Byellee Battery Energy Storage System (BESS)

Application Number: **02999** Commencement Date: **16/07/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Byellee Battery Energy Storage System (BESS)

1.1.2 Project industry type *

Energy Generation and Supply (non-renewable)

1.1.3 Project industry sub-type

Transmission Line

1.1.4 Estimated start date *

01/07/2027

1.1.4 Estimated end date *

01/07/2028

1.2 Proposed Action details

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

The proposed action consists of the construction of a Battery Energy Storage System (BESS) near an existing Powerlink Calliope River Zone Substation. The BESS is designed for 1200 MWh storage capacity to provide 300MW over 4 hours to assist with power fluctuations in the network during peak demand, or to act as an emergency supply in the event of an outage.
The Project is located near the Calliope River, at Byellee in Gladstone, Queensland, approximately 7 km west of Gladstone CBD, in the Gladstone Regional Council (GRC) Local Government Area (LGA), The Project Area affects the following freehold land parcels: Lot 113 on CTN799, Lot 2 on RP840072, and Lot 1 on RP614414.

Key elements of the projects include:

Battery-Energy-Storage System: One BESS compound will be constructed on the cleared, north-eastern corner of Lot 2 RP840072 (south bank of the Calliope River).

Transmission Network

1. 275 kV Double-Circuit Towers
    - Tower 1: immediately adjacent to the BESS on Lot 2 RP840072.
    - Tower 2: within the southern portion of Lot 113 CTN799 on the north bank.
2. 132 kV Connection
    - An overhead 132 kV line will link the BESS (Lot 2) to the southern tower on Lot 113.
    - From this tower, a 132 kV cable will be installed by directional drilling beneath the riverbed, terminating at Powerlink infrastructure in the north-eastern section of Lot 113.
3. Transition Poles
    - One pole in the southern part of Lot 113 will facilitate the switch from overhead conductor to underground cable.
    - A second pole adjacent to Powerlink's existing gantry in the north-eastern corner of Lot 113 will transition the underground cable back to overhead within the substation.

Land-Use Context

- Southern precinct (Lot 1 RP614414 and Lot 2 RP840072) is currently cleared through grazing, and it contains a single dwelling. This section is earmarked for the BESS installation.
- Northern precinct (Lot 113 CTN799) hosts existing Powerlink assets, internal access roads and scattered native vegetation. This area is more ecologically sensitive. One transmission pole and the transmission lines are proposed in this section to reduce any ecological impact.

From the outset of project scoping, the proponent adopted a "avoid-first" principle in line with the EPBC Act mitigation hierarchy, treating direct avoidance of Matters of National Environmental Significance (MNES) as the primary means of impact management rather than a residual afterthought. Siting of the BESS has taken into consideration the need for such a structure to have proximity to a substation and have access to transmission infrastructure. For this reason, the BESS has been aligned with the Powerlink substation and existing transmission easement, utilising existing cleared and degraded areas as a priority.

A multi-disciplinary design panel, comprising project engineers, planners and ecologists, held four iterative meetings between July 2024 and July 2025. During this planning and design phase, the BESS layout has been strategically configured to avoid or minimise impacts in relation to flood risk, waterways, and remnant vegetation. Some further refinement will be undertaken for the BESS in regard to the construction and positioning of water retention basins designed to mitigate or minimise flood risk.

Similarly, the layout of associated electrical infrastructure has seen various refinements as more accurate mapping has become available. This has included micro-siting the N1 tower on the northern side of the Calliope River to avoid/reduce impact to TEC's (the proposed design avoiding 0.165ha of Saltmarsh TEC clearing and 0.65ha of clearing of the woodland TEC by undertaking tunnel boring), fish passage areas at or below HAT. Other refinements included aligning access tracks to avoid sensitive salt marsh TEC and positioning staging areas in non-remnant grassland and beside existing roads/tracks. Of particular note is

the creation of an underground connection from the N1 receiving tower to the Powerlink substation in the north of the Project Area. This will be achieved by directional drilling and entirely avoids a large patch of subtropical eucalypt floodplain forest/woodland TEC, including a waterbody and wetland just north of the tower location.

Additionally, three optional sites for rehabilitation have been identified. These include a patch (A) of TEC to the west of the N1 tower, a patch (C) to the south of the N1 tower, and a patch (B) of non-TEC (Category X) in the northern portion of the Project Area. The first two patches are determined to be of low quality. They would benefit from weed management and infill planting to boost species richness and canopy cover, whereas the northern patch requires complete restoration. Final selection of a rehabilitation site will occur following negotiations with the relevant landholders of each land parcel.

The Project's activities include:

- clearing of vegetation comprising two TECs with a combined total footprint of 0.34ha. We note that the design has been modified numerous times to avoid the clearing of additional area of TEC through the relocation of most of the infrastructure in the northern section within the non-remnant (category X) areas - clearing avoidance totalling 12.68ha
- Reducing the clearing of migratory shorbirds, squatter pigeon and grey-headed flying-fox ensure a net gain in vegetation/suitable habitat through the rehabilitation work and location of the transmission pole in the disturbed area.
- bulk earthworks for construction of the BESS, associated infrastructure, and stormwater runoff retention ponds;
- construction of two 45-48m high voltage dual circuit towers (one on the northern and one on the southern side of the Calliope River);
- spanning the Calliope River with dual circuit high voltage conductor using a staged winching method (helicopter stringing);
- the installation of overhead transition poles (one beside the receiving tower on the river's northern side, and one beside the Powerlink substation);
- approximately 600m directional drilling from the receiving tower on the northern side of the river to the substation for the purpose of installing high voltage conductor underground;
- earthworks approximately halfway along the underground powerline route to construct a cable-winding and joining pit;
- minor upgrade (grading) of existing access tracks;
- earthworks for the construction of temporary access tracks;
- earthworks for the creation of temporary staging (materials storage) areas;
- basic maintenance following construction of the BESS and associated infrastructure, involving periodic access for inspections, control of vegetation regrowth around high voltage towers and poles, and inspection/remedial action for erosion control devices (whilst in place) and weed incursion.

The total project area includes three land parcels with a combined total area of 208.57ha.

The disturbance footprint totals 13.12ha.

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

No

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

State Legislation

The Project will require approval through the State Assessment and Referral Agency under the *Planning Act 2016*. The proposed clearing includes clearing of Endangered RE 12.3.3 (classified Cat B - remnant vegetation) and requires assessment against State Code 16 and a referral to the State Assessment and Referral Agency.

The proposed activity requires operational works in the declared Fish Habitat Area as defined by the *Accepted Development for operational work that is completely or partly within a declared Fish Habitat Area: 2020*. Consequently, a Development Application is required under the *Planning Act 2016* and Planning Regulation 2017.

The proposed infrastructure and operational works coincide with an amber waterway and areas mapped by the State as occurring below the Highest Astronomical Tide. These require assessment under the *Accepted development requirements for operational work that is constructing or raising waterway barrier works* under the Planning Regulation 2017.

The proposed activity requires operational works within the mapped Coastal Management District and therefore triggers referral and assessment against State Code 8 *Coastal development and tidal works*.

The proposed clearing of vegetation requires the removal of Marine Plants as defined in the Fisheries Act 1994. It therefore requires referral and assessment against State Code 11 R*emoval, destruction, or damage of marine plants.*

Commonwealth Legislation

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) - Under the Act, an action must be referred to the Commonwealth Minister for the Environment if it has, will have, or is likely to have a significant impact on an MNES.

A range of direct and indirect impacts associated with the Project are identified on threatened species and TEC listed as MNES.

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. *

Please refer to attached Appendix 1 - Eku Energy Calliope Engagement Summary May 2025 for further information

Summary of Consultation Activities for the Byellee BESS Project

Nature of the Consultation

The consultation aimed to introduce the Calliope BESS Project to nearby residents and key local stakeholders, gather early feedback, and identify community interests or concerns to inform future engagement and project planning.

Pre-engagement communication:
In mid-April 2025, letters were sent to the following stakeholders requesting meetings:
Mayor and CEO of Gladstone Regional Council
State and Federal MPs
Port Curtis Coral Coast Trust
Ward Councillor
NFP House
Gladstone Chamber of Commerce and Industry (GCCI)
Gladstone Industry Leadership Group
Gladstone Engineering Alliance (GEA)

Who was involved (meetings held):
Direct engagement occurred with the following stakeholders over 7–8 May 2025:
Gladstone Regional Council
Gladstone Chamber of Commerce and Industry (GCCI)
Gladstone Engineering Alliance (GEA)
Gladstone Industry Leadership Group
NFP House

Consultation Period:
Letters were issued in mid-April 2025, with active engagement activities conducted on 7–8 May 2025. Community engagement included door knocking of 50 nearby properties (with 10 direct conversations) and a community pop-up at New Auckland IGA.

Feedback Received
Community Sentiment:

Resident feedback was neutral to positive. Most were either supportive of renewables or not particularly interested in the project. Many residents were previously unaware of the proposal due to missed communications or advertising.

Key Concerns Raised:
Common themes included:
Fire safety and emergency response planning
Battery manufacturing and lifecycle
Water management, particularly due to proximity to the Calliope River

Stakeholder Input:
Stakeholders expressed strong interest in:
Local procurement opportunities and industry connections (GEA, GCCI)
Co-designing a benefit-sharing framework with community development organisations and Council
Ongoing collaboration and transparent information sharing.

Response to Feedback

Creating targeted materials (fact sheets, FAQs, visuals) addressing fire safety, water management, and battery systems
Making materials available online and at future information sessions
Building partnerships with local networks and stakeholders to support meaningful engagement and integration

Ongoing Communication Plan
Hosting further community information sessions, including two upcoming community update events:
Saturday, 2 August 2025 – 10:00am to 2:00pm
Gladstone Entertainment Convention Centre, Conference Room, 56 Goondoon Street
Sunday, 3 August 2025 – 7:00am to 12:00pm
Gladstone Curtis Markets, 75 Dawson Highway, Gladstone Central
Maintaining open lines of communication with stakeholders and community groups
Providing updates via the project website and local media
Developing benefit-sharing initiatives in partnership with local organisations based on community needs

Initial engagement has created a positive foundation for ongoing support, based on transparency, collaboration, and active community involvement.

Consultation with the Bailai, Gurang, Gooreng Gooreng, and Taribelang Bunda Peoples Aboriginal Corporation took place on 3 July, during which there was an in-principle agreement to progress discussions toward a benefit-sharing agreement.

Additionally, public consultation has been undertaken and includes:

- Community consultation undertaken on 7 to 8 May 2025
- Letterbox drops to local residents
- Door knocking near neighbours with 2km radius (approx. 80-100 dwellings)
- Community pop-up held at the Gladstone IGA
- Stakeholder meetings with: Gladstone Chamber of Commerce, Mayor of Gladstone, and the Economic Development team at Gladstone Regional Council.

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.

Personal information may be disclosed to other Australian government agencies, persons or organisations where necessary for the above purposes, provided the disclosure is consistent with relevant laws, in particular the Privacy Act 1988 (Privacy Act). Your personal information will be used and stored in accordance with the Australian Privacy Principles.

See our Privacy Policy to learn more about accessing or correcting personal information or making a complaint.

Alternatively, email us at privacy@dcceew.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	20162130627
Organisation name	CO FX PTY LTD
Organisation address	4506 QLD

Referring party details

Name	Kelly Matthews
Job title	Director
Phone	0428120930
Email	admin@greentapesolutions.com.au
Address	PO BOX 416 Rockhampton QLD 4700

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	28659642065
Organisation name	BYELLEE BESS PTY LTD
Organisation address	2065 NSW

Person proposing to take the action details

Name	Victor Bocioc
Job title	Project Development Manager
Phone	02 90995696
Email	victor@atriaenergy.com.au
Address	1 Sussex St, Barangaroo 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. *

Byellee BESS Pty Ltd upholds its responsibilities as a corporate citizen, with no ongoing proceedings under Commonwealth, State, or Territory legislation concerning environmental protection or the conservation and sustainable management of natural resources.

Byellee BESS Pty Ltd is dedicated to carrying out all operations in strict accordance with the Byellee BESS Pty Ltd Best Practice Charter. For further information, **please refer to Appendix 2 - Byellee BESS Pty Ltd Environmental, Social & Governance Charter.** We have also attached in **Appendix 9 - Byellee BESS PTY LTD declaration** to confirm that BYELLEE BESS PTY LTD has a satisfactory record of responsible environment management and has never had any proceedings under Commonwealth, State or Territory law.

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

Byellee BESS is committed to responsible and sustainable renewable energy development through its Environmental, Social & Governance Charter, summarised as follows:

- We integrate a strong biodiversity focus throughout the project lifecycle, applying collaborative best practice guidance to minimise land-use impacts and promote ecological restoration where feasible.
- Our governance approach embeds environmental, social, and ethical standards into all business practices, fostering transparency, integrity, and accountability. We maintain accessible channels for stakeholder engagement and feedback.
- Early and respectful engagement with Traditional Owners and local communities is a priority, supported by community reference committees and benefit-sharing initiatives tailored to local needs.
- We actively support local economies by prioritising regional employment, procurement, and skills development, aiming to generate lasting benefits beyond project construction.
- Transparency is fundamental; we provide clear, timely project information and maintain multiple feedback mechanisms alongside a fair complaints process. Equal opportunity and workforce diversity are core commitments.
- Quality, safety, and environmental performance are assured through partnerships with leading contractors, ongoing monitoring, and adaptive management throughout project lifecycles.
- We voluntarily adhere to recognised best practice principles that respect cultural values, biodiversity, local benefit sharing, and good governance. Our Charter, endorsed by the Managing Director, complements site-specific Environmental Management Plans, ensuring Byellee BESS's projects consistently meet high standards of sustainable, socially responsible development.

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? *

Yes

Proposed designated proponent organisation details

ABN/ACN	28659642065
Organisation name	BYELLEE BESS PTY LTD
Organisation address	2065 NSW

Proposed designated proponent details

Name	Victor Bocioc
Job title	Project Development Manager
Phone	02 90995696
Email	victor@atriaenergy.com.au
Address	1 Sussex St, Barangaroo NSW 2000

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	20162130627
Organisation name	CO FX PTY LTD
Organisation address	4506 QLD
Representative's name	Kelly Matthews
Representative's job title	Director
Phone	0428120930
Email	admin@greentapesolutions.com.au
Address	PO BOX 416 Rockhampton QLD 4700

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	28659642065
Organisation name	BYELLEE BESS PTY LTD
Organisation address	2065 NSW
Representative's name	Victor Bocioc
Representative's job title	Project Development Manager
Phone	02 90995696
Email	victor@atriaenergy.com.au
Address	1 Sussex St, Barangaroo 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.

Same as Person proposing to take the action information.

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? *

Person proposing to take the action

2. Location

2.1 Project footprint

Project Area: 208.61 Ha **Disturbance Footprint:** 13.04 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Lot 113 Harry Road, Callamondah, AND 100 Meegan Road, Byellee

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 affected lots are all Freehold. The owner's consent is attached as Appendix 3.

3. Existing environment

3.1 Physical description

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

The Project Area is a predominantly modified landscape shaped by past and ongoing rural uses (mainly cattle grazing) and linear electricity infrastructure. Disturbance manifests as clearing, soil compaction, weed invasion, informal vehicle tracks and altered surface hydrology. Pockets of higher ecological value persist, principally the subtropical eucalypt floodplain forest and coastal saltmarsh complexes in the northern/eastern lowlands, though these are fragmented and edge-affected. Recent bushfire and seasonal inundation have occurred but have not fundamentally altered the environmental baseline; rather, they have reinforced existing disturbance gradients.

1- Land use history and present disturbance

Southern lots (predominantly Lot 113 CTN799 and southern parts of Lot 1 RP614414) is composed of cleared paddocks actively grazed by cattle, with associated rural fixtures (yards, fences, small farm dam and access tracks). Repeated grazing and vehicular movement have compacted soils, reduced native groundcover and facilitated exotic pasture grasses (e.g. *Cenchrus* spp.) and declared weeds (e.g. *Parthenium hysterophorus* noted in previous surveys). Habitat structure is highly simplified.

Regrowth and secondary vegetation exhibit mixed condition, generally moderate structural recovery but floristically simplified. Cleared paddocks support low faunal diversity aside from generalist species; habitat connectivity is poor.

Northern lots (mainly Lot 2 RP840072 and northern part of Lot 1 RP614414) contain A mosaic of regrowth woodland, remnant TEC patches and extensive Powerlink transmission easements. Maintenance of easements (slashing, selective clearing) plus recreational off-road vehicle use has created numerous informal tracks. These tracks concentrate runoff, causing rill erosion and scalding on claypan margins. Weed loads (e.g. *Lantana camara*, Guinea grass) are elevated along disturbed edges.
Subtropical Eucalypt Floodplain Forest (Endangered) occurs in narrow bands with moderate canopy integrity but disturbed understoreys (grazing/weed pressure). Subtropical & Temperate Coastal Saltmarsh (Vulnerable) remains largely intact geomorphically but is bisected by old drains and informal tracks; some areas show trampling and rutting.

Linear infrastructure footprint:
Existing high-voltage towers, access tracks and a historic farm ridge (now proposed for the BESS pad) represent long-standing physical modifications. These features fragment vegetation, introduce edge effects and locally alter micro-drainage.

2- Soils, hydrology and water quality condition

Low-lying estuarine alluvium predisposes the site to periodic tidal and fluvial inundation. Historic drainage reshaping for grazing/cropping and track construction has altered local flow paths, increasing ponding in some depressions and accelerating runoff on bare tracks.

Potential Acid Sulfate Soil (PASS) risk is high below ~5 m AHD; past disturbance (tracks, drains) may have exposed sulfidic layers, contributing to localised acidity/metal mobilisation if not managed.

No evidence of chronic contamination was noted; however, stock access to waterways and bare soils elevate the risk of sediment and nutrient export during intense wet-season events.

3- Consistency with planning and zoning

Under the Gladstone Regional Council Planning Scheme, the lots are primarily within the Rural Zone (confirm exact overlay mapping in your planning section), where grazing and utility infrastructure are consistent uses.

The land is also subject to overlays such as Flood Hazard, Biodiversity/Environmental Significance and likely Bushfire Hazard (check current scheme layers). Historic and current uses have generally aligned with the Rural zoning intent, but informal recreation (4WD/quad bikes) is not authorised and has contributed to avoidable degradation.

4- Recent disturbance events

Bushfire: A moderate-intensity bushfire burned sections of the northern sclerophyll woodland in late 2023. Canopy species exhibit epicormic resprouting and understorey regeneration is underway. The fire temporarily reduced leaf litter and ground cover, increasing short-term erosion susceptibility but is unlikely to have permanently diminished ecological values.

Flooding/Storm events: While the floodplain is inherently flood-prone, no major damage or scour from recent large events (e.g. the 2022–23 La Niña wet seasons) was recorded within the footprint. Saltmarsh areas experienced typical seasonal inundation and wrack deposition; these processes are part of their natural regime.

Other events: No cyclonic windthrow or prolonged drought dieback has been documented on site. Recreational disturbance remains the most frequent “event-scale” impact.

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

The project area currently supports the following uses:

- **Electrical transmission infrastructure:** Multiple high-voltage towers, conductors and an existing zone substation operated by Powerlink traverse the northern portion. Routine access and vegetation maintenance occur along these easements.
- **Grazing and rural improvements:** The southern portion is cleared and actively grazed by cattle, with paddocks, stock yards, internal fences and a small farm dam.
- **Residential use:** One single dwelling and associated curtilage occur on the southern lot.
- **Informal recreation:** The northern section is regularly accessed by 4WDs and off-road motorcycles. Numerous ad-hoc tracks and turning circles are present, particularly around claypan/saltpan margins. These activities are informal (i.e. not sanctioned land uses) and have caused localised erosion and weed spread.

Proposed project use include:

- **Grid-scale Battery Energy Storage System (BESS):** Installation of a 300–500 MW / ~1,200 MWh BESS on an elevated, previously disturbed ridge. This includes battery enclosures, inverters, transformers and associated control buildings. Purpose: to store excess renewable energy and improve grid stability/reliability.
- **New switching yard / substation upgrades:** To connect the BESS to the existing transmission network.
- **Transmission line works:** Realignment/installation of 132 kV and/or 275 kV connections. A horizontal directional drill (HDD) beneath the Calliope River is proposed to avoid riparian clearing.
- **Underground and overhead cabling:** Within defined corridors to minimise further vegetation disturbance.

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

The Project Area sits on the estuarine–floodplain interface of the Calliope River, providing a direct hydrological pathway to Port Curtis and, ultimately, the Great Barrier Reef World Heritage Area. This linkage elevates the importance of maintaining water quality and sediment controls, as even small increases in fine sediment or nutrients can influence nearby seagrass and coral habitats.

Within this modified landscape, two EPBC-listed Threatened Ecological Communities—Subtropical & Temperate Coastal Saltmarsh (Vulnerable) and Subtropical Eucalypt Floodplain Forest/Woodland (Endangered)—persist in fragmented but still functional patches. These communities contribute to regional biodiversity, offer foraging and potential nesting habitat for the Vulnerable water mouse (*Xeromys myoides*), and support a diverse assemblage of shorebirds (about 30 recorded species, 26 of which are listed migratory species). The tidal flats, saltpans and claypans embedded in the site are particularly valuable as high-tide roosting and foraging areas and as natural settling basins that improve downstream water quality.

Geomorphically distinct saltpan/claypan complexes and palaeochannels also confer “blue-carbon” and flood-storage benefits uncommon at this scale in the lower Calliope catchment. However, these areas are sensitive to disturbance: informal 4WD and motorbike tracks have caused rutting and erosion, while historic drainage works have subtly altered surface flow paths. Potential Acid Sulfate Soils below ~5 m AHD further underscore the need for careful ground disturbance management to avoid acidification and metal mobilisation.

The State-listed flora species, *Sphaeromorphaea major*, has been recorded within ~100 m of the proposed footprint. this plants will not be impacted by the projects=.

Overall, the Project Area retains a suite of outstanding natural features, connectivity to the Great Barrier Reef, listed TECs, specialised estuarine habitats and species values, despite its history of rural use and infrastructure development.

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 northern portion of the project area slopes gently in a north to south direction with a gradient of approximately 1%.

The southern portion of the project area slopes gently from south to north, also with a gradient of approximately 1%. The southern portion of the project area also slopes in an east-west direction with a gradient of approximately 3.5%.

Elevation within the southern and northern portions of the project area each range from 6m above sea level to 3m above sea level.

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.

Comprehensive ecological surveys were undertaken within the Project Area during 2024–2025 by Green Tape Solutions and 28°S Environmental Consultants. These surveys included flora and fauna assessments, habitat mapping, and targeted investigations for Matters of National Environmental Significance (MNES). The results are summarised below, with detailed survey methods and findings provided in **Appendix 4 - Significant Ecological Impact Assessment Report** and **Appendix 7 - Calliope Rive BESS - EAR 28S.**

Flora and Vegetation Communities

The Project Area supports a mosaic of remnant and non-remnant vegetation communities, as confirmed by ground-truthed Regional Ecosystem (RE) mapping. Key vegetation types include:

- *Eucalyptus tereticornis* woodland on Quaternary alluvium (Endangered RE 12.3.3), aligning with the **Subtropical eucalypt floodplain forest and woodland of the NSW North Coast and SEQ bioregions** (EPBC-listed Endangered ecological community).
- Saltpan vegetation and associated herbland/sedgeland communities, which correspond to the **Subtropical and Temperate Coastal Saltmarsh** (EPBC-listed Vulnerable ecological community).
- Mangrove shrubland/closed forest (RE 12.1.3, Least Concern) providing important estuarine habitat.
- Non-remnant grassland and cleared grazing areas

No EPBC Act-listed threatened flora species were confirmed within the Project Area. One State-listed Near Threatened species (*Sphaeromorphea major*) was recorded, verified by the Queensland Herbarium.

Fauna

Field surveys (diurnal bird counts, nocturnal spotlighting, acoustic monitoring, trapping, and targeted habitat searches) recorded a diversity of fauna. Key findings include:

- *Eastern Osprey (Pandion cristatus)* – observed over the Project Area (listed Migratory).
- Suitable habitat confirmed for the **Water Mouse (Xeromys myoides)** in mangrove/saltmarsh areas (listed Vulnerable).
- Marginal foraging habitat present for **Grey-headed Flying-fox (Pteropus poliocephalus)** and **Squatter Pigeon (Geophaps scripta scripta)**, both listed as Vulnerable
- Migratory shorebird habitat is present in adjacent claypans and estuarine flats, although seasonal surveys were outside peak migration periods

A broad range of native bird, bat, and reptile species typical of woodland, grassland, and estuarine ecosystems was recorded. Full species lists are provided in Appendix 4.

Ecosystem Context

The Project Area is located south of Gladstone, spanning grazing land, cleared areas, and patches of intact native vegetation. Ecologically, it sits within a transitional landscape containing:

- Floodplain eucalypt woodlands and riparian areas supporting hollow-bearing trees,
- Estuarine habitats with mangrove and saltmarsh communities providing critical faunal habitat,
- Modified pasture areas with lower ecological value but used opportunistically by generalist fauna

Connectivity is maintained along the Calliope River and estuarine margins, linking the Project Area to downstream environments and the Great Barrier Reef World Heritage Area. This ecological context underpins the assessment of potential indirect and cumulative impacts.

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

The Project Area supports a mosaic of vegetation communities with varying ecological condition, regulatory status, and soil integrity. These include eucalypt woodlands, saltpan ecosystems, mangrove shrublands, and disturbed grasslands.

Eucalypt Woodland (Remnant Native Vegetation)

- Occurs primarily on alluvial flats and dominated by *Eucalyptus crebra*, *E. tereticornis*, and *E. moluccana*.
- This community is mapped as RE12.3.3, listed as Endangered under the Vegetation Management Act 1999 and forming part of the EPBC-listed Subtropical eucalypt floodplain forest and woodland of the NSW north coast and SE Qld Bioregions TEC.
- Condition: TEC condition classes ranged from A1 (high condition) to C2 (moderately degraded). Soils are generally stable with good ground cover. Weed incursion is low to moderate with some edge effects evident.

Saltpan Vegetation

- Dominated by halophytic herbs and grasses such as *Salicornia*, *Tecticornia*, and *Sporobolus virginicus*.
- Corresponds with RE12.1.2, listed as Least Concern under the VM Act, and aligns with the EPBC-listed Subtropical and Temperate Coastal Saltmarsh TEC.
- Condition: Soils are generally intact, though areas subject to recreational vehicle use show wheel ruts and localised erosion.

Mangrove Shrubland/Closed Forest

- Found along tidal margins, dominated by *Ceriops australis*, *Avicennia marina*, and *Rhizophora stylosa*.
- This community corresponds with RE12.2.2, which is listed as Least Concern under the VM Act.
- Condition: Vegetation structure and soil stability are generally good, with minimal visible disturbance.

Non-remnant Grassland (Disturbed/Degraded Vegetation)

- Comprised of introduced pasture grasses including *Hyparrhenia rufa*, *Chloris gayana*, and *Eragrostis curvula*, with scattered native and non-native trees.
- Classified as non-remnant (Category X) under the VM Act.
- Condition: Ecologically degraded due to historical clearing, grazing, and invasive species. Soils generally remain stable with good cover, although recreational vehicle use has caused localised erosion in some areas.

Overall Vegetation and Soil Condition

Vegetation across the Project Area reflects historic clearing, grazing (particularly south of the Calliope River), and recreational disturbance (notably in northern sections). While remnant communities retain significant ecological values, non-remnant grasslands are highly modified and support limited biodiversity. Soil condition is generally good, but localised disturbance and erosion are present where human activity is concentrated.

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.

The site is not included on the Commonwealth heritage places overseas list.

The project area is adjacent to the Calliope River, which flows into the Great Barrier Reef Marine Park and ultimately to the Great Barrier Reef which is the world's largest World Heritage area and a National Heritage Place and is noted to have high cultural, historical, and biological significance. The impact to these matters will be assessed at a later stage of the referral.

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

The project area is located on Bailai, Gurang, Gooreng Gooreng, Taribeleng Bunda Country. The project area is not covered by a Cultural Heritage Management Plan, Cultural Heritage Study Area, or a Cultural Heritage Designated Landscape Area.

To date, no Cultural Heritage Assessment has been prepared for the project.

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. *

A flood report is provided in **Appendix 5 - Flood Impact Assessment** and **Appendix 6 - Flood modelling**.

The site sits within the lower Calliope River sub-catchment (draining ~2,200 km² to Port Curtis and the Great Barrier Reef). Local relief is low (≈3–6 m AHD) and grades gently east/north-east toward the tidal reach of the Calliope River.

Surface water

The Calliope River bisects/abuts the project area and is tidally influenced at this location. Overbank flows during wet-season peaks inundate adjacent floodplain depressions, saltmarsh and claypan flats. Several shallow, ephemeral drainage swales and palaeochannels traverse the paddocks and regrowth areas, converging on the river or on saltmarsh depressions. Historic tracks and drains have subtly redirected runoff, creating localised ponding and rill erosion.

A State-mapped wetland (estuarine/saline) occupies the northern portion of the site. It is not mapped as being a Ramsar wetland, but carries State significance for habitat and water-quality functions.

A small farm dam in the southern grazing area captures local runoff; it has negligible ecological value beyond stock watering and minor sediment trapping.

Flooding regime
Hydraulic modelling undertaken for layout refinement indicates 1 % AEP flood depths of roughly 0.5–0.9 m across natural ground, with slow rise/fall rates due to tidal backwater effects. The design platform for the BESS will be raised to ≥6.5 m AHD to provide freeboard and maintain flood storage via balanced cut-and-fill and internal swales.

Groundwater

The shallow unconfined alluvial aquifer sits within estuarine clays and sands; groundwater levels are typically within 1–3 m of surface near the river and become deeper upslope.

Electrical conductivity measurements from nearby bores indicate brackish to saline conditions, reflecting tidal influence. Groundwater contribution to baseflow on site is minor; most flow is via surface/near-surface pathways after rain.

Potential Acid Sulfate Soils (PASS) are likely below ~5 m AHD. Any dewatering or excavation into sulfidic layers must be managed to prevent acidification and metal mobilisation into surface or groundwater.

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.

Direct impact	Indirect impact	World heritage
No	Yes	Great Barrier Reef

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. *

The proposed action is unlikely to result in any significant environmental or ecological impacts. Its relatively small footprint and the implementation of comprehensive mitigation and control measures during both construction and operational phases ensure that potential effects on habitats, species, water and air quality, and heritage values are prevented or reduced to acceptable levels.

No adverse impacts are expected on the health, integrity, or functioning of ecosystems within the Great Barrier Reef Marine Park, nor on listed species, water quality, or heritage sites.

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.

Direct impact	Indirect impact	National heritage
Yes		Great Barrier Reef

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. *

The proposed action is unlikely to result in any significant environmental or ecological impacts. Its relatively small footprint and the implementation of comprehensive mitigation and control measures during both construction and operational phases ensure that potential effects on habitats, species, water and air quality, and heritage values are prevented or reduced to acceptable levels.

No adverse impacts are expected on the health, integrity, or functioning of ecosystems within the Great Barrier Reef Marine Park, nor on listed species, water quality, or heritage sites.

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.

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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. *

The Project Area does not contain, nor is it adjacent to or have downstream flows to a RAMSAR wetland.

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	Bosistoa transversa	Three-leaved Bosistoa, Yellow Satinheart
No	Yes	Calidris acuminata	Sharp-tailed Sandpiper
No	Yes	Calidris canutus	Red Knot, Knot
No	Yes	Calidris ferruginea	Curlew Sandpiper
No	No	Caretta caretta	Loggerhead Turtle
No	No	Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
No	No	Chelonia mydas	Green Turtle
No	No	Cossinia australiana	Cossinia
No	No	Cupaniopsis shirleyana	Wedge-leaf Tuckeroo
No	No	Cycas megacarpa	
No	No	Cycas ophiolitica	
No	No	Cyclopsitta diophthalma coxeni	Coxen's Fig-Parrot
No	No	Dasyurus hallucatus	Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu]
No	No	Delma torquata	Adorned Delma, Collared Delma
No	No	Dermochelys coriacea	Leatherback Turtle, Leathery Turtle, Luth
No	No	Dichanthium setosum	bluegrass
No	No	Egernia rugosa	Yakka Skink
No	No	Epthianura crocea macgregori	Capricorn Yellow Chat, Yellow Chat (Dawson)
No	No	Eretmochelys imbricata	Hawksbill Turtle
No	No	Erythrotriorchis radiatus	Red Goshawk

Direct impact	Indirect impact	Species	Common name
No	No	Eucalyptus raveretiana	Black Ironbox
No	No	Falco hypoleucos	Grey Falcon
No	No	Furina dunmalli	Dunmall's Snake
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	Yes	Geophaps scripta scripta	Squatter Pigeon (southern)
No	No	Hemiaspis damelii	Grey Snake
No	No	Hirundapus caudacutus	White-throated Needletail
No	No	Lepidochelys olivacea	Olive Ridley Turtle, Pacific Ridley Turtle
No	No	Limosa lapponica baueri	Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit
No	No	Macadamia integrifolia	Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak
No	No	Macroderma gigas	Ghost Bat
No	No	Macronectes giganteus	Southern Giant-Petrel, Southern Giant Petrel
No	No	Natator depressus	Flatback Turtle
No	No	Neochmia ruficauda ruficauda	Star Finch (eastern), Star Finch (southern)
No	Yes	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew
No	No	Orcaella heinsohni	Australian Snubfin Dolphin
No	No	Pachyptila turtur subantarctica	Fairy Prion (southern)
No	No	Petauroides volans	Greater Glider (southern and central)
No	No	Petaurus australis australis	Yellow-bellied Glider (south-eastern)
No	No	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	Pristis zijsron	Green Sawfish, Dindagubba, Narrowsnout Sawfish
No	No	Pteropus poliocephalus	Grey-headed Flying-fox

Direct impact	Indirect impact	Species	Common name
No	No	Rostratula australis	Australian Painted Snipe
No	No	Samadera bidwillii	Quassia
No	No	Sousa sahulensis	Australian Humpback Dolphin
No	No	Sphyrna lewini	Scalloped Hammerhead
No	No	Thalassarche impavida	Campbell Albatross, Campbell Black-browed Albatross
No	No	Turnix melanogaster	Black-breasted Button-quail
No	Yes	Xeromys myoides	Water Mouse, False Water Rat, Yirrkoo

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community
No	No	Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland
No	No	Lowland Rainforest of Subtropical Australia
No	No	Poplar Box Grassy Woodland on Alluvial Plains
Yes	No	Subtropical and Temperate Coastal Saltmarsh
Yes	No	Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions
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. *

Refer to Appendix 4 - Sections 4 and 5 for further information about the MNES Significant Impact Assessment.

465m2 of *Subtropical and Temperate Coastal Saltmarsh* will be directly impacted by clearing as a result of the proposed action; and

2199m2 of *Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregion*s will be directly impacted by clearing as a result of the proposed action.

Potential direct impacts to the Water Mouse (*Xeromys myoides*) are possible. These include:

- mortality resulting from vehicle strikes or clearing operations; and
- Entrapment during bulk earthworks (e.g. open pits, trenches, etc).

Potential indirect impacts on the Water Mouse include:

- Noise, vibration and light spill of machine and vehicle, which may disturb or degrade habitat during construction. Disturbance can alter behaviour and reduce breeding success in some species;
- Temporary increases in predators such as foxes and cats due to inappropriate worksite hygiene (food scraps, etc);
- Degradation of habitat through habitat clearing;
- Degradation of habitat through sedimentation and edge effects such as increased dust, light spill, and noise; and
- Degradation of habitat through introduction or spread of invasive flora and fauna species, potentially through fill material, machinery, or increased habitat disturbance.

Potential direct impacts on the Squatter Pigeon (*Geophaps scripta*) include:

- mortality resulting from vehicle strikes or clearing operations.

Potential indirect impacts on the Squatter Pigeon include:

- Noise, vibration and light spill of machine and vehicle, which may disturb or degrade habitat during construction. Disturbance can alter behaviour and reduce breeding success in some species;
- Degradation of habitat through edge effects such as increased dust, light spill, and noise; and
- Degradation of habitat through introduction or spread of invasive flora and fauna species, potentially through fill material, machinery, or increased habitat disturbance.

Potential indirect impacts on the migratory species:

- Noise, vibration and light spill of machine and vehicle, which may disturb or degrade habitat during construction. Disturbance can alter behaviour and reduce breeding success in some species;
- Degradation of habitat through edge effects such as increased dust, light spill, and noise; and
- Degradation of habitat through introduction or spread of invasive flora and fauna species, potentially through fill material, machinery, or increased habitat disturbance.

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

No

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

A detailed impact assessment against the *EPBC Act Significant Impact Guidelines 1.1* (DSEWPaC, 2013) is provided in Appendix 4 - Ecological assessment report (Sections 4 and 5). We provide the summary of this assessment below.

The proposed development will result in highly localised impacts within a 13 ha development footprint. The site supports two listed Threatened Ecological Communities (TECs) and offers marginal, non-core habitat for a small number of listed fauna species. Field assessments and significance evaluations were conducted in accordance with:

- *EPBC Act Significant Impact Guidelines 1.1* (DSEWPaC, 2013),
- Species profiles in the SPRAT database,
- Recovery and conservation plans,
- Referral and survey guidelines published by DoEE and DSEWPaC,
- And the *Survey Guidelines for Australia's Threatened Vertebrate Species* (DSEWPaC 2011).

1- Endangered TEC – *Subtropical Eucalypt Floodplain Forest and Woodland of the NSW North Coast and SEQ Bioregions*

Nature and Scale of Impact

- 0.2763 ha of TEC will be permanently cleared.
- This equates to <10% of the mapped TEC on-site and 0.0003% of its extent in the Calliope–Lower Fitzroy sub-catchment (Qld Herbarium 2023).
- The affected vegetation is of low condition (Class C2) and located at the edge of a larger stand.

Impact Assessment

- No fragmentation or significant loss of canopy connectivity will occur due to micro-siting and avoidance of hollow-bearing trees.
- The action does not introduce hydrological change, grazing pressure, fire risk, or edge-effect expansion.

Threats from SPRAT & Conservation Advice

Clearing, fragmentation, weed incursion, urbanisation, and fire are the primary threats listed in the Approved Conservation Advice and SPRAT database.

The proposal does not contribute significantly to any of these.

Conclusion

The proposal will not reduce the extent or fragment the TEC. It will not adversely affect critical habitat, or modify abiotic or biotic conditions,

It will not interfere with recovery objectives. A significant impact is not likely.

2- Vulnerable TEC – *Subtropical and Temperate Coastal Saltmarsh*

Nature and Scale of Impact

- 0.0276 ha of saltmarsh will be removed.
- This represents <0.4% of the mapped TEC occurrence on-site and <0.00009% of its total extent in Queensland.

Regulatory Context

Under the *EPBC Act*, TECs listed as Vulnerable are not MNES for the purposes of Part 3, and do not trigger the Act's approval provisions.

Therefore, the Saltmarsh TEC does not require a formal significant impact assessment.

Ecological Assessment

- The area to be cleared is on the edge of a broader system, and does not perform a keystone ecological role.
- The proposal does not alter hydrology, introduce edge pressures, or isolate saltmarsh fragments.

Conclusion

The action will not adversely affect the ecological integrity or recovery of the TEC. Even if assessed under EPBC SIG 1.1, a significant impact is not likely.

3- Water Mouse (*Xeromys myoides*) – Vulnerable

Habitat and Context

- Potential habitat occurs in saltmarsh and mangrove areas along the Calliope River (northern portion).
- No individuals or signs were recorded during targeted surveys, including:
- Camera traps, Elliott traps, spotlighting, and active searches, compliant with: *Survey Guidelines for Australia's Threatened Mammals* (DSEWPaC, 2011), and *Referral Guidelines for Water Mouse* (DoEE, 2015).

Impact Assessment

- The area to be cleared lies on the edge (ecotone) of confirmed habitat.
- No suitable nesting banks, burrows or foraging signs were observed.
- Habitat is fragmented and degraded from recreational vehicles.

Recovery Objectives

The action does not interfere with goals outlined in the Water Mouse Recovery Plan (Qld DEHP 2010).

Conclusion

No evidence of an important population, no impact on critical habitat, and no population-level consequence. A significant impact on this species is not likely.

4- Grey-headed Flying-fox (*Pteropus poliocephalus*) – Vulnerable

Habitat and Context

- No roost camps occur on site (nearest known camp is ~4.7 km east).
- The project area only contains foraging resources (~47 ha of eucalypt woodland).
- Surveys included dawn/dusk observations, spotlighting, and opportunistic diurnal inspections, consistent with *SPRAT* guidance.

Impact Assessment

- Loss of foraging habitat is minor and negligible (0.2763ha) relative to site and regional resource availability.
- No known or likely important populations occur on site.

Recovery Plan Considerations

The action does not affect maternity camps, movement corridors, or long-term foraging areas as identified in the National Recovery Plan for the Grey-headed Flying-fox (DEWHA, 2009).

Conclusion

The project does not interfere with foraging patterns, reduce resource availability, or contribute to cumulative pressure. A significant impact on this species is not likely.

5- Squatter Pigeon (*Geophaps scripta scripta*) – Vulnerable

Habitat and Observations

- Surveys confirmed no individuals or signs on site.
- Habitat present is marginal (lacking dense native grass ground cover).
- Survey effort included targeted daytime searches.

Impact Assessment

- No important populations are known or predicted to occur in the Project Area.
- There is no expected interference with breeding, foraging or movement.

Conclusion

The action does not affect an area of ecological importance for the species. A significant impact on this species is not likely.

6- Migratory Birds (19 EPBC-listed Species)

Context and Observations

- PMST and SPRAT profiles list 26 migratory shorebirds.
- Only Osprey (*Pandion haliaetus*) was recorded during bird surveys.
- The claypan, mangroves and estuarine zones offer non-critical, intermittent foraging/roosting habitat.

Survey Methods

Surveys were restricted to opportunistic observations over several days.

Significance Assessment

- No site attributes suggest the presence of ecologically significant proportions of any listed migratory species.
- The proposal does not impact key foraging or breeding resources.

Conclusion

There will be no substantial interference with migratory behaviour, breeding, or population dynamics. A significant impact these species is not likely.

Summary Conclusion

Based on current SPRAT profiles, EPBC impact thresholds, surveys and assessment methodology, the proposed action:

- Does not affect any important populations
- Will not reduce extent or condition of TECs or habitat to a significant degree
- does not interfere with recovery efforts or ecological connectivity.

As such, and consistent with Significant Impact Guidelines 1.1, no significant impacts to MNES are likely prior to the application of mitigation measures.

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

No

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

Appendix 4 Section 5 provides a detailed justification of the proposed Project impacts to the MNES.

Subtropical Eucalypt Floodplain Forest and Woodland TEC (Endangered)
The proposed action will result in the removal of 0.2763 ha of degraded edge vegetation, representing <10% of the TEC mapped on-site and <0.0003% of its extent in the regional sub-catchment. The clearing does not cause fragmentation, does not affect critical habitat, and avoids mature trees and canopy connectivity. Given the small scale, isolated location, and infrequent disturbance during operation of the development, the impact is not significant.

Subtropical and Temperate Coastal Saltmarsh TEC (Vulnerable)
The proposed removal of **0.0276 ha** (or **<0.4% of the TEC on-site**) is limited in extent and does **not impact ecological function or connectivity**. This TEC, being Vulnerable, is **not a Matter of National Environmental Significance under Part 3 of the EPBC Act**, and therefore **does not trigger the Act**.

Water Mouse (*Xeromys myoides*) – Vulnerable
No individuals or signs were detected during guideline-compliant surveys. The action does not affect core or nesting habitat, and the majority of proposed works are >100 m from suitable habitat (0.0276ha of suitable habitat will be cleared at the edge of suitable habitat), with no hydrological or indirect impact. No important population will be affected and a significant impact is not likely.

Grey-headed Flying-fox (*Pteropus poliocephalus*) – Vulnerable
The project will remove a very minor amount (<0.3 ha) of foraging habitat, with no known camps nearby. The species' mobility and regional food resources ensure no disruption to behaviour or population. There is no impact to an important population, and a significant impact is not likely.

Squatter Pigeon (*Geophaps scripta*) – Vulnerable
No individuals or evidence were recorded. Habitat on site is marginal and the area does not support an important population, and no key ecological function will be lost. A significant impact is not likely.

Migratory Birds
19 migratory species were considered. The site does not provide important habitat, does not support ecologically significant numbers, habitat use is likely to be incidental, and impacts are not significant.

Conclusion

The nature, scale, and duration of all potential impacts are minor, highly localised, and do not affect critical habitat, important populations, or ecological function. No part of the proposal meets the threshold for significant impact under EPBC guidelines.

Therefore, the action is not a controlled action.

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. *

Appendix 4 section 4 outlined the avoidance and mitigation measures that will be implemented as part of the project.

A series of targeted management actions shall be applied to prevent or mitigate impact. These include:

Avoidance:

- Infrastructure and staging areas are located in previously cleared areas and uses existing access tracks wherever possible. However, the Projects' ability to avoid impacts entirely is constrained by the location of the Powerlink zone substation, the geography and topography of the Project Area, logistics, and landholder preferences which ultimately require the placement of the N1 tower, and some supporting infrastructure, in areas that support MNES habitat;
- Micro-siting the N1 tower footprint to reduce the impact on woody vegetation of the *subtropical eucalypt floodplain forest and woodland of the NSW north coast and SE QLD bioregions* TEC and reduce the impact on Subtropical and Temperate Coastal Saltmarsh TEC to the greatest extent possible;
- Eliminate the requirement for clearing of *subtropical eucalypt floodplain forest and woodland of the NSW north coast and SE QLD bioregions* TEC as well as a waterbody and associated riparian areas to accommodate the N1 tower connection to the Powerlink zone substation through the use of directional drilling and the installation of an underground connector;
- Directional drilling shall be undertaken from the northern end of the underground connector, to avoid any possible release of liquefied drilling spoil near sensitive areas; and
- The use of a staged winching method (helicopter stringing) for conductor spans of the Calliope River to avoid any impact to saltmarsh and mangrove communities.
- pole and tower placement was also designed to remain outside of saltmarsh areas, maintaining natural drainage and vegetation structure

Mitigation during construction:

- Preparation of a Construction Vegetation and Fauna Management Plan (CVFMP), including detailed mitigation measures such as:
    - Pre-clearance surveys by qualified ecologists to identify and mark habitat features (e.g. hollows, nests, etc.).
    - Use of trained fauna spotter-catchers during all clearing activities.
    - A two-stage tree-felling protocol for hollow-bearing trees to encourage fauna dispersal before felling.
    - Clear demarcation of disturbance boundaries and exclusion zones prior to works.
- Vehicle Speed Limits:
    - Enforced a 30 km/h speed limit for construction vehicles to reduce the risk of striking fauna.
- Biosecurity Management Plan:
    - Developed in accordance with the *Biosecurity Act 2014* to prevent the introduction and spread of invasive species. Monitoring will be conducted to detect and manage new infestations.
- Weed Management and Rehabilitation:
    - A Weed and Pest Management Plan will be developed for the Project, outlining mitigation and monitoring measures to reduce the risk of spreading or increasing invasive species across the Project Area.
    - Weed control measures will be implemented during and post-construction. All disturbed areas will be rehabilitated progressively or upon completion in accordance with a Rehabilitation Management Plan.
- Appropriate work site hygiene protocol to be implemented for general rubbish, food scraps, etc.
- An Erosion and Sedimentation Control Plan will be implemented to minimise run-off, particularly to prevent downstream sedimentation impacts on the adjacent saltmarsh and mangrove communities and ultimately the Great Barrier Reef via the Calliope River. As a minimum, measures shall include:

    - Use of sediment fencing around construction areas and stockpiles.
    - Avoidance of bulk earthworks during and immediately after heavy rainfall.
    - Avoidance of bulk earthworks within 50m of the Highest Astronomical Tide contour must be avoided during tides which inundate the claypan adjacent to the Project Area.
    - Dust suppression, topsoil protection, and re-use in natural configuration.
    - Ongoing monitoring to assess effectiveness and trigger corrective actions if necessary.
- A Construction Environmental Management Plan (CEMP) will be implemented to address:
    - Restriction of construction works to daylight hours;
    - Prohibition of domestic animals on site;
    - Chemical/fuel/oil storage and spill prevention and response procedures;
    - Defined laydown and staging areas to avoid uncontrolled habitat disturbance.
    - fire prevention protocols for the BESS will be embedded into the CEMP to reduce risk to adjacent remnant vegetation and fauna
    - directional lighting, no floodlighting near mangroves or riparian zones
- A comprehensive Acid Sulfate Soils/Potential Acid Sulfate Soils and groundwater survey shall be undertaken for areas where earthworks are proposed. This survey shall inform an Acid Sulfate Soils Management Plan and Groundwater Management Plan for all proposed earthworks, and any dewatering that may be required.
- Directional drilling shall be undertaken in a north to south direction. Positioning of drilling rig and associated equipment in the vicinity of the N1 tower at the southern end of the underground cable route must be avoided wherever possible.
- Monitoring will be undertaken to assess the effectiveness of controls, detect potential breaches, and ensure impacts remain within acceptable limits. Triggers for corrective action will be established where impacts are identified.

Mitigation during operation:

- Vehicle Speed Limits:
    - Speed limits for site vehicles will be limited to 30 km/h to reduce the risk of fauna collisions.
- Should final conductor spans over the Calliope River not coincide with the heights and sag of the adjacent existing conductor spans, suitable bird diverters shall be attached to reduce or avoid bird collision.
- Weed Monitoring and Management:
    - Ongoing monitoring will be undertaken to detect new weed infestations and ensure existing infestations (particularly those listed under the Biosecurity Act 2014 (Qld)) do not spread into surrounding environments.
- Light Pollution Management:
    - All lighting around operational buildings will be designed and managed to minimise ecological impacts by: Complying with the National Light Pollution Guidelines for Wildlife (DCCEEW,2023).

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

No formal offsets are proposed for this action. However, rehabilitation measures will be implemented to ensure a net gain for the Subtropical eucalypt floodplain forest and woodland of the NSW North Coast and South East Queensland Bioregions TEC. Rehabilitation will focus on improving a patch of this TEC currently in low condition.

The proposed works include targeted infill planting of key native species to increase structural diversity, enhance ecological function, and improve resilience to edge effects. These measures are expected to strengthen long-term condition, connectivity, and persistence of the community within the landscape.

Further detail is provided in the Rehabilitation Management Plan (Appendix 8)

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	Yes	Actitis hypoleucos	Common Sandpiper
No	No	Anous stolidus	Common Noddy
No	No	Anoxypristis cuspidata	Narrow Sawfish, Knifetooth Sawfish
No	No	Apus pacificus	Fork-tailed Swift
No	Yes	Arenaria interpres	Ruddy Turnstone
No	Yes	Calidris acuminata	Sharp-tailed Sandpiper
No	Yes	Calidris canutus	Red Knot, Knot
No	Yes	Calidris ferruginea	Curlew Sandpiper
No	Yes	Calidris melanotos	Pectoral Sandpiper
No	Yes	Calidris ruficollis	Red-necked Stint
No	Yes	Calidris tenuirostris	Great Knot
No	No	Caretta caretta	Loggerhead Turtle
No	No	Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
No	Yes	Charadrius mongolus	Lesser Sand Plover, Mongolian Plover
No	No	Chelonia mydas	Green Turtle
No	No	Crocodylus porosus	Salt-water Crocodile, Estuarine Crocodile
No	No	Cuculus optatus	Oriental Cuckoo, Horsfield's Cuckoo
No	No	Dermochelys coriacea	Leatherback Turtle, Leathery Turtle, Luth
No	No	Eretmochelys imbricata	Hawksbill Turtle
No	No	Fregata ariel	Lesser Frigatebird, Least Frigatebird
No	No	Fregata minor	Great Frigatebird, Greater Frigatebird
No	Yes	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Gallinago stenura	Pin-tailed Snipe

Direct impact	Indirect impact	Species	Common name
No	No	Hirundapus caudacutus	White-throated Needletail
No	No	Lamna nasus	Porbeagle, Mackerel Shark
No	No	Lepidochelys olivacea	Olive Ridley Turtle, Pacific Ridley Turtle
No	Yes	Limicola falcinellus	Broad-billed Sandpiper
No	No	Limnodromus semipalmatus	Asian Dowitcher
No	Yes	Limosa lapponica	Bar-tailed Godwit
No	Yes	Limosa limosa	Black-tailed Godwit
No	No	Macronectes giganteus	Southern Giant-Petrel, Southern Giant Petrel
No	No	Mobula alfredi	Reef Manta Ray, Coastal Manta Ray
No	No	Mobula birostris	Giant Manta Ray
No	No	Natator depressus	Flatback Turtle
No	Yes	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew
No	No	Numenius minutus	Little Curlew, Little Whimbrel
No	Yes	Numenius phaeopus	Whimbrel
No	No	Orcaella heinsohni	Australian Snubfin Dolphin
No	No	Pandion haliaetus	Osprey
No	No	Phaethon lepturus	White-tailed Tropicbird
No	No	Pluvialis fulva	Pacific Golden Plover
No	No	Pluvialis squatarola	Grey Plover
No	No	Pristis zijsron	Green Sawfish, Dindagubba, Narrowsnout Sawfish
No	No	Sousa sahulensis	Australian Humpback Dolphin
No	No	Thalassarche impavida	Campbell Albatross, Campbell Black-browed Albatross
No	Yes	Tringa brevipes	Grey-tailed Tattler
No	Yes	Tringa nebularia	Common Greenshank, Greenshank

Direct impact	Indirect impact	Species	Common name
No	No	Tringa stagnatilis	Marsh Sandpiper, Little Greenshank
No	No	Xenus cinereus	Terek Sandpiper

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 action will result in indirect impacts on protected migratory species present within the Project Area:

Indirect impacts include edge effects, increased vulnerability of retained vegetation to weed invasion, altered hydrology, and potential soil disturbance leading to erosion. These changes are likely to affect the resilience and long-term viability of adjacent patches of the TEC and other associated habitats.

Fauna species that utilise the affected vegetation (e.g. threatened birds, microbats, and other species listed under the EPBC Act) may be impacted through the reduction of foraging, roosting, or movement habitat, as well as increased disturbance from construction activity.

These impacts reflect the unavoidable consequence of siting the development within a landscape containing EPBC-listed ecological communities and habitats. However, appropriate mitigation can be put in place to mitigate and reduce this impact to be insignificant.

Further supporting detail is provided in the Ecological Assessment Report (Attachment 4, Section 4).

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. *

Based on the EPBC Act *Significant Impact Guidelines 1.1*, an action is likely to have a significant impact on migratory species if it results in: a substantial reduction in population numbers; an important population being adversely affected; or the modification, destruction, or isolation of important habitat. The proposed action does not meet these thresholds for the following reasons:

Habitat availability

The Project Area contains vegetation that may be used opportunistically by migratory species (e.g. for foraging or temporary shelter). However, no areas of habitat within the footprint are considered critical, unique, or irreplaceable for migratory species.

Population viability

The removal of small areas of disturbed and degraded vegetation will not lead to a substantial reduction in the numbers of any migratory species, nor adversely affect an “important population” as defined by the guidelines. Migratory species recorded or predicted in the region are typically wide-ranging and highly mobile, with access to extensive alternative habitats across the broader landscape.

Connectivity and ecological function

The action will not result in the fragmentation or isolation of important habitat used by migratory species. The affected vegetation does not support critical ecological processes (e.g. breeding, roosting, long-term foraging) necessary for the survival of migratory species populations.

Conclusion
The proposed action will not:

- Substantially reduce the numbers of any migratory species;
- Adversely affect an important population; or
- Result in the modification, destruction, or isolation of important habitat.

Accordingly, the action is not expected to have a significant impact on migratory species under the EPBC Act.

Further information is provided in the Ecological Assessment Report (Appendix 4, Section 5).

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 proposed action will have only minor and localised impacts that are not considered significant under the EPBC Act, for the following reasons:

The **removal of remnant vegetation** is confined to a small, degraded patch of the *Subtropical eucalypt floodplain forest and woodland of the NSW North Coast and South East Queensland Bioregions TEC*. The scale is minor in the context of the community's regional extent, and the duration of impact is long-term but does not substantially reduce extent, condition, or ecological function.

No critical habitat will be affected. The areas to be cleared do not provide essential breeding, roosting, or foraging habitat for listed threatened or migratory species, nor do they support important populations.

Indirect impacts such as edge effects, weed invasion, and minor soil disturbance are limited in scale and duration, remaining confined to the immediate development footprint without affecting adjacent higher-quality habitat.

The action will not fragment, isolate, or modify important habitat, nor disrupt ecological processes essential to the survival of listed species or ecological communities.

Conclusion
In summary, the nature of the impacts (small-scale, localised, and on degraded habitat), their limited duration and confined extent, and the absence of effects on critical habitat or important populations mean the project is not expected to have a significant impact on matters of national environmental significance. Therefore, the action is not considered a controlled action under the EPBC Act.

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. *

The proposed action has been designed and will be implemented to avoid and minimise impacts on migratory species that may occur in or around the Project Area:

Avoidance

The project footprint has been located within already cleared and degraded areas, reducing potential disturbance to foraging and roosting habitat used opportunistically by migratory species (e.g. Eastern Curlew). Areas of higher-quality wetland, tidal margin, and woodland habitat likely to support migratory birds have been excluded from the project impact area.

Works are not proposed in intertidal zones or permanent waterbodies, thereby avoiding direct impact on feeding and roosting areas important to shorebirds.

Minimisation

Construction will be staged and timed where practicable outside of peak migratory periods (spring–summer) to reduce potential disturbance to shorebirds and other migratory species.

Light spill and noise will be managed through design and construction controls to avoid displacing nocturnal or roosting species.

Vegetation clearing protocols will include pre-clearing surveys and ecological supervision to detect and manage fauna presence.

Mitigation

Disturbed edges adjacent to potential foraging areas will be actively managed for weeds and erosion to maintain habitat quality.

Rehabilitation of degraded woodland habitat (as detailed in the Rehabilitation Management Plan, Appendix 8) will improve habitat structure and resilience over time, supporting broader landscape values that migratory species may utilise.

Ongoing monitoring will identify any indirect impacts (e.g. increased disturbance or habitat degradation) to allow for adaptive management if required.

Summary
Through careful site selection, design refinements, timing of works, and active management, the project avoids direct loss of important migratory species habitat, minimises disturbance during critical periods, and mitigates residual risks to ensure no significant impacts arise.

Further supporting information is provided in the Ecological Assessment Report (Appendix 4, Section 5).

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

No formal offsets are proposed specifically for migratory species, as the project is not expected to result in a significant impact on these species under the EPBC Act. The vegetation within the project footprint provides only low-value, disturbed habitat and does not constitute critical feeding, breeding, or roosting areas. Importantly, the Project Area is outside recognised key sites for migratory shorebirds such as Eastern Curlew (*Numenius madagascariensis*). As such, the action will not adversely affect important populations or critical habitat for these species.

Although formal offsets are not required, the project incorporates on-site rehabilitation measures designed to strengthen the ecological values of the broader landscape. This includes infill planting of native species, weed suppression, and actions to improve vegetation structure and resilience. These measures will enhance habitat quality at the site level, supporting foraging and shelter opportunities that migratory birds may use opportunistically.

In this way, while direct impacts are expected to be negligible, the project will deliver longer-term habitat improvements that contribute positively to the resilience of migratory species in the region.

Further detail is provided in the Rehabilitation Management Plan (Appendix 8).

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. *

The proposed action does not involve the establishment or modification of a nuclear installation.

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. *

The project area is not located within a Commonwealth Marine Area.

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. *

The proposed action is unlikely to result in any significant environmental or ecological impacts. Its relatively small footprint and the implementation of comprehensive mitigation and control measures during both construction and operational phases ensure that potential effects on habitats, species, water and air quality, and heritage values are prevented or reduced to acceptable levels.

No adverse impacts are expected on the health, integrity, or functioning of ecosystems within the Great Barrier Reef Marine Park, nor on listed species, water quality, or heritage sites.

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 is not a large coal mining or coal seam gas development.

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. *

The Project Area is not located on 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. *

The Project Area is not a Commonwealth Heritage Place 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:

None

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)
- Threatened Species and Ecological Communities (S18)
- 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? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

The proposed BESS must be located as close as practicable to existing electrical infrastructure, including transmission lines and the substation, to avoid unnecessary environmental impacts associated with longer connection routes to the electricity grid. Alternative sites further from existing infrastructure were not feasible as they would require extensive new clearing and larger areas of disturbance, resulting in greater ecological and social impacts.

The current location was selected as it maximises the use of previously cleared areas, minimises vegetation removal, and provides the shortest practicable connection to the substation. Alternative layouts within the site were also considered; however, the proposed configuration represents the least-impact design that still meets operational and regulatory requirements.

A “do-nothing” option was not viable as it would fail to deliver the identified energy storage and grid stability benefits. Similarly, siting the BESS elsewhere would introduce disproportionate costs, delays, and environmental risks. On this basis, the proposed action represents the only practicable option that balances project objectives with environmental outcomes.

5. Lodgement

5.1 Attachments

1.2.7 Public consultation regarding the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	App 1 Engagement Summary.pdf This document provides a summary of the community engagement meeting for the project.	22/05/2025	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	App 2 Byellee BESS Environmental Social Governance.pdf Byellee BESS Environmental & Social Governance Charter	31/07/2025	No	High
#2.	Document	App 9 - Byellee BESS Declaration.pdf Declaration from Byellee BESS director	29/09/2025	No	High

2.2.5 Tenure of the action area relevant to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	App 3 Owners Consent.pdf Land owners consent document	07/04/2025	No	High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	App 4 Ecological SIA GTS.pdf Ecological significant impact assessment against the EPBC guidelines	24/08/2025	No	High
#2.	Document	App 7 Calliope Rive EAR.pdf Ecological survey undertaken by 28S which provides details of field survey and original assessment. this report was never formally finalised and is provided as the significant ecological impact assessment report prepared by Green Tape Solutions refers to it.	03/04/2025	Yes	Medium

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	App 5 Flood Impact Assessment.pdf Preliminary flood impact assessment for the Project area	01/08/2025	No	High
#2.	Document				

App 6 Flood modelling.pdf Preliminary flood modelling for the project area	01/08/2025	No	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	App 4 Ecological SIA GTS.pdf Ecological significant impact assessment against the EPBC guidelines	23/08/2025	No	High

4.1.4.6 (Threatened Species and Ecological Communities) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	App 4 Ecological SIA GTS.pdf Ecological significant impact assessment against the EPBC guidelines	23/08/2025	No	High

4.1.4.9 (Threatened Species and Ecological Communities) Why you do not think your proposed action is a controlled action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	App 4 Ecological SIA GTS.pdf Ecological significant impact assessment against the EPBC guidelines	23/08/2025	No	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	App 4 Ecological SIA GTS.pdf Ecological significant impact assessment against the EPBC guidelines	23/08/2025	No	High

4.1.4.11 (Threatened Species and Ecological Communities) Proposed offsets relevant to avoidance or mitigation measures

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	App 8 Rehabilitation Plan GTS.pdf Plan to illustrate the proposed rehabilitation work that will be undertaken to mitigate the impact to MNES.	29/08/2025		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	App 4 Ecological SIA GTS.pdf Ecological significant impact assessment against the EPBC guidelines	23/08/2025	No	High

4.1.5.3 (Migratory Species) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix 4 - SIA Green Tape Solutions.pdf Ecological significant impact assessment against the EPBC guidelines	23/08/2025	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	App 4 Ecological SIA GTS.pdf Ecological significant impact assessment against the EPBC guidelines	23/08/2025	No	High

4.1.5.10 (Migratory Species) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	App 4 Ecological SIA GTS.pdf Ecological significant impact assessment against the EPBC guidelines	23/08/2025	No	High

4.1.5.11 (Migratory Species) Proposed offsets relevant to avoidance or mitigation measures

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	App 8 Rehabilitation Plan GTS.pdf Plan to illustrate the proposed rehabilitation work that will be undertaken to mitigate the impact to MNES.	28/08/2025	No	High

5.2 Declarations

Completed Referring party's declaration

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

ABN/ACN	20162130627
Organisation name	CO FX PTY LTD
Organisation address	4506 QLD
Representative's name	Kelly Matthews
Representative's job title	Director
Phone	0428120930
Email	admin@greentapesolutions.com.au
Address	PO BOX 416 Rockhampton QLD 4700

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

☑ Check this box to confirm these are the correct identification details. *

☑ By checking this box, I, **Kelly Matthews of CO FX 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. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

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	28659642065
Organisation name	BYELLEE BESS PTY LTD
Organisation address	2065 NSW
Representative's name	Victor Bocioc

Representative's job title	Project Development Manager
Phone	02 90995696
Email	victor@atriaenergy.com.au
Address	1 Sussex St, Barangaroo NSW 2000

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

☑ Check this box to confirm these are the correct identification details. *

☑ I, **Victor Bocioc of BYELLEE BESS 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. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

✔ 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.

Same as Person proposing to take the action information.

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

☑ Check this box to confirm these are the correct identification details. *

☑ I, **Victor Bocioc of BYELLEE BESS 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. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.