

# About the Developers



**Energy Estate is an Australian company which develops and accelerates projects and businesses in the energy sector.**

We are focused on accelerating decarbonisation, driving innovation and delivering with respect and impact. We achieve our goals by developing clean industrial hubs and ecosystems and putting local economic development outcomes first. We work closely with industry to help them grow and decarbonise, in a manner that drives innovation and delivers outcomes for all stakeholders with respect and impact. Energy Estate is developing large scale renewable energy, energy storage and green hydrogen projects in Australia and internationally. We are proud to be one of the leading developers and strategic designers of Clean Energy Industrial Precincts across Australia.



**Active in Australia since 2004, RES employs over 120 people across offices with staff located in Brisbane, Sydney, Melbourne and Adelaide as well as regional locations.**

In Australia, RES is engaged in wind, solar, and battery energy storage projects with a development pipeline totalling in excess of 5GW.

RES offers quality specialist construction and asset management services to a diverse range of customers. Recent RES projects in Australia include the Dulacca Wind Farm (QLD), Murra Warra Wind Farms (VIC), Emerald Solar Farm (QLD), and Ararat Wind Farm (VIC).

RES is a private, family-owned company headquartered in the UK with over 40 years of experience in planning, building and operating renewable energy projects. We have developed and/or built close to 23GW of renewable energy capacity worldwide and supports an operational portfolio of assets exceeding 10GW.



# Landscape & visual assessment

**A Landscape and Visual Impact Assessment (LVIA) was undertaken for the Project to determine the potential impacts to the visual amenity of the region from the proposed wind farm**

Due to the rural location of the Project, the number of visual receptors anticipated to experience significant impacts is relatively low.

The LVIA Study Area considered three broad 'Landscape Character Types' including forested ranges and mountains, undulating and grazed uplands, and a small portion of rural plains.

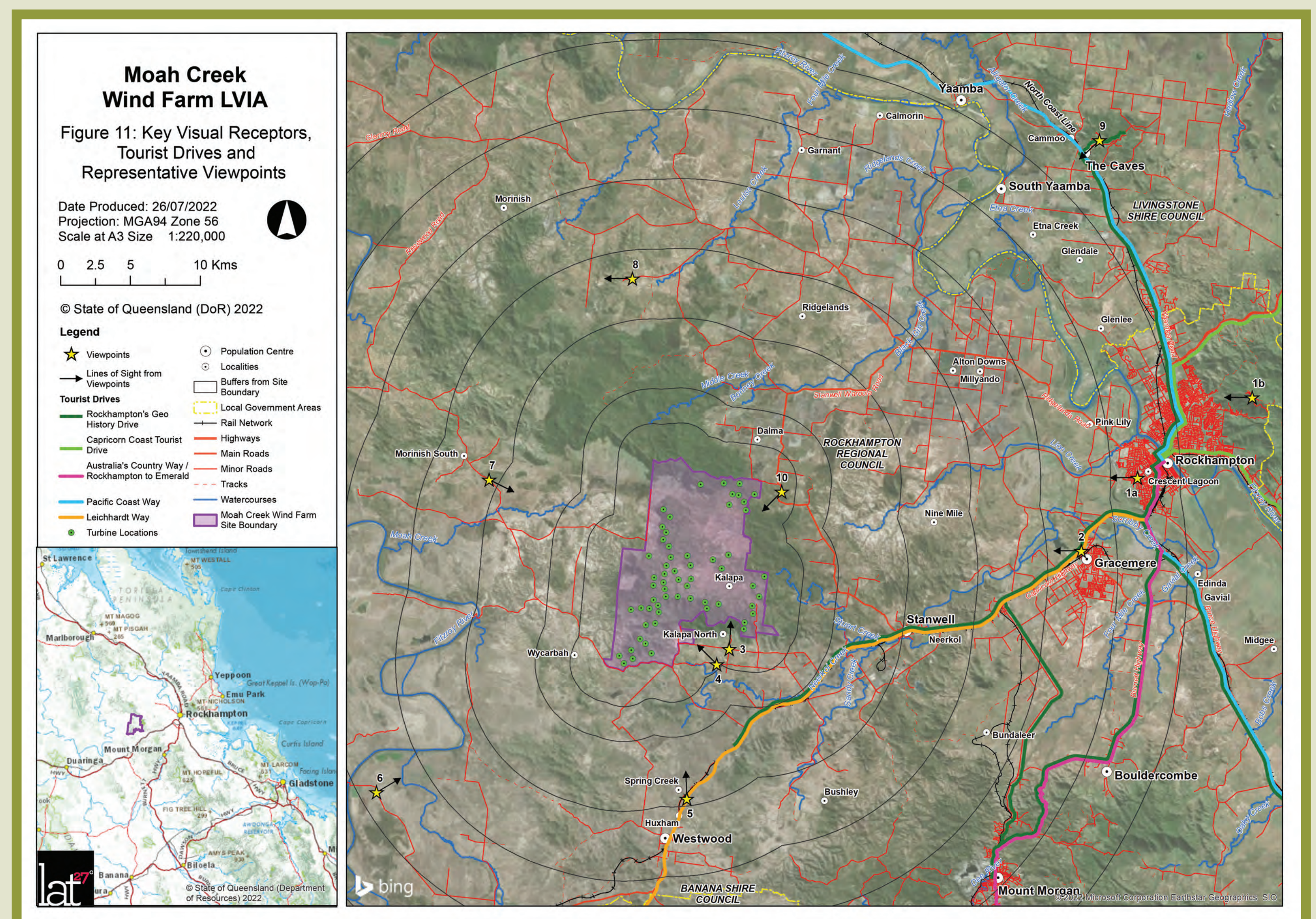
A Visual Analysis Map (VAM) was produced to identify areas from which the proposed wind turbines would be visible, taking into consideration the height of the turbines and the topography of the land surrounding the Project.

**The potential for views within 30 km of the Project was considered and the LVIA concluded that there would be:**

- ❖ No significant impact on the landscape character of the site or on any regionally or nationally important scenic viewpoints.
- ❖ significant impact at three representative viewpoints located in close proximity to the project.

Visualisations have been prepared to demonstrate the visual impact of the proposed turbines at four locations in the vicinity of the Project (viewpoints 1a, 4, 5 and 10).

The assessment considered methods to reduce the visual impact - screening views of turbines up to 275m high is not possible. However, ways of integrating the wind farm into the landscape were identified to include consistently siting the turbines along ridgelines within the site [that respond to the large scale of the range landscape].





# Noise monitoring

Noise from the project will need to comply with two key regulations - State Code 23 Wind Farm Development (the Code) and the Environmental Protection (Noise) Policy 2019 (the EPP). The operational assessment for the Project was completed by highly qualified and experienced acousticians using background noise data collected from several noise loggers temporarily installed at several locations adjacent to the project area in late 2021 and contemporary and rigorous noise modelling approaches.

**Modern wind turbines make limited noise due to the innovative designs and materials used for turbine construction. Noise levels can vary considerably depending on topography, humidity, location of the listener, wind speed and wind direction. The sound made by spinning wind turbine blades are often described as a "swoosh".**

One of the key factors in reducing the noise impacts on residences is to locate wind turbines away from sensitive land uses such as residential properties. To achieve this outcome, the Code requires wind turbines to be setback at least 1,500 m from any existing or approved sensitive land uses (which include dwelling houses) on non-host lots (which refers to a lot that does not form part of the proposed wind farm). We have applied this minimum setback to our project layout, to ensure that all wind turbines are at least 1,500 m away from an existing sensitive land use on properties that do not form part of the wind farm application area.

If approved, CQP will be required to conduct construction and post-construction noise monitoring to confirm the noise levels associated with the wind farm meet the required guideline criteria.



# Flora & fauna

**A range of flora and fauna surveys have been undertaken to inform our comprehensive design process and ecological impact assessments.**


Surveys have been conducted across different seasons from 2020 to present, and further survey work will be conducted to meet regulatory requirements for the environmental assessment.

**Approximately 40% of the Project footprint is located in previously cleared areas.**

The majority of proposed native vegetation clearing is located in areas mapped as 'least concern' vegetation communities.

Vegetation communities known as concern and endangered represent 0.4% and 0.5% of the Project footprint respectively.

**We identified a total of 180 fauna species (124 birds, 33 mammals, 13 reptiles and 10 amphibians), 315 native flora species and 64 weed species were identified. Some of the flora and fauna are protected under State and Commonwealth environmental legislation:**

 **Greater glider** (*Petauroides volans*)

 **Squatter pigeon** (*Geohaps scripta scripta*)

 **White-throated needletail**  
(*Hirundapus caudacutus*)

 **Cycas megacarpa**

 **Eucalyptus raveretiana**

 **Cerbera dumicola**

Other species, including koala, may occur on site but have not yet been observed or detected during ecological surveys.

The greatest potential risk to ecological values is vegetation clearing during the construction phase – we will avoid this through our Construction and Environmental Management Plan (CEMP), and a Bird and Bat Adaptive Management Plan (BBAMP)

We will also implement appropriate biosecurity procedures and controls in recognition of the potential impacts to grazing land caused by the spread of weed species.

A key element of the wind farm design process has been to avoid flora and fauna impacts to the greatest extent possible. This approach has led to over twenty design revisions to the proposed development layout with input and review by a range of technical specialists. The Project is considered likely to result in "significant residual impacts" to protected wildlife habitat and connectivity areas, and the Endangered Cycas megacarpa, and environments offsets will be provided in accordance with the Environmental Offsets Act 2014.

**We will develop a Rehabilitation Management Plan to stabilise and revegetate areas of disturbance that are not required during the operational phase. Our Rehabilitation Management Plan will be publicly available on our website once it is finalised.**



# Aviation

**An Aviation Impact Assessment has been prepared for the project to ensure that safety, operational integrity and efficiency of air services and aircraft operations are not compromised.**

This assessment considered topography, the maximum height of the turbines and any conflicts with mapped aviation airspace. These details were provided to key aviation stakeholders including the Civil Aviation Safety Authority (CASA), Department of Defence, and Airservices Australia (AsA). Further consultation with these parties, along with local aerial agricultural and firefighting operators, will be completed as the Project progresses through the approvals and design phases.

The Aviation Impact Assessment determined that the Project would have minimal impacts on aviation operations and safety. The Project does encroach into a small portion of airspace used for flight training during daylight hours; however, it is likely that minor amendments to operating procedures will negate any risk.

# Shadow Flicker

When light shines on rotating turbine blades, intermittent shadows known as shadow flicker can be cast on surrounding areas. We have undertaken a Shadow Flicker assessment to understand the shadow flicker impacts of the Project.

The extent of shadows from turbines are referred to as the shadow flicker zone of influence, which is determined based on maximum turbine blade chord (or width) and is typically less than the prescribed separation distance of 1,500 metres to the nearest sensitive land use. The assessment determined that shadow flicker would not result in impacts to sensitive land uses surrounding the Project.

The Project may incorporate turbine blades that have a semi-matte, low reflectivity surface finish, that is light grey or white in colour, to reduce shadow flicker as far as practical.

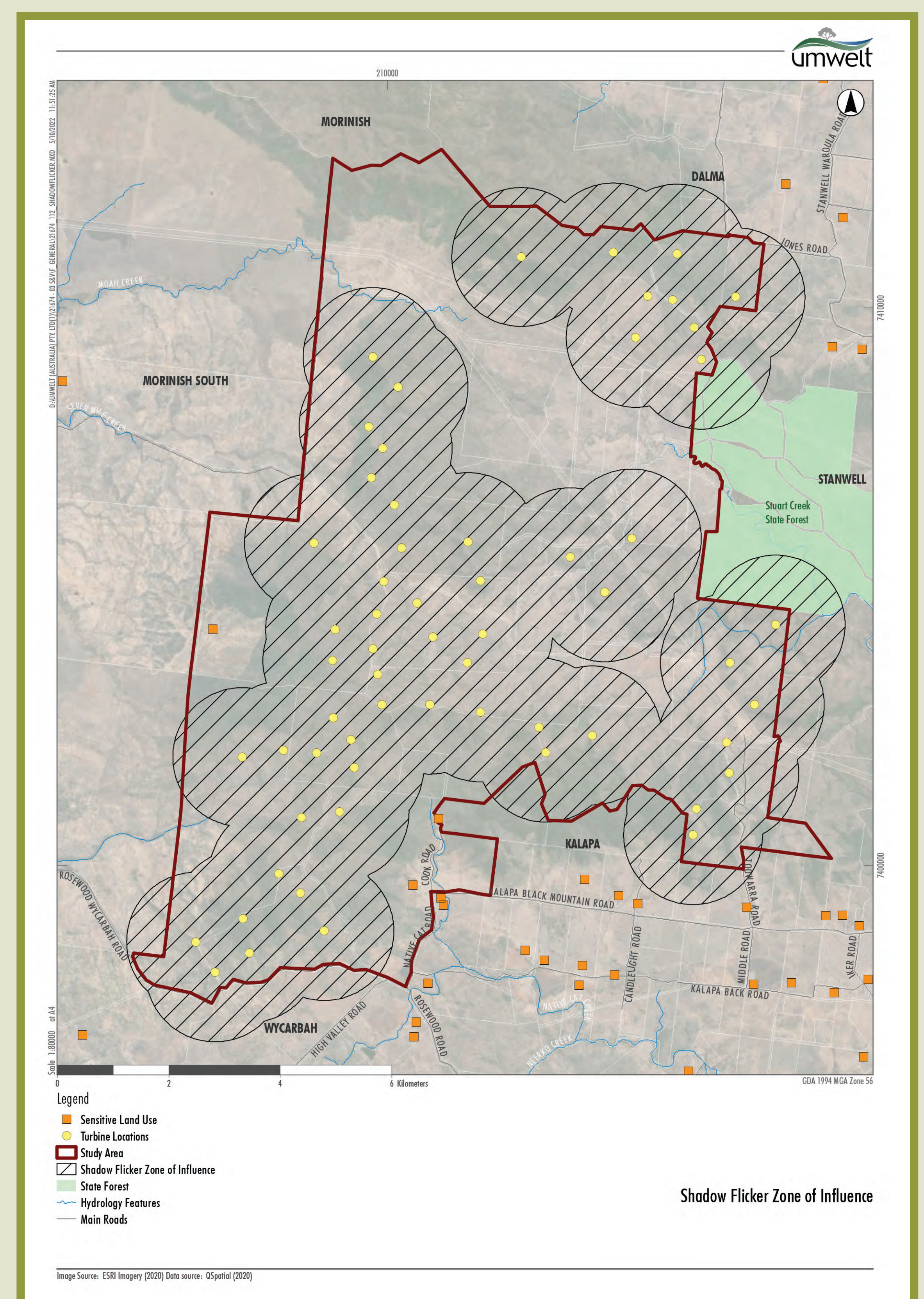


Figure of Shadow Flicker Zone of Influence



# Electromagnetic Interference (EMI)

**An electromagnetic interference (EMI) assessment has been prepared for the Project, which investigated the potential impacts of the wind farm on registered radio communications in the vicinity.**

Broadcast towers and transmission paths around the Project were examined, which determined that potential EMI from the Project would be unlikely to create any adverse impacts on radiocommunication services surrounding the Study Area.

Potential impacts on other services such as trigonometrical stations, CB radio, mobile phones, and broadcast radio were also assessed, and determined to either be minor, or have been assessed through consultation with the service operators.

Consultation with a range of stakeholders, including NBN Co, Optus, Telstra, Vodafone and Field Solutions Group, was undertaken to seek feedback on potential impacts of the Project. All responses received indicate that the Project is unlikely to impact these services.

Our development approval is likely to include pre-and post-construction assessments of television and radio reception strength to confirm that the operation of the wind farm has not disrupted these signals.





# Traffic and access, Construction management

A Route Assessment and Traffic Impact Assessment (TIA) have been prepared to determine the level of potential impacts on the operation of the surrounding road network caused by the transport of turbine components and construction equipment to site.

## Adopting the following would maximise vehicle safety on the sections of the road network utilised by Project traffic:

- ❖ Undertake relevant works along the identified transport route to accommodate transport routes of Over Size Over Mass (OSOM) transport vehicles.
- ❖ Upgrade to the existing Capricorn Highway / Kalapa Black Mountain Road intersection, the sealed and unsealed sections of Kalapa Black Mountain Road, floodway structures on Kalapa Black Mountain Road, cattle grid structures on Toowarra Road, and intersection of Kalapa Black Mountain Road and Native Cat Road.
- ❖ Construction of new site accesses from Rosewood-Wycarbah Road.

Remedial works due to any damage attributed to Project truck movements will be agreed with Rockhampton Regional Council or the Department of Transport and Main Roads.

## Construction management

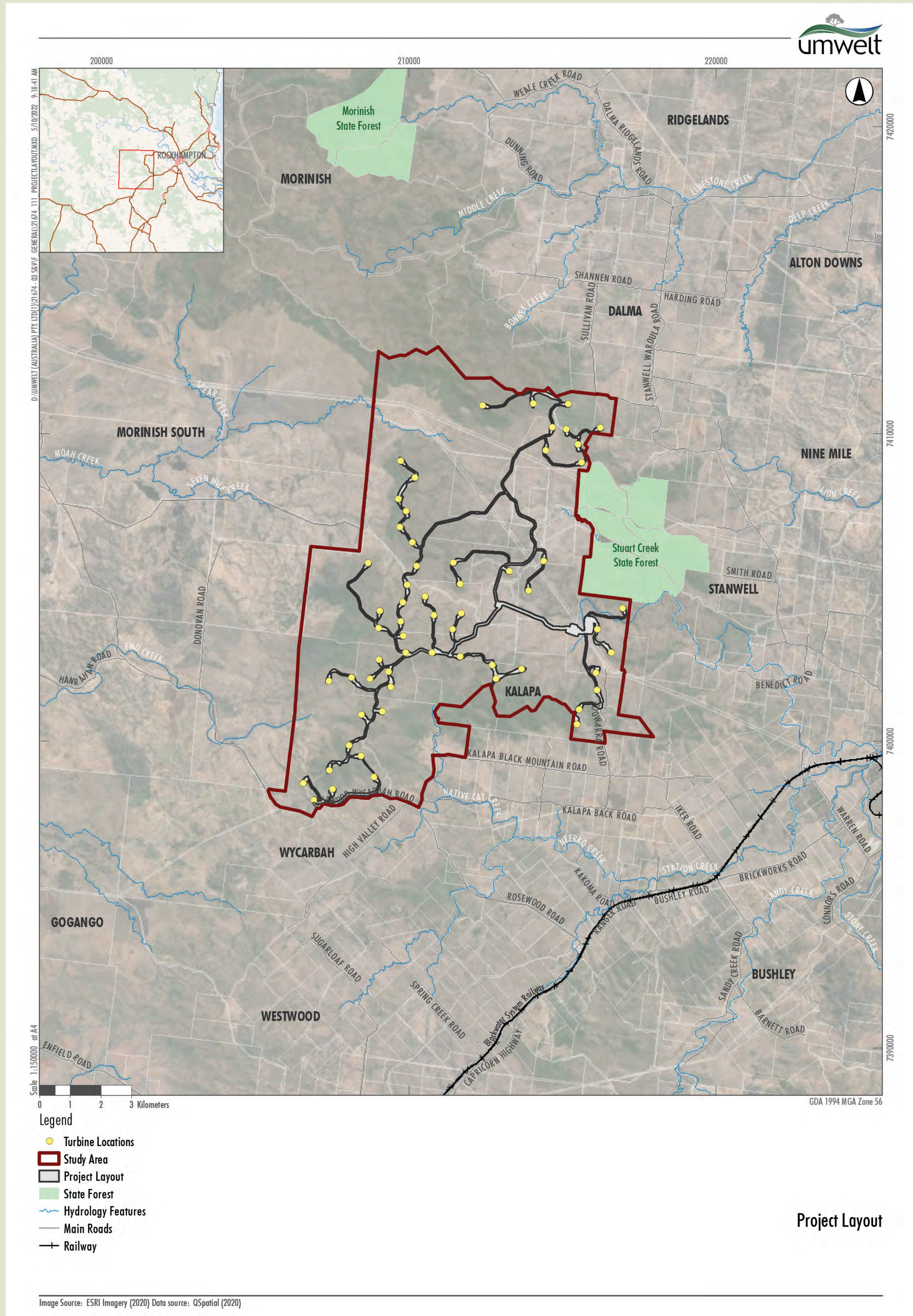
A Construction Management Plan (CMP) was developed to identify potential construction impacts that may occur as a result of the project and provides measures that would minimise potential adverse impacts.

In accordance with the State Wind Farm Planning Guidance document, the CMP considered a range of supporting actions and mitigation measures (e.g. construction hours, managing dust, noise and vibration, complaints management procedures) to minimise impacts associated with the project's construction on the community, transport networks and road infrastructure.





# Location, project footprint and indicative turbine layout





# Commitments to and benefits for the region

**CQP's vision for this project is that it will create positive and enduring social & economic legacies both locally and regionally.**

We are committed to working hard to establish and maintain a long-term connection with the community and to be viewed as a good neighbour.

**We are exploring a wide range of benefits and opportunities to include:**

- 🌐 a community fund
- 🌐 neighbour benefit programs
- 🌐 training, scholarships & apprenticeships
- 🌐 sponsorships of local clubs
- 🌐 opportunities for local supply chain business & service providers
- 🌐 improvement of local infrastructure

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*We will be setting up a community fund that will provide ongoing funding to support local projects, community groups and organisations.*

Input will be sought from the community to inform and shape how the fund could be implemented to maximise the benefits for the locals.

It is intended that the community fund will operate for the life of the project and be run by a community-led group.

**Please write your ideas on how this fund would be best used to benefit your community on the Post It notes provided on the poster next to this one.**



# Commitments to and benefits for the region

**As part of CQP's commitment to ensuring we deliver real and measurable economic benefits to the community, we will prioritise local procurement and supply chains, and the use of local business & service providers.**

There will be an increased demand locally for services such as catering, accommodation, automotive and general goods. The type of works and services packages that could be provided by local individuals or businesses or a consortium of locals during the construction and operational stages of a renewable energy project include:

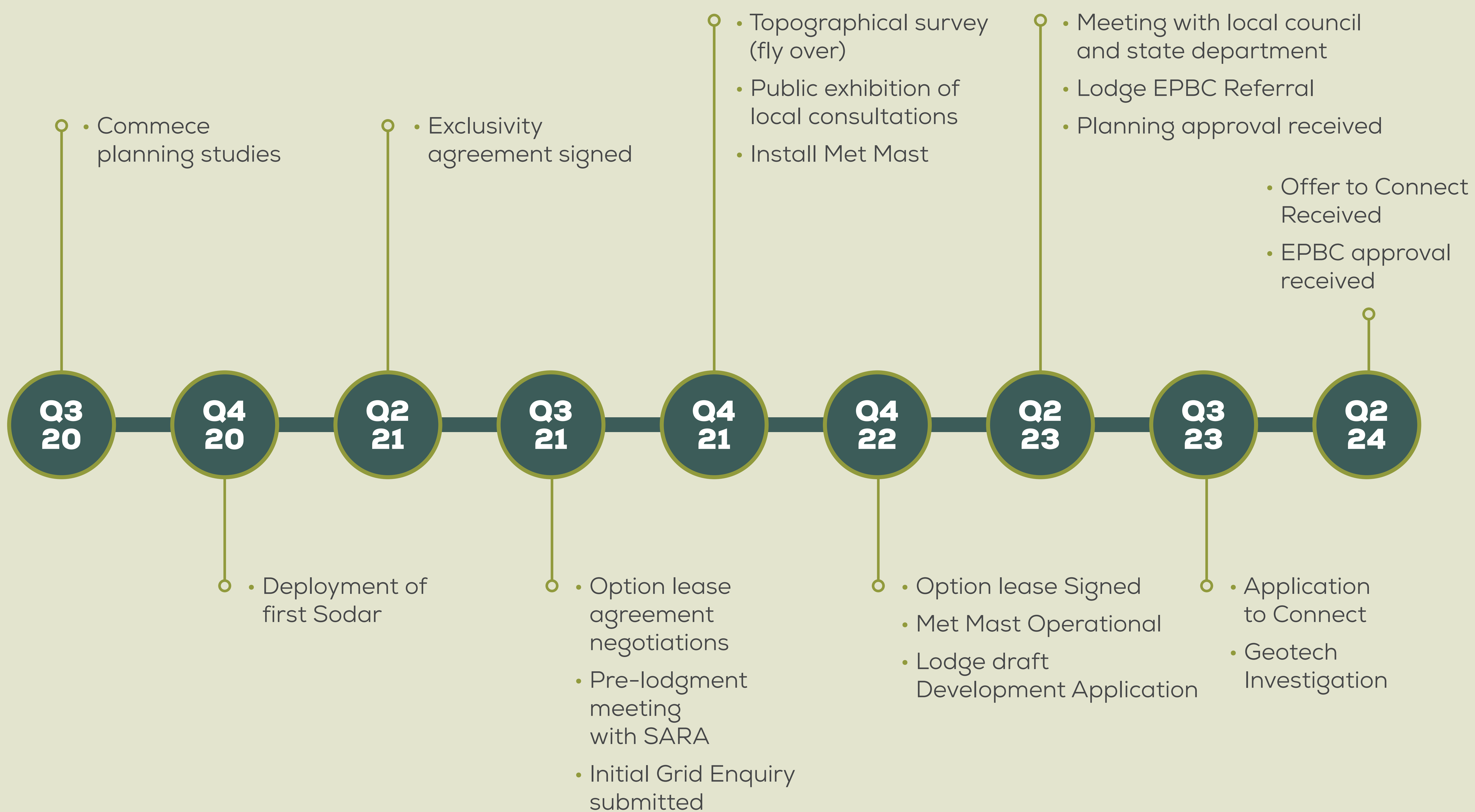
- ⦿ Electrical works
- ⦿ Civil works (access roads, hard stands & stormwater drainage systems)
- ⦿ Crane hire & installation
- ⦿ Supply of concrete materials
- ⦿ Concrete agitator trucks
- ⦿ Concrete placing
- ⦿ Quarry products
- ⦿ Transportation and remote warehousing
- ⦿ Traffic management
- ⦿ Worker accommodation
- ⦿ Catering
- ⦿ Surveying
- ⦿ Engineering
- ⦿ Earthmoving equipment and water trucks
- ⦿ Fencing
- ⦿ Waste removal & recycling
- ⦿ Labour Hire
- ⦿ Landscaping & rehabilitation services
- ⦿ Security

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**If you are interested in supplying local services or gaining employment please fill out the form provided, speak to one of our team here today, or visit our website to register.**



# Indicative project timeline



## Indicative Development timeline





# Property values

**The issue of property value is an extremely complex one with variations in price being subject to a number of factors.**

**Some are measurable - such as the productive capacity of the land. Many factors affecting value are, however, subjective - such as the level of access to services, proximity to amenities and infrastructure, housing affordability, desirability of location, views, and local transport.**

The fact that a property is in the vicinity of a wind farm or that a wind farm is visible from a property does not mean that a property value is going to be impacted.

Over the past decade there have been many major studies by independent, respected organisations globally (to include Australia) that have failed to find any link between wind turbines and declining property values.

One Australian study examined properties located near eight wind farms and found no evidence that wind turbines caused property values to drop. The report concluded that "For rural properties used for primary production, there is no direct loss of productivity resulting from wind farms; therefore, they are unlikely to negatively impact the value of such properties." The report also found that "No reductions in sale price were evident for rural properties or residential properties located in nearby townships with views of the wind farm."<sup>1</sup>

In a more recent report by Urbis their conclusion on the basis of a review of case studies "did not identify any conclusive trends that would indicate that wind farms have negatively impacted on property values."<sup>2</sup>

<sup>1</sup> NSW Department of Lands report [www.valuergeneral.nsw.gov.au/\\_\\_\\_data/assets/pdf\\_file/0006/195315/Preliminary\\_assessment\\_impact\\_of\\_wind\\_farms\\_on\\_surrounding\\_land\\_values\\_in\\_Australia.pdf](http://www.valuergeneral.nsw.gov.au/___data/assets/pdf_file/0006/195315/Preliminary_assessment_impact_of_wind_farms_on_surrounding_land_values_in_Australia.pdf)

<sup>2</sup> Review of the impact of Wind Farms on Property Values, Urbis 2016 <https://www.environment.nsw.gov.au/resources/communities/wind-farm-value-impacts-report.pdf>

\* NSW Department of Lands report [www.valuergeneral.nsw.gov.au/\\_\\_\\_data/assets/pdf\\_file/0006/195315/Preliminary\\_assessment\\_impact\\_of\\_wind\\_farms\\_on\\_surrounding\\_land\\_values\\_in\\_Australia.pdf](http://www.valuergeneral.nsw.gov.au/___data/assets/pdf_file/0006/195315/Preliminary_assessment_impact_of_wind_farms_on_surrounding_land_values_in_Australia.pdf) reported in Wind Energy the Facts, Clean Energy Council, March 2013.



# Surface water, conceptual erosion and sediment control

**A Stormwater Management Plan was developed for the Project to investigate the surface water environmental values in proximity to the Project, potential impacts of stormwater discharge, as well as surface water quality and quantity.**

Peak stormwater discharges from impervious areas may increase slightly as a result of the Project. However, its potential impact on drainage features and downstream watercourses is minimal, due to the relative size of the Project with respect to the size of receiving catchments and distributed nature of minor impacts. The presence of extensive vegetation buffers along roads, infrastructure, and grassed table drains, can ensure that any localised increase in peak flows is attenuated.

Potential impacts on sediment discharge and surface water quality, during construction and decommissioning can be appropriately managed through best practice principles of construction management and planning. Potential adverse impacts on surface water quality during operational stage of the Project can also be addressed by developing an operational management plan. Potential impacts on the receiving environment surface water quality from point sources such as chemical storage and wastewater treatment can be mitigated through design and operation in accordance with relevant Australian Standards and local planning requirements.

## **ESCP**

A conceptual erosion and sediment control plan (ESCP) was developed to provide an initial indication of the potential erosion and sedimentation risks of the Project. The conceptual ESCP provides a number of recommendations to be implemented for the Project. These erosion and sediment control requirements will be reviewed and considered as part of the detailed ESCP, which would be developed later as the Project progress into detailed design phase.





# Cultural Heritage

## Aboriginal Cultural Heritage

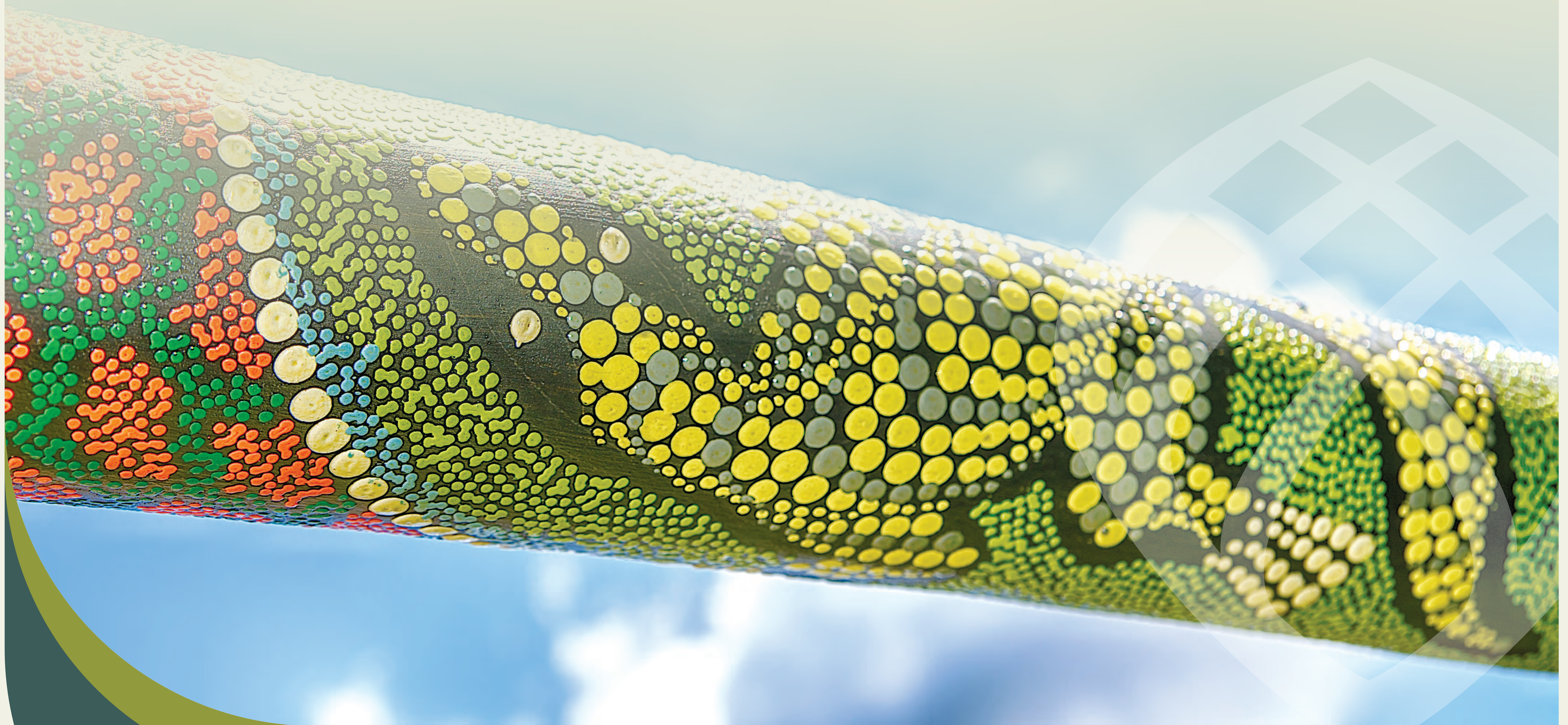
**We recognise the Darumbal People as the traditional custodians of the land where the Project is located and respect their deep and continuing connection to the land.**

We are working closely with the Darumbal People to ensure recognition, protection and conservation of their Cultural Heritage for the Project area through conversations and meetings and through the vehicle of a Cultural Heritage Management Plan. We are also partnering with them to avoid harm and, to the extent that it cannot be reasonably avoided, to minimise harm to their Cultural Heritage.

We have undertaken a search of the Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP) Aboriginal and Torres Strait Islander Cultural Heritage Database and Register under the Aboriginal Cultural Heritage Act 2003 and Torres Strait Islander Cultural Heritage Act 2003. It identified four cultural heritage site points within the project Study area and we are working with the Darumbal People on avoiding and managing .

## Non-Aboriginal Heritage

A search of the Queensland Heritage Register has confirmed that there are no listed Heritage Places within the Study Area or in close proximity to the Project but we will continue to monitor this throughout our continued studies of the land and during construction.










# Community Consultative Committee (CCC)

Once we have obtained Development Approval for the Project, we will establish our **Community and Consultative Committee (CCC)**.

The aim of the **CCC** is to allow multiple views to be represented with a focus on generating understanding, rather than acceptance, of the Project. It is a forum for discussion between CQP and representatives of the community, stakeholder groups and the local council on issues directly related to the project.

It will assist our team & our contractors to understand issues and perceptions relating to the project's design and construction and gain additional feedback about aspects of the project which may impact on the wind farm's neighbours and wider community.

**So that the committee is a success, we will work hard to:**

-  Encourage the community and other stakeholders to reach out to the **CCC** with all of their comments
-  Ensure the **CCC** has access to accurate project information
-  Acknowledge local concerns and issues raised at **CCC** meetings
-  Transparently make available the **CCC** meeting minutes on the Project website; and
-  Address, resolve and/or mitigate community concerns or issues in a timely manner

More information on the **CCC** will be provided on our website and in our newsletters. The **CCC** is separate from the **Community Fund Committee** that will be established to administer a community benefit program.

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## Neighbour Shared Benefit Scheme (SBS)

The Project will have a **Neighbour Shared Benefit Scheme (SBS)** - a program we will develop to enable benefits from this Project to be meaningfully shared with project neighbours.

The **SBS** will start at the commencement of construction of the Project and will continue through its operational life.

The **SBS** will be opened up to project neighbours prior to the commencement of construction and eligibility for inclusion in the scheme will be based on a clear set of criteria. The eligibility of each property will depend on factors such as the presence of a dwelling on the property and the distance of the property to the Project. At first, we will use spatial mapping tools to measure how a neighbour's property is positioned against the preliminary layout design of the project. Prior to commencement of construction, the eligibility of properties is confirmed using the proposed final layout of the turbines and infrastructure.

We have already started to reach out to the Project's neighbours to introduce the scheme and will continue to do so. Please talk to one of our team here today if you want to know more.