Theodore
Wind Farm

RWE

Proposed Theodore Wind Farm

Community Drop-in Sessions 28 and 29 March, 2025

Information booklet

1800 879 435

theodorewindfarm@rwe.com

theodorewindfarm.com.au

Contents

At a glance

About
500,000
homes powered

The equivalent of powering all private dwellings in the Banana Shire close to 70 times, or the city of Rockhampton more than 15 times

Up to
170
wind turbines

Height up to
270 metres

About
1100 MW
installed capacity

Battery energy storage

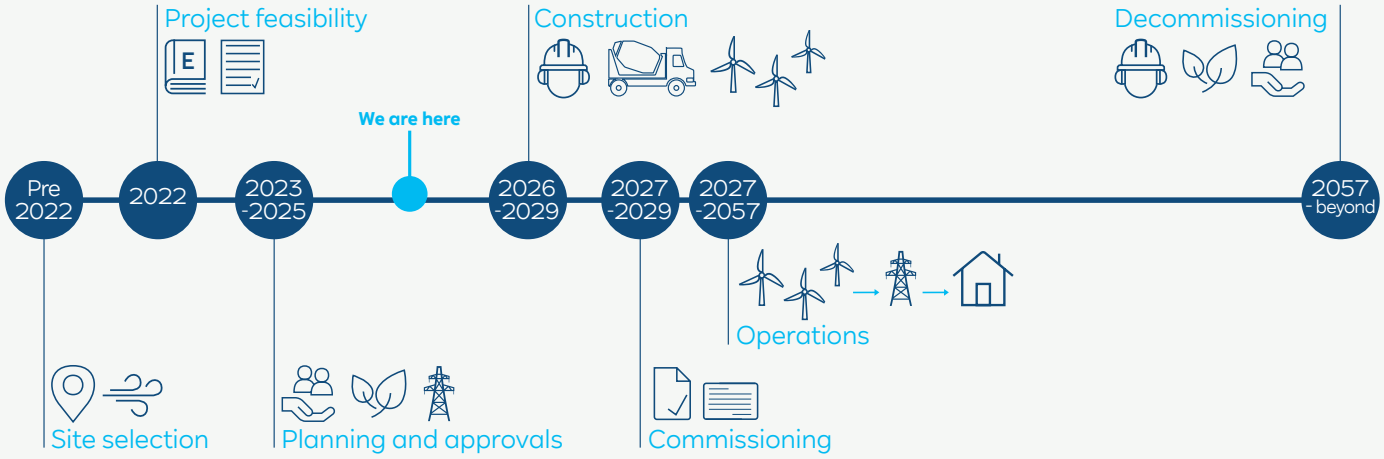
Located about
22 KM
east of Theodore and 50 kms south-west of Biloela

Local Government Area
LGA
Banana Shire Council

Close to
46,000 ha
investigation area
with the project footprint expected to occupy less than 3 per cent of this area

Targeting
2027
initial operations

Estimated project timeline



Theodore Wind Farm | RWE

Project benefits

Employment

- Up to 50 ongoing jobs for the 35-year operation of the wind farm
- Up to 500 jobs at peak construction periods
- Support local supply chains through increased demand for goods and services, including hospitality, trades and other suppliers

Community

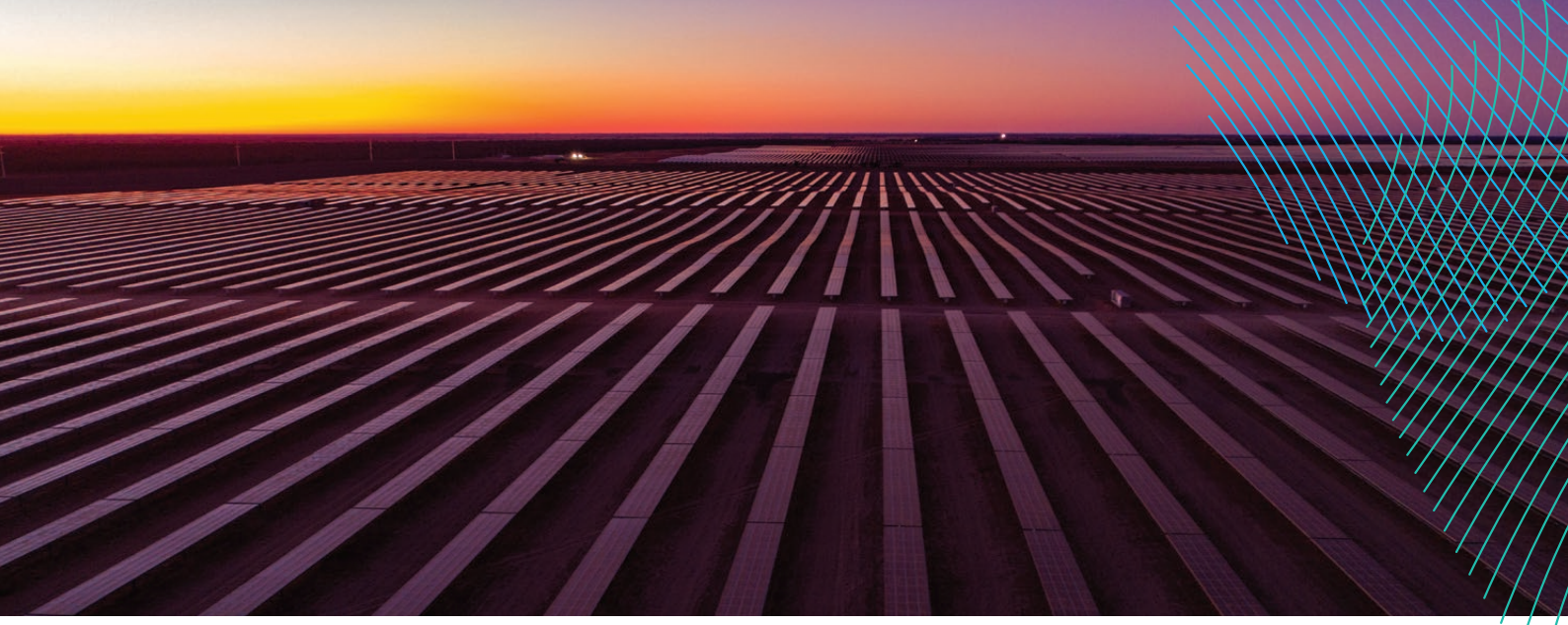
- Community Benefit Fund of at least $500k per year, to begin when construction commences and operate for the 35-year operational lifespan of the project
- Sponsorship fund during project development with almost $100k already allocated to local community groups and organisations

Economic

- Ongoing economic stimulus in the region, across the project's 35 years of operation
- Community Benefit Fund to be delivered over the operational life of the wind farm
- Rates payments to the Banana Shire Council
- Sponsorship fund during the development of the project
- Sponsorship fund of $100k p.a. currently operational

Environmental

- Proposed to generate enough electricity to power 500,000 homes - the equivalent of powering all private dwellings in the Banana Shire close to 70 times, or the city of Rockhampton more than 15 times
- Help provide electricity security for Queenslanders



About RWE

RWE is one of the world's leading producers of renewable energy and operates a global portfolio of about 19 gigawatts (GW) of renewable wind, solar and battery storage projects.

In addition, there are various renewable energy projects under construction in multiple countries throughout the world, totalling about 12 GW.

The RWE Group has been present in Australia since 2013. In 2018 it began construction of one of the country's largest solar farms – the 249 megawatt (MW) Limondale Solar Farm in New South Wales (NSW) and has been operating it ever since.

RWE is now developing an exciting portfolio of wind, solar and battery storage projects across Australia. Our growing team of about 80 people – largely based in Victoria and Queensland – is backed by the experience of RWE Renewables' 5,300 strong team across the European, North American, and Asia Pacific regions.

We have a planned gross investment in Australia of $6 billion, to develop up to 3 GW of onshore wind, solar and battery projects across multiple states.

Our Limondale project is one of the country's largest solar farms. We have built a strong relationship with the Balranald community and were chosen to deliver and operate Australia's first eight-hour battery within the existing project site through New South Wales' first Long-Term Energy Service Agreements tender process. This project is currently under construction and commissioning is planned for late 2025.

Global portfolio of about

19 GW

A further 12 GW of global renewable energy projects under construction

RWE has a strong focus on working with and making positive contributions to the communities where our projects are based, as well as being a key driver of Australia's energy transition.

We are committed to fostering transparent and lasting relationships with stakeholders, with particular consideration for local communities and landowners. Our business model is to develop, own and operate renewable energy projects and we look forward to working with your community.

Find out more about our Australian projects at **au.rwe.com**

A wind farm's lifecycle

Developing a wind farm in Australia requires extensive studies, assessments and engagement with stakeholders before submitting a planning application, which is tailored to the relevant state's planning process. This infographic outlines the stages of a wind farm, from site selection to decommissioning.

1 Site selection

Generally 6-18 months

Factors that need to be considered when selecting a site include:

- Wind resource
- Grid connection (distance and connection point)
- Population density

2 Project feasibility

Generally 6-18 months

This incorporates:

- Wind monitoring to determine strength and the site's viability
- Consideration of social and environmental factors
- Developer meetings with potential host landowners to inform and sign land use contracts
- Initial studies

The project generally becomes public knowledge during this stage or the next.

3 Planning and approvals

Can be up to several years

Extensive studies, reports, and community and stakeholder feedback help shape the project that is submitted to the required planning authorities. If approvals are received, RWE will seek goods and services providers, and create job opportunities.

4 Construction

Dependent on the project size, but usually 18 months to 3 years

Larger wind farms (more than 60 turbines) may be built in stages. Turbines are often operational once constructed, even if construction of the overall project is ongoing. Community updates continue in this stage and benefit sharing programs are finalised or sometimes become operational.

5 Commissioning and operations

A wind farm can operate between 25 and 35 years

Commissioning begins when the first turbines are built and continues until all turbines are operational – delivering clean, green power. A community benefit fund, administered by a community committee, and a permanent workforce are implemented during operations.

6 Decommissioning

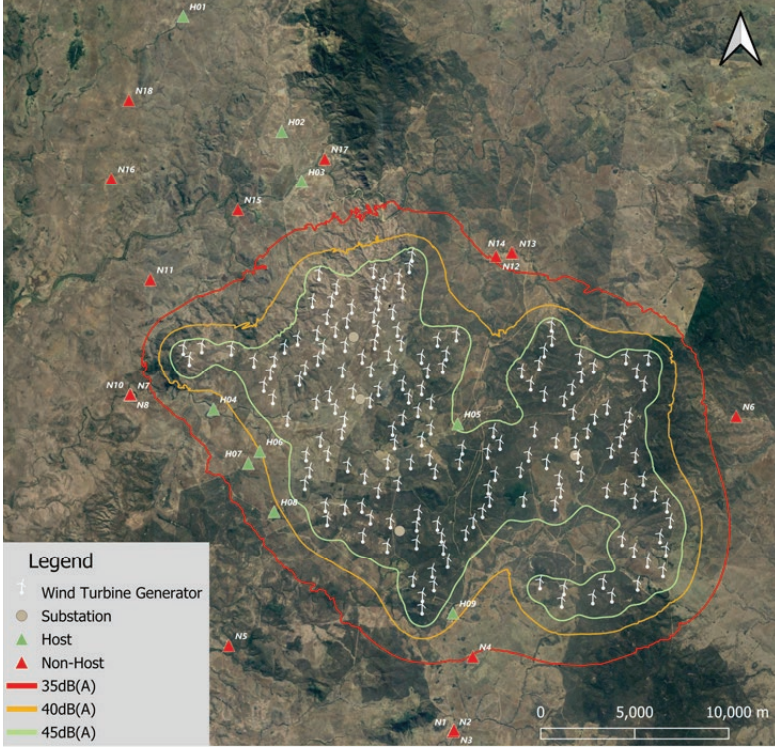
Several months to years, depending on the project size

Options at the end of a wind farm's life include:

- Remove infrastructure and return land to prior state or a state desired by the landowner (this is RWE's responsibility)
- Extend the operating lifespan through the relevant planning pathway
- Incorporate modern wind farm technology

Noise Impact Assessment

The Noise Impact Assessment for the proposed Theodore Wind Farm models the potential noise levels from 170 wind turbines, battery storage systems and transformers and compares them to government regulations.



What regulations are in place for noise from wind farms?

Queensland's State Code 23 requires wind farms to be designed in a way that ensures acceptable noise levels for everyone – both host and non-host landholders.

The proposed project is assessed for noise impacts under the Banana Shire Council Planning Scheme 2021 and the relevant State Development Assessment Provisions.

What type of noise is generated by wind farms?

Wind farms generate two types of noise:

- **Aerodynamic**, which is the sound of turbine blades moving through the air.
- **Mechanical**, which is the sound generated from the turbine's mechanics.

What did the noise assessment involve?

Specialist consultants Echo Acoustics measured the existing noise in the environment using precise instruments over time to establish baseline noise levels. They then compared these with the predicted noise from the proposed facility to assess the impact on nearby residential areas, ensuring it meets government regulations.

What did the noise assessment conclude?

The noise assessment found that the proposed Theodore Wind Farm will be within the required noise levels and separation distances for wind turbines. The layout ensures that the nearest non-host homes are more than twice the required distance from the proposed turbine locations.

What noise is allowed under the guidelines?

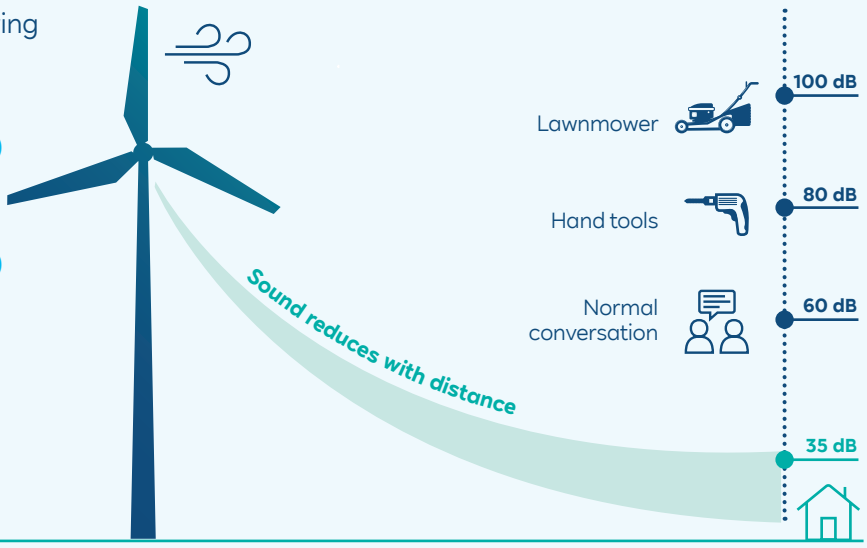
State Code 23 version 3.1sets the following noise limits for wind turbines:

Host landholders:
45 dB(A) or background noise + 5 dB(A)

All other dwellings:
35 dB(A) or background noise + 5 dB(A)

The wind farm noise limit at non-participating dwellings is 35 dB(A), or +5 dB(A) above ambient levels, whichever is higher.

Decibel levels of sound comparable to a wind turbine



Socio-economic Impact Analysis

The socio-economic impact analysis for the proposed Theodore Wind Farm provides an overview of the social and economic context of the communities around the proposed project and establishes a baseline. This means the impact of the proposed project can be successfully monitored over time, and any social, economic, and demographic changes can be evaluated and measured.

How was this analysis undertaken?

The assessment was undertaken in line with state guidelines to document the existing social and economic environments of the Area of Influence (AoI).

The report:

- Found there were two AoIs; a primary and secondary area. The primary area is the project area and immediate surrounds; the secondary AoI is the Banana Shire and Gladstone Region LGAs.
- Identified nearby areas that are likely to experience social impacts.
- Collected baseline data from the Australian Bureau of Statistics and Queensland government.
- Incorporated stakeholder input.
- Reviewed local and state planning policies and project information.

After analysis, further community consultation will occur and consideration be given to managing or reducing negative impacts.

What were the key learnings?

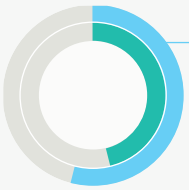
Community profile

In the Banana Shire and Gladstone LGAs the median age is 38, similar to Queensland's average. The Indigenous population is 4.6% in Banana Shire and 6.2% in Gladstone, close to Queensland's 4.6%. However, Theodore and Moura have higher Indigenous populations at 15.1% and 8%, respectively. Additionally, there are slightly more males than females in the local government areas more broadly.

Economic and employment profile

Banana Shire

Full time employment



65.4%

against a Qld average of 55.9%

Top employment industry

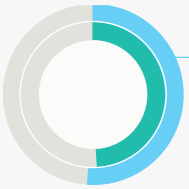
Beef cattle farming

Household income 2016-2021

Higher compared to the state and nationally

Gladstone Region

Full time employment



58.1%

against a Qld average of 55.9%

Top employment industry

Aluminium smelting

Household income 2016-2021

Lower compared to the state and nationally

There is a higher percentage of technicians, trades workers, labourers and machinery operators in the Banana Shire and Gladstone Region LGAs than Queensland as a state. This means the local population has a range of skills that can be drawn on for the proposed project's construction. Some additional training might be required, however, this will benefit the community overall.

Accommodation considerations

The report analysed existing accommodation options and a workforce accommodation strategy is being prepared. Please refer to the workforce accommodation poster for further information.

Social infrastructure

Social infrastructure includes recreational facilities, community organisations, schools, and health and emergency services. The report also identified the area's recreation and community facilities, health services, schools and other education facilities.

What happens with this information?

This information helps shape the Project development by allowing RWE to better understand project risks, positively impact communities, and effectively contribute to social and economic development.

Natural Hazard Risk Assessment

The Natural Hazard Risk Assessment for the proposed Theodore Wind Farm explores the potential bushfire impacts to people, property, economic activity and the environment, and addresses them within the relevant regulations.

How was this assessment done?

The assessment incorporated detailed desktop analysis of fire, weather and fuel in the proposed project area, and then used advanced modelling and data analysis to complete radiant heat flux modelling. Radiant heat flux modelling measures how much heat is transferred; in the context of wind farms, it specifies the minimum distances between the structures and vegetation that is required to reduce the risk of fire damage.

What are the bushfire risks associated with the proposed project?

State Planning Policy area mapping shows that the proposed wind farm site and surrounding areas have medium to high potential bushfire intensity, with very high intensity in rugged terrain.

The fire season is from August to January, and peaks in October. It is influenced by rainfall — wet years lead to higher fuel loads, while dry years reduce them.

How will bushfire risks be managed?

The Radiant Heat Flux modelling determines safe distances between critical wind farm infrastructure and bushfire-prone vegetation. These distances must be at least 20 metres. The development area is large enough to include these safety zones.

We will work with the CFA to determine where best to place water tanks for firefighting.

Wind farm turbines are also constructed from non-flammable exterior materials and are highly unlikely to be ignited.

In regards to the wind turbines, the assessment recommended the following measures:

- Minimum fire breaks around key infrastructure, generally 20m around BESS, switchboards, substations, static water supply, on site accommodation
- Turbines will be at least 300 metres apart
- Each turbine will have an automatic shut-down system, and be able to be disconnected from the power supply in the event of fire
- Nacelles will include automatic fire detection, alarm and fire suppression systems
- The Civil Aviation Safety Authority (CASA) will be notified of any masts and turbines of 110m or more above ground
- All guy wires and monitoring masts will be clearly marked, even when not required by CASA.

Aviation Impact Assessment

This Aviation Impact Assessment (AIA) examines possible aviation impacts from the proposed Theodore Wind Farm and provides safety advice for the construction and operation of the project, in line with air safety rules in Australia. It also includes an Aviation Impact Statement (AIS) that evaluates current aviation operations and suggests ways to reduce risks.

What aviation sites are impacted by the proposed Theodore Wind Farm?

There are two certified airports in the Banana Shire: Theodore Airport (YTRD) and Thangool Airport (YTNG). Both are within 60 km of the proposed Theodore Wind Farm. Therefore, the impact assessment includes the air space, air routes, and circling areas of these airports, as well as navigation, radar, and communication facilities. It also considers obstacle marking and lighting for the wind turbines and any impacts on aerial firefighting.

Who has been consulted?

Airservices Australia and the Civil Aviation Safety Authority (CASA) have been consulted on the minimum requirements for wind turbines.

There will be ongoing engagement with Airservices Australia and CASA, as well as local and regional aircraft operators, landowners and aerial agricultural operators, to continue reviewing and updating the risk assessment.

What do I need to know from the AIA?

The height of the wind turbines and related structures like meteorological masts and transmission lines won't affect the safety of the existing airports or their navigation, radar, and communication systems. However, at Theodore Airport, minor changes to airspace and some air routes are needed to keep safe altitudes, including raising the minimum sector altitude (MSA). No changes are required at Thangool Airport.

What about lighting or markings for the wind turbines?

A safety risk assessment found that obstacle lighting for wind turbines and transmission lines isn't needed to keep aircraft safe. However, CASA might still require obstacle lighting, and we are working closely together to ensure the proposed project meets aviation safety standards.

The wind turbines will be painted white, like most in Australia. No extra markings are needed.

Electromagnetic Interference Assessment

The Electromagnetic Interference (EMI) Assessment looks at the potential impact of the proposed Theodore Wind Farm on telecommunication services and if there is a need for any mitigation measures.

What is electromagnetic interference (EMI)?

EMI is interference in an electrical circuit from an outside source. It can affect electronics like mobile phones, radios, satellites, and wireless services. The towers, blades and generators of a wind turbine can block some EMI signals.

How was the EMI assessment undertaken?

Specialist consultants Middleton Group used desktop studies and engaged with key stakeholders including Australia Pacific LNG, Bureau of Meteorology (BoM), Geoscience Australia, Telstra, and Optus. An assessment was undertaken of the potential impact of the proposed Theodore Wind Farm on their services, as well as radio communications within 150km of the site. These were identified using the Australian Communications and Media Authority (ACMA) database.

What was the conclusion of the EMI assessment?

The assessment concluded that the proposed Theodore Wind Farm is unlikely to significantly impact existing telecommunication services. However, BoM has noted that some of its Taroom weather radar scans might be affected. BoM will conduct a risk assessment, and we will work closely with BoM to develop a solution.

Landscape and Visual Impact Assessment

Photomontage of view from Defence Road

The Landscape and Visual Impact Assessment (LVIA) evaluates how the turbines and infrastructure incorporated in the proposed Theodore Wind Farm might affect the area's landscape and views.

How was the LVIA prepared?

Field work was completed in 2023 to document the landscape and its current visual appearance. This was then assessed within relevant guidelines and regulations, and measures were suggested to reduce any visual impacts from the proposed project.

What are the key conclusions of the LVIA?

The proposed project will have very little visual impact on the landscape. Mapping shows that the wind turbines can be seen from the north and south in areas close to the project. In areas north-east that are further than about 6.18 km, up to 56 wind turbines can be seen. Natural landscape features in the area such as ridgelines, hills and vegetation, limit views of wind turbines that are further than 6.18 km.

Most wind turbines could be visible along Defence Road and Crowsdale-Camboon Road. They would not be visible from surrounding towns due to the distance.

What type of infrastructure will the proposed project have and have these been assessed for their visual impact in the LVIA?

Infrastructure includes the following and all have been assessed in the LVIA:

- Up to 170 wind turbines with an anticipated maximum tip height of 270 m above the average ground height
- Access roads and tracks
- Underground and overhead electricity cabling
- Substations
- Battery energy storage systems (BESS)
- An operations and maintenance facility.

Are there photomontages?

Yes. Photomontages have been prepared from five locations (varying in distance and direction) and represent a worst-case scenario. Photomontages are available at community sessions and are within the DA package.

How are viewpoints impacted by the infrastructure and how will this be managed?

The proposed project can be seen from surrounding areas because of its size and height, however, because it is in an isolated area, the visual impact is very minimal.

Mitigation measures will still be put in place to help the infrastructure more effectively blend into the landscape. This includes:

- Considering the wind farm's layout, including infrastructure design, colour and material
- Aligning access roads and tracks with existing roads and tracks where possible
- Planting boundary screens
- Minimising vegetation loss
- Avoiding unnecessary lighting and signage.

Public viewpoints

Of the 26 public viewpoints assessed, 17 were rated as having very low visual impact and 9 as low.

Houses

No non-host houses are within 3.09 km of the nearest wind turbine, but 11 are between 3.09 km and 6.18 km, with eight having low and three having moderate visual impact. There are six non-host dwellings between 6.18 and 10 kilometres of the nearest turbine. Mitigation measures like screen planting can reduce these impacts.

What is shadow flicker and what is the impact?

Shadow flickers are caused by the moving shadows as the rotating blades of the wind turbines pass in front of the sun. No non-associated houses are affected. Two associated houses might experience shadow flicker, but vegetation and their distance from the proposed project would likely minimise this.

Ecological Assessment Report

The Ecological Assessment Report for the proposed Theodore Wind Farm provides an overview of the environment in and around the proposed project area, so the project can be designed to avoid and minimise impacts on vegetation and habitats for threatened species.

How was the ecological assessment done?

Specialist consultants ERM reviewed public databases and conducted field surveys across the properties proposed to host project infrastructure. These properties make up the approximate 47,000-hectare study area. The surveys were undertaken from October 2022 to September 2024 to understand the area's ecology (animal and plant species and habitat) and potential impacts on threatened species.

How is the landscape characterised?

The report found that almost half of the study area has been cleared for pastoral use. It is typically dominated by native and exotic grass, environmental and invasive weeds, as well as sparse native vegetation.

There are areas that contain mature woody vegetation, including open eucalypt forest, trees and shrubs adjacent to streams, and small isolated areas of dry rainforest and scrub.

What did the ecological assessment find?

The study area has a range of landscape features, including steep ridgelines, flat alluvial plains and streams and creeks. Specific regulations and protections may apply during the construction of the proposed project and further consents will be obtained if required. The assessment found:

Habitat types

Six main habitat types:

- Grasslands and cultivated agricultural land (22,700 hectares)
- Eucalypt woodland and open forest (21,700 hectares)
- Brigalow woodlands (330 hectares)
- Riparian woodlands (vegetation that grows near streams and creeks) (1730 hectares)
- Vine forest/ thickets and dry rainforest (230 hectares)
- Waterbodies and drainage features (56 hectares).

These habitats support foraging, breeding, roosting and movement for species (including threatened species) that are present or may be present in the area.

Animal species

Four Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) threatened species are known or likely to be in the area:

- Koala
- Squatter pigeon (southern)
- Greater glider (southern and central)
- Large-eared pied-bat.

One EPBC Act migratory species is likely to be in the area:

- Satin flycatcher.

Ecological communities

Two EPBC Act listed Threatened Ecological Communities (TEC) were also found:

- Brigalow woodlands and forest
- Poplar Box Grassy Woodland on Alluvial Plains.

The presence or likely presence of listed species and communities means several steps will be taken to ensure their protection and minimise the impact of the proposed project.

What are the impacts of the proposed project?

In general, potential impacts during construction relate to habitat loss, disturbance and degradation.

The four EPBC Act listed species — squatter pigeon (southern), koala, greater glider (southern and central) and large-eared pied-bat, are likely or have the potential to be significantly impacted by the construction of the proposed wind farm.

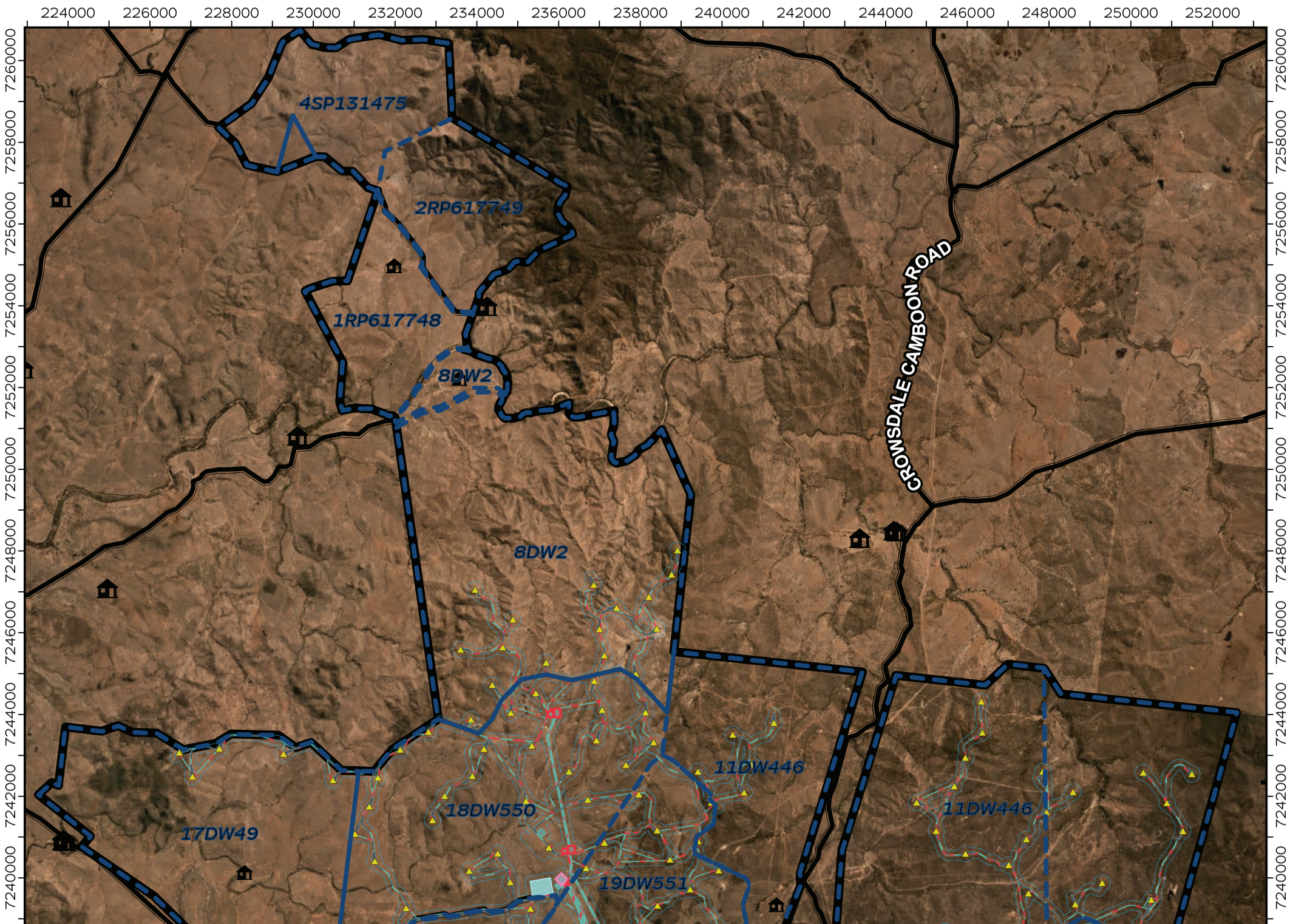
Two EPBC Act listed TECs, Brigalow and Poplar Box Grassy Woodland on Alluvial Plains, are also likely to be significantly impacted.

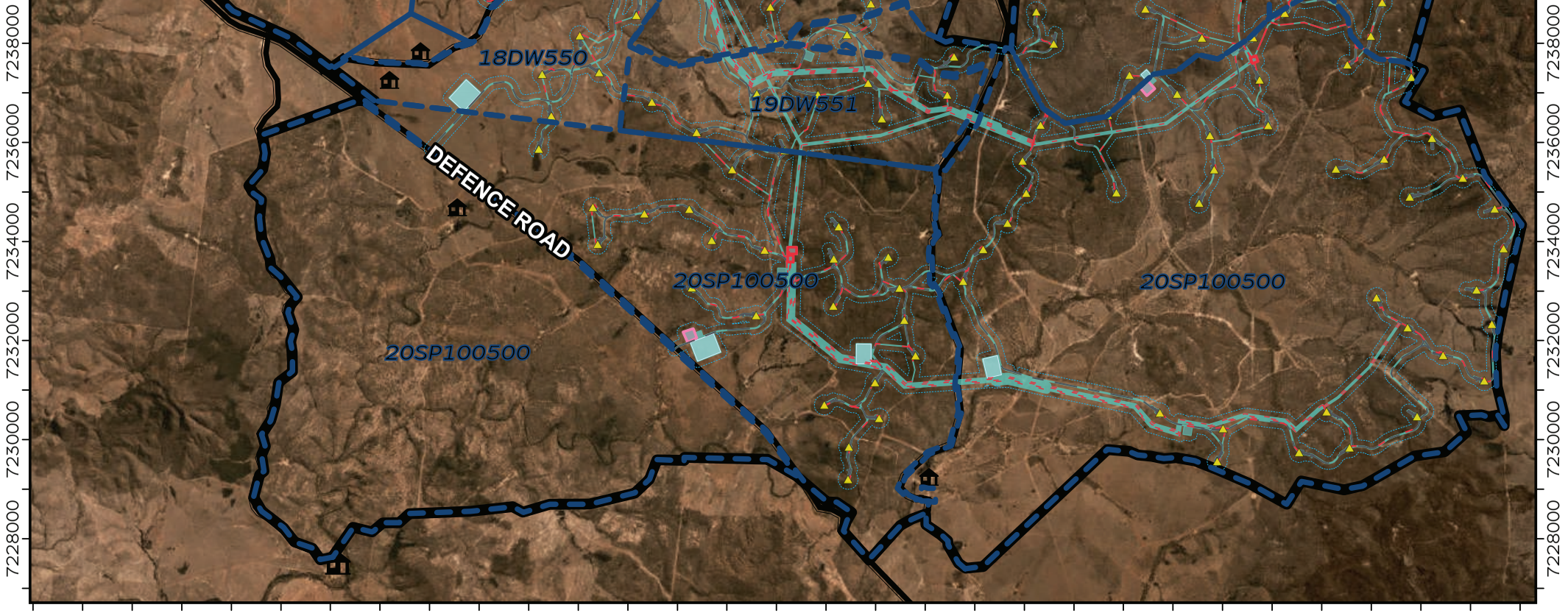
There will also likely be an ongoing impact to listed threatened species, protected vegetation, and vegetation that overlaps with streams and other watercourses once the proposed wind farm is in operation. This includes the possibility of bird and bat strikes with operational wind turbines.

How will these impacts be managed?

The layout of the proposed wind farm (including turbines, access tracks and other infrastructure) will be carefully planned around local plant and animal habitat, with additional surveys to take place to further optimise the placement of infrastructure.

Where significant impacts cannot be avoided, we will work to improve the existing habitat of threatened species in accordance with the EPBC Act.


224000
226000
228000
230000
232000
234000
236000
238000
240000
242000
244000
246000
248000
250000
252000
7260000
7258000
7256000
7254000
7252000
7250000
7248000
7246000
7244000
7242000
7240000
4SP131475
2RP617749
1RP617748
8DW2
8DW2
CROWSDALE CAMBOON ROAD
11DW446
18DW550
11DW446
17DW49
19DW551



Legend

- Study Area
- Project Lots
- Wind Turbine Generator
- Disturbance Footprint
- Micro Siting Buffer
- Tracks/Turning Bays/ WTG Hardstands
- Electrical Reticulation
- O&M Compound
- Construction Site Compound
- Laydown Area
- Substation/BESS
- Concrete Batching Plant
- Dwellings

RWE

Theodore Energy Development Pty Ltd: Theodore Wind Farm

Proposed Footprint Overview

0 5 Km

N

CRS: GDA2020 MGA Zone 56
Produced By: MW
Reviewed By: JP
26/09/2024

Bird and Bat Management Plan (BBMP)

The Bird and Bat Management Plan for the proposed Theodore Wind Farm identifies potential impacts on birds and bats in the area, identifies species of concern and establishes mitigation measures to help minimise and manage potential impacts.

What does this Bird and Bat Management Plan consider?

The plan considers the risk to threatened and migratory birds and bats using survey data, historical records and ecological studies. It explores how the construction and operation of the wind farm might impact these species and suggests ways to reduce the impact.

What are the main causes of impact from a wind farm?

1. **Direct mortality:** Birds and bats may collide with wind turbine blades. This can result in mortality.
2. **Bird utilisation of study area:** Water and foraging resources near wind turbines can attract birds and bats, increasing collision risks and potential injuries or deaths. Nesting may also occur near turbines.
3. **Lighting:** Lights on turbines and buildings can attract prey species for birds and bats, leading to increased bird and bat activity near the infrastructure, and therefore increasing the potential for collisions.

Which birds and bats were identified to be at risk in the proposed project area?

The plan evaluates the risk for each threatened or migratory species that is known, potentially present, or likely to be in the area. It also assesses the potential risk for species that fly at typical rotor swept areas (the area covered by the rotating blades of a wind turbine).

A total of 127 species were identified, including two listed under the Australian Environment Protection and Biodiversity Conservation (EPBC) Act, as shown in the table in the next column. Although the large-eared pied bat was not recorded during the assessment, it is likely to be present in this area and is therefore included in our management plan.

What is the likely impact?

Species	EPBC Act status	Impact
Squatter pigeon (southern)	Vulnerable	Significant impact to nearly 4 per cent of mapped foraging, roosting and breeding habitat during construction.
Satin flycatcher	Migratory	Unlikely to result in any significant impact; 1 per cent of habitat will be disturbed during construction. Species does not fly at collision risk height.
Large-eared pied bat	Endangered	Potential to result in a significant impact to 4.1 per cent of foraging habitat. Low risk of collision.

How will habitat impacts be offset?

An Offset Management Strategy (OMS) is currently being prepared according to the EPBC Act Environmental Offsets Policy.

What were the results of the collision risk assessment?

Five listed threatened species and 21 non-listed species were conservatively assessed as having a low risk of collision. One listed threatened species, the white-throated needletail, was assessed as a moderate risk.

All other listed bird and bat species were considered to have 'negligible' risk of impact from collision with wind turbines.

Preliminary Vegetation and Fauna Management Plan (VFMP)

Preliminary Vegetation and Fauna Management Plan (VFMP) describes how impacts on vegetation and fauna will be minimised and managed during the construction and operation of the proposed Theodore Wind Farm. This plan supports the Ecology Impact Assessment.

What is the biggest impact to vegetation and fauna?

The main impact on plant and animal life in the project area is likely to result from clearing and grading during construction of the proposed wind farm. Impacts could include:

- Mortality or harm to animals
- Dust impacts
- Noise and light impacts
- An increase in animal pests and weeds.

How will this be managed?

The wind farm layout has been designed to avoid vegetation and habitat whenever possible. Where avoidance is not possible, work is undertaken to minimise disturbance through ongoing, detailed design.

If clearing of regulated vegetation is required, this would be undertaken in line with the EPBC and DA planning approvals and conditions.

What other avoidance measures could be implemented during construction?

- Implement the Vegetation and Fauna Management Plan (VFMP).
- Mark approved clearance zones to prevent over-clearing.
- Minimise the impact on mature trees through careful placement of wind turbines.
- Have a qualified fauna spotter check for animals and important habitats before clearing. If found, the fauna spotter will take steps to avoid or minimise impacts.

Preliminary Construction Environmental Management Plan

The Preliminary Construction Environmental Management Plan (CEMP) for the proposed Theodore Wind Farm provides an overview of the key infrastructure required, outlines the project's potential impacts, and provides baseline management and mitigation measures for the proposed project.

It is supported by individual management plans for vegetation and fauna; bird and bat; stormwater; ecological and traffic impact.

What factors were considered when designing the project?

The proposed project's design considers a variety of factors, including the environment, wind resources, constructability, landowners, Traditional Owners and the transmission network. We will continue to refine the project through detailed design to reduce ecological impacts.

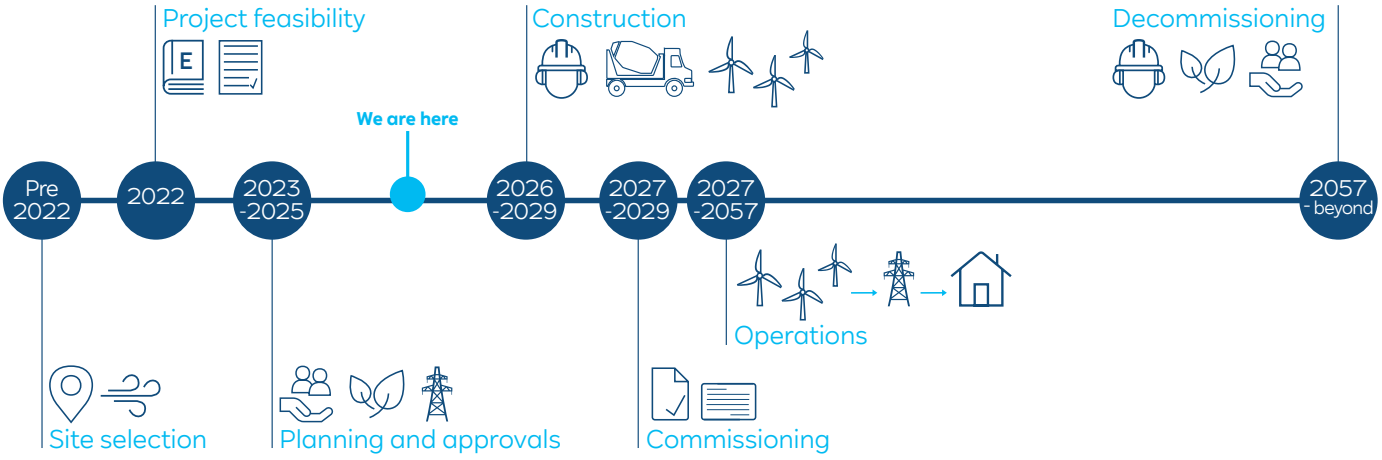
Will existing land use be affected?

Host properties can continue agricultural, farming and other land management activities largely unaffected throughout the construction and life of the proposed project.

When will construction take place?

The project is currently in the planning and approvals stage. We are targeting construction to commence in 2026.

Estimated project timeline



What infrastructure is proposed?

The preliminary layout (which will be refined) incorporates:

- WTG foundations and hardstand areas
- Turbine foundations and hardstand areas
- Temporary infrastructure such as concrete batching plants, laydown areas
- Temporary construction offices and parking and on-site accommodation
- Access tracks and electrical reticulation
- Switching stations and substations
- Battery Energy Storage Systems (BESS)
- Temporary and Permanent meteorological masts
- Permanent operations and maintenance facilities, with a variety of associated site facilities, and
- Storage laydowns around the proposed site.

How will the wind turbines be constructed?

Each wind turbine will have a concrete foundation, with its size depending on the turbine model, ground conditions and drainage design.

A hardstand area up to 2.67 hectares may be set up for each wind turbine. This area will be used to store equipment and assemble the turbine.

What will construction work include?

Subject to geotechnical (ground) conditions, the following works are expected to be undertaken:

- Erection of turbines
- Cut and fill earthworks, including excavations, blasting, hammering, compacting and crushing
- Cabling works, including trenching
- Vegetation clearing
- Construction of site compounds, camps and facilities
- An on-site borrow pit to source as much of the construction material as possible
- Temporary lighting and motion activated lighting where necessary.

What are the proposed construction hours?

The general construction hours will be refined prior to construction, but would be within the following parameters:

- Monday to Sunday 7 am to 7 pm
- Public holidays as required.

On occasion, work outside of these times may be needed to take advantage of favourable weather conditions, for emergency work or safety issues. Any night work will be minimised.

Will you be employing locals?

Between 300 and 500 staff will be employed during peak construction, including local workers, contractors, and manufacturers based on qualifications and local policies. It is anticipated some of these will be from the local area.

Will there be an increase in traffic?

Yes, there will be an increase in traffic on Defence Road during the construction phases of the proposed project. Please see the Traffic Impact Assessment fact sheet for further information.

What about water supply?

A water sourcing strategy will be developed so water used during the construction phase does not cause issues to adjacent landholders or other stakeholders.

Theodore
Wind Farm

Preliminary Route Assessment

The preliminary route assessment report for the proposed Theodore Wind Farm considers how the largest components of the proposed project can be transported from the Port of Gladstone to the site. Please also see the Preliminary Traffic Impact Assessment poster.

What is covered in the preliminary route assessment?

The preliminary route assessment report explores different ways to transport wind turbine parts from the Port of Gladstone to their destination in the proposed project area. It:

- Identifies transport issues, intersections and interchanges where traffic or haulage may be hindered by over-size/over-mass (OSOM) vehicles.
- Suggests solutions to streamline the movement of OSOM vehicles which will be hauling the components.

How was the preliminary route assessment undertaken?

It incorporated desktop analysis, driving of the potential routes, and completed assessments on the turns and manoeuvres OSOM vehicles may need to make.

The report also considered Queensland government and local council requirements, traffic and road conditions, noting that different routes may be used to transport different components.

What were the key conclusions?

As the report modelled wind turbine blades measuring up to 84.6 metres, two main routes were identified.

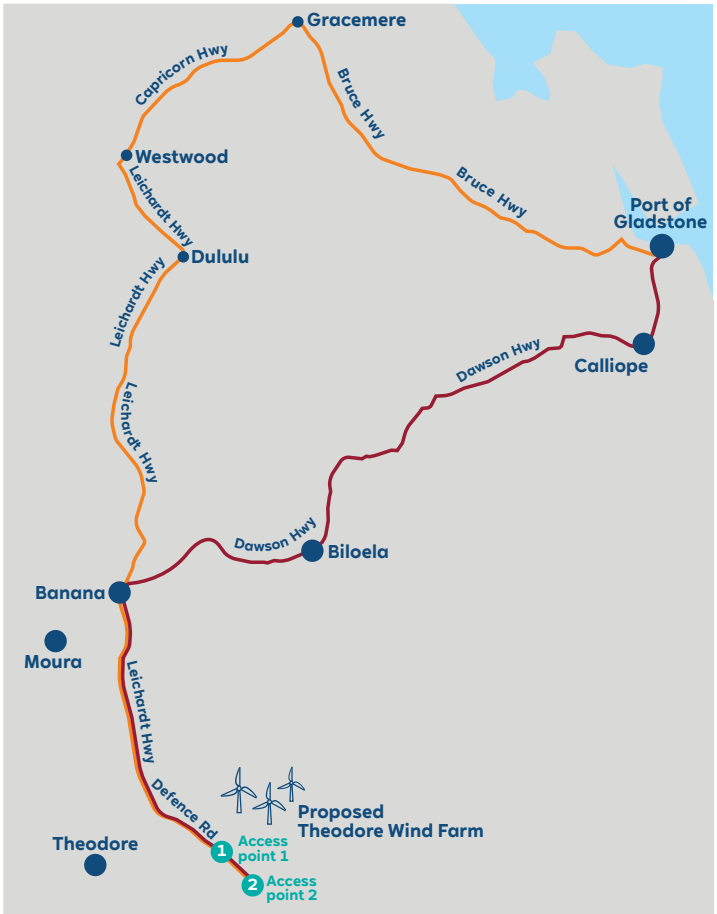
What are the recommended routes?

Main routes identified

1. **Project Transport Route 1 (PTR1):** Uses Bruce Highway, Capricorn Highway, and Leichhardt Highway.
2. **Project Transport Route 2 (PTR2):** This alternative route uses Dawson Highway and joins PTR1 at Leichhardt Highway.

What are the approximate route distances?

Route	Origin	Via	Distance (approx.)
PTR 1	Gladstone Port (Auckland Point)	Gladstone, Mount Larcom, Gracemere, Westwood, Dululu, Banana	300 km
PTR2	Gladstone Port (Auckland Point)	Gladstone, Mount Larcom, Calliope, Biloela, Banana	242 km



What happens next?

Theodore Wind Farm is working actively with the Department of Transport and Main Road and Council to ensure that any necessary permits and impacts are understood and undertaken in advance of project construction.

Preliminary Traffic Impact Assessment

The preliminary traffic impact assessment report for the proposed Theodore Wind Farm helps us understand the potential impact of construction traffic on traffic flows and the road network. It complements the route assessment report by providing an overview of potential traffic issues and solutions.

How was the traffic impact assessment report completed?

The report was undertaken by specialist consultants Cambray Consulting. It examined the existing transport network and potential access points to the proposed site for construction traffic, including haulage and worker movements.

It also evaluated the Defence Road and Leichhardt Highway intersection for traffic impact, vehicle types, and possible road upgrades, and considered alternative access within the local road network.

Where and how will the proposed project site be accessed?

More information on the proposed project transport routes for Over-size and Over-mass (OSOM) vehicles can be found in the Preliminary Route Assessment poster.

What about over size, over mass (OSOM) loads?

These will be carefully controlled to avoid peak periods, and will be limited in frequency based on specialist haulage vehicle availability, pilots, and escorts.

What else do I need to know?

- The majority of traffic is planned to come south along the Leichardt Highway onto Defence Road with access to the proposed project site via Defence Road.
- The current intersection configuration with the Leichardt Highway is adequate for peak construction traffic However, upgrades may be necessary for OSOM movements.
- Crowsdale-Camboon Road is not currently planned to handle through traffic for construction. Construction traffic will have to cross Crowsdale-Camboon Road to move between parts of the site.
- Sight distances at the proposed site entrances meet Austroads standards.

The construction phase is expected to last about 48 months. Once completed, the proposed project will operate seven days a week, 365 days a year with up to about 20 light vehicles accessing the site each day. There will also be a weekly refuse collection during operations as well as regular deliveries for site needs and general maintenance.

Cultural heritage

RWE is committed to preserving heritage and working with Traditional Owners in the development, operation and decommissioning of our projects.

We engage with Traditional Owners, along with heritage specialists and archaeologists, to deepen our understanding of the project site and its cultural significance. RWE will seek to avoid and minimise any impacts to cultural heritage through the design of the project, in collaboration with the Traditional Owners.

During the development of the project, RWE has been working closely with Wulli Wulli Nation Aboriginal Corporation to building a strong relationship to create a lasting connection between the project and the Traditional Owners.

Since the last community drop-in session, RWE has executed an Early Works Agreement and is in discussions around executing a Cultural Heritage Management Plan. Additionally, RWE is looking to finalise cultural heritage surveys within the project boundary.

Accommodation Options Report and Workforce Accommodation Plan

The proposed Theodore Wind Farm will require up to 500 workers during peak construction periods. While we will endeavour to employ locally when we can, some of these workers will come from outside the region. The Accommodation Options Report explores potential options to accommodate the workforce for required during construction. A Workforce Accommodation Plan is also being developed.

What engagement has RWE undertaken regarding accommodation?

To identify the best solution for accommodating the workforce we have been consulting closely with Banana Shire Council and other stakeholders, listening to their feedback and ensuring it is considered as part of the report.

What is the Workforce Accommodation Plan?

The plan maps out the implementation of the Accommodation Options Report. It details an **on-site accommodation camp** for the majority of workers. The planned camp would incorporate about 400 beds with self-sufficiency for power and wastewater.

What about when the workforce exceeds 400?

Local accommodation providers will be used for overflow of workers beyond the capacity of the camp. Local accommodation providers will likely also be used for some consultants and short-term visitors.

Why has on-site accommodation been identified as the preferred option?

- Consultation with council and local community members has highlighted this as the preferred option
- Analysis of accommodation availability in local towns
- Capacity of local towns to provide services to the large number of workers without negatively impacting the community
- Local road safety (on-site accommodation reduces the number of potential vehicles on the road)
- Worker safety; workers will have maximum work durations due to fatigue.

Will there be opportunities for local businesses?

RWE is looking into options to involve local businesses in on-site accommodation camps and/or to bring workers to town to ensure that towns benefit. As part of our local procurement planning we will be opening up enquiries for local businesses later in 2025.

Is the Workforce Accommodation Plan completed?

No – it is still exploring all accommodation options. It will be available to all stakeholders once completed.

Theodore Wind Farm | RWE

Decommissioning

At the end of a project's life, RWE is responsible for restoring the project land to a standard agreed between us (as the project owner and operator) and the relevant landowner to allow agricultural operations to continue.

Decommissioning can take various forms, including infrastructure removal or repowering. The latter mainly consists of partially or totally replacing the old turbines with new models using the latest technology.

RWE will also implement a security commitment, or a bond, for the project. This security is for the landowners and will be enough to cover decommissioning of infrastructure for each property.

The decommissioning process and agreement with landowners will be finalised prior to construction and will be included in the landowner lease.

RWE tests world's first recyclable wind turbine blades

At the end of a project's life, many wind turbine components (such as the tower and nacelle components) are recycled.

However, we are paving the way for full recyclability of wind turbines through our pilot of Siemens Gamesa's recyclable blades at a wind farm off the coast of Germany.

Until now, the composite materials used in wind turbine blades have been more challenging to recycle because a resin system binds all components together.

In its recyclable blade, Siemens Gamesa is using a new resin type with a chemical structure that makes it possible to efficiently separate the resin from other components.

Supporting your community

What are the needs of your community?

In line with our development approach, community philosophy and industry best practice, RWE will establish a **Community Benefit Fund** for the Theodore Wind Farm, if the project proceeds to construction.

The fund will operate for the expected 30-year lifetime of the project and will incorporate at least $500,000 per year – $17.5 million for the operational life of the wind farm – and will be administered by a community committee.

How do you think the fund should be spent?

- Education support?
- Community group funding?
- Infrastructure upgrades?
- Other?

Sponsorship fund

We are proud that our sponsorship fund of $100,000 per calendar year during the planning and approvals phase of the project has already contributed close to $100,000 to local community groups and organisations.

If you are part of a community or non-profit group, we want to hear from you. We are meeting with community groups to understand their needs and welcome your feedback.

If your group could benefit from sponsorship, please contact the team to arrange a meeting on:

1800 879 435

theodorewindfarm@rwe.com

Almost

$100K already allocated

Sponsorship distributed to date includes:

$55,000	Theodore State School Multipurpose Courts
$5,097	Theodore Council on the Ageing
$5,000	Theodore Junior Roosters Rugby League Club
$5,000	Theodore Show
$5,000	Theodore Centenary Celebrations
$5,000	Theodore State School P&C
$5,000	Camboon Campdraft
$3,000	Moura Marlins Swimming Club
$3,000	Theodore Museum
$3,000	Bulls N Barrels Bonanza

How to apply

If you would like to apply for sponsorship, scan the QR code and download the application form from the website, or visit **theodorewindfarm.com.au**.

Notes

Notes

Notes

For further information please contact us at:
T: 1800 879 435
E: theodorewindfarm@rwe.com

theodorewindfarm.com.au

Theodore
Wind Farm

RWE