the need for federal assessment should there be potential for significant impact/s to MNES..

The Flora and Fauna Assessment (refer to Attachment D) acknowledges the considerable effort that the Project has demonstrated to avoiding and minimising impacts to ecological values. A detailed ecological assessment will be prepared and targeted surveys will be undertaken, as required, to assess impacts and implications.

Strategic considerations

The *Ministerial guidelines for assessment of environmental effects under the Environment Effects Act 1978* set out strategic considerations to inform whether a project is likely to have significant environmental effects requiring assessment via an EES.

Having regard to these considerations, it is not considered that an EES is warranted to assess the impacts of the Project, given that it has demonstrated:

- **Low likelihood of significant effects:** The likelihood for significant adverse effects on the environment is low, with the Project having undertaken a significant number of assessments to understand existing conditions, and worked through various design iterations to avoid and minimise impacts at this early stage. Additional planned surveys are expected to confirm field observations and refine species site utilisation rather than identify potential Project effects or impacts. As a result, potential effects are expected to be **localised, limited in extent, and capable of being effectively managed**.
- **Limited complexity and uncertainty:** The range of potential effects is relatively narrow and well understood, with no evidence of complex, interdependent or significant cumulative impacts that would necessitate a systems-based assessment. There are limited uncertainties or impacts expected as a result of the Project. The Project team has consulted thoroughly with the community and stakeholders, and their views have and will continue to be considered through the assessment and development of the Project.
- **Existing statutory frameworks are adequate:** Potential effects, including those relating to native vegetation and cultural heritage, can be appropriately addressed through existing statutory processes, including the *Planning and Environment Act 1987*, the *Guidelines for the removal, destruction and lopping of native vegetation* and the *Aboriginal Heritage Act 2006*. These frameworks provide clear, effective and well-tested mechanisms for impact assessment, mitigation and offsetting.
- **Effective avoidance and mitigation:** The Project has demonstrably applied the mitigation hierarchy (avoid, minimise, mitigate), supported by detailed technical studies and ongoing stakeholder engagement. Further refinement will occur through the EMF, which will include a robust change management process to ensure impacts continue to be avoided and minimised through detailed design and delivery.

The Project has provided a detailed response to the matters the Minister must consider when deciding whether an EES is required, as summarised in the following table.

Matters the Minister will consider	Project response
the potential for significant effects on the environment, either from the nature of the change (expected magnitude, extent, and duration) or the environment's capacity to withstand that change (location, rarity, physical/ecological/ social/cultural connections/ etc.)	As outlined above, and below in section 12, potential effects on the environment are primarily limited to ecological impacts associated with native vegetation. A large amount of work has been undertaken to understand the existing ecological conditions at this early stage, and to avoid and minimise impacts as far as practicable through iterative design, informed by extensive field and desktop investigations. The existing environment is largely modified agricultural land, and sensitive features (e.g. wetlands, waterways) have been subject to conservative buffers and siting responses. Residual impacts are expected to be localised, quantifiable and capable of being managed through existing regulatory frameworks, and are not of a scale or nature to be considered significant at a regional or State level.
the range and complexity of potential effects and associated uncertainty of available predictions	The range of potential effects is limited and well-defined, and has been assessed through a comprehensive suite of technical studies. There are no complex or highly uncertain impact pathways identified. Predictions are based on established methodologies and will be further refined

	through ongoing investigations, providing a high level of confidence in impact assessment outcomes. The technical assessments undertaken and attached to this referral set out the potential effects to a high degree of certainty.
the adequacy of existing standards and/or statutory assessment processes to address potentially significant effects	Existing statutory processes are appropriate and sufficient to manage potential effects. In particular, the planning approval process under the <i>Planning and Environment Act 1987</i> , the native vegetation removal Guidelines and the <i>Aboriginal Heritage Act 2006</i> will be sufficient to address potentially significant effects, by providing robust, transparent and enforceable mechanisms for assessment, avoidance, minimisation, mitigation and offsetting of impacts.
the potential efficacy of avoidance and mitigation measures that may be implemented	The ongoing iterative design process sets out the avoidance journey that has been undertaken for this Project to date, informed by technical studies and stakeholder engagement. A series of technical assessments have been undertaken and attached to this referral setting out the measures undertaken to avoid, minimise and then mitigate. The EMF sets out the change management process and mitigation measures to ensure environmental effects continue to be avoided and minimised as the Project develops.
the availability of project alternatives that may warrant investigation to assess opportunities to avoid or minimise adverse environmental effects	Alternative sites and layouts have been considered through the site selection and design evolution process. Section 4 of this referral sets out how alternatives have previously been considered. The Project's location within the North West REZ, and proximity to existing and planned transmission infrastructure (including VNI West), reinforces its strategic suitability. Ongoing surveys and technical studies will inform further micro-siting and design refinement to continue to avoid and minimise impacts. The EMF will facilitate this through a structured change management process, allowing for further avoidance and minimisation of impacts to occur.
the benefits of an integrated assessment that would not otherwise be achieved under existing statutory assessment processes	The Project has undertaken a significant amount of work to develop a concept plan which minimises significant impacts. Given the limited breadth of potential significant effects, being potential ecological impacts only, and the availability of established statutory processes, an integrated assessment is not considered likely to provide additional material benefit. Further, the Project has undertaken comprehensive community and stakeholder engagement throughout the concept plan development that has and will continue as the development progresses, ensuring that interested parties have and will continue to be involved. Accordingly, an integrated assessment would not offer benefits comparative to the existing approval pathways including referral processes, permit assessment and public notification requirements.
the level of public interest in a proposed project	Atmos and the WindFarmers Energy Group have undertaken a significant amount of community and stakeholder engagement since inception of the Project. The Community and Stakeholder Engagement Plan (refer to Attachment C), outlines the engagement undertaken to date and the engagement planned moving forward. Despite being located in an area with a number of dwellings within ~6 km, generally sentiment towards the Project has been neutral to positive. A Community Sentiment Plan is provided at page 21 of Attachment A – Mapping, showing the general distribution of this sentiment among near neighbours.

Given this sentiment and low level of interest in the Project generally, it is not expected that an EES would be warranted on these grounds.

For the same reasons, the Proponent considers that further assessment through an Environment Report is not warranted. While the remaining potential effects are principally ecological in nature, the investigations completed to date have substantially characterised these effects and have narrowed the scope of outstanding matters to a limited number of discrete ecological considerations that can be appropriately addressed through the existing planning and statutory approval framework.

As is typical for a project of this scale, some residual uncertainty remains; however, this has been progressively reduced through additional targeted surveys, iterative design refinement and the development of a comprehensive Environmental Management Framework, which together provide a clear and structured basis for avoiding, minimising and managing potential impacts.

The remaining matters are well understood, and residual effects can be appropriately assessed and managed through the established planning and statutory approval framework, including the planning permit process under the *Planning and Environment Act 1987*, the native vegetation assessment and offset framework, species-specific requirements and the Environmental Management Framework. An Environment Report would therefore not provide a material additional assessment benefit beyond the comprehensive investigations already undertaken for this Referral and the subsequent statutory approval processes.

Accordingly, it is considered that no further assessment, including an EES or Environment Report, is required under the *Environment Effects Act 1978*, allowing the Project to proceed to assessment through a planning permit application under the *Planning and Environment Act 1987* and other applicable statutory approval processes.

Uncertainty and risk management

Key uncertainties relate primarily to:

- the final extent and condition of native vegetation within the construction footprint (which is anticipated to be reduced through further survey work)
- the outcomes of ongoing consultation and detailed design refinement
- potential cumulative impacts based on the outcomes of the REZ hosting capacity and grid access (the likelihood of all nearby projects accessing the grid in their current form is low, fewer or smaller projects is the probable outcome)

These uncertainties are being actively addressed through:

- conservative assumptions within the current assessment
- a demonstrable commitment to adaptive design and impact avoidance and minimisation
- the development of a robust Environmental Management Framework (refer to Attachment B).

Conclusion

Overall, the Project has been subject to a rigorous and iterative design and assessment process that has prioritised the avoidance and minimisation of environmental effects.

The assessment undertaken to date indicates that:

- potential impacts are well understood and largely localised
- significant or extensive effects across most environmental categories are unlikely
- the primary residual risk relates to native vegetation removal, which can be appropriately managed through established statutory processes.

Accordingly, it is considered that the Project does not give rise to the type or scale of environmental or social effects that would warrant assessment under an EES, and that impacts can be effectively assessed and managed through the planning approvals process and associated regulatory frameworks. This conclusion is supported by the current body of technical work and will be further informed by ongoing targeted investigations, with any refinements to impact assessment and mitigation to be addressed through the EMF.

This referral is supported by a number of documents, including:

- Plan pack, prepared by Cogency (Attachment A)
- Environmental Management Framework, prepared by Cogency (Attachment B)
- Community and Stakeholder Engagement Plan, prepared by Cogency (Attachment C)
- Flora and Fauna Assessment, prepared by Nature Advisory (Attachment D)
- Hydrology and Stormwater Constraints Investigation, prepared by DCE (Attachment E)
- Preliminary Hydrogeological Assessment, prepared by SLR (Attachment F)
- Landscape and Visual Impact Assessment, prepared by Peter Haack (Attachment G)
- Geotechnical Assessment, prepared by Douglas Partners (Attachment H)
- Preliminary Traffic Impact Assessment, prepared by Amber (Attachment I)
- Air Quality Assessment, prepared by SLR (Attachment J)
- Shadow Flicker Assessment, prepared by SLR (Attachment K)
- Noise Impact Assessment, prepared by SLR (Attachment L)
- Blade Throw Assessment, prepared by SLR (Attachment M)
- Strategic Assessment of Wind Farms in Irrigation Districts, prepared by RMCG (Attachment N)
- Technical Assessment & Potential Agricultural Impact, prepared by Ag-Challenge (Attachment O)
- Aviation Impact Assessment, prepared by Aviation Projects (Attachment P)
- Electromagnetic Interference Assessment, prepared by SLR (Attachment Q)
- Social and Economic Impact Assessment, prepared by Lecroma (Attachment R)
- Advice for self-assessment against referral criteria for Aboriginal & Victorian cultural heritage for the Macorna Wind Farm project, Summary of Traditional Owner engagement by Atmos Renewables for the Macorna Wind Farm project as at January 2026 and Aboriginal Cultural Heritage Archaeological Sensitivity Modelling Report, prepared by Extent Heritage (Attachment S)

The significant work undertaken as part of the above technical assessments, landowner and stakeholder consultation, and design refinements, has provided the Proponent with a sound understanding of the potential impacts and a realistic extent of those impacts, at this early stage of the process.

Details of the assessments are further described in the following sections.

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)

A series of ecological assessments have been undertaken by Ecology and Heritage Partners and Nature Advisory to inform the development of the design and the preparation of this referral.

Investigations include:

- Preliminary Ecological and Cultural Heritage Assessment, Ecology and Heritage Partners (March 2024)
- Letter of advice regarding preliminary native vegetation assessment, Ecology and Heritage Partners (May 2024)
- Brolga Roaming Surveys and Habitat Assessment, Ecology and Heritage Partners (January 2025)
- Migratory Shorebird Surveys, Ecology and Heritage Partners (March 2025)
- Flora and Fauna Assessment, Nature Advisory (March 2026), refer to Attachment D which has been prepared considering the previous assessment undertaken by Ecology and Heritage Partners, along with the surveys undertaken by Nature Advisory, including:
 - o Native vegetation assessments (October 2025 – February 2026)
 - o Brolga breeding surveys (September 2024 – July 2026)
 - o Brolga wetland assessments (September 2024, and February and July 2026)
 - o Migratory shorebird survey (November 2024 – June 2026)
 - o Bird Utilisation Surveys (January 2025 – May 2026)

- Bat Ultrasonic surveys (November 2025 – May 2026; July – August 2026 currently deployed)
- Growling Grass Frog habitat survey (December 2025)

Further surveys will be undertaken as required, including to complete the balance of two years of Bird Utilisation Surveys and other targeted surveys including further bat surveys, Brolga wetland assessments and surveys in compliance with the DEECA Handbook. These include:

- Targeted listed flora surveys (October and December 2026, and March 2027)
- Targeted ecological community surveys (Spring 2026)
- Bird utilisation surveys (July and October 2026))
- Bat ultrasonic surveys (July 2026 – July 2027)
- Brolga breeding surveys (July – December 2026, already commenced)
- Brolga flocking surveys (December 2026 – June 2027)
- Targeted Plains Wanderer surveys
- Targeted raptor nest surveys

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

✕ NYD

Estimated area ...45.523.....(hectares)

The construction footprint has been prepared to identify the maximum area of ground disturbance and native vegetation removal anticipated for the Project, and technical assessments indicate that this may exceed the relevant referral thresholds under the Ministerial Guidelines. It is expected that the construction footprint will continue to be refined and that actual ecological impacts will be less than what is presented in this form. The construction footprint currently comprises 749.75 ha in area, including laydown areas and access requirements, resulting in 45.523 ha of native vegetation removal.

It is important to note that:

- a substantial proportion of mapped vegetation has already been avoided through design refinement – of the 1656.769ha of native vegetation mapped within the Project Area, the construction footprint will result in impacts to 45.523ha, being 2.73%
- the environment within the Project Area has been historically disturbed as a result of land use practices (irrigation farming), meaning native vegetation which persists is generally of low quality (condition scores largely less than 40) and less likely to support significant habitat a large portion (roughly one third) of the native vegetation identified within the footprint would qualify as regrowth exempt from offset requirements under Clause 52.17
- where clear evidence to classify vegetation as regrowth was not available at the time of referral we have assumed mapped native vegetation was not regrowth in areas where irrigation infrastructure is present. Noting that the presence of irrigation infrastructure is highly likely to have involved historically land clearing, meaning mapped native vegetation in these areas is likely non-remnant.
- further field verification and seasonal surveys are expected to refine and reduce the extent of impact on native vegetation.

The following provides a summary of the currently considered impacts of the Project based on the known information related to existing ecological conditions and the construction footprint.

Based on the Habitat Hectare Assessment prepared by Nature Advisory (Attachment D), the construction footprint results in the potential and maximum loss of 45.523 ha of native vegetation, comprising:

- 45.210 ha of native vegetation in patches (including one large tree in patches and 1.216 ha of DEECA-mapped wetlands)
- Five scattered trees (four large scattered trees and one small scattered tree), equating to an area loss of 0.313 ha

As described in Section 11, above, and in the Flora and Fauna Assessment (refer to Attachment D), 8.216 ha of the 45.523 ha of expected native vegetation impacts persists within paddocks that have recently been used for irrigation farming. This is made up of patches of Plains Grassland (EVC 132) and Chenopod Grassland (EVC 829) with varying threatened ecological community status. In accordance with Clause 52.17-7 (Table of exemptions) of the Victoria

Planning Provisions, this native vegetation would be defined as *Regrowth*: 'Native vegetation that is to be removed, destroyed or lopped that has naturally established or regenerated on land lawfully cleared of naturally established native vegetation, and is less than 10 years old'.

Subject to confirmation with DEECA, this 8.216 ha of native vegetation would therefore not be included in the native vegetation which is required to be assessed and offset in accordance with the Guidelines. However, it has continued to be considered in this referral for the assessment of the environmental effects of the Project.

An additional 14.284 ha of native vegetation has also regrown following disturbance (irrigation infrastructure is in place) but would not meet the 'Regrowth' requirements to be exempt from planning approval (i.e. non-remnant, but not regrowth). In addition, these areas are also subject to the continued agricultural operations of these properties and continue to be grazed in the future regardless of the Macorna Wind Farm. These areas have been included within the flora and fauna assessment as impacted native vegetation according to the EES guidelines.

As is set out in Section 11, above, and shown in Figures 26 to 28 (also at Attachment A - Mapping), one turbine (WTG50) has been retained in an area of native vegetation located within paddocks that do not qualify as regrowth. This turbine has been retained on the basis of social license and the involvement of the small land holding. The smaller land holding provides limited to no possibility of avoidance and retention of this landowner as involved within the Project is key to retain the support of the Project among the community and ensure equitable outcomes between the proposed host landowner group. This turbine which is proposed to remain equates to 1.97 ha of native vegetation removal. Refer to the Flora and Fauna Assessment (Attachment D) for further details as to the vegetation proposed to be impacted by WTG50.

In addition to impacts associated with proposed turbines, removal of native vegetation is also proposed due to:

- ~5ha associated with underground cables
- ~1ha associated with laydown areas
- ~1.6ha associated with transmission line
- ~3ha associated with internal road upgrades and turn treatments

Further of the impacted native vegetation, 19.886 hectares qualified as low quality (habitat score <0.3), 21.692 hectares as medium (habitat score 0.3 to 0.4) and 2.416 hectares as high quality (habitat score >0.4). The lower quality habitat is likely the result of past and current agricultural practice in the area, with paddocks in fallow providing an opportunity for regrowth. Typically paddocks in this area undergo a cycle of cropping and grazing over multiple years.

In addition, a desktop assessment of the proposed Port to Site route for the Project has been considered from a native vegetation perspective. Based on desktop reviews, it is expected that minimal impacts will result to native vegetation, subject to field assessment and verification. Generally, the Port to Site route is proposed in existing urban areas, or along highways with intersections wide enough, or that have been previously disturbed for construction or upgrades. All swept path locations will be field assessed to confirm native vegetation removal requirements (if any) and inform required project approvals.

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

☒ N/A approx. percent (if applicable)

No clearing would be authorised under a Forest Management Plan or Fire Protection Plan.

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

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

Five EVCs were identified within the Study Area:

- Chenopod Grassland (EVC 829 - Depleted)
- Lignum Swamp (EVC 104 - Vulnerable)
- Lignum Swampy Woodland (EVC 823 - Depleted)
- Plains Grassland (EVC 132 - Endangered)
- Riverine Chenopod Woodland (EVC103 - Depleted)

A summary of the EVCs and the respect quality of this vegetation is presented in the table below.

EVC	% Low quality Habitat score <0.3)	% Medium quality Habitat score 0.3- 0.4	% High quality Habitat score >0.4
Chenopod Grassland (EVC 829)	62.6	26.6	10.8
Lignum Swamp (EVC 104)	30.8	41.8	27.4
Lignum Swampy Woodland (EVC 823)	93.8	6.5	0.0
Plains Grassland (EVC 132)	25.9	58.6	15.5
Riverine Chenopod Woodland (EVC103)	66.1	33.9	0.0

Have potential vegetation offsets been identified as yet?

☒ NYD ☐ Yes If yes, please briefly describe.

Potential vegetation offsets are yet to be identified.

Offsets required to compensate for the proposed removal of native vegetation from the Project Area are as follows:

- 1.381 general habitat units, with the following offset attribute requirements:
 - o A minimum strategic biodiversity value (SBV) of 0.392
 - o Located within the North Central CMA boundary or the Gannawarra Shire, Loddon Shire Council municipal district
 - o Include protection of at least four large trees
- 38.964 species habitat units (SHUs), with the following offset attribute requirements:
 - o Comprises mapped habitat according to the habitat importance map for
 - 12.228 SHUs of habitat for Downs Nutgrass *Cyperus bifax*
 - 9.870 SHUs of habitat for Soft Sunray *Leucochrysum molle*
 - 16.866 SHUs of habitat for Annual Buttons *Leptorhynchos orientalis*
 - Include protection of at least one large tree.

A search of the Native Vegetation Credit Register has shown that the required General Habitat Unit offset is currently available. The Species Habitat Unit Offsets are not currently available on the Native Vegetation Credit Register. A desktop assessment has identified a number of potential third-party offset opportunities onsite that could satisfy both the Species Habitat Unit Offsets and General Habitat Unit offset requirements (See Appendix 25 of the Flora and Fauna Assessment at Attachment D).

The Flora and Fauna Assessment does not currently identify significant impacts to threatened ecological communities or flora, fauna or migratory species habitat. Should offsets be considered required following additional surveys and regulator consultation these will be sourced and secured in the event that the Project is not able to avoid or minimise these impacts.

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

The above details are based on the Flora and Fauna Assessment (Attachment D). This assessment was based on desktop assessments and field surveys where land access was available and across various seasons. The ecological assessment will continue to be revised as surveys continue through 2026. The assessment will continue to use the Guidelines with consideration given to the three-step approach of avoidance, minimisation and offsetting.

An EPBC Act referral will be lodged to consider the need for further assessment should a significant impact to MNES be expected.

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)

A series of ecological assessments have been undertaken by Ecology and Heritage Partners and Nature Advisory to inform the development of the design and the preparation of this referral.

Investigations include:

- Preliminary Ecological and Cultural Heritage Assessment, Ecology and Heritage Partners (March 2024)
- Letter of advice regarding preliminary native vegetation assessment, Ecology and Heritage Partners (May 2024)
- Brolga Roaming Surveys and Habitat Assessment, Ecology and Heritage Partners (January 2025)
- Migratory Shorebird Surveys, Ecology and Heritage Partners (March 2025)
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 - o Migratory shorebird survey (November 2024 – June 2026)
 - o Bird Utilisation Surveys (January 2025 – May 2026)
 - o Bat Ultrasonic surveys (November 2025 – May 2026, July – August 2026 currently deployed)
 - o Growling Grass Frog habitat survey (December 2025)

Further surveys will be undertaken as required, including to complete the balance of two years of Bird Utilisation Surveys and other targeted surveys including further bat surveys, Brolga wetland assessments and surveys in compliance with the DEECA Handbook. These include:

- Targeted listed flora surveys (October and December 2026, and March 2027)
- Targeted ecological community surveys (Spring 2026)
- Bird utilisation surveys (July and October 2026))
- Bat ultrasonic surveys (July 2026 – July 2027)
- Brolga breeding surveys (July – December 2026, already commenced)
- Brolga flocking surveys (December 2026 – June 2027)
- Targeted Plains Wanderer surveys
- Targeted raptor nest surveys

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.

The Flora and Fauna Assessment undertook a series of desktop and field assessments to identify threatened ecological communities and species that are likely to or have the potential to occur within the Project Area or nearby.

Threatened Ecological Communities

- Natural Grasslands of the Murray Valley Plains (EPBC Act, Critically Endangered) – 915.670 ha of this community recorded within the Project Area (made up of 432.12ha of confirmed community, 52.54ha likely, 183.90ha potential and 247.32ha unlikely community)
- Northern Plains Grassland Community (FFG Act) – 1,458.207 ha of this community recorded within the Project Area

- Victorian Temperate Woodland Bird Community (FFG Act) – potential to occur within woodland habitats which are generally sparse and of lower quality across the Project Area

Flora

One listed flora species was recorded within the Project Area, the Spiny Lignum (*Duma horrida*) (FFG Act: Critically Endangered).

48 additional listed flora species were identified for further consideration in the Project Area, through relevant database searches and a likelihood of occurrence analysis. This included:

- 12 species that are likely to occur of which:
 - o 4 require further consideration based on the possibility they occur within the construction footprint (based on relevant EVC impacts)
 - o 8 which can be discounted on the basis that they only occur within swamps, watercourses or waterbodies which are not proposed to be impacted by the project.
- 37 species with the potential to occur of which:
 - o 25 require further consideration based on the possibility they occur within the construction footprint (based on relevant EVC impacts)
 - o 11 which can be discounted on the basis that they only occur within swamps, watercourses or waterbodies which are not proposed to be impacted by the project.

The following table lists the species likely, or with potential to occur within the construction footprint (based on relevant EVC impacts).

For further details on listed flora species please refer to the Flora and Fauna Assessment at Attachment D.

Common Name	Scientific name	EPBC	FFG	Habitat preference	Likelihood
Dwarf Amaranth	<i>Amaranthus macrocarpus</i> var. <i>macrocarpus</i>	-	Endangered	Grassland (EVCs 829, 132)	Potential
Twin-leaf Bedstraw	<i>Asperula gemella</i>	-	Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)	Likely
Wimmera Woodruff	<i>Asperula wimmerana</i>	-	Endangered	Grasslands or Woodlands (EVCs 829, 132, 103, 823)	Potential
Yellow-tongue Daisy	<i>Brachyscome chrysoglossa</i>	-	Endangered	Grassland (EVCs 829, 132)	Potential
Hoary Scurf-pea	<i>Cullen cinereum</i>	-	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)	Likely
Tough Scurf-pea	<i>Cullen tenax</i>	-	Endangered	Grassland (EVCs 829, 132)	Potential
Slender Water-ribbons	<i>Cycnogeton dubium</i>	-	Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)	Potential
Downs Nutgrass	<i>Cyperus bifax</i>	-	Critically Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)	Potential
Trim Flat-sedge	<i>Cyperus concinnus</i>	-	Critically Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)	Potential
Umbrella Grass	<i>Digitaria divaricatissima</i> var. <i>divaricatissima</i>	-	Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)	Potential
Scaly Mantle	<i>Eriochlamys squamata</i>	-	Endangered	Woodlands (EVCs 103, 823)	Likely
Long Eryngium	<i>Eryngium paludosum</i>	-	Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)	Potential
Plains Spurge	<i>Euphorbia planitiicola</i>	-	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)	Potential
Soft Sunray	<i>Leucochrysum molle</i>	-	Endangered	Grassland (EVCs 829, 132)	Potential
Chariot Wheels	<i>Maireana cheelii</i>	Vulnerable	Endangered	Grassland (EVCs 829, 132)	Potential

Bush Minuria	<i>Minuria cunninghamii</i>	-	Vulnerable	All habitats (EVCs 829, 132, 103, 104, 823)	Potential
Smooth Minuria	<i>Minuria integerrima</i>	-	Vulnerable	Grasslands or Woodlands (EVCs 829, 132, 103, 823)	Potential
Squat Picris	<i>Picris squarrosa</i>	-	Endangered	Woodlands (EVCs 103, 823)	Potential
Swamp Buttercup	<i>Ranunculus undosus</i>	-	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)	Potential
Dwarf Bitter-cress	<i>Rorippa eustylis</i>	-	Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)	Potential
Stiff Groundsel	<i>Senecio behrianus</i>	Endangered	Critically Endangered	All habitats (EVCs 829, 132, 103, 104, 823)	Potential
Branching Groundsel	<i>Senecio cunninghamii</i> var. <i>cunninghamii</i>	-	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)	Potential
Riverina Groundsel	<i>Senecio productus</i> subsp. <i>productus</i>	-	Endangered	Grasslands or Woodlands (EVCs 829, 132, 103, 823)	Potential
Twiggy Sida	<i>Sida intricata</i>	-	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)	Potential
Slender Darling-pea	<i>Swainsona murrayana</i>	Vulnerable	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)	Potential
Downy Swainson-pea	<i>Swainsona swainsonioides</i>	-	Endangered	Woodlands (EVCs 103, 823)	Potential
Sweet Fenugreek	<i>Trigonella suavisima</i>	-	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)	Likely
Club-hair New Holland Daisy	<i>Vittadinia condyloides</i>	-	Endangered	Grasslands or Woodlands (EVCs 829, 132, 103, 823)	Potential
Winged New Holland Daisy	<i>Vittadinia pterochaeta</i>	-	Endangered	Grasslands or Woodlands (EVCs 829, 132, 103, 823)	Potential

Fauna and migratory species

55 listed fauna species are known, or have the potential to occur within the Project Area. The following table identifies the species and their status, along with noting those that are known within the wind farm boundary (8 species) or within 10 km of the Project Area (7 species), or whether they are likely (15 species) or have potential to occur (25 species).

Species	Threatened species status		Likelihood of occurrence
	EPBC Act	FFG Act	
Birds			
Australasian Bittern	En	Cr	Known (within 10 km of Project Area)
Australasian Shoveler	-	Vu	Known (within 10 km of Project Area)
Australian Bustard	-	Cr	Potential
Australian Gull-billed Tern	-	En	Known (within 10 km of Project Area)
Australian Little Bittern	-	En	Potential
Australian Painted Snipe	En	Cr	Potential
Barking Owl	-	Cr	Potential
Black Falcon	-	Cr	Known (within proposed wind farm boundary)
Blue-billed Duck	-	Vu	Likely
Blue-winged Parrot	Vu	-	Known (within proposed wind farm boundary)
Brolga	-	En	Known (within 10 km of Project Area)
Brown Treecreeper	Vu	Vu	Known (within proposed wind farm boundary)

Bush Stone-curlew	-	Cr	Potential
Caspian Tern	Mig.	Vu	Likely (within 20 km of Project Area)
Common Greenshank	En, Mig.	En	Likely (within 20 km of Project Area)
Common Sandpiper	Mig.	Vu	Likely
Curlew Sandpiper	Cr, Mig.	Cr	Likely (within 20 km of Project Area)
Diamond Dove	-	Vu	Potential
Diamond Firetail	Vu	Vu	Likely
Double-banded Plover	Mig.	-	Potential
Eastern Great Egret	-	Vu	Known (within proposed wind farm boundary)
Fork-tailed Swift	Mig.	-	Potential
Freckled Duck	-	En	Likely
Glossy Ibis	Mig.	-	Likely
Grey-crowned Babbler	-	Vu	Likely
Hooded Robin	En	Vu	Likely
Latham's Snipe	Vu, Mig.	-	Likely
Little Eagle	-	Vu	Known (within proposed wind farm boundary)
Little Egret	-	En	Likely
Long-toed Stint	Mig.	-	Potential
Magpie Goose	-	Vu	Known (within proposed wind farm boundary)
Marsh Sandpiper	Mig.	En	Potential
Musk Duck	-	Vu	Known (within 10 km of Project Area)
Pectoral Sandpiper	Mig.	-	Potential
Plains-wanderer	Cr	Cr	Potential
Plumed Egret	-	Cr	Known (within proposed wind farm boundary)
Red-necked Stint	Mig.	-	Likely (within 20 km of Project Area)
Sharp-tailed Sandpiper	Vu, Mig.	-	Likely (within 20 km of Project Area)
Southern Whiteface	Vu	-	Known (within 10 km of Project Area)
Square-tailed Kite	-	Vu	Likely
White-bellied Sea-Eagle	-	En	Known (within 10 km of Project Area)
White-throated Needletail	Vu, Mig.	Vu	Potential
White-winged Tern	Mig.	-	Potential

Wood Sandpiper	Mig.	En	Potential
Mammals			
Fat-tailed Dunnart	-	Vu	Potential
Corben's Long-eared Bat	Vu	En	Potential
Yellow-bellied Sheathtail Bat	-	Vu	Potential
Fish			
Freshwater Catfish	-	En	Potential
Murray Cod	Vu	En	Potential
Murray Hardyhead	En	Cr	Potential
Murray-Darling Rainbowfish	-	En	Potential
Southern Purple-spotted Gudgeon	-	Cr	Potential
Frogs			
Growling Grass Frog	Vu	Vu	Potential
Reptiles			
Bearded Dragon	-	Vu	Known (within proposed wind farm boundary)
Carpet Python	-	En	Potential

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.

Broadly, impact pathways have been considered in two groups: construction impacts and operational impacts.

Construction impacts could include:

- **Habitat loss and fragmentation** from clearance, earthworks and physical disturbance. This includes construction and maintenance works during operation that involve earthworks, noise, and dust;
- **Road mortality** of individuals in fauna-vehicle collisions related to increased traffic during construction; and
- **Habitat degradation** from direct and indirect pathways, including introduction or spread of invasive species or pathogens, edge effects, barrier effects, surface hydrological changes, deposition of eroded sediments or contamination caused by accidental spills of hazardous materials.
- **Disturbance** of roosting, foraging or nesting birds from construction activities

Operational impacts could include:

- **Collision mortality** of birds and bats with turbines, transmission lines, and/or other infrastructure; and
- **Road mortality** of individuals in fauna-vehicle collisions related to increased traffic from operational or maintenance vehicles.
- **Barrier effects** where birds and bats may be displaced as movement pathways are altered to avoid the wind farm
- **Species avoidance** of previously suitable habitat due to tall infrastructure

In addition to the above pathways, the following FFG Act-listed threatening processes have the potential to be exacerbated by the Project:

- Loss of hollow-bearing trees, which has been minimised through the avoidance of trees within the Project design;

- Loss of coarse woody debris, which has been minimised through the avoidance of the limited woodland habitat remaining on site;
- Invasion of suitable habitats by environmental weeds; and
- Increase in sediment input into rivers and streams due to human activities.

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.

No significant impacts to any listed communities, threatened or migratory species are expected from the project.:

Flora

The current proposal will not impact any known occurrences of listed flora species within the Project Area. Targeted surveys will be undertaken at appropriate times to confirm the occurrence of these species and potential Project impacts where avoidance is not possible.

Ecological communities

Impacts to listed communities include:

- Natural Grasslands of the Murray Valley Plains (EPBC Act: Critically Endangered) – 25.679 ha impacted.
- Northern Plains Grasslands Community (FFG Act: Threatened) – 32.956 ha impacted.

Fauna

- Birds: there are unlikely to be significant impacts as a result of the proposal due to the implementation of mitigation measures, including design revisions already undertaken, any residual risks are low and are expected to be managed through the implementation of a Bat and Avifauna Management Plan.
- Bats: impacts to Corben's (South-eastern) Long-eared Bat *Nyctophilus corbeni* and Yellow-bellied Sheath-tail Bat *Saccolaimus flaviventris* are not expected to be significant noting that surveys are ongoing. Residual risk will be addressed through the Bat and Avifauna Management Plan.
- Brolga: there are no breeding wetlands within the Project Area, impacts have and will continue to be avoided through the creation of buffers to applicable wetlands. Following July 2026 surveys, should further wetlands be confirmed as potential Brolga breeding wetlands, further micro-siting will occur as required and if not able to be achieved, compensatory measures will be sought. No significant impacts on Brolga are expected from the Project regarding habitat degradation or collision, the implementation of a Bat and Avifauna Management Plan, and Compensation Plan, if required, will address any residual risk through clearly defined measures.
- Migratory shorebirds: Impacts have been largely avoided through the placement of turbines at least 2km from the major wetland habitat of Hird and Johnson Swamps, completely avoiding impacts to migratory shorebird habitat and reducing risks of barrier effects and turbine collision. Residual risk will be addressed through the Bat and Avifauna Management Plan.
- Plains-wanderer: There are no known records within the Project Area, however the Project Area overlaps with potential movement pathways for the species. There is limited knowledge on Plains-wanderer flight movements, however there is some evidence to suggest they typically fly at or below 40 m, Habitat suitability within the Project Area is generally low to moderate as it has been substantially modified by agricultural use. The Project is not expected to result in impacts to the species at a local or regional scale.
- Growing Grass Frog: There are no known records within the Project Area. Buffers have conservatively been applied to artificial drains and channels, along with medium quality habitat (the highest quality habitat recorded) and creeks which will ensure no significant

impacts to the species, noting that the only Growling Grass Frog records in proximity occurred within Tragowel, Johnson and Hird Swamps.

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

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

The Proponent has undertaken a significant design evolution effort, in particular in response to ecological values and consideration of the avoid, minimise and mitigate hierarchy. In particular:

- Deletion of one turbine from the design due to its proximity to known Brolga home range adjacent to Hird and Johnson Swamps
- A number of turbine locations and other infrastructure have been adjusted to avoid known and potential Brolga breeding wetland buffers.
- The wind farm layout has been through multiple iterations, each aimed at reducing impacts to native vegetation.
 - o 12 turbines have been deleted from the design footprint to avoid impacts to areas of high ecological value, including areas that were likely to qualify as the NGMVP EPBC Act-listed ecological community, and patches of native vegetation.
 - o Relocation of all turbines out of areas of high ecological value where a viable alternative location was available.
 - o Adjusting turbine and other infrastructure locations to avoid or minimise impacts to native vegetation.
 - o Some dual passageways, turning bays and cables were removed or rerouted to avoid impacts to native vegetation.
 - o Temporary lay-down areas have been removed from native vegetation.
 - o Construction buffers have been reduced from 13 m to 2 m within patches of native vegetation.
- The latest layout update has resulted in the following reductions in impacts to native vegetation values.
 - o Impacts to native vegetation in patches have reduced from over 130.8 ha to 45.523 ha, greater than 65 % reduction
 - o Impacts to the EPBC Act-listed ecological community NGMVP have been reduced from 58.790 ha to 25.254 ha, including a reduction in impacts to confirmed occurrences of the community from 27.882 ha to 12.063 ha.
 - o Impacts to the FFG Act-listed ecological community have been reduced from 72.146 ha to 40.470 ha.
 - o These layout changes have resulted in over half of native vegetation values that were previously impacted being retained.

Further refinements of the layout are planned following targeted flora surveys and confirmation of listed ecological communities during Spring 2026. This is likely to further reduce the extent of impact.

The following mitigation measures have been applied or are recommended to avoid and minimise impacts on threatened fauna species and their habitat, as well as the listed bird community.

- To avoid potential impacts on woodland-dependent bird species and the listed Victorian Temperate Woodland Bird community, the limited native woodland patches identified on site have been avoided.
- A 2km turbine-free buffer has been applied to Hird Swamp and Johnson Swamp to minimise potential collision risk to migratory shorebirds and waterbirds.
- A hydrological assessment concluded that there will be no substantial or measurable change in the hydrological regimes of Hird and Johnsons Swamps, including the volume, timing, duration, or frequency of surface water flows and water quality (DCE 2026b).
- Micro-siting of infrastructure has avoided wetlands assessed as medium with a 100 m buffer as much as practicably possible. This maintains potential habitat and connectivity for aquatic species. Where possible, major artificial drains and water channels have been buffered by 30 m and creeks within the Project Area have been buffered by 100 m along their entire length.
- Micro-siting of all infrastructure will be undertaken to avoid direct disturbance to areas mapped as native vegetation, including the avoidance of scattered trees (esp. hollow-

bearing trees), and the fragmentation of intact habitat patches to such an extent as to create a movement barrier for those listed species that are present. The extent of what constitutes a fragmented habitat will depend on the species in question.

- Where habitats or their connectivity are fragmented during construction, they will be subject to subsequent rehabilitation, in particular woodland habitat, which is generally sparse across the Project Area.
- Avoidance of barrier effects will be achieved by locating turbines and associated infrastructure away from known flight paths and habitat linkages (particularly wetland connections).
- A Bat and Avifauna Plan (BAM Plan) will be prepared, incorporating measures suggested in the Flora and Fauna report, and will outline post-construction utilisation and mortality monitoring programs, responsive and adaptive updates to the management approach, and articulated on-ground management measures to be implemented if required. Mitigation and adaptation measures proposed in response to unanticipated impacts and/or impact triggers requiring a response for the BAM Plan include:
 - o Rabbit-burrow removal program to prevent raptor predation and reduce raptor collision risk
 - o Individual/multiple turbine curtailment at peak risk periods where a turbine/s is/are causing more impact than anticipated or triggers management action
 - o Increasing the nighttime turbine cut-in speed of individual turbine/s (i.e. low windspeed curtailment) to reduce risk of bat collisions with turbines if required
 - o Implementing nighttime blade feathering to reduce bat and nocturnal bird collisions with turbines if required
 - o Installation of technologies such as ultrasonic bat deterrents
- Road mortality associated with the development may be managed through a combination of controls. During construction, measures such as enforcing low vehicle speed limits at key periods and locations, such as in areas of suitable habitat during the warmer breeding months (October to April) and restricting night-time driving where practicable, can reduce mortality risks to species such as Bearded Dragon and Carpet Python.

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

The above details are based on the Flora and Fauna Assessment (refer to Attachment D). This assessment was based on desktop assessments and field surveys where land access was available and across various seasons. The ecological assessment will continue to be revised as surveys continue throughout 2026.

The following investigations are required to finalise confirmation of presence of native vegetation, flora and ecological community values in the Project Area:

- Targeted surveys for listed flora species at appropriate survey times (i.e. October, December and March) later in 2026 and in 2027;
- Targeted surveys for ecological communities, specifically NGMVP, in Spring 2026;
- Continuation of BUS surveys to complete two full years of seasonal bird surveys;
- Continuation of Bat surveys to complete 2 years of echolocating insectivorous bat surveys;
- A second season of Brolga breeding surveys from July to December 2026, including an additional potential breeding wetland assessment in July 2026;
- Targeted Black Falcon, Little Eagle and White-bellied Sea-Eagle surveys during breeding season to identify any active nests if present;
- MNES assessment.

An EPBC Act referral will be lodged in Q3 2026 to confirm whether significant impacts are present and require assessment under the EPBC Act.

The Flora and Fauna Assessment (refer to Attachment D) also sets out a range of design, ongoing monitoring, management and adaptive management and construction mitigation measures which will be addressed through Project Development and within the EMF (refer to Attachment B).

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.

Water supply will be required during the construction period of the Project, primarily for dust suppression and concrete production.

The water source will be determined through detailed design, but will be one or a combination of the following low impact options:

- Offsite water deliveries – noting that the traffic assessment has considered this option for an assessment of worst case impacts
- Groundwater/bore use – noting that use of groundwater, if suitable, would be assessed to ensure no impact Hird or Johnson Swamp
- Irrigation water via a separate supply agreement – Atmos would not use any water allocation rights from the Project landowners, so as to not impact production. In the event of an abundance of water allocation during the construction period, a separate supply agreement could be discussed with GMW for water supply for the Project (or part thereof).

The water supply will not constitute a significant volume (as it will be less than 1 GL/yr).

Operational water requirements for the wind farm will be minimal, limited to servicing the operation and maintenance office and ablution facilities on site.

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

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

All construction, operational and decommissioning facilities will retain wastewater for appropriate disposal off-site, or reuse where possible, subject to meeting quality standards and relevant approvals.

Construction and Operation Environmental Management Plans will be prepared with mitigation measures to assess and manage waste water and runoff (refer to Section 18), volumes, peak flows and water quality impacts. In most instances, construction methods will be utilised which avoid direct interaction with waterways (refer to mitigation section below), which in itself will reduce the potential for discharge of waste water or runoff to water environments.

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.

There are a number of waterways and wetlands within and in proximity to the Project Area, including:

- Hird and Johnson Swamp, which form part of the Kerang Lakes Ramsar site – the Project Area is directly adjacent to these wetlands but has maintained a greater than two km turbine buffer between the wetlands and any proposed turbines and other project infrastructure (excluding isolated parts of proposed access tracks).
- The Loddon River and Pyramid Creek are significant waterway systems to the west and east of the Project Area, a greater than 50 metre buffer is maintained from these waterways
- Nine Mile Creek and Calivil Creek are the key waterways which run through the Project Area, a 50 metre buffer is maintained for these waterways where possible.
- A number of wetlands, including DEECA mapped wetlands, and wetlands identified in field assessments by Nature Advisory.
- A number of minor waterways, drainage channels and irrigation infrastructure exist throughout the Project Area, where possible, a 30 metre buffer is maintained from these waterways, the Proponent is working with GMW and the NCCMA regarding implications of works in proximity to these waterways.

The Project design has avoided all significant effects to waterways within and surrounding the Project Area. This is discussed in further detail within the Hydrology and Stormwater Constraints Investigation prepared by DCE (Attachment E), providing additional information regarding the existing conditions and potential impacts of the Project.

As outlined in Section 11, above, the only waterways the Project proposes some interactions with Calivil Creek and Nine Mile Creek.

Impacts to DEECA mapped wetlands have been reduced as far as practicable. Current impacts to DEECA mapped wetlands show cropping and existing infrastructure (existing roads) is present in these areas, further avoidance and or investigation on these areas will be considered following the referral.

To manage potential impacts associated with construction activities, environmental management plans prepared for the Project and implemented during construction and operations will include specific measures to minimise erosion, stormwater runoff and sedimentation consistent with best practice. These measures will ensure that any residual impacts to water environment during construction are minor and temporary in nature.

The Project Area is prone to flooding, as indicated by the ESOs, RFO / FO and LSIO which persist across the site. The Hydrology and Stormwater Constraints Investigation, prepared by DCE provided at Attachment E has assessed the implications of the Project for the floodplain in detail. The assessment finds that the floodplain is wide, conveying flood flows outside of defined waterways and at shallow depths. The assessment confirms that flood velocities are slow, resulting in low flood hazard.

Overall, the assessment finds that:

- Risks to hydrology and stormwater have already been minimised through a thorough assessment of existing conditions and early engagement with the North Central CMA.
- Micro-siting has been undertaken to reduce risks by modifying the proposed design.
- Risks associated with the proposed Project can be managed through mitigation measures.
- The design of the Project, combined with the proposed mitigation measures will ensure that:
 - Waterways, wetlands, estuaries, and marine environments are unlikely to be affected.
 - Streamflows are unlikely to be affected.
 - Environmental values linked to surface water flow regimes and quality are unlikely to be affected.

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

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

As detailed above, the waterways within and in proximity to the Project Area have been conservatively assumed to have the potential to support Growling Grass Frog. Impacts to waterways have been avoided as far as practicable and mitigation measures will be in place to avoid impacts during construction.

Migratory species and Brolga have the potential to use the wetlands throughout the Project Area, and Hird and Johnson Swamp. Impacts to Brolga will be avoided through the creation of buffers to applicable wetlands, and further micro-siting will occur as required and if not able to be achieved, compensatory measures will be sought. Impacts to migratory shorebirds have been largely avoided through the placement of turbines at least 2 km from the major wetland habitat of Hird and Johnson Swamps, completely avoiding impacts to migratory shorebird habitat and reducing risks of barrier effects and turbine collision. Residual risk will be addressed through the Bat and Avifauna Management Plan.

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 Project Area is in proximity to:

- Hird and Johnson Swamp, part of the Kerang Lakes Ramsar listed site
- Tragowel Swamp – listed under A Directory of Important Wetlands in Australia

None of the above swamps are located within the Project Area. As identified by the Hydrology and Stormwater Constraints Investigation, the Project will not result in a substantial and measurable change in the hydrological regime or the water quality of the Hird or Johnson Swamps (Ramsar wetlands).

The 2km turbine-free buffer applied around Hird and Johnson Swamps avoids removal of habitat for migratory shorebirds, and seeks to reduce the likelihood of turbine collisions for wetland birds that use those habitats. Flight paths of birds coming to and from these swamps are most likely to be from the northwest, where there are larger wetland habitats in the Kerang Lakes Ramsar system (e.g. Fosters Swamp). Assuming most birds would fly directly towards those habitats, the current turbine layout and 2km buffer largely avoids those flight paths and therefore reduces collision risk and risk of changing the ecological characteristics of the swamps.

More generally, the 2km turbine-free buffer has been applied to protect the ecological characteristics of the swamps that without the buffer may have arisen as a result of closer proximity :

- Avoiding any substantial modification, destruction or isolation of an area of important habitat for a migratory species
- Avoiding the establishment of invasive species harmful to a migratory species in an area of important habitat for the migratory species
- Avoiding the establishment of an invasive species harmful to the ecological character of the wetland
- Avoiding the potential for a serious disruption to the lifecycle of native species dependant on the wetland
- Avoiding a substantial and measurable change in the water quality of the wetland
- Avoiding substantial modification, destruction or isolation of an area of important habitat for a migratory species
- Avoiding any serious disruption to the lifecycle of an ecologically significant proportion of the population of a migratory species

The individual turbines and any ancillary infrastructure related to the wind farm will provide mitigation to ensure that surface water flows are not impacted because of development. Furthermore, surface water flows to Hird and Johnson swamp (Ramsar wetlands) are predominately managed through human-controlled water releases outside of the proposed Project Area. Therefore, there will be no substantial changes to volume, timing, duration, or frequency of surface water flows to the Ramsar wetlands because of the proposed Project. Existing stormwater connections are to be maintained.

There will not be an impact on surface water salinity, pollutants, nutrients, or water temperature as a result of the Project. Stormwater quality management will be incorporated into the design of any proposed detention pond. Appropriate construction techniques to best practice standards must be adopted to protect downstream waterways and wetlands. The proposed wind farm, with appropriate operational procedures, will have minimal potential impact on Ramsar wetlands through changes to water quality.

Could the project affect streamflows?

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

The Project will reduce or remove impacts to streamflows via construction techniques. Where engineering requirements permit, infrastructure such as access tracks and hardstands will be constructed using permeable materials to minimise changes to hydrology. The operation of the wind farm will have no effect on streamflows.

Construction and Operation Environmental Management Plans will be prepared with measures to manage impacts (refer to Section 18).

Could regional groundwater resources be affected by the project?

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

As discussed in the Preliminary Hydrogeological Assessment prepared by SLR Consulting (Attachment F), the Project is not expected to result in extensive or long-term changes to regional groundwater resources, groundwater-dependent ecosystems, or the environmental values of nearby wetlands. The Project footprint is underlain by a shallow unconfined aquifer of low beneficial use value, with only one registered groundwater users within the site and potential for only very limited and temporary groundwater interaction anticipated during construction.

Given the highly saline nature of groundwater (Segment F), the low receptor sensitivity, and the negligible predicted change in groundwater levels or flow regimes, the potential for long-term alteration to the ecological character of nearby wetlands, including those listed in nationally important wetlands directories, is considered low. The Project is also unlikely to cause major effects on water quality, stream flows, or regional groundwater levels, nor is it expected to pose risks of pollution or waste affecting human or environmental health.

Appropriate mitigation measures including standard construction environmental management, localised dewatering measures (if required) will allow for any residual impacts to remain negligible. Overall, the findings indicate that these impacts do not trigger the EES referral thresholds under the Ministerial Guidelines, and potential impacts can be effectively managed through routine approvals and environmental controls.

Construction and Operation Environmental Management Plans will be prepared with measures to manage impacts.

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)

As outlined above, the Project is not expected to result in extensive or long-term changes to groundwater-dependent ecosystems or the environmental values of nearby wetlands.

Construction and Operation Environmental Management Plans will be prepared with measures to manage any unlikely spills, sediment or erosion due to construction activities.

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

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

No estuarine or marine ecosystems are likely to be affected by the Project.

Waterways and wetlands have been avoided and buffered where possible. Waterways that have not been avoided are man-made drainage channels and irrigation infrastructure which are generally found to be void of valuable ecosystems and serve agricultural purposes only

The Hydrology and Stormwater Constraints Investigation, Preliminary Hydrogeological Assessment and Flora and Fauna Assessment (refer to Attachment D) find that aquatic, estuarine or marine ecosystems are unlikely to be affected by the Project.

Construction and Operation Environmental Management Plans will be prepared with measures to manage impacts.

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.

As outlined above, the Project is not expected to result in extensive or major effects on the health or biodiversity of aquatic, estuarine or marine ecosystems.

Construction and Operation Environmental Management Plans will be prepared with measures to manage impacts.

Is mitigation of potential effects on water environments proposed?

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

Yes, the Project will utilise Construction and Operation Environmental Management Plans to ensure potential effects on water environments are minimised.

Further detailed Hydrological, Hydrogeological and Ecological assessments will be undertaken to inform the preparation of Construction and Operation Environmental Management Plans.

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

Extensive consultation has already been undertaken with landowners, GMW and NCCMA in relation to the waterways traversing the site, providing a strong foundation for understanding key constraints and opportunities. This engagement is ongoing and will inform further assessments and the construction methodology and management plans.

Targeted field investigations and data collection are being progressively undertaken to further refine this understanding and will directly inform impact assessments, construction methodologies, and associated management measures.

An extensive program of research and field surveys has informed the ecological assessments prepared to support this referral. These investigations have been supplemented by input from relevant stakeholders and authorities. Notwithstanding this, further seasonal surveys will continue throughout 2026 to build on the existing evidence base, address any remaining uncertainties, and ensure that construction methodology and management plans are robust and responsive to site conditions.

14. Landscape and soils**Landscape****Has a preliminary landscape assessment been prepared?**

☐ No ☒ Yes If yes, please attach.

Yes, a Landscape and Visual Impact Assessment has been prepared by Peter Haack (refer to Attachment G).

The Project Area sits within the *Murray Basin Plains (type a) – Northern District Plains Subtype*. This landscape is characterised by broad, flat to gently undulating agricultural landforms. The landscape has been extensively modified by farming practices, with very small and fragmented pockets of remnant native grassland and woodland, typically confined to roadside reserves, drainage lines and on steeper slopes.

Key landscape features within and surrounding the Project Area include a number of conservation and sporting reserves, notably including the Macorna Recreation Reserve in the centre of the Project Area, and the Pyramid Hill summit to the south east.

Based on an assessment of landforms, vegetation and water forms, the landscape of the Project Area is defined as being of low scenic quality, reflecting its highly modified agricultural character and the presence of existing vertical and linear infrastructure elements (e.g. shelterbelts, farm buildings and transmission lines).

The Landscape and Visual Impact Assessment considers the potential impacts of the Project at 15 representative viewpoints, selected to capture a range of viewer sensitivities and viewing conditions, from places of moderate to high sensitivity within and surrounding the Project Area. This approach presents a conservative ‘worst-case’ assessment of potential visual effects.

Of the 15 representative viewpoints, potential visual impacts range from Not Visible to High impact. However, following the implementation of amelioration strategies, residual impacts are generally reduced to Not Visible to Moderate in all but two instances. Higher residual impacts are limited to two viewpoints, located on sections of the Loddon Valley Highway, where opportunities for screening are constrained and transient views are more open.

The Landscape and Visual Impact Assessment has sought to understand the landscape and its features, and undertaken an assessment of the potential landscape and visual impacts of the Project from representative viewpoints. Prior to submitting final approval documentation, a detailed viewpoint assessment will be undertaken for each individual receiver within 7.5 km to identify appropriate amelioration.

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.

There are no Landscape Significance Overlays within the Project Area. The portion of the Project Area within Gannawarra Shire Council is affected by the Environmental Significance Overlay (Schedules 1, 2, 3 and 4).

ESO4 applies to the majority of the Project Area within Gannawarra Shire Council and applies to areas of poor drainage or potentially subject to inundation. ESO1 applies to waterway environs, ESO2 to highway environs and ESO3 to lake environs.

ESO1, 3 and 4 largely seek to protect water quality and environmental values of waterbodies and provide for a level of flood protection. ESO2, which applies to Loddon Valley Highway and Murray Valley Highway seeks to enhance the safety and amenity of main roads.

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

The Project Area is not within an area identified as of regional or State significance in a reputable study of landscape values.

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

The Project Area is not within or adjoining land reserved under the *National Parks Act 1975*.

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

A number of public land uses used for conservation or recreation are adjoining or in proximity to the Project Area, including:

- Nature and conservation
 - o Johnson Swamp Wildlife Reserve (immediately adjacent to the northeast).
 - o Hird Swamp Wildlife Reserve (immediately adjacent to the east).
 - o Rowland Nature Conservation Reserve (immediately adjacent to the east).
 - o Flannery Nature Conservation Reserve (to the east).
- Sporting and recreation
 - o Mitchell Park (Pyramid Hill) (~6.6km southeast) is primarily a sporting reserve
 - o Pyramid Hill summit, within the Pyramid Hill Recreation Reserve (golf course) (~9.5km southeast)

There is only one sporting/recreation facility within the Study Area, being the Macorna Recreation Reserve, which is primarily a sporting facility.

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

As described in Section 12, some native vegetation clearance is required to facilitate development of the Project, this has been minimised as far as practicable.

Importantly, works, including vegetation clearance, is not proposed for the road reserves of Loddon Valley Highway and Murray Valley Highway, as existing intersections will be utilised for the construction of the Project.

No alteration of landforms is proposed.

Accordingly, the Project is not expected to affect landscape values as a result of vegetation clearance or the alteration of landforms.

Is there a potential for effects on landscape values of regional or State importance?

☐ NYD ☒ No ☐ Yes Please briefly explain response.

The Project will not result in effects on landscape values of regional or State importance. The Landscape and Visual Impact Assessment sets out that the landscape is generally of low scenic quality. Some areas within proximity to the Project Area have moderate to high scenic quality, including Tragowel Swamp, the Loddon River and localised high points within parks or reserves.

As identified above, the following dwellings have been determined for the purpose of planning and environmental assessments:

- Involved Dwellings
 - 52 Host dwellings – a dwelling on a property involved in the Project, including the development of wind turbines or associated infrastructure. Of these, 11 buildings on host landowner properties have been confirmed as non-habitable dwellings.
 - Six Involved dwellings – a dwelling on a neighbouring land parcel, not including development of wind turbines or associated infrastructure, but has executed or are proposed to execute an agreement with the project
- Non-involved Dwellings
 - 22 Dwellings – within 2 km of proposed turbines.
 - 78 Dwellings – between 2 km and 3.5 km of proposed turbines
 - 131 Dwellings – between 3.5 km and 6 km of proposed turbines

The single non-involved dwelling is located within 1 km of a proposed turbine. The non-involved dwelling is uninhabited and is in a derelict condition. The dwelling is located on the Tragowel Solar Farm site and is proposed to be demolished should the solar farm proceed to construction. Atmos has confirmed the status of this dwelling with the Tragowel Solar Farm, and shall provide relevant consent prior to approval for the Project to be developed within 1 km of this dwelling. Consents shall also be provided for any host dwellings within 1 km of a proposed turbine location.

The Landscape and Visual Impact Assessment assessed a number of representative viewpoints within and surrounding the Project Area. The assessment discusses a range of impact ratings, subject to the setting of the viewpoint location and proximity to proposed Project infrastructure.

The Assessment recommends a number of amelioration strategies and identifies that the residual impact of the Project is generally reduced as a result of implementation of these strategies.

It is noted that visual impacts from the Loddon Valley Highway are rated as 'high', noting that the Project will be located between approximately 500m and 1.2km from the highway for a distance of approximately 10km. At 100kmh, this distance would be traversed in approximately 6 minutes.

Is mitigation of potential landscape effects proposed?

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

Offsite amelioration (vegetation screening) may be offered to involved and non-involved dwellings subject to their views to the Project infrastructure. The suitability and extent of such measures will be determined in consultation with affected landowners, having regard to site-specific conditions, viewing angles and the preferences of residents.

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

The Landscape and Visual Impact Assessment sets out limitations (refer to section 2.4 of Attachment G).

The Landscape and Visual Impact Assessment has sought to understand the landscape and its features, and undertaken an assessment of the potential landscape and visual impacts of the Project from representative viewpoints. Prior to submitting final approval documentation, a detailed viewpoint assessment will be undertaken for each individual receiver within 7.5 km to identify appropriate amelioration.

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.

A Geotechnical Assessment has been prepared by Douglas Partners (refer to Attachment H) to inform the understanding of land conditions.

The Project will not affect land stability, acid sulphate soils or highly erodible soils. The proposed route is predominantly within land designated as extremely low or low probability of occurrence of Acid Sulphate Soils.

One turbine is currently located within an area of 'high probability of occurrence' of acid sulphate soils. Further testing will be undertaken and an acid sulphate soil management plan will be developed as required.

The majority of the site is low lying and relatively flat, and as a result stability and erosion impacts are not expected to occur.

Following construction, land will be reinstated to its original state and be subject to ongoing monitoring for erosion and land stability issues.

The Project Environmental Management Plans (refer to Section 18) will include measures to manage acid sulphate soils, land stability and erodible soils.

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

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

There are no geotechnical hazards that may affect the Project or be affected by it.

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

The Geotechnical Assessment is based on desktop level information only. Geotechnical testing will be undertaken to inform detailed design and the construction methodology.

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.

A Preliminary Traffic Impact Assessment has been prepared by Amber (refer to Attachment I) to:

- determine traffic volumes during construction, operation and decommissioning
- assess potential traffic impacts on road network function and safety
- assess the capacity of the existing road network
- detail measures to mitigate or manage potential impacts
- assess access roads and how they connect to the existing road network and ongoing operational maintenance required

In the event that the construction workers are not centralised (in the potential on-site worker accommodation camp or at an off-site worker accommodation camp where buses can be utilised to transport workers), the worst-case traffic generation for the Project is expected to generate up to 643 vehicle trips per day during the peak construction period, including 150 heavy vehicle trips. Overall, the assessment finds that while this level of traffic generation is expected to be significant during the temporary construction phase, it will not have a material impact on the operation of the existing road network.

In the event that either the potential on-site worker accommodation camp or an off-site worker accommodation camp and bus movements are realised, traffic impacts would be less.

As identified above, Atmos's objective and preference is to work with the Loddon and Gannawarra Shire's, VicGrid and other renewable energy developers within the North West REZ on a coordinated accommodation solution which will have long term legacy of the region. A worker accommodation strategy will be prepared as recommended in the Social and Economic Impact Assessment Report (Attachment R).

Some existing roads or access tracks within the Project Area may need to be upgraded or constructed to ensure appropriate width (6 – 7 m) and to 'dry weather only' roads to ensure access is available all year-round.

A Traffic Management Plan will be prepared as part of the Project Environmental Management Plans (refer to Section 18) to ensure construction traffic will have a minimal impact to the capacity and safety of the surrounding road network.

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.

There are no anticipated significant effects on the amenity of residents due to emissions of dust or odours or changes in visual, noise or traffic conditions.

Emissions of dust or odours

An Air Quality Assessment has been prepared by SLR (refer to Attachment J), finding that the risk of dust or odour related impacts is negligible and will be able to be addressed through management measures.

Change in visual conditions

The Landscape and Visual Impact Assessment (Attachment G) anticipates a change in visual conditions with varying degrees of impact subject to the individual setting of the receptor and the ability for amelioration to be installed, if required.

In general, the Project Area sits in a location with low scenic quality, however the Project represents a significant change to the broader landscape. Impacts to visual amenity for residents is expected to be ameliorated through a range of mitigation measures, as outlined within the Landscape and Visual Impact Assessment. Further visual assessments and viewpoints analyses will continue to be undertaken to inform the detailed design of the Project.

A Shadow Flicker Assessment has been prepared by SLR (refer to Attachment K). The Theoretical scenario modelling showed no exceedance of the shadow flicker criteria. The Expected scenario results (taking into account real-world factors such as cloudiness, wind directionality, etc) also showed no exceedance.

Change in noise conditions

A Noise Impact Assessment has been prepared by SLR (Attachment L) which has informed design of the Project and the layout of the turbines to avoid impacts to receivers. The Assessment finds that all involved and non-involved receivers comply with the minimum noise limit (noting that at most sites at higher wind speeds, the noise limit is likely to be defined by the 'background + 5 dBA' provision of the policy, hence adopting the minimum noise limit at this stage of the Project is considered a conservative approach).

Change in traffic conditions

As discussed above, and outlined in the Preliminary Traffic Impact Assessment (refer to Attachment I), the level of traffic generation required for construction of the Project is expected to have a minimal impact on the operation of the existing road network.

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.

The Project will not expose a human community to health or safety hazards as a result of emissions to air or water or chemical hazards or associated transport.

A Blade Throw Assessment has been prepared by SLR (refer to Attachment M) to establish the likely impact zone for blade throw as a result of the Project, and any potential risks as a result. The Assessment finds that there are no risks to dwellings, roads or rail corridors as a result of development of the Project.

A Bushfire and Hazards Assessment will be prepared as the Project moves towards detailed design and planning approval, and the Project will be designed and developed in accordance with the *CFA Design Guidelines and Model Requirements for Renewable Energy Facilities*.

Consultation with the Country Fire Authority (CFA) headquarters and local / district brigades occurred as part of the early development of the Project. The low bushfire risk present within the Project Site, with no Bushfire Management Overlays and low fuel load, was highlighted and the CFA did not raise any major concerns with the proposal. Ongoing engagement is proposed to continue with the CFA throughout the detailed design and planning approval phases of the Project.

The Project Environmental Management Plans (refer to Section 18) will include measures to avoid and minimise health and safety hazards as a result of emissions to air or water or chemical hazards or associated transport.

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.

The Project will not result in the displacement of any residences, nor will it sever or materially impact residential access to community resources. The layout has been developed to avoid direct impacts on dwellings and to maintain existing access arrangements, including local road networks and connections to services and facilities. Accordingly, no disruption to residential occupancy or access to community infrastructure is anticipated.

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.

Non-residential land use activities will not be displaced as a result of the Project. While there will be temporary changes to the use of agricultural land during construction throughout the Project Area, once operational the land will largely revert to being able to be used as before. Most agricultural activities, including broad acre grazing and cropping, will not be impacted.

A Technical Assessment & Potential Agricultural Impact, prepared by Ag-Challenge (refer to Attachment O) has been prepared which provides an overview of the agricultural uses within the Project Area. It provides an understanding of how the Project interacts with the agricultural sectors at a regional level, and sets out potential impacts and associated mitigation measures.

In particular, it is noted that the Project Area is located entirely within the Goulburn Murray Water Irrigation District. The Technical Assessment & Potential Agricultural Impact has identified, based on aerial imagery review and ground truthing that approximately 20-30% of the Project Area is currently actively irrigated. Further, only 22% or 25 of the 114 turbines are proposed within land that is currently actively irrigated, and where this has occurred, consultation is ongoing with landowners to ensure that impacts to irrigation production are reduced as far as practical.

Potential agricultural impacts associated with the development include:

- Temporary loss of productive land during construction
- Permanent loss of small areas of productive land
- Potential disruption to irrigation layouts
- Temporary severance of paddocks and farm infrastructure
- Soil disturbance requiring stringent rehabilitation requirements

However, these impacts can be substantially mitigated through appropriate project planning and management, including:

- Strategic siting of turbines to minimise where possible high-value irrigated areas where possible
- Site planning in consultation with the farmers
- Alignment of access tracks with existing farm infrastructure
- Careful soil stripping, storage and reinstatement during construction
- Rehabilitation of disturbed areas to restore soil profiles and irrigation layouts
- Coordination of construction activities with farm operations

The assessment finds that, while the development will result in localised and manageable impacts, the broader agricultural productivity of the region is unlikely to be significantly affected. The Technical Assessment & Potential Agricultural Impact will be used to ensure impacts to non-residential land use activities are minimised to the extent possible.

A strategic assessment of the implications for the irrigation district associated with wind farms has been undertaken by RMCG (refer to Attachment N). The assessment finds that:

- Most farming activities will be able to continue outside of the tower footprints so the loss of land and subsequent loss of agricultural production will be negligible
- The construction and operation of a wind farm will have no impact on other irrigators within the district, or on irrigation delivery efficiency
- Involved landowners will have an opportunity to use funds from hosting wind farm infrastructure to reinvest back into their operations, further strengthening the viability of the irrigation district.

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 Project will result in a change in land use from predominantly agricultural activities to a co-existing wind energy facility; however, this change is not expected to give rise to adverse effects on local residents, communities, social groups or surrounding industries.

The Project has been designed to enable the continuation of agricultural activities across the majority of the site during operation, with only a small proportion of land permanently occupied by infrastructure. Accordingly, the overall change in land use intensity and function is limited, and existing agricultural practices in the surrounding area are expected to continue largely unaffected.

Potential interactions with other non-residential land uses and infrastructure, including aviation operations and telecommunications links, have been specifically assessed. A Technical

Assessment & Potential Agricultural Impact has been prepared which finds that the Project will not result in adverse effects on agricultural productivity or viability as a result of the Project. In addition, individual farm based agreements have been developed with each landowner to manage access, infrastructure siting and operational arrangements, and allow for appropriate compensation, ensuring that existing land use activities can continue in a coordinated manner.

An Aviation Impact Assessment, prepared by Aviation Projects (refer to Attachment P) and Electromagnetic Interference Assessment, prepared by SLR (refer to Attachment Q) have identified the Kerang Aerodrome and telecommunications links which the Project must have regard to. The Project layout has been refined in response to the requirements of the Aerodrome and links, consultation is ongoing with stakeholders to confirm acceptance. As a result, no adverse impacts as a result of the Project on these activities are anticipated.

Is mitigation of potential social effects proposed?

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

A range of measures are proposed to avoid, minimise and manage potential social effects associated with the Project, as informed by the Social and Economic Impact Assessment and ongoing stakeholder engagement.

A Community and Stakeholder Engagement Plan (refer to Attachment C) has been prepared and will guide continued engagement with landowners, local residents and key stakeholders throughout all phases of the Project. This includes maintaining transparent communication, responding to community concerns, and providing opportunities for ongoing input into Project development.

Lecroma has prepared the Social and Economic Impact Assessment (refer to Attachment R), providing an analysis of the likely social and economic impacts associated with the Project, drawing on baseline research, technical studies and consolidated outcomes of the stakeholder consultation which has occurred to date.

The Social and Economic Impact Assessment concludes that the potential positive impacts of the Project are expected to outweigh the potential negative impacts. The Assessment identifies that potential negative social impacts can be effectively managed through targeted mitigation measures, including:

- Incorporate recommendations from independent technical assessments to refine Project design and implementation.
- Implement benefit sharing commitments through a transparent and equitable framework.
- Prepare and implement a Workforce Accommodation Plan before Project construction.
- Prepare and implement a Local Content Plan and set local procurement and workforce participation targets based on identifiable regional capability.
- Continue consultation with key stakeholder groups and regularly review strategy and implementation of the Community and Stakeholder Engagement Plan throughout the life of the Project.

Overall, these measures are designed to proactively manage potential social impacts and enhance positive outcomes for the local community over the life of the Project.

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

Landowner, community and stakeholder engagement is ongoing and an integral part of the success of this Project. As a response to landowners or community views, the Project has the flexibility to continue to micro-site throughout the detailed design phase.

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.

As discussed in the Advice for self-assessment against referral criteria for Aboriginal & Victorian cultural heritage for the Macorna Wind Farm Project, prepared by Extent Heritage (refer to Attachment S), there are five relevant Indigenous organisations. All have been introduced to the Project and consulted on the potential occurrence of Aboriginal cultural heritage as determined by statistical modelling. This is prior to further studies and site access as part of a Cultural Heritage Management Plan (CHMP) (commenced).

The organisations are:

1. Wamba-Wemba Aboriginal Corporation (WWAC) – Incorporated
2. Barapa Country Aboriginal Corporation (BCAC) – Incorporated
3. Barapa Land and Water (BLW) – Unincorporated
4. Barapa Ltd – Unincorporated
5. Kowang Co-op Ltd

First Peoples-State Relations (FP-SR) is responsible for evaluating the CHMP (once prepared) as a Registered Aboriginal Party (RAP) has not been appointed for the Project Area.

All five organisations above will be consulted on the occurrence of Aboriginal cultural heritage through offer to participate in fieldwork as part of the 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)

The Aboriginal Cultural Heritage Archaeology Sensitivity Modelling report prepared by Extent Heritage (refer to Attachment S) identifies areas of potential Aboriginal archaeological sensitivity in the proposed Project Area. It used data from the wider bioregion in which the proposed Project Area sits to predictively model areas of archaeological sensitivity prior to the commencement of further studies and site access as part of a CHMP.

The report determined that following areas had higher archaeological sensitivity:

- Areas within 280m of a 'historical waterway', 100m of an area of 'historical hydrology', and 60m from an area of Topographic Wetness Index
- Alluvial terraces and floodplains
- Lunettes adjacent to lakes
- Alluvial fans and aprons have high archaeological sensitivity

The Project was able to use the Sensitivity Modelling to inform the design process and avoid areas of higher archaeological sensitivity where possible. The majority of the Project Area was rated as having moderate potential for cultural heritage.

Generally, the Project has been sited outside of areas with elevated potential for Aboriginal cultural heritage sensitivity. Further information is provided in the Cultural Heritage Assessment documentation at Attachment R, and also summarised in Section 15. A CHMP is currently underway, with the Desktop Assessment completed and the Standard Assessment commencing in May 2026. As the Standard Assessment, and future Complex Assessment progress, the design will be refined as required to reduce impacts to areas of potential or known Aboriginal cultural heritage sensitivity or significance.

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 Archaeology Sensitivity Modelling report (Attachment S) identified 3,190 archaeological Aboriginal place components in the model area (the broad geographical region comprising the Project Area, the Victorian Riverina) listed on the Victorian Aboriginal Heritage Register (VAHR). Site types present in the model area include scarred trees, artefact scatters, relevant earth features (e.g. oven or mound), ancestral remains, shell middens, and a quarry.

There no Aboriginal places recorded within the Project Area at the time of the search of the VAHR.

Additional Aboriginal cultural heritage may be identified during standard and complex assessment which will be completed as part of the CHMP under the *Aboriginal Heritage Act 2006*. These assessments are required to determine the nature, extent, and significance of any Aboriginal cultural heritage located within the Project Area, and will manage impacts through compliance requirements; unexpected finds or non-compliance through contingency measures.

Are there any cultural heritage places listed on the Heritage Register or the Archaeological Inventory under the *Heritage Act 1995* within the project area?

☐ NYD ☒ No ☐ Yes If yes, please list.

There are currently no cultural heritage places listed on the Victorian Heritage Register or the Victorian Heritage Inventory within the Project Area. A Historical Archaeological Assessment (HAA) will be undertaken to identify any unlisted sites that may be present and to recommend appropriate management and mitigation measures, including an unexpected finds protocol.

Is mitigation of potential cultural heritage effects proposed?

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

Should any Aboriginal cultural heritage be located, the CHMP will outline measures to avoid, manage, and mitigate any impacts on Aboriginal cultural heritage.

Should any non-Aboriginal heritage be located and those places cannot be avoided, then appropriate permitting through the *Heritage Act 2017* will be completed.

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

Traditional Owner engagement is ongoing, including discussions regarding community benefit sharing along with involvement in the CHMP process.

Further information related to Aboriginal cultural heritage values and sensitivity will be understood as the engagement and CHMP process continues.

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 – 820.8MW
- ☐ Natural gas network. If possible, estimate gas requirement/output
- ☒ Generated on-site. If possible, estimate power capacity/output – as above
- ☐ Other. Please describe.

Please add any relevant additional information.

The aim of the Macorna Wind Farm is to generate approximately 820.8MW of renewable energy and powering approximately 590,000 homes a year.

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 forms will be generated during the construction phase of the Project. Material excavated during the construction, will be re-used on site where practicable or removed off-site to a licensed landfill facility.

Wastewater in the form of grey water and sewerage will predominantly be generated in the site compounds and will be stored in tanks on site and pumped into trucks before appropriate disposal from the Project Area.

During operation, the Project will not generate any significant volumes of waste.

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

- ☒ Less than 50,000 tonnes of CO₂ equivalent per annum
- ☐ Between 50,000 and 100,000 tonnes of CO₂ equivalent per annum
- ☐ Between 100,000 and 200,000 tonnes of CO₂ equivalent per annum
- ☐ More than 200,000 tonnes of CO₂ equivalent per annum

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

The Project is expected to reduce Australia's carbon emissions by around 2.8 million tonnes of carbon dioxide annually.

Low levels of CO₂ emissions would be generated by the Project during construction and operation from construction machinery and traffic. This would be heavily offset by the Project generating electricity which will displace greenhouse gas emissions from other sources of power.

17. Other environmental issues**Are there any other environmental issues arising from the proposed project?**

- ☒ No ☐ Yes If yes, briefly describe.

There are no other environmental issues arising from the proposed Project.

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
- ☒ Design: Please describe briefly
- ☒ Environmental management: Please describe briefly.
- ☐ Other: Please describe briefly

Add any relevant additional information.

The Project has been designed and turbines sited implementing the avoid, minimise and offset hierarchy. This is further explained in the Summary of Design Evolution provided at Section 4 Project Alternatives other above sections where relevant.

As a wind farm proposed within a Project Area of approximately 23,000ha, the design has been able to be responsive to existing environmental values, avoiding most adverse environmental effects from the outset (including ecological, hydrological, visual and noise). Further avoidance of significant impacts on existing infrastructure, environmentally sensitive areas including threatened species habitat and threatened ecological communities, and land use was a key objective and is the primary focus during the design development process.

Avoidance and minimisation measures embedded into the current design include:

- Substantial turbine setbacks from sensitive ecological receptors, including the Kerang Lakes Ramsar wetlands (> 2km) and named waterways (> 100m)
- Targeted avoidance of native vegetation, including the deletion or relocation of turbines and infrastructure from mapped vegetation and habitat areas
- Buffers to transmission (300 – 400 m) and distribution lines (50 m) and GMW assets (10 m buffer for electrical cables, crossing at perpendicular angles only and 25 m from minor waterways)
- Turbine buffers to major roads and rail corridor (300 m)
- Use of existing roads and access tracks along with refinement of proposed access tracks and other infrastructure to accommodate landowner requests and minimise impacts on existing agricultural operations, infrastructure or important vegetation (planted or native)
- Additional buffers and removal of turbines based on landowner, neighbour and community engagement
- Significant Project infrastructure siting refinements to reduce impacts to ecological values including the deletion of 12 turbines within areas of mapped native vegetation and one within the Brolga home range adjacent to Hird and Johnson Swamps, and relocation of a number of turbines and refinement of infrastructure including re-siting outside of native vegetation or reducing the footprint as far as practicable
- Re-siting turbines on land of lowest archaeological sensitivity where possible and avoiding areas of greater potential for Aboriginal cultural heritage where practicable
- Refinement of infrastructure siting and access arrangements to minimise disruption to agricultural land use and landholder operations
- Refinement of site entrances, construction corridors and temporary disturbance areas to reduce the overall footprint
- Deletion of 6 turbines and refinement of two others to avoid Kerang aerodrome flight paths
- Increased turbine buffer from Macorna township
- Avoidance of flood extents for bench areas where possible
- Avoidance of EMI impacts to the extent possible

These measures demonstrate that impact avoidance and minimisation have been prioritised in accordance with the mitigation hierarchy through the Project's design. Furthermore, the consultative and iterative process has provided opportunities for the Proponent to develop a strong social license within the host community, demonstrated through the positive landowner negotiations.

At the commencement of the turbine siting process, Atmos was considering 140 turbines and has since reduced the total number of turbines to 114 as a result of the above considerations.

While the Project has undertaken a significant amount of work to site the turbines and set out the construction footprint, it is expected that as a result of the continued assessments being undertaken and through the environmental and planning processes, and in response to ongoing landowner and community consultation, that further micro-siting of the turbines will be required, mainly to further reduce impacts.

An EMF is attached (refer to Attachment B) being developed to support detailed design, construction and operation. The purpose of the EMF is to describe how the management measures will be implemented to reduce adverse environmental effects from the Project.

The EMF sets out a change management process which allows for micro-siting of the turbines subject to the preparation and approval of Development Plans, compliance with mitigation measures, consultation with relevant agencies and stakeholders, assessment and approval by the Minister for Planning. The change management process sets out the level of assessment and approval required depending on the significance of the change, including whether it remains

within the Project Area and construction footprint and whether the change results in a material adverse increase in impacts.

The EMF includes:

- Objectives and targets for environmental management.
- Roles and responsibilities in relation to environmental management of the Project.
- Environmental Performance Requirements.
- Change management protocols.
- Environmental management practices and procedures to be implemented.
- Requirements for inspections and compliance monitoring.
- Advice on relevant sub-plans needed such as traffic management plan, noise and vibration management plan, weed and pathogen management plan.
- Management protocols for specific species and activities.

It is expected that the following environmental management plans will be prepared as subsidiary documents to the EMF:

- Construction Environment Management Plan
- Operation Environment Management Plan
- Workforce Accommodation Management Plan
- Traffic Management Plan/s
- Hydrology / Waterway Crossing Management Plan
- Dewatering Management Plan
- Acid Sulphate Soils Management Plan
- Bushfire Emergency Management Plan
- Native Vegetation and Offset Management Plan
- Bat and Avifauna Management Plan
- Noise and Vibration Management Plan
- Weed and Pathogen Management Plan
- Community and Stakeholder Engagement Plan

These will be prepared post planning permit approval, incorporating any condition of that permit, as well as the measures outlined within this referral.

Compliance with the Environmental Management Framework and Environmental Performance Requirements will be monitored via implementation of an Environmental Management System developed in accordance with *AS/NZS ISO 14001:2016 Environmental management systems* (or equivalent standard).

Compliance with the Environmental Management Framework and mitigation measures will be enforced through the contractual requirements for the construction and operation of the Project.

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.

The Project is proposed within the North West REZ, an area identified by the Victorian Transmission Plan as 'most suitable' to host new onshore renewable energy generation and storage (VicGrid, 2025). In addition, the proposed VNI West transmission line traverses through the region.

A number of renewable energy projects are proposed in the region, in line with the North West REZ designation and proposed VNI West transmission line. A comprehensive cumulative impact assessment will be undertaken to inform the planning approvals for this Project.

To inform the concept design and this referral, the socio-economic, flora and fauna, visual and traffic technical assessments undertook a targeted cumulative impact assessment. The targeted assessment focussed on the nearby and proposed Normanville Wind Energy Facility, Meering West Wind Farm, Cannie Wind Farm, and VNI West transmission line.

The Socio-economic Impact Assessment (refer to Attachment R) finds that the cumulative construction profile is mixed, overlapping construction has the potential to increase local spending, short-term employment and demand for goods and services, but it may also put pressure on housing and accommodation, contractor availability and local services. From an operational perspective, cumulative effects are expected to be less intense, but are likely to relate to how the Project is experienced across the region, if multiple projects proceed, it may be perceived as contributing to a wider landscape transformation.

The Flora and Fauna Assessment (refer to Section 13.7 of Attachment D) has undertaken a preliminary cumulative impact assessment based on information known at the time of preparation. The Assessment identifies that The Handbook requires that cumulative impacts are considered, particularly if similar nearby renewable energy facilities have reported mortalities of threatened bird and bad species relevant to the Project. This analysis is not yet feasible as there are no operating wind farms within 35 km of the Project Area. The Assessment identifies that:

- The potential for the construction of the Project, and other proposed Projects in the region to have cumulative impacts on native vegetation and flora is limited due to the restricted and generally low quality native vegetation in the region as a result of historical clearing for agricultural uses. Cumulative impacts on native vegetation and flora, as a result of construction (e.g. removal of native vegetation), have been minimised through a process of avoiding and minimising impacts within the Project Area. It is noted that impacts outside of the Project Area due to other Projects are not yet known.
- The potential for the operation of the Project, and other proposed Projects in the region to have cumulative impacts on fauna is limited due to the highly modified landscape, meaning interactions with fauna are anticipated to be comparatively lower than in more natural environments. Cumulative operational impacts remain a risk for the Project, and other proposed Projects in the region, however it is noted that assessments will continue as more information is known, and that key mitigation measures, including that all wind farm projects will be required to prepare Bat and Avifauna Management Plans, will reduce residual cumulative impacts to an acceptable level.

The following table has been prepared to summarise the cumulative impacts to visual and traffic findings at this stage.

The Proponent acknowledges that there are other projects proposed within the region and will undertake further assessment of cumulative impacts as required as the Project progresses.

Project	Proximity to Project Area	Project Status / Indicative timing / overlap	Potential overlap between impacts	
			Visual	Traffic
Normanville Wind Energy Facility	13 km	Planning application lodged Construction periods not expected to overlap Operation periods will overlap	Impacts expected to be low – noting that Kerang township could potentially be subject to impacts (10km from Normanville and 9km from the Project).	Traffic generation during operation is insignificant.
Meering West Wind Farm	15 km	Planning application lodged Construction periods may overlap Operation periods will overlap	Impacts expected to be low – some rural residences may be located within the highest sensitivity zone (within 7.5km) of both Projects.	No impacts expected, the two projects propose different routes for construction and operation traffic.
Cannie Wind Farm	31 km	Prepare EES	No impacts expected.	Due to its location, it is not expected that the projects

		Construction periods may overlap Operation periods will overlap		will result in significant traffic at the same time.
VNI West transmission line	Traverses the Site	Prepare EES Construction periods may overlap Operation periods will overlap	The cumulative visual impact of the VNI West transmission line and the Macorna Wind Farm is not considered adverse for affected landholders, as the transmission line directly facilitates the development and operation of the wind farm. A number of stakeholders, particularly wind farm opponents, identify the combined visibility of the VNI West transmission line and the Macorna Wind Farm as a cumulative visual impact affecting the character of the surrounding landscape	Potential cumulative impacts given timing and locational cross over. Traffic Impact Assessment has considered potential impact and found that the cumulative impact would be acceptable. Further assessments will be undertaken throughout the development process and mitigation measures will be implemented if required.

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.

Other studies completed to inform the development of the Project include:

- Engineering Constructability Assessment (iCubed consulting, October 2023)
- Preliminary Ecological and Cultural Heritage Assessment (Ecology & Heritage Partners, March 2024)
- Brolga Roaming Surveys and Habitat Assessment (Ecology & Heritage Partners, January 2024)
- Migratory Shorebird Surveys (Ecology & Heritage Partners, March 2025)
- Preliminary native vegetation assessment (Ecology & Heritage Partners, August 2025)

Has a program for future environmental studies been developed?

☐ No ☒ Yes If yes, briefly describe.

The technical assessments will continue to be undertaken as the design progresses and to inform the planning approval and EPBC Act process for the Project, including:

- Community and Stakeholder Engagement Plan
- Ecological Assessment (refer below for detailed program)
- Hydrology and Stormwater Constraints Investigation
- Hydrogeological Assessment
- Landscape and Visual Impact Assessment
- Geotechnical Assessment
- Traffic Impact Assessment
- Air Quality Assessment
- Shadow Flicker Assessment

- Noise Impact Assessment
- Blade Throw Assessment
- Technical Assessment & Potential Agricultural Impact
- Aviation Impact Assessment
- Electromagnetic Interference Assessment
- Social and Economic Impact Assessment
- Cultural Heritage Management Plan (refer below for detailed program)

Ecology program

The ecological assessment prepared to date is supported by numerous surveys completed in 2024, 2025 and 2026. In addition to the Project specific surveys undertaken, the ecological assessment has been informed by historical survey data captured by the NCCMA to support their understanding of the ecological values of their catchment.

Further surveys are planned in 2026 to ensure a comprehensive survey program has been completed to support the design and assessment of the Project, as outlined in the following table.

Survey	Indicative Timing
Migratory bird / shorebird	Winter 2026 (July)
Brolga – Wetland	Winter 2026 (July)
Brolga – Breeding	Winter – Summer 2026 (July – December)
Brolga - flocking	Summer 2026 – Winter 2027 (December - June)
Bird Utilisation	Autumn – Spring 2026 (April, July and October)
Bat Surveys (acoustic)	Autumn – Spring 2026 (April, July and October) Summer – Winter 2027 (January, April, July)
Threatened flora targeted surveys)	Spring - Summer 2026-2027 (October - March – November)
Ecological communities	Spring 2026 (September – November)

Cultural heritage program

To date, the Aboriginal Cultural Heritage Archaeological Sensitivity Modelling Report has been used to inform the Project design in avoidance of areas of higher potential for archaeological sensitivity. The CHMP has now commenced, the findings of which will inform the design as required, with a primary objective to avoid impacts to Aboriginal Cultural Heritage.

The CHMP program is outlined in the following table.

CHMP Task	Timing
Notice of Intent	February 2026
Desktop Assessment	February – March 2026
Standard Assessment	May 2026 (commenced)
Complex Assessment (if required)	Subject to design refinements and approval timeline following Standard Assessment
CHMP preparation, finalisation and approval	Subject to timing of Complex Assessment, if required

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.

The Community and Stakeholder Engagement Plan (Attachment C) provides a summary of the engagement with landowners, neighbours, the broader community and stakeholders to date, which has included:

- Community presentation and discussion with hosts / potential hosts in late 2023.
- Project introductory meetings with Gannawarra & Loddon Councils
- Community BBQ
- Host excursion to Kiata Wind Farm
- Website, 1800 number and Project email - October 2025
- Neighbour mailout to 3.5 km, invitation to Neighbour Day in October 2025
- Kerang Show pop up stall
- Fortnightly neighbour doorknocking to 5km from Project Area (October 2025 – Present)
- Community drop-in sessions, 18th & 19th November 2025 (Kerang & Pyramid Hill)
- Kerang Farmers Market pop up stall
- Quarterly neighbour newsletters (since February 2026)
- Coffee drop-in sessions, generally monthly since April 2026 (Kerang & Pyramid Hill)

Figure 35 below, shows some examples of community drop-in sessions, Kerang Farmers Market pop up stalls and coffee drop-in session.



Figure 35 – Examples of community engagement

A community sentiment plan is shown at Figure 36, below, showing the general sentiment of community members within proximity to the Project Area. Figure 36 is also provided at page 34 of Attachment A – Mapping.

In addition to these events briefings and Project introductions have been provided to the following organisations and groups:

- First Peoples-State Relations, and representatives of Barapa Country Aboriginal Corporation, Kowang Community and Traditional Owner Group and Wamba Wemba Aboriginal Corporation
- Loddon Shire Council
- Gannawarra Shire Council
- Local National & State MPs
- North Central Catchment Management Authority
- Goulburn Murra Water
- DTP
- Country Fire Authority
- Department of Environment, Energy and Climate Action (DEECA)
- Invest Victoria
- Northern District Community Health
- Kerang Progress Association
- National EPA

Has a program for future consultation been developed?

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

Atmos is committed to continuing to work with the community and stakeholders throughout the development of the Project. The Community and Stakeholder Engagement Plan (Attachment C) sets out the engagement objectives and planned engagement for the upcoming phases of the Project.

Engagement activities include:

- Monthly coffee meet & greet (Kerang & Pyramid Hill)
- Community Drop-in Sessions (at key Project intervals)
- Ongoing neighbour newsletter (typically quarterly)
- Ongoing neighbour doorknocking through onsite presence WindFarmers Energy Group / Atmos Renewables staff

Engagement activities may adapt to the communities' needs and requirements as the Project progresses.

Landowners, neighbours and the community will receive regular updates from the Project via ads in the local papers (the Gannawarra Times and the Loddon Herald) mail outs, community events and updates on the website, here: <https://www.macornawindfarm.com.au/community>.

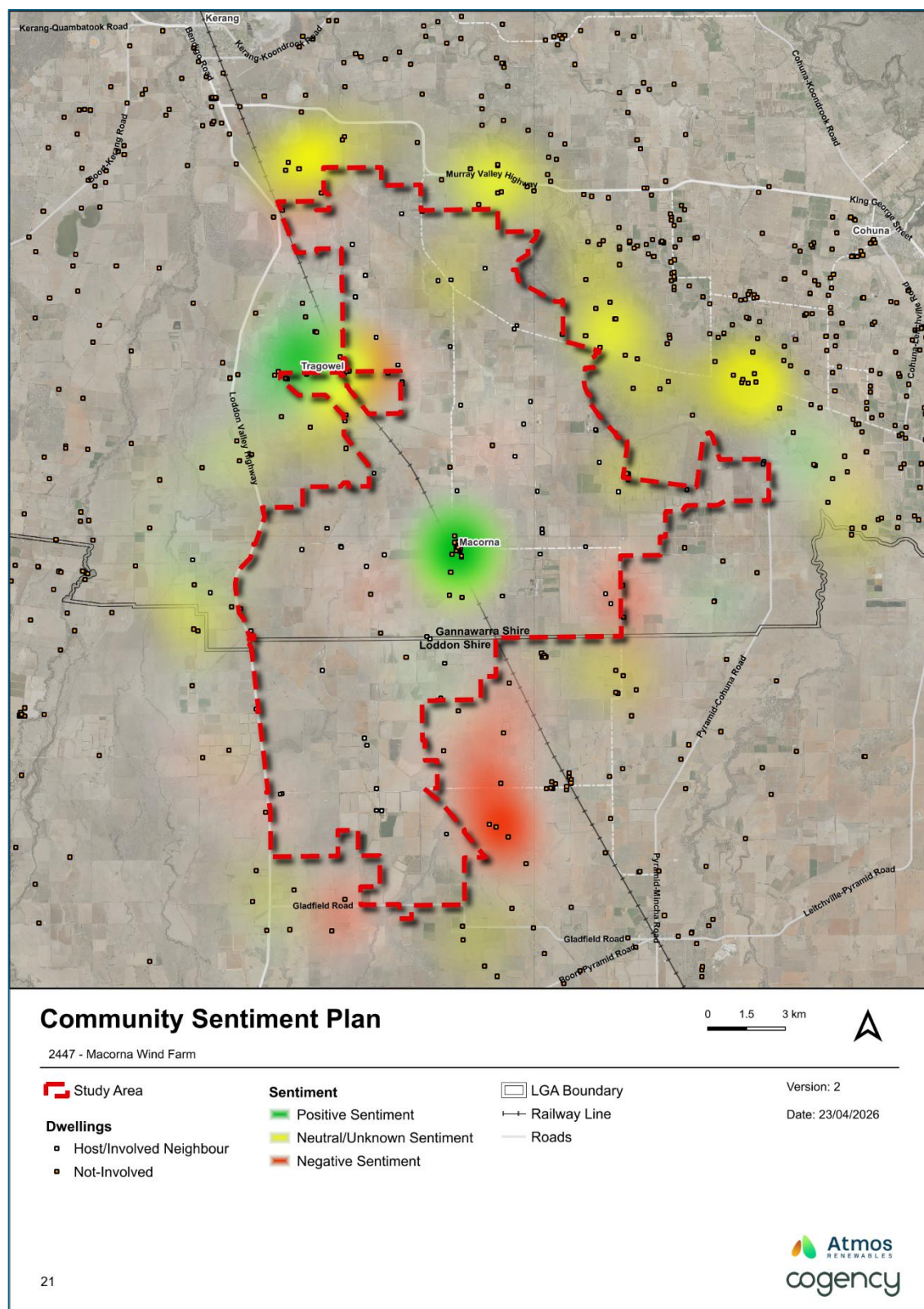


Figure 36 – Community Sentiment Plan

Authorised person for proponent:

I, Kate Munro, Head of Development, Atmos Renewables, confirm that the information contained in this form is, to my knowledge, true and not misleading.

Signature _____ *Kate Munro* _____

Date 18/08/2026

Person who prepared this referral:

I, Rebecca Wardle, Co-Founder & Director, Cogency Australia, confirm that the information contained in this form is, to my knowledge, true and not misleading.

Signature _____ *Rebecca Wardle* _____

Date 18/08/2026