Middle Creek Energy Hub

Application Number: **02588** Commencement Date: **10/09/2024** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Middle Creek Energy Hub

1.1.2 Project industry type *

Energy Generation and Supply (renewable)

1.1.3 Project industry sub-type

Wind Farm

1.1.4 Estimated start date *

01/01/2027

1.1.4 Estimated end date *

01/01/2065

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

Cubico Sustainable Investments Australia Pty Ltd (Cubico) is proposed to develop the Middle Creek Energy Hub (the Project) located approximately 10km east of Wandoan in the Western Downs, Queensland. The Project includes a wind farm of up to 183 wind turbines generating up to 1,317MW, a battery energy storage system (BESS) of 200MW/hr and ancillary infrastructure such as a substation.

The Project is located in the Western Downs Regional Council Local Government Area. The Project traverses 36 lots (involving 8 landholders) and a number of adjoining road reserves to provide access to the Project.

For the purposes of the referral, the total **Project Area is 28,418.41 ha** (associated within the boundary of the properties, including road reserves and watercourses where crossings occur) and the **Disturbance Footprint of the proposed Project is 1,456.02 ha**.

Site Selection and Project Design

The site selection process considered environmental and social factors to ensure that the development avoided unnecessary impacts from the outset. The following criteria was considered in the site selection process and ultimately the Project site that will proceed (as per this Referral):

- Land that has been previously cleared, highly fragmented and retains low ecological value within the landscape. Values that may be present within the site can be avoided or impacts minimised through design.
- Co-location and co-existence with other land uses to utilise land that has currently been disturbed for other industries and can continue during project development and operation and after decommissioning.
- Strong wind resource to ensure project viability and outputs to support energy targets and demand.

The design of the Project considered feedback from landholders as well as outcomes of ecological surveys undertaken across the site. The following factors informed the design from the initial stages of the Project:

- Feedback from landholders to avoid farming infrastructure and maintain current practices as well as optimising access roads.
- Avoidance of regulated vegetation and ecological values verified through ground-truthing including threatened ecological communities and remnant vegetation. The Disturbance Footprint is predominantly (97.1%) within non-remnant mapped areas which are cleared.
- Avoidance of watercourses and water features to negate impacts to riparian vegetation and habitat values.

Renewable Energy Hub

At this stage of the Project design, three primary ancillary infrastructure locations have been identified.

Key Project infrastructure associated with construction (temporary) and operation include the following:

- Wind turbine generators (WTGs) and hardstand infrastructure – Up to 183 WTGs are proposed, comprising turbines of up to 7.2MW with a total nameplate generating capacity of approximately 1,317MW. Each turbine will require a handstand area of up to 2.5ha.
- Unsealed access tracks – Access tracks are required to each turbine and ancillary infrastructure such as the collector substations. Access track clearance areas and rights of way across the Project are typically up to 50m in width (for construction).
- Watercourse crossings - Crossings are generally expected to be at bed level, aside from one or two major watercourse crossings. Widths of up to 75m have been allowed for construction access and co-location of reticulation network footprint. A width of 75m (in comparison to the standard 50m for access tracks) is required as multiple cables are proposed to traverse a watercourse.
- Substation - The Project substation will transform the collector reticulation network medium-voltage up to high-voltage suitable to connect into the grid network. This will also include ancillary buildings, switchgear and associated equipment. To provide options during the design process, three locations for the substation has been identified, each a 10ha footprint.
- BESS – Allowance has been provided for a BESS to be co-located with the substation. To provide optionality during the design process, 3 locations for the BESS has been identified, each up to 1.4ha.
- Electrical reticulation – A medium-voltage (33kV) underground reticulation network is proposed across the Project (wind turbines generate at low voltage and require a transformer to convert into

medium-voltage 33kV). The reticulation network is typically buried alongside wind farm access tracks.

- Collector substations – 2 collector substations will converge the 33kV underground collector networks from turbines for connection back to the Project substation via overhead lines or underground cables.
- Permanent site entrance – The proposed main access to the Project will be via Middle Creek Road to the west, Roche Creek Road to the north, Zillmans Road to the east and Old Chinchilla Road to the south.
- Fencing – New fencing with grids and gates (within the Project Area).
- Water storage dams – 5 temporary water storage facilities will be constructed for collection and storage of construction water. Each dam is approximately 0.6ha.
- Concrete batching plant – 1 temporary concrete batching plant to support the construction of the Project. To provide options during the design process, 3 locations for a concrete batching plant has been identified, each up to 1.45ha.
- Borrow pits – Up to 5 temporary borrow pits are identified within the project footprint. Locations of borrow pits are informed by current or previous extraction activities. The quantity of material will be subject to further investigation.
- Construction/site compounds – 5 temporary construction/site compounds have been identified across the Project area, co-located with laydown and stockpile areas. The footprint of these compounds is up to 5ha each.
- Laydown areas – 21 general laydown and stockpile areas will be located across the Project area. The footprint of these is up to 3.65ha each.
- Temporary workforce accommodation facility – The current design represents three options for an accommodation facility, with one ultimately to be pursued if needed to support the construction workforce for Project. Each proposed footprint is up to 10ha.
- Temporary site offices, workshops, warehouses and amenities (located in the construction compound/laydown areas).
- Operation and maintenance facilities – To provide options during the design process, 3 locations for an operation and maintenance facility have been identified. Each footprint is up to 0.65ha.

The Project will connect to the National Energy Market (NEM) via the existing Columboola to Wandoan South 275kV transmission line located 22km south of the Project. Cubico is in negotiations with Powerlink to determine the alignment for an Overhead Transmission Line (OHTL) from the Project to connect into the NEM. For the purposes of this referral under the EPBC Act, the OHTL is excluded from this referral and will be considered under a separate process as a related action once the alignment is determined.

The scope of the Project includes a wind farm and BESS. Preliminary feasibility and early design studies are underway to determine viability of a solar farm development on the properties within the Project Area. At this stage, solar is excluded from the scope of this referral pending the outcome of the studies to inform the location and size of a viable solar farm. At this early stage, co-location of a solar farm development with the wind farm will offer efficiencies to connect into the NEM through one transmission line. The same site selection principles and design process of avoidance and minimisation of environmental impacts will be applied. Any solar farm that is progressed will be referred under the EPBC Act.

Access to the Project Site

To enable the transportation of components for the Project to site, including wind turbine towers and blades on OSOM vehicles, locations along the road network between the Leichhardt Highway to site require minor upgrade, maintenance and/or additional clearance. Discrete locations (informed by swept path analysis) along the access route requires vegetation clearing to provide wider clearances for sufficient and safe access. The road network from the Port of Brisbane to the Leichhardt Highway has been previously utilised to transport wind farm project elements to other project sites, therefore there is no additional clearing proposed beyond that considered in this assessment.

The extent of the OSOM vehicle access is from all external roads providing access to the Project to the Leichhardt Highway. Ten roads are considered in this scope.

Further detail on the proposed Project components can be found at **Att. 1a MCEH MNES Report, Section 1.2, pg. 8-12**.

Project Development

Project development will be undertaken across stages and activities consisting of:

- Site establishment and preparation, including internal and external access tracks (for infrastructure delivery), construction compounds, borrow pits, water storage, concrete batching plants and laydown areas
- Turbine hardstand and foundation formation and installation of towers and turbines with cranes
- Medium-voltage underground cabling interconnecting wind turbine generators
- Construction of substation and control room, collector substation/s and battery energy storage system
- Construction of overhead powerlines for reticulation (if/where required)
- Construction of the operations and maintenance facility
- Connection of the wind farm to the NEM via a new 275kV OHTL
- Decommissioning of temporary construction related infrastructure
- Site rehabilitation and restoration
- Testing and commissioning of the wind farm.

For the purposes of this assessment, the scope of the Project excludes low impact activities including site investigations for approval requirements and project development (including geotechnical / drilling investigations) and upgrades to internal site access tracks for the purposes of site access during preliminary investigations. These works will avoid impacts to MNES. Where required, low impact activities will be subject to separate approval process under relevant State legislation.

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

Yes

1.2.3 Is the proposed action the first stage of a staged development (or a larger project)?

Yes

1.2.5 Provide information about the staged development (or relevant larger project).

In relation to the wind farm development, at this point the Project is not intended to be staged.

However, the Project is aware that staging may be adopted in the future based on a variety of commercial factors, primarily being the ability to secure an offtake. For example, there could be a situation where the Project is only able to secure offtake for an initial portion of the potential output/generation, and then looks to construct a second stage including some (if not all) of the remaining turbines within the permitted Project.

As noted in **Section 1.1.2 of the Referral**, an OHTL is required to connect the Project to the NEM at the existing Columboola to Wandoan South 275kV transmission line located approximately 22 km south of the Project. The alignment for the OHTL is under currently under investigation and may be delivered by another entity such as Powerlink. The OHTL will be referred separately under the EPBC Act.

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

The Queensland Energy and Jobs Plan (the Plan), released in September 2022, sets targets for 70 per cent of Queensland's energy needs be met from renewable sources by 2032 and 80 per cent by 2035. The Plan sets out the following vision for Queensland's electricity system in 2035:

- At least 25 GW of new and existing renewable energy.
- Gladstone grid reinforcement to support heavy industry to switch to renewable energy and decarbonise their operations.
- All publicly-owned coal-fired power stations operating as clean energy hubs by 2035, supported by a legislated Job Security Guarantee for energy workers.
- Two new world-class pumped hydro projects that together could deliver up to 7 GW of long duration storage.
- Around 1,500 km of new high voltage backbone transmission to move more power around the state.
- Up to 3 GW of low to zero emissions gas generation for periods of peak demand and backup security.
- A smarter grid to support over 11 GW of rooftop solar and around 6 GW of batteries in homes and businesses.

As renewable energy (i.e. wind and solar) is variable in nature, it needs to be 'firmed' meaning it must be stored when available and discharged when it is needed. The concept of 'firming' means matching the variable output of renewable generators to instantaneous demand, which may occur via battery storage or fast start 'dispatchable' generation, primarily gas-fuelled generators, that can be switched on as required to meet demand.

The Queensland SuperGrid Infrastructure Blueprint which supports the Plan, recognises that Queensland will need at least 6,000 MW of long duration storage complemented by approximately 3,000 MW of grid-scale storage and up to 3,000 MW of new low-to-zero emissions gas-fueled plant to cover so-called 'dunkelflaute' conditions (times when little to no renewable energy generation from wind or solar is possible).

The Project is located in the Southern Queensland Renewable Energy Zone (REZ), specifically within the Darling Downs REZ which identifies an opportunity to generate between 1,600-2,000 MW of renewable energy from between 2025-2030. The Project has potential to deliver up to 1,300 MW to contribute to this target by 2030.

Commonwealth Legislation

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) – Matters of National Environmental Significance (MNES) (listed threatened fauna species) are known to occur within the Project Area. This referral has been prepared in accordance with the Significant Impact Guidelines 1.1, and consideration of the Referral Guidance for Endangered Koala, EPBC Referral Guidance for 14 Birds Listed as Migratory and the EPBC Act Environmental Offsets Policy.

State Legislation

- *Planning Act 2016* – the Project requires a development permit for a material change of use (MCU) in accordance with State Code 23 for wind farm development and ancillary infrastructure from the Queensland Department of State Development, Infrastructure, Local Government and Planning. An operational works permit is also required for clearing of native vegetation in accordance with State

Code 16. Secondary approvals will likely be required under the Planning Act including waterway barrier works approvals for crossing of waterways.

- *Nature Conservation Act 1992* – A Species Management Program (SMP) may be required to authorise impacts to animal breeding habitat.
- *Aboriginal Cultural Heritage Act 2013* (ACH Act) – The Project Area lies within the traditional lands of the Iman People, who are the Aboriginal Party of the purposes of the ACH Act in regard to the identification and management of indigenous cultural heritage within the Project Area. The proponent will enter into a Cultural Heritage Management Plan/Agreement under Part 7 of the ACH Act with the Iman People.
- *Biosecurity Act 2014* - Field ecology surveys have identified the presence of pest plants and animals, including those with classifications under the Biodiversity Act. Weeds listed as weeds of national environmental significance were also noted during survey activities. Management and mitigation measures and plans will be developed to avoid the spread of weed and pest species.
- *Local Government Act 2009* – A road corridor permit may be required for any proposed works required within local government roads.
- *Transport Infrastructure Act 1994* – A road corridor permit may be required for any proposed works required within State-controlled roads.

Local Planning Scheme

Secondary to the MCU and operational works permits under the Planning Act, development permits will be required under the Western Downs Planning Scheme 2017. Project infrastructure components such as borrow pits and concrete batching plants will require MCU permits and excavation and fill associated with the Project will require an operational works permit.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

The Project team has engaged with host landholders and direct neighbours to the Project. Host landholders have provided advice throughout the design process to date to inform suitable locations of infrastructure and access and locations to avoid (Att 5. Section 4, page 3).

Neighbouring landholders have been notified of the proposal and details have been provided. The Project team met with neighbouring landholders who accepted an invitation to meet 1:1 to discuss the Project (Att 5. Section 3, pages 1-3).

A community information session was held in Wandoan in Octoboer 2024 to inform the broader community about the Project. Targeted engagement has occurred with key stakeholders from the community to discuss options for accommodating the Project's construction workforce (Att 5. Section 3, pages 1-3).

Cubico have negotiated a short-term cultural heritage agreement with the Iman People through their nominated legal advisors and commissioned a cultural heritage survey of a met mast location. Cubico is seeking to meet with the Iman board of directors in late 2024, to provide notice of the project's intention to negotiate and enter into a Cultural Heritage Management Agreement/Plan (Att 5. Section 4.3, page 3).

Cubico has had early discussions with State and local government to discuss approvals pathway (Att 5. Section 4.2, page 3).

A comprehensive stakeholder engagement plan has been developed, which will continue to be implemented as the Project continues through the development lifecycle.

1.3.1 Identity: Referring party

Privacy Notice:

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

The Department of Climate Change, Energy, the Environment and Water (the department) collects your personal information (as defined by the Privacy Act 1988) through this platform for the purposes of enabling the department to consider your submission and contact you in relation to your submission. If you fail to provide some or all of the personal information requested on this platform (name and email address), the department will be unable to contact you to seek further information (if required) and subsequently may impact the consideration given to your submission.

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Alternatively, email us at privacy@awe.gov.au.

☑ **Confirm that you have read and understand this Privacy Notice ***

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	75637138008
Organisation name	ATTEXO GROUP PTY LTD
Organisation address	4006 QLD

Referring party details

Name	Rosemary Shearman

Job title	Senior Environmental Consultant
Phone	0416034996
Email	rosemary.shearman@attexo.com.au
Address	T.C. Beirne Building, Level 4, 315 Brunswick Street, Fortitude Valley, QLD 4006

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

No

1.3.2.2 Is Person proposing to take the action an organisation or business? *

Yes

Person proposing to take the action organisation details

ABN/ACN	48624996078
Organisation name	CUBICO SUSTAINABLE INVESTMENTS AUSTRALIA PTY LTD
Organisation address	2000 NSW

Person proposing to take the action details

Name	David Smith
Job title	Country Head, Australia
Phone	0477883863
Email	david.smith@cubicoinvest.com
Address	88 Phillip Street, Sydney, NSW, 2000

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

Cubico Sustainable Investments Australia Pty Ltd (Cubico) and the broader global Cubico Sustainable Investments GP 1 Ltd have a satisfactory record of environmental performance across its portfolio of operations across Europe, South America, North America and Australia.

Cubico has no existing record of having been the subject of any prosecution or civil proceedings in Australia under State, Territory or Commonwealth environmental or natural resources legislation which is relevant or material to this referral.

Cubico, through one of its associated entities, has referred the following project under the EPBC Act:

- 2020/8727 – Wambo Wind Farm.

Cubico has a clear Environmental and Social Policy which sets principles and objectives for the overall environmental and social performance of the business. The Policy can be found attached at **Att. 2 Cubico Environmental and Social Policy**.

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

The Cubico Sustainable Investments GP 1 Ltd Environment and Social Policy is attached at **Att. 2 Cubico Environmental and Social Policy**.

Cubico is committed to operating its business in an environmentally and socially responsible manner to protect natural resources and continually improve our environmental performance.

Cubico understands that its operations may have an impact on the environment and focuses on ensuring that appropriate mechanisms are in place to assess and mitigate those impacts in a socially responsible way.

The Cubico Environmental and Social Policy establishes its aims and objectives relating to the protection or prevention of pollution or degradation of the environment, the general principles governing Cubico's sustainability activity and the mechanisms needed for environmental risk analysis in decisions relating to our business and operations, including compliance with the Equator Principles.

Cubico's commitment to investing in energy efficiency and sustainable energy will positively contribute to reducing global greenhouse gas emissions and slowing climate change, resulting in a safer and healthier environment for both the local communities in which we operate and the wider global community.

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

No

1.3.3.2 Is Proposed designated proponent an organisation or business? *

Yes

Proposed designated proponent organisation details

ABN/ACN	48624996078
Organisation name	CUBICO SUSTAINABLE INVESTMENTS AUSTRALIA PTY LTD
Organisation address	2000 NSW

Proposed designated proponent details

Name	Gareth Rees
Job title	Environment and Permitting Manager
Phone	0428628502
Email	gareth.rees@cubicoinvest.com
Address	Level 54, 111 Eagle Street, Brisbane, QLD, 4000

1.3.4 Identity: Summary of allocation

Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

ABN/ACN	75637138008
Organisation name	ATTEXO GROUP PTY LTD
Organisation address	4006 QLD
Representative's name	Rosemary Shearman
Representative's job title	Senior Environmental Consultant
Phone	0416034996
Email	rosemary.shearman@attexo.com.au
Address	T.C. Beirne Building, Level 4, 315 Brunswick Street, Fortitude Valley, QLD 4006

Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	48624996078
Organisation name	CUBICO SUSTAINABLE INVESTMENTS AUSTRALIA PTY LTD
Organisation address	2000 NSW
Representative's name	David Smith
Representative's job title	Country Head, Australia
Phone	0477883863
Email	david.smith@cubicoinvest.com
Address	88 Phillip Street, Sydney, NSW, 2000

Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

ABN/ACN	48624996078
Organisation name	CUBICO SUSTAINABLE INVESTMENTS AUSTRALIA PTY LTD

Organisation address	2000 NSW
Representative's name	Gareth Rees
Representative's job title	Environment and Permitting Manager
Phone	0428628502
Email	gareth.rees@cubicoinvest.com
Address	Level 54, 111 Eagle Street, Brisbane, QLD, 4000

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

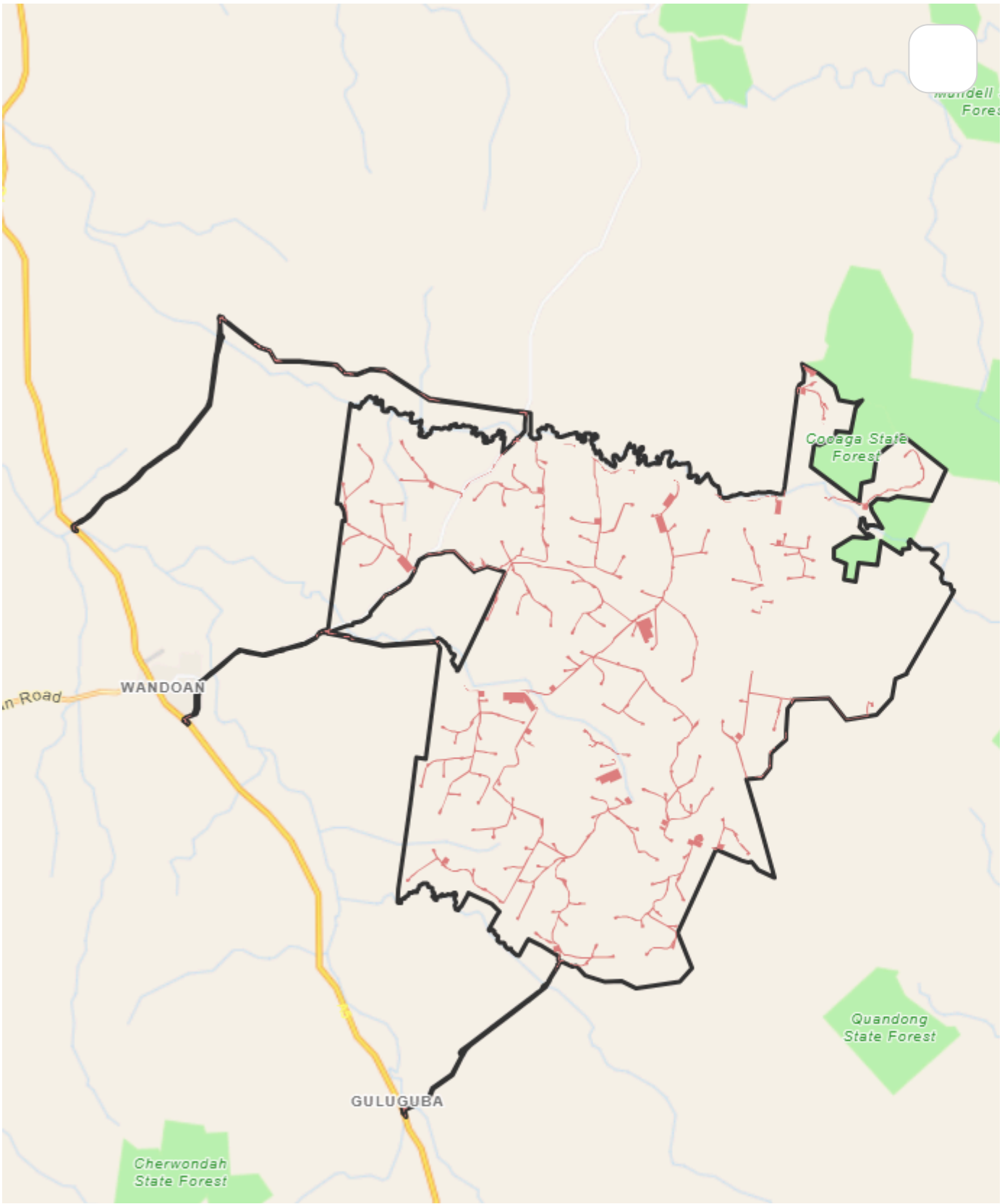
No

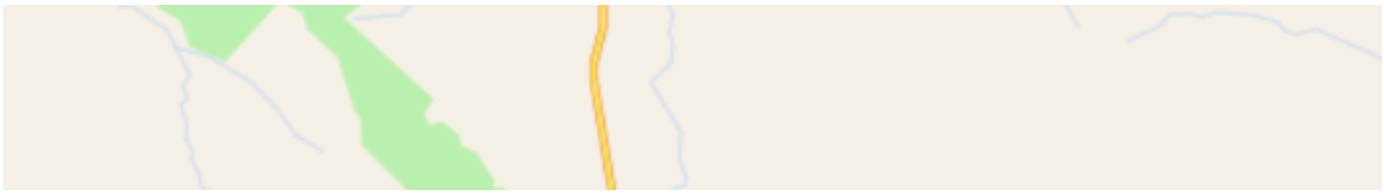
1.4 Payment details: Payment allocation

1.4.11 Who would you like to allocate as the entity responsible for payment? *

2. Location

2.1 Project footprint





Project Area: (28418.41 Ha) Disturbance Footprint: (1513.79 Ha)

Maptaskr © 2024 -25.903965, 150.563347

Powered By Esri - Sources: Esri, TomTom, Garmin, F…

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

1046 Middle Creek Road Wandoan QLD

2.2.2 Where is the primary jurisdiction of the proposed action? *

Queensland

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

The Project is proposed across 35 land parcels. All parcels are held in freehold tenure or are freeholding. The applicable lots are:

- 7FT96
- 8FT97
- 23FT36
- 24FT36
- 27FT36
- 1FT740
- 10FT95
- 29FT301
- 25FT36
- 26FT36
- 28FT36
- 95FT598
- 98FT599
- 96FT598
- 2RP115747
- 10FT111
- 11FT111

- 12FT111
- 13FT110
- 1FT956
- 30FT301
- 3FT956
- 6FT111
- 7FT956
- 9FT111
- 14FT100
- 97FT599
- 11FT97
- 12FT96
- 25FT293
- 13FT100
- 9FT94
- 26FT293
- 11FT98
- 12FT99
- 24FT98.

The Project Area also comprises of areas within 10 road reserves. Western Downs Regional Council is the road manager for all but one road being Leichhardt Highway, which is a State-controlled road. The relevant Council roads are:

- Downfall Creek Road
- Windeyer Road
- Nathan Road
- Walshs Road
- Bungaban Road
- Roche Creek Road
- Middle Creek Road
- Zillmans Road
- Old Chinchilla Road.

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area's environment.

Project Location and Land Use/Zoning

The Project is located on privately-owned properties approximately 10 km to the east of Wandoan. The host properties are zoned as Rural under the Western Downs Planning Scheme and are currently utilised for grazing and coal seam gas activities. It is proposed that current land uses will continue during the construction and operation of the Project. The Project Area also includes road reserves, which contain used formed roads. The clearing proposed along the road verges will not change the proposed land use within the road reserves.

The Project is located in the Southern Queensland Renewable Energy Zone (REZ), specifically within the Darling Downs REZ which identifies an opportunity to generate between 1,600-2,000 MW of renewable energy from between 2025-2030. The Project has potential to deliver up to 1,300 MW, contributing to Queensland's targets of 50 per cent renewable energy by 2030, 70 per cent by 2032 and 80 per cent by 2035.

Site Description

The site is a relatively flat rural landscape, generally undulating between 330 m AHD to 350 m AHD. There are two locations, one in the north of the Project Area and one central to the Project Area, where the elevation increases to between 380 m AHD and 390 m AHD respectively.

The Project contains four prominent creek systems that eventually merge with Juandah Creek which flows in a north-westerly direction before itself merging with the Dawson River. These creek systems include:

- Roche Creek and its associated tributaries which flow along the northern boundary of the Project Area in an east to west direction.
- Twenty Mile Creek and its associated tributaries which flow in a south to north direction through the middle of the Project Area before joining with Roche Creek.
- Weringa Creek and its associated tributaries which flow through the southern portion of the Project Area in an east to west direction.
- Downfall Creek and its associated tributaries which flows along the southern boundary of the Project Area in an east to west direction.

Approximately 16 residential dwellings are located within the Project Area. These dwellings will remain during the life of the Project as the current land use will co-exist with the proposed action. Other landholder infrastructure such as farm dams, sheds and tracks will also remain. The existing infrastructure within the landholdings has informed the design of the Project layout and therefore the Project does not propose to impact on current land use practices. An underground gas pipeline - Woodroyd field to Wallumbilla/Brisbane Pipeline, part of the Roma to Brisbane pipeline network - traverses the centre of the Project Area in a north-south direction, which has been avoided through the application of setbacks.

Due to the nature of the current land use, the Site is predominately cleared of native vegetation and has been maintained for grazing and agricultural practices. Buffel grass covers the majority of the site with trees appearing sporadically within the landscape. Isolated patches of vegetation remain across the site in addition to riparian vegetation present along prominent watercourses. These isolated patches of vegetation are dominated by a mixture of Brigalow (*Acacia harpophylla*), Poplar Box (*Eucalyptus populnea*) and Semi-evergreen Vine Thicket vegetation. Intact riparian corridors were dominated by a mixture of Poplar Box and Forest Red Gum (*Eucalyptus tereticornis*).

3.1.2 Describe any existing or proposed uses for the project area.

Existing Land Use

The Project area has historically been cleared to support decades of grazing and farming practices. The Site is also subject to previous coal seam gas exploration and current development. A number of production wells and associated infrastructure are hosted in the northern extent of the Site. An underground gas pipeline traverses the centre of the Project Area in a north-south direction.

Surrounding land uses are predominantly rural, protected areas for forestry production, residential and energy and gas infrastructure, including:

- Wandoan township approximately 10 km west;
- Columboola to Wandoan South 275kV transmission line located approximately 22 km south of the Project;
- Cooaga State Forest directly northeast of the Project; and

- Barakula State Forest directly north and northeast of the Project.

Proposed Land Use

The proposed land use consists of the Project elements outlined in **Section 1.2 of this Referral**; operational infrastructure includes wind turbines, battery energy storage facility, electrical reticulation, substation and collector substations, operations and maintenance facility and ancillary infrastructure. In accordance with the Planning Act, the proposed development is defined as a renewable energy facility – wind farm.

The proposed land use will co-exist with the existing land use described, with landholder activities and infrastructure remaining on site, as well as coal seam gas development and operations continuing. The Project design considered the existing land use to ensure limited or manageable impacts as a result of the development.

The site selection process considered environmental and social factors to ensure that the development avoided unnecessary impacts from the outset. The following criteria was considered in the site selection process and ultimately the Project site that will proceed (as per this Referral):

- Land that has been previously cleared, highly fragmented and retains low ecological value within the landscape. Values that may be present within the site can be avoided or impacts minimised through design.
- Co-location and co-existence with other land uses to utilise land that has currently been disturbed for other industries and can continue during project development and operation and after decommissioning.
- Strong wind resource to ensure project viability and outputs to support energy targets and demand.

The design of the Project considered feedback from landholders as well as outcomes of ecological surveys undertaken across the site. The following factors informed the design from the initial stages of the Project:

- Feedback from landholders to avoid farming infrastructure and maintain current practices as well as optimising access roads.
- Avoidance of regulated vegetation and ecological values verified through ground-truthing including threatened ecological communities and remnant vegetation. The Disturbance Footprint is predominantly (97.1 per cent) within non-remnant mapped areas which are cleared.
- Avoidance of watercourses and water features to negate impacts to riparian vegetation and habitat values.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

There are no outstanding natural features or other important or unique values that apply to the Project area. There are two State Forests located adjacent to the Project including:

- Cooaga State Forest northeast of the Project reserved for timber forestry;
- Barakula State Forest immediately north and northeast reserved for timber forestry.

During the Project design process, a minimum buffer of 500 m was applied between the boundary of State Forests and turbine locations to account for blade length and minimise indirect impacts to adjoining protected areas for forestry production.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The site is a relatively flat rural landscape, generally undulating between 330 m AHD to 350 m AHD. There are two locations, one in the north of the Project Area and one central to the Project Area, where the elevation increases to between 380 m AHD and 390 m AHD respectively.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

Flora

The Project Area has been historically cleared for grazing, horticulture and coal seam gas operations. The clearing of vegetation has been predominately maintained due to ongoing active land uses and will continue to be maintained, with grazing practices to coexist with the Project. With the Project design prioritising the avoidance of mature vegetation within the site, the majority of the Project area is characterised by buffel grass with sporadic occurrence of vegetation (isolated patches or individual trees). Vegetation remaining within the pastoral land consists of *Eucalyptus*, *Corymbia* and *Callitris* species. Other vegetation communities within the Project Area include isolated patches of semi-evergreen vine thicket, *Acacia spp*. and riparian vegetation of *Eucalyptus spp*.

Flora surveys were undertaken between 17 to 23 November 2023 and between 22 to 25 March 2024 across the Project Area and Disturbance Footprint. The mapping of vegetation communities across the Project area was conducted via quaternary surveys to verify the mapped vegetation within the Project in accordance with the Methodology for survey and mapping of regional ecosystems and vegetation communities in Queensland version 7.0 (Neldner et al. 2023). Additional quaternary survey sites were assessed as part of a (threatened ecological communities) TEC verification survey program in 2024. Quaternary surveys are intended to provide a rapid means of assessing vegetation structure, floristic composition and status. Flora surveys were undertaken to inform preferred habitat types for threatened flora and fauna species and conducted prior to Project design to ensure ecological constraints were considered and avoided to the extent possible.

The PMST identified six TECs as potentially occurring within the Project Area or within 30 km of the Project Area. Through desktop assessment, three TECs were considered as possible to occur as constituent REs are mapped within the Project Area. As a result of the flora survey the following TECs were confirmed and considered known to occur:

- Brigalow (*Acacia harpophylla* dominant and co-dominant): a total of 21 individual patches were identified across the Project area, ranging in size from 0.51 ha to 10.87 ha and totalling approximately 86.21 ha.
- Poplar Box Grassy Woodland on Alluvial Plains: Five patches ranging in size from 5.84 ha to 17.32 ha, totalling approximately 51.44 ha.
- Semi-evergreen Vine Thickets of the Brigalow Belt (North and South) Nandewar Bioregions: three patches ranging in size from 1.78 ha to 6.77 ha, totalling approximately 12.51 ha.

As a result of the survey effort and confirmation of the occurrence of the TECs, the Project wind farm design was revised to avoid all patches and a separation buffer of 50 m minimum was applied between the Disturbance Footprint and mapped TECs to manage potential indirect impacts. Further assessment of the TECs is considered in **Section 4.1.4 of this Referral**.

Proposed swept path footprints within the road reserve and along the external road access network to the Project site have not been ground-truthed. A conservative approach to vegetation mapping has been applied based on State regulated vegetation mapping. This has informed initial habitat mapping for applicable species. Conservatively, TECs have been assumed present in two locations along the road network and will be ground-truthed and confirmed during the Project's assessment process.

The PMST identified 36 flora species as potentially occurring within the Project Area. No threatened species were considered known or likely to occur; this was confirmed during the survey effort and no threatened flora species were recorded.

Due to intensity of clearing and activity within the Project area, a total of 25 weeds species were recorded on the site during survey efforts. A full list of invasive flora species is provided at **Att. 1a MCEH MNES Report, Section 5.5, Table 5.3, pg. 40**, with the prominent species being buffel grass (*Cenchrus ciliaris*) and Guinea grass (*Megathyrsus maximus*).

Further information on the methodology and results of the flora surveys can be found at **Att. 1a MCEH MNES Report, Section 3, pg. 18-23 (Methodology), Att. 1a MCEH MNES Report, Section 5, pg. 34-39 (Results) and Att. 1a MCEH MNES Report, Appendix C (Likelihood of occurrence)**.

Fauna

Seasonal fauna surveys programs were conducted across the Project Area and Disturbance Footprint from 17 to 23 November 2023 and 29 April to 6 May 2024. In addition to the seasonal surveys, four bird and bat utilisation surveys (BBUS) have been undertaken to date as well as targeted surveys for the Boggomoss Snail (*Adclarkia dawsonensis*) (further information on the species is provided in **Section 4.1.4 of this Referral**).

During the survey effort across the Project Area to date, a total of 124 birds, 9 amphibians, 8 reptiles, 10 invertebrates and 41 mammals have been observed, including five feral fauna species, namely Indian myna (*Acridotheres tristis*), Feral cat (*Felis catus*), European hare (*Lepus europaeus*) Cane toad (*Rhinella marina*), Feral pig (*Sus scrofa*).

The PMST identified 27 birds, 2 fish, 9 mammals, 9 reptiles and 4 invertebrates occurring within 30 km of the Project Area. As a result of the likelihood of occurrence assessment, 26 species were considered likely or potential to occur based on the presence of suitable habitat and supported by nearby known records. Other species were considered possibly or unlikely to occur.

Surveys were conducted in accordance with the relevant Commonwealth and State Department's guidance material for threatened mammals, birds, reptiles and bats. A number of different survey methods were used to consider all potential species. The fauna survey effort and methods are detailed in **Att. 1a MCEH MNES Report, Section 3.2.4, pg. 24-30**. Through field surveys and further assessment, six threatened fauna species are considered known to occur, including:

- Painted honeyeater (*Grantiella picta*) (Vulnerable);

- White-throated Needletail (*Hirundapus caudacutus*) (Vulnerable, Migratory);
- Greater Glider (southern and central) (*Petauroides volans*) (Endangered);
- Koala (*Phascolarctos cinereus*) (Endangered);
- Short-beaked Echidna (*Tachyglossus aculeatus*) (listed under the State's Nature Conservation Act as Special Least Concern); and
- Boggomoss Snail (*Adclarkia dawsonensis*) (Critically Endangered).

Proposed swept path footprints within the road reserve and along the external road access network to the Project site have not been ground-truthed. A conservative approach to vegetation mapping has been applied based on State regulated vegetation mapping. This has informed initial habitat mapping for species. Habitat for the species list above has been mapped and potential impacts assessed in this referral.

In accordance with the likelihood of occurrence assessment (**Att. 1b MCEH MNES Report, Appendix C**), other species are considered potential or unlikely to occur.

Further information on the fauna survey and assessment methodology can be found at **Att. 1a MCEH MNES Report, Section 3, pg. 18-23 (Methodology), Att. 1a MCEH MNES Report, Section 5, pg. 34-39 (Results) and Att. 1b MCEH MNES Report, Appendix C (Likelihood of occurrence)**.

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

Land Zones and Soils

Under the Queensland RE framework, land zones are categories that describe the major geologies and associated landforms and geomorphic processes in Queensland. The differences between land zones result in marked differences in the function of ecosystems and their associated biodiversity and this is due in part to the effects that geology (lithology, structure, alteration) has on landform, hydrology and landscape processes (geomorphology and soil formation). There are five land zones across the Project area:

- Land Zone 3 (alluvial river and creek flats) - recent Quaternary alluvial systems, including closed depressions, paleo-estuarine deposits currently under freshwater influence, inland lakes and associated wave built lunettes. Excludes colluvial deposits such as talus slopes and pediments. Includes a diverse range of soils, predominantly Vertosols and Sodosols; also with Dermosols, Kurosols, Chromosols, Kandosols, Tenosols, Rudosols and Hydrosols; and Organosols in high rainfall areas.
- Land Zone 5 (old loamy and sandy plains) - Tertiary-early Quaternary extensive, uniform near level or gently undulating plains with sandy or loamy soils. Includes dissected remnants of these surfaces. Also includes plains with sandy or loamy soils of uncertain origin, and plateau remnants with moderate to deep soils usually overlying duricrust. Excludes recent Quaternary alluvial systems (land zone 3), exposed duricrust (land zone 7), and soils derived from underlying bedrock (land zones 8 to 12). Soils are usually Tenosols and Kandosols, also minor deep sandy surfaced Sodosols and Chromosols. There may be a duricrust at depth.
- Land Zone 7 (ironstone jump-ups) - Cainozoic duricrusts formed on a variety of rock types, usually forming mesas or scarps. Includes exposed ferruginous, siliceous or mottled horizons and associated talus and colluvium, and remnants of these features, for example low stony rises on downs. Soils are usually shallow Rudosols and Tenosols, with minor Sodosols and Chromosols on associated pediments, and shallow Kandosols on plateau margins and larger mesas.
- Land Zone 9 (undulating country on fine-grained sedimentary rocks) - fine grained sedimentary rocks, generally with little or no deformation and usually forming undulating landscapes. Siltstones, mudstones, shales, calcareous sediments, and labile sandstones are typical rock types although minor interbedded volcanics may occur. Includes a diverse range of fine textured soils of moderate to high fertility, predominantly Vertosols, Sodosols, and Chromosols.

- Land Zone 10 (sandstone ranges) - medium to coarse grained sedimentary rocks, with little or no deformation, forming plateaus, benches and scarps. Includes siliceous (quartzose) sandstones, conglomerates and minor interbedded volcanics, and springs associated with these rocks. Excludes overlying Cainozoic sand deposits (land zone 5). Soils are predominantly shallow Rudosols and Tenosols of low fertility, but include sandy surfaced Kandosols, Kurosols, Sodosols and Chromosols.

Connectivity

The Project is situated in the south-eastern corner of the Taroom Downs biogeographic subregion which has been heavily cleared to support regional agricultural and pastoral activities. This subregion does still contain ten State Forests, of which two are immediately adjacent to the Project, namely Cooaga State Forest and Barakula State Forest. The Project is not connected to any Statewide biodiversity corridors however there are two smaller regional biodiversity corridors that run along Downfall Creek and Roche Creek that are within the Project Area.

Vegetation

The landscape within the Project Area is highly fragmented from years of pastoral and agricultural land use. Based on available aerial imagery, this fragmentation dates back to at least 1949. Native vegetation remains only as isolated patches of vegetation in addition to riparian vegetation present along prominent watercourses (Roche Creek, Twenty Mile Creek, Weringa Creek and Downfall Creek, and their tributaries).

The Project Area is predominately mapped as non-remnant in accordance with the Queensland State vegetation mapping and is characterised by buffel grass (*Cenchrus ciliaris*) (an exotic species of grass) with isolated trees sporadically across the landscape. The Project Area also contains some areas of regulated vegetation of Category B (remnant), Category C (high-value regrowth) and Category R (regrowth watercourse and drainage feature area). The regional ecosystems (REs) mapped by the State as occurring within the Project Area are detailed in **Att. 1a MCEH MNES Report, Section 5.2, Table 5.1, pg. 38-39**.

Habitat Types

Five broad habitat types are identified within the Project Area based on quaternary site assessments and habitat assessments. The habitat types are described in detail in **Att. 1a MCEH MNES Report, Section 5.6, pg. 41-45** and summarised below.

The following habitat types are found within the Project Area:

- Riparian vegetation – large portion of the mapped remnant vegetation within the Project area is associated with riparian corridors on Land Zone 3 (alluvial). This habitat incorporates several alluvial vegetation communities including RE 11.3.2, RE 11.3.17 and RE 11.3.25. These communities are dominated by either Poplar Box or Forest Red Gum in the canopy layer, and buffel grass (*Cenchrus ciliaris*) (invasive) in the ground layer.
- *Acacia* dominated vegetation – numerous patches of *Acacia* dominated vegetation scattered across the Project area including RE 11.3.1, RE 11.7.2, RE 11.9.1, RE 11.9.5 and RE 11.9.6. These communities were dominated by a mixture of Brigalow, Belah and Yarran (*Acacia melvillei*). The understories of these communities were mostly sparse with varying quantities of coarse woody debris. Most patches are completely isolated from other vegetation, are very thin and/or surrounded by pastoral land.
- Semi-evergreen vine thicket – three distinct patches of Semi-Evergreen Vine Thicket were identified along the eastern boundary of the Project area during the 2024 flora survey program. These communities were dominated by a mixture of SEVT species in the canopy layer (RE 11.7.1x1) or in the sub-canopy layer (RE 11.9.4). The understory composition of this habitat is like that of the acacia dominated vegetation, with a mixture of sparse ground cover, bare ground and coarse woody debris.
- Non-riparian *Eucalyptus*, *Corymbia* and *Callitris* dominated communities – these communities include RE 11.5.1, 11.5.21, 11.7.6, 11.7.7, 11.9.7, 11.9.10 and 11.10.9. These communities were dominated by numerous species including Poplar Box, White Cypress Pine (*Callitris glaucophylla*) and Narrow-

leaved Ironbark. Whilst the composition of the understories in these communities varied, buffel grass was present in most.
- Predominantly cleared pastoral land – the remaining non-remnant areas mapped within the Project area are predominantly used for pastoral activities. These areas are mostly dominated by buffel grass.

3.3 Heritage

3.3.1 Describe any Commonwealth heritage places overseas or other places recognised as having heritage values that apply to the project area.

No Commonwealth heritage places overseas or other places recognised as having heritage value apply to the Project area.

3.3.2 Describe any Indigenous heritage values that apply to the project area.

The Iman People are the traditional custodians for the land of which the current project area sits. As of 22 January 2024, there were three sites of Aboriginal significance recorded on the Queensland Department of Treaty, Aboriginal and Torres Strait Islander Partnerships, Communities and the Arts' register and database.

Cubico is aware to the fact that the existing identified sites are in close proximity to an existing petroleum pipeline and that an absence of recorded sites across the balance of the project area likely reflects a lack of cultural heritage survey.

Subsequently, Cubico has commenced engaging with the Iman for the protection and management of their cultural heritage on country, including through the negotiation of an agreement, field survey of a met mast location and monitoring of works. This engagement will continue on through to the cultural heritage investigation of all project disturbance.

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

The Project primarily sits within the Dawson River sub-basin and only partially within the Dogwood Creek sub-basin catchment area. There are four prominent creek systems and numerous tributaries that flow through the Project area in a westerly direction before merging with the Dawson River including Roche Creek, Twenty Mile Creek, Weringa Creek and Downfall Creek.

A number of Ramsar wetlands are identified in the PMST during desktop assessment. Due to the distance and hydrological separation between the Project and the wetlands, no direct or indirect impacts will occur as a result of the action. Further detail of these values is discussed in **Section 4.1.3 of this Referral**.

The Project also sits within the very upper reaches of the Fitzroy River Great Barrier Reef (GBR) catchment, however the GBR was not identified in the PMST desktop search (as per the PMST undertaken as part of this referral). The Project is approximately 740 km upstream of the GBR and is not considered likely to impact this MNES. Due to the nature of the proposed development, avoidance of watercourses through Project design and mitigation and management measure to be applied, the Project will not have direct or indirect impacts to the GBR. This is further considered in the overall assessment undertaken in **Att. 1 MCEH MNES Report** and **Section 4.1.8 of this Referral**.

The hydrology across the Site is highly modified for the purposes of the current land use. Soil conservation plans approved by the Minister under the Queensland *Soil Conservation Act 1986*. These statutory plans show measures on a property (and relevant adjoining properties in some cases) and specifications to manage runoff and drainage to minimise soil loss. The plans show aspects such as land use, drainage and topography (e.g. natural watercourses, ridgelines), prohibitions, as well as protection measures such as contour banks, diversion banks, waterways and associated flow directions.

The proponent has engaged extensively with landholders to understand the hydrology across the Site to ensure that the Project, through early Project design, minimises to the extent possible any changes to the current regime. Potential impacts will be managed through Project delivery with the implementation of a detailed and site-specific Erosion and Sediment Control Plan (ESCP) and a Construction Environmental Management Plan. A preliminary ESCP has been provided with this referral at **Att. 3 MCEH Erosion and Sediment Control Plan** which outlines how Project construction will be manage ground disturbance works.

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section	Controlling provision	Impacted	Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	No	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes
S20	Migratory Species	Yes	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	No	Yes
S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

In accordance with the PMST report generated through this referral portal, there are no World Heritage areas within 30 km of the Project Area. The activities proposed as part of the action and subsequent potential impacts identified in **Att. 1a MCEH MNES Report, Section 7 (Construction – Section 7.2, pg. 48-51; Operational – Section 7.3, pg. 51-53; Decommissioning – Section 7.4, pg. 53)** will not have direct or indirect impacts to World Heritage.

Consideration of the Great Barrier Reef as a World Heritage Area

Context

The Project is located within the Dawson River sub-basin in the very upper reaches of the GBR Fitzroy Basin catchment and is subject to the Reef 2020 Water Quality Improvement Plan. The Project is approximately 740 km upstream of the GBR, connected via creeks which flow into the Dawson River which is a tributary of the Fitzroy River. The assessment of the Project considers impacts to water quality by erosion and sedimentation and as a result, the design avoids development of permanent infrastructure within watercourses; watercourse crossings are proposed, and mitigation and management measures will be applied (further detail below).

Due to the distance from the GBR, the nature of the Project (construction involving temporary ground distance) and the implementation of mitigation and management measures, it is unlikely that the Project would impact on the GBR.

To support this assessment and the Referral, a site-specific Preliminary Erosion and Sediment Control Plan (ESCP) has been prepared and attached at **Att. 3 MCEH Erosion and Sediment Control Plan**. The Preliminary ESCP considers the site characteristics such as soils, hydrology and drainage patterns and climatic conditions to determine the best practice management and mitigation measures for the Project in accordance with the legislative context and standards. International Erosion Control Association (IECA) 2008 have guided the preparation of the Preliminary ESCP and informed best practice erosion and sediment controls for the site.

Conservatively, the GBR is considered a sensitive receptor in the ESCP. Discharge water quality objectives established for the Project are to consider sensitive receiving environments (considering the Reef 2020 Water Quality Improvement Plan). A review of the Reef 2020 Water Quality Improvement Plan determined that the Project will not impact on the objectives of the Plan, with no net worsening on water quality due to the distance from the reef and in the context of the downstream land uses (between the Project area and the discharge point into the GBR via the Fitzroy River), including intensive agriculture and grazing, residential development (such as the city of Rockhampton). The Fitzroy River discharges north of Curtis Island at Port Alma; heavy industry at these locations also contribute to impacts on the GBR.

In accordance with the ESCP, controls will be applied to the Project to:

- facilitate best practice stormwater management; and
- avoid or minimise soil erosion; and
- facilitate best practice soil and sediment management.

Management and Mitigation

The following measures will be implemented to mitigate and manage impacts of erosion and sediment as much as practicable during the construction phase of the Project:

- Erosion in active construction areas cannot be eliminated but can be controlled. As part of the construction planning a certified ESCP will be prepared prior to construction and implemented during on-site activities. Sediment and erosion control measures to prevent soil loss will be developed consistent with the International Erosion Control Association (IECA) Best Practice Erosion and Sediment Control (BPESC) document. The ESCP will form part of the overall CEMP. Particular focus will be given to managing runoff in the vicinity of watercourses. A summary of the controls to be implemented at the site include:
    - Erosion controls:
        - Implementation of limitations on land clearing during periods of rainfall.
        - Stabilisation of soils and earthworks where groundcover is limited or cleared.
        - Staging of works to reduce the total area of ground disturbance at any given time.
        - Progressive site rehabilitation during the construction period.
    - Drainage controls:

        - Implementation of a stormwater management plan.
        - Temporary drainage controls design in accordance with IECA recommendations.
        - Management of clean and dirty water across the site.
        - Installation of measures to manage water diversions through the site including velocity and quality.
    - Sediment controls:
        - Sediment traps will be designed and positioned by a suitably qualified person.
        - Sediment controls will be applied only after all reasonable and practicable measures to prevent erosion have been adopted.
        - Sediment laden runoff from construction areas will be directed to an appropriate sediment control device in accordance with the required treatment standard.
        - All sediment control measures will be designed, installed, operated and maintained in accordance with IECA 2008.
        - All material removed from sediment traps during maintenance will be disposed of in a manner that does not cause ongoing soil erosion or environmental harm.
    - Other actions such as stockpile management, instream works, weather preparedness and dust management will also be implemented to manage activities during construction.
- As a minimum standard, access tracks will be constructed in accordance with EHP publication: “Erosion control on property roads and tracks—managing runoff”.
- Creek crossing locations will seek to take advantage of existing gaps in the riparian corridors as far as practicable. Work in creek crossings will be carried out in periods of no flow where practicable.
- On site infrastructure will be designed to ensure water flows are not impounded or concentrated (e.g. culverts, diversion ditches, etc.).
- No equipment or materials will be stored across flow paths.
- The extent of the area required to carry out the permitted activity will be limited to the minimum area necessary to reasonably carry out the works.
- Waterway crossings will be designed in accordance with accepted development requirements for waterway barrier works wherever practicable to ensure fish passage is not impeded.
- Watercourse crossings will be designed to maintain flow and minimise the increase in flow volume or velocity.
- Constructed access tracks (e.g. culverts or splash-through crossings) will be provided with a scour apron and cut off wall on the downstream side sufficient to prevent bed erosion.

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

In accordance with the PMST report generated through this referral portal, there are no National Heritage areas within 30 km of the Project Area. The activities proposed as part of the action and subsequent potential impacts identified in **Att. 1a MCEH MNES Report, Section 7 (Construction – Section 7.2, pg. 48-51; Operational – Section 7.3, pg. 51-53; Decommissioning – Section 7.4, pg. 53)** will not have direct or indirect impacts to National Heritage.

Consideration of the Great Barrier Reef as a National Heritage Place

Context

The Project is located within the Dawson River sub-basin in the very upper reaches of the GBR Fitzroy Basin catchment and is subject to the Reef 2020 Water Quality Improvement Plan. The Project is approximately 740 km upstream of the GBR, connected via creeks which flow into the Dawson River which is a tributary of the Fitzroy River. The assessment of the Project considers impacts to water quality by erosion and sedimentation and as a result, the design avoids development of permanent infrastructure within watercourses; watercourse crossings are proposed, and mitigation and management measures will be applied (further detail below).

Due to the distance from the GBR, the nature of the Project (construction involving temporary ground distance) and the implementation of mitigation and management measures, it is unlikely that the Project would impact on the GBR.

To support this assessment and the Referral, a site-specific Preliminary Erosion and Sediment Control Plan (ESCP) has been prepared and attached at **Att. 3 MCEH Erosion and Sediment Control Plan**. The Preliminary ESCP considers the site characteristics such as soils, hydrology and drainage patterns and climatic conditions to determine the best practice management and mitigation measures for the Project in accordance with the legislative context and standards. International Erosion Control Association (IECA) 2008 have guided the preparation of the Preliminary ESCP and informed best practice erosion and sediment controls for the site.

Conservatively, the GBR is considered a sensitive receptor in the ESCP. Discharge water quality objectives established for the Project are to consider sensitive receiving environments (considering the Reef 2020 Water Quality Improvement Plan). A review of the Reef 2020 Water Quality Improvement Plan determined that the Project will not impact on the objectives of the Plan, with no net worsening on water quality due to the distance from the reef and in the context of the downstream land uses (between the Project area and the discharge point into the GBR via the Fitzroy River), including intensive agriculture and grazing, residential development (such as the city of Rockhampton). The Fitzroy River discharges north of Curtis Island at Port Alma; heavy industry at these locations also contribute to impacts on the GBR.

In accordance with the ESCP, controls will be applied to the Project to:

- facilitate best practice stormwater management; and
- avoid or minimise soil erosion; and
- facilitate best practice soil and sediment management.

Management and Mitigation

The following measures will be implemented to mitigate and manage impacts of erosion and sediment as much as practicable during the construction phase of the Project:

- Erosion in active construction areas cannot be eliminated but can be controlled. As part of the construction planning a certified ESCP will be prepared prior to construction and implemented during on-site activities. Sediment and erosion control measures to prevent soil loss will be developed consistent with the International Erosion Control Association (IECA) Best Practice Erosion and Sediment Control (BPESC) document. The ESCP will form part of the overall CEMP. Particular focus will be given to managing runoff in the vicinity of watercourses. A summary of the controls to be implemented at the site include:

- Erosion controls:
  - Implementation of limitations on land clearing during periods of rainfall.
  - Stabilisation of soils and earthworks where groundcover is limited or cleared.
  - Staging of works to reduce the total area of ground disturbance at any given time.
  - Progressive site rehabilitation during the construction period.
- Drainage controls:
  - Implementation of a stormwater management plan.
  - Temporary drainage controls design in accordance with IECA recommendations.
  - Management of clean and dirty water across the site.
  - Installation of measures to manage water diversions through the site including velocity and quality.
- Sediment controls:
  - Sediment traps will be designed and positioned by a suitably qualified person.
  - Sediment controls will be applied only after all reasonable and practicable measures to prevent erosion have been adopted.
  - Sediment laden runoff from construction areas will be directed to an appropriate sediment control device in accordance with the required treatment standard.
  - All sediment control measures will be designed, installed, operated and maintained in accordance with IECA 2008.
  - All material removed from sediment traps during maintenance will be disposed of in a manner that does not cause ongoing soil erosion or environmental harm.
- Other actions such as stockpile management, instream works, weather preparedness and dust management will also be implemented to manage activities during construction.

- As a minimum standard, access tracks will be constructed in accordance with EHP publication: “Erosion control on property roads and tracks—managing runoff”.
- Creek crossing locations will seek to take advantage of existing gaps in the riparian corridors as far as practicable. Work in creek crossings will be carried out in periods of no flow where practicable.
- On site infrastructure will be designed to ensure water flows are not impounded or concentrated (e.g. culverts, diversion ditches, etc.).
- No equipment or materials will be stored across flow paths.
- The extent of the area required to carry out the permitted activity will be limited to the minimum area necessary to reasonably carry out the works.
- Waterway crossings will be designed in accordance with accepted development requirements for waterway barrier works wherever practicable to ensure fish passage is not impeded.
- Watercourse crossings will be designed to maintain flow and minimise the increase in flow volume or velocity.
- Constructed access tracks (e.g. culverts or splash-through crossings) will be provided with a scour apron and cut off wall on the downstream side sufficient to prevent bed erosion.

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Ramsar wetland
No	No	Banrock Station Wetland Complex

Direct impact	Indirect impact	Ramsar wetland
No	No	Narran Lake Nature Reserve
No	No	Riverland
No	No	The Coorong, and Lakes Alexandrina and Albert Wetland

4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

Four Ramsar wetlands were identified as potentially relevant to the Project during the desktop assessment, as per the PMST. Ramsar wetlands are wetlands that are representative, rare or unique wetlands, or are important for conserving biological diversity. As the wetlands are not hydrologically connected to the Project area, no direct or indirect impacts will occur as a result of the action (Impacts are discussed in **Att. 1a MCEH MNES Report, Section 7 (Construction – Section 7.2, pg. 48-51; Operational – Section 7.3, pg. 51-53; Decommissioning – Section 7.4, pg. 53)**). Each has been considered below.

The Ramsar wetlands identified during the PMST include:

- **Bandork Station Wetland Complex** – Located on the River Murray Floodplain immediately downstream of Kingston on Murray in the Riverland of South Australia. This wetland is approximately 1,100-1,200 km from the Project and is considered unlikely to be affected by the construction of the Project. This MNES value has not been considered further in this assessment.
- **The Coorong, and Lakes Alexandrina and Albert Wetland** – Located at the downstream end of the Murray River, in south-east South Australia. This wetland is approximately 1,300-1,400 km from the Project and is considered unlikely to be affected by the construction of the Project. This MNES value has not been considered further in this assessment.
- **Riverland** – Located in South Australia, in the Murray-Darling Basin where it runs along the Murray River, from the town of Renmark to the Victorian and New South Wales border. This wetland is approximately 1,100-1,200 km from the Project and is considered unlikely to be affected by the construction of the Project. This MNES value has not been considered further in this assessment.
- **Narran Lake Nature Reserve** – Located approximately 75 km north-west of Walgett and 50 km north-east of Brewarrina in the north-west of New South Wales. This wetland is approximately 400-500 km upstream of the Project and is considered unlikely to be affected by the construction of the Project. This MNES value has not been considered further in this assessment.

Due to the nature of the proposed development, avoidance of watercourses through Project design and mitigation and management measure to be applied, the Project will not have direct or indirect impacts to wetlands downstream of the Project site. To support this, a site-specific Preliminary Erosion and Sediment Control Plan (ESCP) has been prepared and attached to the Referral at **Att. 3 MCEH Erosion and Sediment Control Plan**. The Preliminary ESCP considers the site characteristics such as soils, hydrology and drainage patterns and climatic conditions to determine the best practice management and mitigation measures for the Project in accordance with the legislative context and standards. International Erosion Control Association (IECA) 2008 have guided the preparation of the Preliminary ESCP and informed best practice erosion and sediment controls for the site. The controls will be applied to the Project to:

- facilitate best practice stormwater management; and

- avoid or minimise soil erosion; and
- facilitate best practice soil and sediment management.

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

Direct impact	Indirect impact	Species	Common name
No	No	Acacia curranii	Curly-bark Wattle
No	No	Adclarkia cameroni	Brigalow Woodland Snail
Yes	Yes	Adclarkia dawsonensis	Boggomoss Snail, Dawson River Snail, Dawson Valley Snail
No	No	Anomalopus mackayi	Five-clawed Worm-skink, Long-legged Worm-skink
No	No	Aphelocephala leucopsis	Southern Whiteface
No	No	Arthraxon hispidus	Hairy-joint Grass
No	No	Cadellia pentastylis	Ooline
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo
No	No	Chalinolobus dwyeri	Large-eared Pied Bat, Large Pied Bat
No	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
No	No	Dasyurus hallucatus	Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu]
No	No	Delma torquata	Adorned Delma, Collared Delma
No	No	Dichanthium setosum	bluegrass
No	No	Egernia rugosa	Yakka Skink
No	No	Elseya albagula	Southern Snapping Turtle, White-throated Snapping Turtle

Direct impact	Indirect impact	Species	Common name
No	No	Erythrotriorchis radiatus	Red Goshawk
No	No	Falco hypoleucos	Grey Falcon
No	No	Furina dunmalli	Dunmall's Snake
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Geophaps scripta scripta	Squatter Pigeon (southern)
Yes	Yes	Grantiella picta	Painted Honeyeater
No	No	Hemiaspis damelii	Grey Snake
Yes	No	Hirundapus caudacutus	White-throated Needletail
No	No	Homopholis belsonii	Belson's Panic
No	No	Homoranthus decumbens	a shrub
No	No	Lathamus discolor	Swift Parrot
No	No	Lepidium monoplocoides	Winged Pepper-cress
No	No	Macroderma gigas	Ghost Bat
No	No	Nyctophilus corbeni	Corben's Long-eared Bat, South-eastern Long-eared Bat
Yes	Yes	Petauroides volans	Greater Glider (southern and central)
No	No	Petaurus australis australis	Yellow-bellied Glider (south-eastern)
Yes	Yes	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
No	No	Polianthion minutiflorum	
No	No	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Rheodytes leukops	Fitzroy River Turtle, Fitzroy Tortoise, Fitzroy Turtle, White-eyed River Diver
No	No	Rostratula australis	Australian Painted Snipe
No	No	Stagonopleura guttata	Diamond Firetail
No	No	Thesium australe	Austral Toadflax, Toadflax
No	No	Turnix melanogaster	Black-breasted Button-quail

Direct impact	Indirect impact	Species	Common name
No	No	Xerothamnella herbacea	

Ecological communities

Direct impact	Indirect impact	Ecological community
Yes	No	Brigalow (Acacia harpophylla dominant and co-dominant)
No	No	Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions
Yes	No	Poplar Box Grassy Woodland on Alluvial Plains
No	No	Weeping Myall Woodlands

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

The proposed Disturbance Footprint for the Project is 1,456.02 ha across numerous adjacent land parcels which in some cases are separated by road reserves. The proposed Project components and activities of the action are detailed in **Section 1.2.1 of this Referral**. As a result of the proposed action, the following potential direct and indirect impacts have been identified:

Construction

- Vegetation clearing resulting in loss of habitat;
- Habitat fragmentation and reduced connectivity;
- Fauna injury or mortality during vegetation clearing and potential entrapment in trenches when installing underground powerlines;
- Fauna injury or mortality due to vehicle strike;
- Wildlife disturbance due to dust, noise, light and vibration emissions;
- Reduced water quality due to erosion and sedimentation;
- Potential spills of hazardous materials resulting in land contamination and/or reduced water quality;
- Introduction or increased prevalence of pests and weeds due to increased vehicle movements and vegetation clearing; and
- Increased risk of bushfire due to potential ignition sources on site associated with increased activity

Operations

- Fauna injury or mortality due to vehicle strike;
- Collision with turbines towers, blades and powerlines;
- Barotrauma;
- Wildlife disturbance due to noise and light emissions;

- Potential spills of hazardous materials;
- Increased pests and weeds due to increased vehicle movements; and
- Increased risk of bushfire due to potential ignition sources on site associated with increased activity.

Decommissioning

At the end of the Project's operational life, infrastructure will be decommissioned, and the site rehabilitated to facilitate continuation of the current land use (i.e. agriculture). Decommissioning involves the removal of all above-ground infrastructure such as turbines, overhead transmission lines, switch stations, etc. Removal of buried infrastructure is not normally undertaken as this typically causes additional disturbance and environmental impacts. Once above-ground infrastructure is removed, the land is rehabilitated in line with specific approval conditions and landholder agreements.

Impacts during decommissioning are likely to relate primarily to vehicle movements around the Project area, potential for spread of weeds and elevated risk of bushfire as described in the sections above. No additional vegetation clearing would be anticipated during decommissioning activities; however, this would be subject to a separate assessment if required.

Further details on the nature, scale and duration of likely impacts are provided at **Att. 1a MCEH MNES Report, Section 7 (Construction – Section 7.2, pg. 48-51; Operational – Section 7.3, pg. 51-53; Decommissioning – Section 7.4, pg. 53)**.

The threatened species and ecological communities captured in the PMST results generated by the referral portal have been considered and a supporting likelihood of occurrence in **Att. 1a MCEH MNES Report, Appendix C**. The likelihood of occurrence assessment along with other desktop results, supported by ecological surveys, identifies if likely impacts from the action, as described above, does/doesn't have a direct and/or indirect impact on protected matters.

The following four threatened fauna species were identified as requiring further consideration in the ecological assessment process in accordance with the EPBC Act Significant Impact Guidelines (DOE 2013) and are likely to be impacted by the Project due to the presence of habitat:

- White-throated Needletail (*Hirundapus caudacutus*) (Vulnerable, Migratory);
- Koala (*Phascolarctos cinereus*) (Endangered);
- Greater Glider (southern and central) (*Petauroides volans*) (Endangered); and
- Boggomoss Snail (*Adclarkia dawsonensis*) (Critically Endangered).

The following two TECs were also identified as requiring further consideration in the ecological assessment process and are likely to be impacted by the Project due to their potential presence in the Project's swept path areas:

- Brigalow (*Acacia harpophylla* dominant and codominant) TEC (Endangered); and
- Poplar Box Grassy Woodland on Alluvial Plain TEC (Endangered).

Direct Impacts to MNES Threatened Species and Ecological Communities

The assessment presented in **Att. 1a MCEH MNES Report, Section 7.2.1, pg. 48-49** concludes that there is likely to be direct impacts on MNES species, primarily due to the clearing of habitat. Collision risk is also a potential direct impact to the White-throated Needletail as per **Att. 1a MCEH MNES Report, Section 7.3.2 pg. 52**.

The Project Area is considered to contain potential habitat for the species listed below. Potential habitat for these species in the Project Area was mapped consistent with the habitat descriptions identified in the SPRAT database and includes:

- White-throated Needletail (*Hirundapus caudacutus*): Considering their aerial nature, suitable foraging habitat for the White-throated Needletail is not solely linked to terrestrial habitat. To be conservative, all habitat has been considered suitable for foraging. Suitable roosting habitat includes vegetation

communities that have a structural category of ‘dense’ in their REDD description, and within the Project area, this is limited to RE 11.9.4. The species is also at risk of collision with turbines during operation. Low numbers have been recorded in the Project Area, however a collision risk model is yet to be developed (pending further bird utilisation surveys).

- Koala (*Phascolarctos cinereus*): Suitable breeding and foraging habitat: REs with known food trees (including RE 11.3.2, 11.3.17, 11.3.25, 11.5.1a, 11.5.21, 11.9.7 and 11.9.10). Suitable dispersal habitat: remaining REs within Project area (including RE 11.3.1, 11.7.1x1, 11.7.2, 11.9.4, 11.9.5, 11.9.6 and 11.10.9) and all mapped non-remnant areas.
- Greater Glider (southern and central) (*Petauroides volans*): Suitable habitat for this species has been mapped by combining all eucalypt dominated REs (RE 11.3.2, 11.3.17, 11.3.25, 11.5.1a, 11.5.21, 11.7.6, 11.7.7, 11.9.7, 11.9.10) that are present within the Project area, excluding small, isolated patches of habitat, or habitat that is considered inaccessible to the Greater Glider in relation to their average glide distance.
- Boggomoss Snail (*Adclarkia dawsonensis*): Potential habitat for the Boggomoss snail has been mapped as the vegetated areas within a 25 m buffer of watercourses (limited to stream order 3, 4 and 5).
- Painted honeyeater (*Grantiella pica*): Suitablehabitat for the Painted honeyeater has been mapped to include all Broad Vegetation Group (BVG) 25a communities together including RE 11.3.1, 11.3.17, 11.9.1, 11.9.5, 11.9.6 and 11.9.10. RE 11.9.4 has also been included although it does not fall under BVG 25a, it does contain brigalow which has been identified as a key mistletoe host plant.

The following TECs are conservatively assumed to be present in the Project’s swept path areas as associated REs are mapped (these TECs have not been field verified and will be surveyed during the assessment process to confirm presence or absence):

- Brigalow (*Acacia harpophylla* dominant and codominant): presence of Brigalow TEC is assumed present as the State vegetation mapping includes an area of RE 11.9.5 (*Acacia harpophylla* and/or *Casuarina cristata* open forest on fine-grained sedimentary rocks) within the external road network associated with the transport route to the Project site.
- Poplar Box Grassy Woodland on Alluvial Plain TEC: presence of Poplar Box TEC is assumed present as the State vegetation mapping includes an area of RE 11.3.2 (*Eucalyptus populnea* woodland on alluvial plains) within the external road network associated with the transport route to the Project site.

The following provides a breakdown of the amount of field verified habitat or potential habitat for each listed threatened species in the Disturbance Footprint (**Att. 1a MCEH MNES Report, Section 7.2.1, Table 7.1, pg. 49**):

- White-throated Needletail (*Hirundapus caudacutus*): 1,456.02 ha of foraging habitat (2.55 per cent of habitat available in the Project Area).
- Koala (*Phascolarctos cinereus*): 10.31 ha of suitable breeding and foraging habitat, and 1,428.03 ha of suitable dispersal habitat (1.67 per cent and 5.14 per cent of habitat available in the Project Area, respectively).
- Greater Glider (southern and central) (*Petauroides volans*): 16.12 ha of suitable habitat (2.4 per cent of habitat available in the Project Area).
- Boggomoss Snail (*Adclarkia dawnsonensis*): 0.34 ha of suitable habitat (0.38 per cent of habitat available in the Project Area) [1].
- Painted honeyeater (*Grantiella pica*): Less than 0.01 ha of suitable habitat
- Brigalow (*Acacia harpophylla* dominant and codominant): 0.2 ha of potential TEC (0.2 per cent of that found within the Project Area).
- Poplar Box Grassy Woodland on Alluvial Plains: 0.8 ha of potential TEC (1.3 per cent of that found within the Project Area).

[1] Boggomoss snail habitat will be temporarily disturbed but not cleared. No ground-disturbing works are proposed within boggomoss snail habitat

Indirect Impacts to MNES Threatened Species and Ecological Communities

As a result of the proposed action, there are a number of indirect impacts that have the potential to impact MNES including Greater glider, Koala, and Boggomoss snail. No indirect impacts are anticipated to the White-throated Needletail or TECs.

The impacts associated with the construction and operation of the Project have the potential to change the behaviour of MNES in the area, i.e., discourage individuals from utilising the area (due to noise and dust) or degrade other habitat outside of the Project Area (through erosion and sedimentation and increasing presence of weed and pest species). These indirect impacts have been considered through the ecological assessment process and the significant residual impact assessment undertaken for the species considered known or likely present within the Project Area. The indirect impacts are also proposed to be managed through mitigation measures which are discussed in **Section 4.1.4.10 of this Referral.**

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

Yes

4.1.4.5 Describe why you consider this to be a Significant Impact. *

Significant impact assessments have been undertaken in accordance with the EPBC Significant Impact Assessment Guidelines and EPBC Act Policy Statement 1.1 for all listed threatened species that are either known to occur or are likely to occur within the Project Area. The significant impact assessments for each of these species is presented in **Att. 1a MCEH MNES Report, Section 7.6, pg. 63-102**.

In accordance with the outcomes of the significant impact assessments undertaken for the four applicable fauna species, and two threatened communities, as there are no other alternative locations for the Project footprint, it has been determined that the proposed action will have a potential significant impact on the following threatened species:

- Koala (10.31 ha of breeding and foraging habitat) (**Att. 1a MCEH MNES Report, Section 7.6.3, pg. 76-82**)
- Greater glider (16.12 ha of suitable habitat) (**Att. 1a MCEH MNES Report, Section 7.6.2, pg. 69-75**)
- Brigalow TEC (0.2 ha) (**Att. 1a MCEH MNES Report, Section 7.6.6, pg. 95-98**)
- Poplar Box TEC (0.8 ha) (**Att. 1a MCEH MNES Report, Section 7.6.7, pg. 99-102**).

It should be noted the impacts calculated for the TEC are conservative. While direct and indirect impacts to TEC within the Project area has been avoided, field-verification of potential areas of TEC on the Project's swept path is the subject of forthcoming surveys and will be considered during the assessment process. As such, it is possible these areas do not meet the diagnostic and condition requirements to qualify as TEC.

The significant impact assessment for the remaining three relevant species, White-throated needletail, Boggomoss Snail and Painted honeyeater, determined the proposed action will not have a significant impact on these species. The reasoning for each species is briefly described below. Further detail is provided in the significant impact assessments present in **Att. 1a MCEH MNES Report, Section 7.6.1, pg. 63-68 (White-throated needletail), Section 7.6.4, pg. 83-88 (Boggomoss Snail), and Section 7.6.5, pg. 89-94 (Painted honeyeater).**

White-throated Needletail

It is acknowledged collision risk during operations is a potential direct impact to this species; although, the degree of risk is presently unknown, pending the collision risk modelling results. It is anticipated the collision risk modelling results will inform the development and implementation of an adaptive bird and bat management plan, which will minimise collision risk below the significant impact threshold for this species.

Boggomoss Snail

It is acknowledged the Project may potentially have a direct impact to the species by modifying a relatively small area of suitable habitat within the Project area. However, rather than removing suitable habitat, it is proposed that vegetation within suitable habitat areas is trimmed by a qualified arborist to just below the level required to achieve clearance for the transport of components. This measure will ensure the trimmed material is left in-situ to continue to provide microhabitat for the species. In addition, a detailed management plan will be developed and implemented to ensure these works reduce the risk of habitat degradation and other indirect impacts to the Boggomoss Snail are reduced to below the significant impact threshold.

Painted honeyeater

It is acknowledged the Project may potentially have a direct impact to the species by clearing less than 0.01 ha of suitable habitat within the Project footprint. However, There is an abundance of suitable habitat remaining within the Project area and in adjacent vegetation associated with the five State Forests. Contiguous habitat within the State Forests is likely to be preferred habitat compared to the fragmented pastural land available within the Project area. The area of impact represents a very small portion of total available habitat to the species in the area and is below the significant impact threshold.

4.1.4.7 Do you think your proposed action is a controlled action? *

Yes

4.1.4.8 Please elaborate why you think your proposed action is a controlled action. *

Throughout the development of the Project, the design has been optimised to avoid impacts to MNES to the extent possible in accordance with the avoidance, minimise and mitigation hierarchy. However, the Project recognises significant impact on two listed threatened species and two TECs, being:

- Greater Glider
- Koala
- Brigalow (*Acacia harpophylla* Dominant and Co-Dominant) TEC
- Poplar Box Grassy Woodland on Alluvial Plain TEC

It is considered the proposed action would constitute a controlled action under the EPBC Act.

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

To reduce and manage potential impacts to species, the following mitigation measures are proposed:

General mitigation measures

Vegetation clearing

- Areas requiring vegetation removal will be clearly delineated to ensure disturbance to areas being retained is avoided. Clearing limits are to be delineated using barricading or temporary fencing and signage prior to works commencing. Exclusion areas are to be clearly shown and labelled on all operational and management drawings and plans;
- GIS shapefiles of exclusion areas will be provided to clearing personnel and/or contractors prior to the commencement of clearing operations;
- Prior to entry to the project area, all site personnel including contractors shall be made aware via toolbox talks and site information sheets, of the sensitive environs they will be working in and around, and be advised of specific limitations to construction works being undertaken in or adjacent to threatened fauna habitat. All staff and contractors will be required to report sightings of relevant fauna in the activity area to the environmental officer (EO) immediately;
- The EO or delegate will routinely inspect the disturbance limit boundaries to ensure that no clearing or disturbance of vegetation of habitat beyond the approved limits has occurred;
- Pre-clearance surveys will be undertaken by a suitably qualified ecologist or fauna spotter prior to the commencement of clearing activities;
- A fauna spotter will be present for all clearing activities and will conduct a walk-through survey prior to commencement of clearing and prior to clearing works each day to check the vegetation and for fauna; and
- Infrastructure will be sited in accordance with the State and Commonwealth approval conditions.

Degradation of MNES habitat

- The areas of MNES habitat adjacent to the disturbance footprint and within the Project area that are not to be cleared will be clearly delineated and shown and labelled on all operational and management drawings and plans;
- Selected trees or logs will be salvaged and reused as fauna habitat to enhance retained vegetation habitat values. Trees and other habitat features to be salvaged will be identified and flagged by the fauna spotter during the walkthrough survey;
- Appropriate sediment and erosion control measures will be put in place during vegetation to clearing to avoid the sedimentation of adjacent watercourses; and
- A weed management plan will be prepared to ensure the invasive species already present within the Project area are managed appropriately to ensure that their presence is not exacerbated by the construction and ongoing operation of the Project, and no new invasive species become established. This plan will ensure that vehicles and other equipment entering the Project Area have been sufficiently cleaned and are held to the appropriate Queensland Biosecurity standards.
- Dust, noise, vibration, and air emissions will be managed through a site-specific construction environmental management plan (CEMP). The CEMP will be prepared by the contractor(s) prior to the commencement of construction.

Weed species management

- All vehicles entering the Project Area are required to have a weed declaration form confirming their vehicle has had a certified weed washdown;
- A site induction will provide weed management information to staff, contractors, and visitors; and
- Access to the retained habitat areas will be limited.

Invasive fauna

- Control of feral fauna will be undertaken via several methods that are:
    - Species specific (wherever possible);
    - Cause no or little damage to the natural environment;
    - Undertaken by suitably qualified and experienced contractors;
    - Humane; and
    - Meet relevant Work, Health, Safety and Environment regulatory requirements.
    - No domestic dogs allowed on site; and

- A site induction will provide information about invasive animals to staff, contractors, and visitors.

Vehicle strike

- All vehicles to maintain designated speed limit when on site;
- Speed limit signs to be installed on each road and in a number of locations as deemed appropriate;
- Wildlife signage to be installed at key fauna habitat areas to identify potential for wildlife to be present and cross the road; and
- A site induction will provide fauna injury information, including wildlife zoo and carer contact details to staff, contractors, and visitors.

Species specific mitigation measures

- White-throated Needletail
  - The implementation of a comprehensive Bird and Bat Management Plan (BBMP) will ensure that the risk of operational impacts for this species (i.e. collision and displacement) is minimised.
- Koala
  - Where koalas are present, identify the tree they are in and adjacent trees, and ensure these are not cleared until the individual has left the area of its own accord;
  - Maintain koala habitat outside of disturbance footprints; and
  - Site personnel will not be permitted to bring domestic dogs into the Project Area.
- Greater Glider
  - As Greater Gliders are dependent on large, hollow bearing trees for shelter/denning resource, nocturnal and diurnal pre-clear surveys will be conducted to identify and locate all potential habitat trees;
  - To encourage dispersal of the species once clearing has commenced, no habitat trees will be isolated, and instead dispersal corridors will be left in place that link vegetation with clearing areas to adjacent areas of retained habitat;
  - During pre-clearance surveys Cubico will record all tree hollows that are of suitable size for Greater Glider. Post-completion of the pre-clearance surveys, Cubico will replace any suitable hollow with nest boxes on a 1:1 basis;
  - Maintain connectivity for Greater Glider through the use of glider rope crossings.
- Boggomoss Snail
  - A detailed management plan will be developed and implemented for these works to reduce the risk of habitat degradation and other indirect impacts to the species.
  - In areas where suitable habitat for the species intersects with the Disturbance Footprint, vegetation will be trimmed / coppiced by a qualified arborist to just below the level required to achieve clearance, rather than being removed entirely. The trimmed material will be left in-situ to continue to provide microhabitat for the Boggomoss Snail.

Full detail on the proposed impact avoidance, minimisation and mitigation measures are outlined in **Att. 1a MCEH MNES Report, Section 7.5, pg. 53-62**.

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

Significant residual impacts may occur to the Greater glider, Koala, and Brigalow and Poplar Box TECs as a result of the Project. Therefore, offsets will be proposed for these MNES in accordance with the EPBC Environmental Offsets Policy (DSEWPC, 2012). Specifically, offsets will:

- Be primarily land-based and designed to deliver a direct conservation outcome for the relevant MNES;

- May include indirect offsets where appropriate;
- Will support habitat for the MNES and preferably have connection to populations or occurrences within or adjoining the offset area;
- Offset areas will preferably be located as close as possible to the area of impact and have good connectivity to ensure they remain viable in the longer-term;
- Provide habitat quality gains through restoration, fire management, weed and pest animal management; and
- Involve robust monitoring and reporting programs to ensure conservation outcomes are being demonstrated.

An offset availability analysis will be undertaken as part of an offset strategy during the next phase of the project assessment. An Offset Area Management Plan will be prepared once an appropriate site (or sites) have been identified.

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Species	Common name
No	No	Actitis hypoleucos	Common Sandpiper
No	No	Apus pacificus	Fork-tailed Swift
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Calidris melanotos	Pectoral Sandpiper
No	No	Cuculus optatus	Oriental Cuckoo, Horsfield's Cuckoo
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
Yes	No	Hirundapus caudacutus	White-throated Needletail
No	No	Monarcha melanopsis	Black-faced Monarch
No	No	Motacilla flava	Yellow Wagtail
No	No	Myiagra cyanoleuca	Satin Flycatcher
No	No	Rhipidura rufifrons	Rufous Fantail

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.5.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

The proposed Disturbance Footprint for the Project is 1,456.02 ha across numerous adjacent land parcels which in some cases are separated by road reserves. The proposed Project components and activities of the action are detailed in **Section 1.2.1 of this Referral**. As a result of the proposed action, the following potential direct and indirect impacts have been identified:

Construction

- Vegetation clearing resulting in loss of habitat;
- Habitat fragmentation and reduced connectivity;
- Fauna injury or mortality during vegetation clearing and potential entrapment in trenches when installing underground powerlines;
- Fauna injury or mortality due to vehicle strike;
- Wildlife disturbance due to dust, noise, light and vibration emissions;
- Reduced water quality due to erosion and sedimentation;
- Potential spills of hazardous materials resulting in land contamination and/or reduced water quality;
- Introduction or increased prevalence of pests and weeds due to increased vehicle movements and vegetation clearing; and
- Increased risk of bushfire due to potential ignition sources on site associated with increased activity

Operations

- Fauna injury or mortality due to vehicle strike;
- Collision with turbines towers, blades and powerlines;
- Barotrauma;
- Wildlife disturbance due to noise and light emissions;
- Potential spills of hazardous materials;
- Increased pests and weeds due to increased vehicle movements; and
- Increased risk of bushfire due to potential ignition sources on site associated with increased activity.

Decommissioning

At the end of the Project's operational life, infrastructure will be decommissioned, and the site rehabilitated to facilitate continuation of the current land use (i.e. agriculture). Decommissioning involves the removal of all above-ground infrastructure such as turbines, overhead transmission lines, switch stations, etc. Removal of buried infrastructure is not normally undertaken as this typically causes additional disturbance and environmental impacts. Once above-ground infrastructure is removed, the land is rehabilitated in line with specific approval conditions and landholder agreements.

Impacts during decommissioning are likely to relate primarily to vehicle movements around the Project Area, potential for spread of weeds and elevated risk of bushfire as described in the sections above. No additional vegetation clearing would be anticipated during decommissioning activities; however, this would be subject to a separate assessment if required.

Further details on the nature, scale and duration of likely impacts are provided at **Att. 1a MCEH MNES Report, Section 7 (Construction – Section 7.2, pg. 48-51; Operational – Section 7.3, pg. 51-53; Decommissioning – Section 7.4, pg. 53)**.

The threatened species and ecological communities captured in the PMST results generated by the referral portal have been considered and a supporting likelihood of occurrence in **Att. 1a MCEH MNES Report, Appendix C**. The likelihood of occurrence assessment along with other desktop results, supported by ecological surveys, identifies if likely impacts from the action, as described above, does/doesn't have a direct and/or indirect impact on protected matters.

Two migratory species were identified during the field survey programs undertaken across the Project area.

White-throated needletail (*Hirundapus caudacutus*) was recorded in the northern part of the Project area. As the species is also listed as a threatened species - vulnerable under the EPBC Act, potential impacts to the species are considered in **Section 4.1.4 of this Referral** and not considered further in this section of the Referral.

One individual of Rufous Fantail (*Rhipidura rufifrons*) was recorded during the survey program. It was removed from the list of migratory species considered MNES under the EPBC Act in February 2024, and is therefore not considered further in this assessment.

4.1.5.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

No

4.1.5.6 Describe why you do not consider this to be a Significant Impact. *

White-throated Needletail

It is acknowledged collision risk during operations is a potential direct impact to this species; although, the degree of risk is presently unknown, pending the collision risk modelling results. It is anticipated the collision risk modelling results will inform the development and implementation of an adaptive bird and bat management plan, which will minimise collision risk below the significant impact threshold for this species.

A significant impact assessment is provided in **Att. 1a MCEH MNES Report, Section 7.6.1, 63-68**.

Rufous Fantail

During field surveys, a single Rufous Fantail (*Rhipidura rufifrons*) was recorded in the Project Area (**Att. 1 MCEH MNES Report, Section 3.2.4.1, Table 3.2, pg. 24)**. It was previously listed as a Migratory, Marine species under the EPBC Act. It was removed from the list of migratory species considered MNES in February 2024, and is therefore not assessed further.

4.1.5.7 Do you think your proposed action is a controlled action? *

No

4.1.5.9 Please elaborate why you do not think your proposed action is a controlled action. *

The Project is unlikely to have significant impact on migratory species; for the purposes of this Referral, migratory species is not considered a relevant controlling provision.

4.1.5.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

To reduce and manage potential impacts to species, the following mitigation measures are proposed:

General mitigation measures

Vegetation clearing

- Areas requiring vegetation removal will be clearly delineated to ensure disturbance to areas being retained is avoided. Clearing limits are to be delineated using barricading or temporary fencing and signage prior to works commencing. Exclusion areas are to be clearly shown and labelled on all operational and management drawings and plans;
- GIS shapefiles of exclusion areas will be provided to clearing personnel and/or contractors prior to the commencement of clearing operations;
- Prior to entry to the project area, all site personnel including contractors shall be made aware via toolbox talks and site information sheets, of the sensitive environs they will be working in and around, and be advised of specific limitations to construction works being undertaken in or adjacent to threatened fauna habitat. All staff and contractors will be required to report sightings of relevant fauna in the activity area to the environmental officer (EO) immediately;
- The EO or delegate will routinely inspect the disturbance limit boundaries to ensure that no clearing or disturbance of vegetation of habitat beyond the approved limits has occurred;
- Pre-clearance surveys will be undertaken by a suitably qualified ecologist or fauna spotter prior to the commencement of clearing activities;
- A fauna spotter will be present for all clearing activities and will conduct a walk-through survey prior to commencement of clearing and prior to clearing works each day to check the vegetation and for fauna;
- Infrastructure will be sited in accordance with the State and Commonwealth approval conditions.

Degradation of MNES habitat

- The areas of MNES habitat adjacent to the disturbance footprint and within the Project Area that are not to be cleared will be clearly delineated and shown and labelled on all operational and management drawings and plans;
- Selected trees or logs will be salvaged and reused as fauna habitat to enhance retained vegetation habitat values. Trees and other habitat features to be salvaged will be identified and flagged by the fauna spotter during the walkthrough survey;
- Appropriate sediment and erosion control measures will be put in place during vegetation to clearing to avoid the sedimentation of adjacent watercourses; and
- A weed management plan will be prepared to ensure the invasive species already present within the Project area are managed appropriately to ensure that their presence is not exacerbated by the construction and ongoing operation of the Project, and no new invasive species become established. This plan will ensure that vehicles and other equipment entering the Project area have been sufficiently cleaned and are held to the appropriate Queensland Biosecurity standards.
- Dust, noise, vibration, and air emissions will be managed through a site-specific construction environmental management plan (CEMP). The CEMP will be prepared by the contractor(s) prior to the commencement of construction.

Weed species management

- All vehicles entering the Project Area are required to have a weed declaration form confirming their vehicle has had a certified weed washdown;
- A site induction will provide weed management information to staff, contractors, and visitors; and
- Access to the retained habitat areas will be limited.

Invasive fauna

- Control of feral fauna will be undertaken via several methods that are:
    - Species specific (wherever possible);
    - Cause no or little damage to the natural environment;
    - Undertaken by suitably qualified and experienced contractors;
    - Humane; and
    - Meet relevant Work, Health, Safety and Environment regulatory requirements.
    - No domestic dogs allowed on site; and
    - A site induction will provide information about invasive animals to staff, contractors, and visitors.

Vehicle strike

- All vehicles to maintain designated speed limit when on site;
- Speed limit signs to be installed on each road and in a number of locations as deemed appropriate;
- Wildlife signage to be installed at key fauna habitat areas to identify potential for wildlife to be present and cross the road; and
- A site induction will provide fauna injury information, including wildlife zoo and carer contact details to staff, contractors, and visitors.

Species specific management actions

White-throated Needletail

- The implementation of a comprehensive Bird and Bat Management Plan (BBMP) will ensure that the risk of operational impacts for this species (i.e. collision and displacement) is minimised.

Full detail on the proposed impact avoidance, minimisation and mitigation measures are outlined in **Att. 1a MCEH MNES Report, Section 7.5, pg. 53-62**.

4.1.5.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

Offsets for migratory species are not proposed as there is unlikely to be significant impact on species. Offsets will be pursued for threatened species that the Project may have significant impact on, as described in **Section 4.1.4.11 of this Referral.**

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no nuclear activities proposed as part of the action. The activities proposed as part of the action and subsequent impacts identified in **Att. 1a MCEH MNES Report, Section 7 (Construction – Section 7.2, pg. 48-51; Operational – Section 7.3, pg. 51-53; Decommissioning – Section 7.4, pg. 53)** do not include nuclear activities, there are no direct or indirect impacts.

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

In accordance with the PMST report generated through this referral portal, there are no Commonwealth marine areas within 30 km of the Project Area. The activities proposed as part of the action and subsequent potential impacts identified in **Att. 1a MCEH MNES Report, Section 7 (Construction – Section 7.2, pg. 48-51; Operational – Section 7.3, pg. 51-53; Decommissioning – Section 7.4, pg. 53)** will not have direct or indirect impacts to Commonwealth marine areas.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

In accordance with the PMST report generated through this referral portal, the Great Barrier Reef is not located within 30 km of the Project Area. The activities proposed as part of the action and subsequent potential impacts identified in **Att. 1a MCEH MNES Report, Section 7 (Construction – Section 7.2, pg. 48-51; Operational – Section 7.3, pg. 51-53; Decommissioning – Section 7.4, pg. 53)** will not have direct or indirect impacts to Great Barrier Reef.

Consideration of the Great Barrier Reef

Context

The Project is located within the Dawson River sub-basin in the very upper reaches of the GBR Fitzroy Basin catchment and is subject to the Reef 2020 Water Quality Improvement Plan. The Project is approximately 740 km upstream of the GBR, connected via creeks which flow into the Dawson River which is a tributary of the Fitzroy River. The assessment of the Project considers impacts to water quality by erosion and sedimentation and as a result, the design avoids development of permanent infrastructure within watercourses; watercourse crossings are proposed, and mitigation and management measures will be applied (further detail below).

Due to the distance from the GBR, the nature of the Project (construction involving temporary ground distance) and the implementation of mitigation and management measures, it is unlikely that the Project would impact on the GBR.

To support this assessment and the Referral, a site-specific Preliminary Erosion and Sediment Control Plan (ESCP) has been prepared and attached at **Att. 3 MCEH Erosion and Sediment Control Plan**. The Preliminary ESCP considers the site characteristics such as soils, hydrology and drainage patterns and climatic conditions to determine the best practice management and mitigation measures for the Project in accordance with the legislative context and standards. International Erosion Control Association (IECA) 2008 have guided the preparation of the Preliminary ESCP and informed best practice erosion and sediment controls for the site.

Conservatively, the GBR is considered a sensitive receptor in the ESCP. Discharge water quality objectives established for the Project are to consider sensitive receiving environments (considering the Reef 2020 Water Quality Improvement Plan). A review of the Reef 2020 Water Quality Improvement Plan determined that the Project will not impact on the objectives of the Plan, with no net worsening on water quality due to the distance from the reef and in the context of the downstream land uses (between the Project area and

the discharge point into the GBR via the Fitzroy River), including intensive agriculture and grazing, residential development (such as the city of Rockhampton). The Fitzroy River discharges north of Curtis Island at Port Alma; heavy industry at these locations also contribute to impacts on the GBR.

In accordance with the ESCP, controls will be applied to the Project to:

- facilitate best practice stormwater management; and
- avoid or minimise soil erosion; and
- facilitate best practice soil and sediment management.

Management and Mitigation

The following measures will be implemented to mitigate and manage impacts of erosion and sediment as much as practicable during the construction phase of the Project:

- Erosion in active construction areas cannot be eliminated but can be controlled. As part of the construction planning a certified ESCP will be prepared prior to construction and implemented during on-site activities. Sediment and erosion control measures to prevent soil loss will be developed consistent with the International Erosion Control Association (IECA) Best Practice Erosion and Sediment Control (BPESC) document. The ESCP will form part of the overall CEMP. Particular focus will be given to managing runoff in the vicinity of watercourses. A summary of the controls to be implemented at the site include:
    - Erosion controls:
        - Implementation of limitations on land clearing during periods of rainfall.
        - Stabilisation of soils and earthworks where groundcover is limited or cleared.
        - Staging of works to reduce the total area of ground disturbance at any given time.
        - Progressive site rehabilitation during the construction period.
    - Drainage controls:
        - Implementation of a stormwater management plan.
        - Temporary drainage controls design in accordance with IECA recommendations.
        - Management of clean and dirty water across the site.
        - Installation of measures to manage water diversions through the site including velocity and quality.
    - Sediment controls:
        - Sediment traps will be designed and positioned by a suitably qualified person.
        - Sediment controls will be applied only after all reasonable and practicable measures to prevent erosion have been adopted.
        - Sediment laden runoff from construction areas will be directed to an appropriate sediment control device in accordance with the required treatment standard.
        - All sediment control measures will be designed, installed, operated and maintained in accordance with IECA 2008.
        - All material removed from sediment traps during maintenance will be disposed of in a manner that does not cause ongoing soil erosion or environmental harm.
    - Other actions such as stockpile management, instream works, weather preparedness and dust management will also be implemented to manage activities during construction.
- As a minimum standard, access tracks will be constructed in accordance with EHP publication: “Erosion control on property roads and tracks—managing runoff”.
- Creek crossing locations will seek to take advantage of existing gaps in the riparian corridors as far as practicable. Work in creek crossings will be carried out in periods of no flow where practicable.
- On site infrastructure will be designed to ensure water flows are not impounded or concentrated (e.g. culverts, diversion ditches, etc.).
- No equipment or materials will be stored across flow paths.
- The extent of the area required to carry out the permitted activity will be limited to the minimum area necessary to reasonably carry out the works.

- Waterway crossings will be designed in accordance with accepted development requirements for waterway barrier works wherever practicable to ensure fish passage is not impeded.
- Watercourse crossings will be designed to maintain flow and minimise the increase in flow volume or velocity.
- Constructed access tracks (e.g. culverts or splash-through crossings) will be provided with a scour apron and cut off wall on the downstream side sufficient to prevent bed erosion.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action does not include large coal mining development or coal seam gas, therefore does not trigger the water resource controlling provision. The activities proposed as part of the action and subsequent impacts identified in **Att. 1a MCEH MNES Report, Section 7 (Construction – Section 7.2, pg. 48-51; Operational – Section 7.3, pg. 51-53; Decommissioning – Section 7.4, pg. 53)** will not have direct or indirect impacts on water resources.

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

In accordance with the PMST report generated through this referral portal, there is no Commonwealth land within 30 km of the Project Area. The activities proposed as part of the action and subsequent potential impacts identified in **Att. 1a MCEH MNES Report, Section 7 (Construction – Section 7.2, pg. 48-51; Operational – Section 7.3, pg. 51-53; Decommissioning – Section 7.4, pg. 53)** will not have direct or indirect impacts to Commonwealth land.

4.1.11 Commonwealth Heritage Places Overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

In accordance with the PMST report generated through this referral portal, there are no Commonwealth heritage places overseas within 30 km of the Project Area. The activities proposed as part of the action and subsequent potential impacts identified in **Att. 1a MCEH MNES Report, Section 7 (Construction – Section 7.2, pg. 48-51; Operational – Section 7.3, pg. 51-53; Decommissioning – Section 7.4, pg. 53)** will not have direct or indirect impacts to Commonwealth heritage places overseas.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

- Threatened Species and Ecological Communities (S18)

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

Yes

4.3.2 Do you have an alternative timeline you are proposing for your proposed action? *

No

4.3.3 Briefly describe why an alternate timeline for your proposed action was not possible. *

The Project is proposed to align with the objectives of the Queensland Energy and Jobs Plan, targeting 70 per cent of Queensland's energy needs be met from renewable sources by 2032 and 80 per cent by 2035. Specifically within the Darling Downs REZ which identifies an opportunity to generate between 1,600-2,000 MW of renewable energy from between 2025-2030. The Project has potential to deliver up to 1,300 MW to contribute to this target by 2030.

Wind farm development was determined to be the appropriate type of development on this site due to the wind resource and highly fragmented environment. The existing land use of agricultural, farming and CSG is able to continue and co-exist with the development of a wind farm as opposed to a solar farm development which requires a larger extent of more permanent land cover. This would be inconsistent with the site selection criteria outlined below.

Site Selection

The site selection process considered environmental and social factors to ensure that the development avoided unnecessary impacts from the outset. The following criteria was considered in the site selection process and ultimately the Project site that will proceed (as per this Referral):

- Land that has been previously cleared, highly fragmented and retains low ecological value within the landscape. Values that may be present within the site can be avoided or impacts minimised through design.
- Co-location and co-existence with other land uses to utilise land that has currently been disturbed for other industries and can continue during project development and operation and after decommissioning.
- Strong wind resource to ensure project viability and outputs to support energy targets and demand.

4.3.4 Do you have an alternative location you are proposing for your proposed action? *

Yes

4.3.6 Do you have alternative activities you are proposing for your proposed action? *

No

4.3.7 Briefly describe why an alternative activity for your proposed action was not possible. *

As per response to **Section 4.3.3 of this Referral**, the Project is proposed to achieve the objectives of the Queensland Energy and Jobs Plan. The plan proposes to meet renewable energy targets through development of wind, solar and pumped-hydro storage projects. At this location, wind energy is the most

yielding development type, with favourable wind speeds.

4.3.2 Alternatives: Location

Maptaskr Map will render here.

4.3.2.1 Describe how the impacts and mitigation measures are different for your alternative location.

Alternative Disturbance Footprint

An optimised design from a wind resource and yield perspective was identified during early stages of Project development. The alternative Project location/Disturbance Footprint is located within the same Project Area. Following fauna and flora ecological surveys including targeted surveys, ecological constraints, including no-go areas, were mapped to inform design refinement of the Project, with the outcome to avoid MNES. In particular, avoidance of known and potential habitat mapping for Boggomoss snail (*Adclarkia dawsonensis*) and field-verified TECs (Brigalow, Poplar Box, Semi-evergreen vine thicket) was prioritised. Avoidance of Boggomoss snail habitat also reduced the number of proposed watercourse crossings and reducing impacts to associated riparian vegetation.

Overall, the proposed Disturbance Footprint, the subject of this Referral, demonstrates a reduction in vegetation clearing (potential habitat for MNES mammals including Koala (*Phascolarctos cinereus*) and Greater glider (*Petauroides volans*)) as well as field-verified TECs. These patches of vegetation are important in this landscape due to the highly fragmented environment within the broader Project Area and offers refuge to species. The refinements in the Disturbance Footprint have reduced the overall disturbance area and ultimately impact to species habitat.

A comparison between the alternative and current Disturbance Footprint is shown at **Att. 4 Project Alternative Footprint Comparison**. The map demonstrates the avoidance principles that have been applied to reduce the overall impact on MNES.

Site Selection and Project Design

The site selection process considered environmental and social factors to ensure that the development avoided unnecessary impacts from the outset. The following criteria was considered in the site selection process and ultimately the Project site that will proceed (as per this Referral):

- Land that has been previously cleared, highly fragmented and retains low ecological value within the landscape. Values that may be present within the site can be avoided or impacts minimised through design.
- Co-location and co-existence with other land uses to utilise land that has currently been disturbed for other industries and can continue during project development and operation and after

decommissioning.
- Strong wind resource to ensure project viability and outputs to support energy targets and demand.

The design of the Project considered feedback from landholders as well as outcomes of ecological surveys undertaken across the site. The following factors informed the design from the initial stages of the Project:

- Feedback from landholders to avoid farming infrastructure and maintain current practices as well as optimising access roads.
- Avoidance of regulated vegetation and ecological values verified through ground-truthing including threatened ecological communities and remnant vegetation. The Disturbance Footprint is predominantly (97.1 per cent) within non-remnant mapped areas which are cleared.
- Avoidance of watercourses and water features to negate impacts to riparian vegetation and habitat values.

4.3.2.2 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders in relation to the proposed alternative location.

As the proposed alternative location (Disturbance Footprint) is within the same Project Area, the consultation described in **Section 1.2.7 of this Referral** incorporates consideration of this Disturbance Footprint.

4.3.2.3 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed alternative location, and how are they relevant?

In accordance with **Section 1.2.6 of this Referral**, the same Commonwealth, State and Local government legislation and planning frameworks would apply if the alternative location was selected.

4.3.4 Alternatives: Impact and mitigation

4.3.4.1 Do these alternatives have a different impact, avoidance, or mitigation measure compared to what you have already provided? *

Yes

4.3.4.2 On World Heritage properties *

No

4.3.4.4 On National Heritage places *

No

4.3.4.6 On the ecological character of a Ramsar wetland *

No

4.3.4.8 Listed threatened species, their habitat, or threatened ecological communities *

Yes

4.3.4.9 Describe how this alternative has different impacts or mitigations from the original proposal relating to listed threatened species, their habitat, or threatened ecological communities. *

The alternative Disturbance Footprint would impact on a higher proportion of the Project Area including areas supporting higher-valued habitat and additional environmental values/features in comparison to the site selected and presented in this Referral.

The alternative location would result in differing impact to MNES to those discussed in **Section 4.1.4.2 of this Referral**, including:

- Direct impacts on habitat types supporting more favourable and higher quality habitat for MNES mammals including remnant and high-value regrowth woodland communities of riparian vegetation (poplar box or forest red gum), acacia dominated vegetation and non-riparian *Eucalyptus, Corymbia* and *Callitris* dominated vegetation. These habitat types offer potential food resources and breeding and foraging habitat features.
- Direct impacts on Boggomoss snail suitable and known habitat including disturbance of riparian vegetation providing for microhabitat for the species. The alternative footprint has avoided crossing watercourses providing for suitable habitat, resulting in negligible impact to hydrological features supporting habitat for the species and soil regimes which, if altered, is likely to impact on water quality.

- Direct impact on field-verified TECs within the wind farm Project area have been avoided. The alternative layout included proposed turbines within or in proximity to patches of TEC which have been avoided through the Project design process; a buffer of 50 m has also been applied to manage the risk of indirect impacts to TECs.

4.3.4.10 Listed migratory species or their habitat *

No

4.3.4.12 Is a Nuclear action *

No

4.3.4.14 On Commonwealth Marine Areas *

No

4.3.4.16 Taking place in or flowing into the Great Barrier Reef Marine Park *

No

4.3.4.18 Impacts a water resource relating to a coal seam gas or large coal mining development *

No

4.3.4.20 On or near Commonwealth Land *

No

4.3.4.22 On Commonwealth heritage places overseas *

No

4.3.4.24 Action undertaken by the Commonwealth or a Commonwealth Agency *

No

4.3.5 Alternatives: Considered alternatives

4.3.5.1 Do you have any other alternative actions, including not taking the action, that you have considered but are not proposing as part of this referral? *

No

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	06/12/2024	No	High
#2.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	06/12/2024	No	High

1.2.7 Public consultation regarding the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 5. MCEH Consultation summary.pdf Summary of consultation undertaken and consultation outcomes for the MCEH Project	09/12/2024	No	High

1.3.2.17 (Person proposing to take the action) Proposer's history of responsible environmental management

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 2 Cubico Environmental and Social Policy.pdf CUBICO SUSTAINABLE INVESTMENTS GP 1 LTD's global environmental and social policy	01/01/2018	No	High

1.3.2.18 (Person proposing to take the action) If the person proposing to take the action is a corporation, provide details of the corporation’s environmental policy and planning framework

	Type	Name	Date	Sensitivity	Confidence

#1.	Documen	Att. 2 Cubico Environmental and Social Policy.pdf CUBICO SUSTAINABLE INVESTMENTS GP 1 LTD's global environmental and social policy	01/01/2023	28 kb	High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Documen	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	24 kb	High
#2.	Documen	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	24 kb	High
#3.	Link	Methodology for surveying and mapping regional ecosystems and vegetation communities in Queensland v https://www.qld.gov.au/__data/assets/pdf_file/00..			High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Documen	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	24 kb	High
#2.	Documen	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	24 kb	High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 3. MCEH Erosion and Sediment Control Plan.pdf A preliminary site-specific erosion and sediment control plan has been developed for the project. For the purposes of this referral, the plan supports assessment and conclusions drawn that management and mitigation measures will manage potential impacts during project construction. It is therefore unlikely that the project will impact on the GBR and Ramsar wetlands.	11/09/2024	No	High
#2.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High
#3.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High

4.1.1.3 (World Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 3. MCEH Erosion and Sediment Control Plan.pdf A preliminary site-specific erosion and sediment control plan has been developed for the project. For the purposes of this referral, the plan supports assessment and conclusions drawn that management and mitigation measures will manage potential impacts during project construction. It is therefore unlikely that the project will impact on the GBR and Ramsar wetlands.	10/09/2024	No	High
#2.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High
#3.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To	05/12/2024	No	High

note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).

4.1.2.3 (National Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 3. MCEH Erosion and Sediment Control Plan.pdf A preliminary site-specific erosion and sediment control plan has been developed for the project. For the purposes of this referral, the plan supports assessment and conclusions drawn that management and mitigation measures will manage potential impacts during project construction. It is therefore unlikely that the project will impact on the GBR and Ramsar wetlands.	10/09/2024	Lo	High
#2.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Lo	High
#3.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Lo	High

4.1.3.3 (Ramsar Wetland) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 3. MCEH Erosion and Sediment Control Plan.pdf A preliminary site-specific erosion and sediment control plan has been developed for the project. For the purposes of this referral, the plan supports assessment and conclusions drawn that management and mitigation measures will manage potential impacts during project construction. It is therefore unlikely that the project will impact on the GBR and Ramsar wetlands.	10/09/2024	Lo	High
#2.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Lo	High
#3.	Document				

Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Ab	High	

4.1.4.2 (Threatened Species and Ecological Communities) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Ab	High
#2.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Ab	High

4.1.4.5 (Threatened Species and Ecological Communities) Why you consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Ab	High
#2.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Ab	High

4.1.4.10 (Threatened Species and Ecological Communities) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence

#1.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High
#2.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High

4.1.5.2 (Migratory Species) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High
#2.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High

4.1.5.6 (Migratory Species) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High
#2.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To	05/12/2024	No	High

note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).

4.1.6.3 (Nuclear) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High
#2.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High

4.1.7.3 (Commonwealth Marine Area) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High
#2.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High

4.1.8.3 (Great Barrier Reef) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 3. MCEH Erosion and Sediment Control Plan.pdf A preliminary site-specific erosion and sediment control plan has been developed for the project. For the purposes of this referral, the plan supports assessment and conclusions drawn that management and mitigation measures will manage potential impacts during project	10/09/2024	No	High

		construction. It is therefore unlikely that the project will impact on the GBR and Ramsar wetlands.			
#2.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Yes	High
#3.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Yes	High

4.1.9.3 (Water resource in relation to large coal mining development or coal seam gas) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Yes	High
#2.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Yes	High

4.1.10.3 (Commonwealth Land) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	Yes	High
#2.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to	05/12/2024	Yes	High

support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).

4.1.11.3 (Commonwealth heritage places overseas) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1a MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High
#2.	Document	Att. 1b MCEH MNES Report.pdf MNES Assessment Report completed for the Project to support the referral. Report includes desktop, field findings, description of existing environment, potential project impacts and significant impact assessments. To note, the likelihood of occurrence assessment is Appendix C to this Report (Att. 1b).	05/12/2024	No	High

4.3.2.1 (Location) How the impacts and mitigation measures are different for your alternative location

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 4 Project Alternative Footprint Comparison.pdf A figure/map presenting the preliminary project layout optimised from a wind resource perspective which was refined in response to ecological constraints including MNES - threatened species and ecological communities.	11/09/2024	No	High

5.2 Declarations

Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

ABN/ACN	75637138008
Organisation name	ATTEXO GROUP PTY LTD
Organisation address	4006 QLD

Representative's name	Rosemary Shearman
Representative's job title	Senior Environmental Consultant
Phone	0416034996
Email	rosemary.shearman@attexo.com.au
Address	T.C. Beirne Building, Level 4, 315 Brunswick Street, Fortitude Valley, QLD 4006

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ By checking this box, I, **Rosemary Shearman of ATTEXO GROUP PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

✓ Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	48624996078
Organisation name	CUBICO SUSTAINABLE INVESTMENTS AUSTRALIA PTY LTD
Organisation address	2000 NSW
Representative's name	David Smith
Representative's job title	Country Head, Australia
Phone	0477883863
Email	david.smith@cubicoinvest.com
Address	88 Phillip Street, Sydney, NSW, 2000

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **David Smith of CUBICO SUSTAINABLE INVESTMENTS AUSTRALIA PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

☑ I, **David Smith of CUBICO SUSTAINABLE INVESTMENTS AUSTRALIA PTY LTD**, the Person proposing the action, consent to the designation of **Gareth Rees of CUBICO SUSTAINABLE INVESTMENTS AUSTRALIA PTY LTD** as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

☐ I would like to receive notifications and track the referral progress through the EPBC portal. *

✓ Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

ABN/ACN	48624996078
Organisation name	CUBICO SUSTAINABLE INVESTMENTS AUSTRALIA PTY LTD
Organisation address	2000 NSW
Representative's name	Gareth Rees
Representative's job title	Environment and Permitting Manager
Phone	0428628502
Email	gareth.rees@cubicoinvest.com
Address	Level 54, 111 Eagle Street, Brisbane, QLD, 4000

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **Gareth Rees of CUBICO SUSTAINABLE INVESTMENTS AUSTRALIA PTY LTD**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *