APA Brigalow Pipeline Project

Application Number: **02573** Commencement Date: **30/08/2024** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

APA Brigalow Pipeline Project

1.1.2 Project industry type *

Energy Generation and Supply (non-renewable)

1.1.3 Project industry sub-type

Natural Gas pipeline

1.1.4 Estimated start date *

11/09/2025

1.1.4 Estimated end date *

03/06/2026

1.2 Proposed Action details

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

APA Group are proposing to develop and operate approximately 23.5 kilometre (**km**) twin pipelines between the proposed CS Energy Brigalow Peaking Power Plant (**BPPP)** project, located on Lot 6 on DY532, and the existing APA owned Roma to Brisbane Pipeline (**RBP**), located on lot 1 on RP172983 (the **project**). The project will transport natural gas and potentially 100 percent (**%**) hydrogen gas between the RBP and BPPP project. The project is required to deliver gas to the BPPP project that will operate as a peak load

generation facility supplying electricity at short notice when there is a requirement in the National Electricity Market, and will be required to provide 100% hydrogen fuel over time to the proposed BPPP. The project will traverse a number of properties and tenures, including:

- 2RP172983
- 13DY93
- 14DY93
- 6DY532
- 34DY604
- 7RP176345
- AAP19903
- 8RP176345
- 9RP176344
- 10RP176344
- 1RP196723
- 67DY78
- 64DY78.

Post-construction, a nominal 40 m wide easement would be maintained for the operation and maintenance of the twin pipelines. However, a nominal right of way (**ROW**) of 40 metres (**m**) has been determined as necessary to construct the twin pipelines and a number of ancillary disturbance areas will be required to facilitate construction of the twin pipelines, including; laydown areas, access tracks and a temporary construction camp. Construction is anticipated to commence in July 2025 and completed by February 2026 and will involve the following activities:

- construction of gravel access tracks to less than 10 m wide where the existing road network, private property access points and tracks are not available
- preparation of laydown areas for materials storage
- development of a temporary construction camp catering for 100 bussed workers
- progressive vegetation clearing and grading of the ROW to remove trees, shrubs, surface rocks and groundcover vegetation and to strip and stockpile topsoil (for later use in rehabilitation activities)
- delivery of pipe segments to the ROW
- welding, coating of welds and non-destructive testing of segments of pipeline into ‘strings’ will take place within the ROW during the construction period
- excavation of the trench and lowering of the pipeline strings into the trench
- backfilling the trench with excavated material
- pressure testing the integrity of the pipelines with water
- progressive rehabilitation of the construction footprint with the intention of returning the land to its previous productivity
- installation of permanent fence and gates where necessary.

The total construction footprint for the project will involve an area of 186.25 hectares (**ha**) and is shown on **Att A – Location of the project**. This construction footprint, including the project ROW (within which the final 40 m wide operational easement will be located), laydown areas, access tracks and a temporary construction camp, combine for what is referred to as the ‘project area’ within this referral document. Areas within this project area that do not form part of the final commissioned 40 m wide easement or permanent access tracks will be allowed to naturally regenerate. Direct impacts to approximately 55.05 ha of vegetation and habitat for matters of national environmental significance (**MNES**) is proposed as part of construction and operation of the project. Indirect impacts are possible, although are likely to be temporary, of short duration, recoverable through regeneration, localised and therefore minimal to MNES.

A number of opportunities have been identified in the design and preliminary assessment of the project to avoid and minimise environmental impacts of the project, including using existing cleared and disturbed areas for laydown, the proposed construction camp and access tracks, as well as use of horizontal

directional drilling or horizontal boring methods, which has resulted in impact avoidance and minimisation.

Activities associated with operation of the project will typically involve inspections, maintenance and repair works generally carried out during daylight hours, although it is anticipated that emergency works and the need for repairs may also arise at night.

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

Yes

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

No

1.2.4 Related referral(s)

EPBC Number	Project Title
2023/09692	Brigalow Peaking Power Plant Project

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

The project will be developed specifically to supply the Brigalow Peaking Power Plant Project (referral reference 2023/09692 (withdrawn)), located on cleared land at Lot 6 on DY532, immediately north of the project. It is proposed that the project and Brigalow Peaking Power Plant Project will be developed, owned and operated independently. However, the two developments are interdependent and if approvals for the Brigalow Peaking Power Plant Project cannot be obtained, it is unlikely that this project would be constructed.

The proposed Brigalow Power Station Project will operate as a peak load generation facility supplying electricity at short notice where there is a requirement in the National Electricity Market. The power station will have a capacity of approximately 400 MW and be hydrogen capable from commissioning, transitioning to 100% hydrogen fuel over time. The Brigalow Power Station Project will involve the construction and operation of the power station, electrical switchyards and associated infrastructure (e.g. water management infrastructure, laydown areas, fuel storage facilities, road upgrades for safe access).

The power station will connect with Banana Bridge Substation via a 275 kV overhead transmission line. A gas receiving station and this proposed twin pipeline will also be required to deliver gas as part of the project.

The site of the proposed Brigalow Power Station Project is flat and cleared of vegetation as part of historical use of the site as a solar farm

Queensland legislation relevant to the Brigalow Power Station Project include:

- *Planning Act 2016*
- *Environmental Offsets Act 2014*
- *Environmental Protection Act 1994*
- *Aboriginal Cultural Heritage Act 2003*
- *Biosecurity Act 2014*

- *Local Planning Scheme for the Western Downs Regional Council (assessment manager under the Planning Act)*

The project will connect the BPPP project with the RBP, which is a 438 km bi-directional transmission pipeline that transports natural gas between the Wallumbilla gas hub, near Roma, and Brisbane, and regional centres along this route. The RBP was constructed in 1969 and has been upgraded and augmented since that time.

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

Queensland Energy and Jobs Plan

This proposed Brigalow Power Station Project, and this project, are key actions developed as part of the Queensland Energy and Jobs Plan, to ensure clean energy reliability for Queensland's mining and industrial sectors, and which contributes to Queensland's transition to 80% renewable energy by 2035. The larger power station project provides 'firming' capacity for the grid for intermittent renewables, by ensuring security of supply under unfavourable meteorological conditions causing undersupply of renewable energy (e.g. wind and solar). The project by design (e.g. hydrogen and natural gas blending, fast-start capability and low storage needs) will fill a particular 'niche' that cannot be easily filled by alternative technologies.

The following Queensland and Commonwealth legislation, policy and guidelines are applicable to this project. Further information about the statutory framework is provided in **Att B - Ecological Assessment Report,** Section 2, page 4-8 of the *Brigalow Pipeline Project Ecological Assessment Report* (**EAR)**.

Commonwealth legislation

Environment Protection and Biodiversity Conservation Act 1999 (**EPBC Act**) – The project has been assessed for the potential significance of impacts to **MNES** (listed threatened species and communities) under the EPBC Act and in accordance with the *Significant Impact Guidelines 1.1. – Matters of National Environmental Significance* (**Significant Impact Guidelines**) and *EPBC Act Environmental Offsets Policy*. The project is being referred as a 'controlled action' due to the potential significance of impacts to MNES, namely; Koala, Dunmall's Snake, Squatter Pigeon, Diamond Firetail and Southern Whiteface.

Queensland legislation

Petroleum and Gas (Production and Safety) Act 2004 (**P&G Act**) - The P&G Act is the governing legislation for petroleum development in Queensland. A Petroleum Pipeline Licence (**PPL**) authorises all activities reasonably necessary for the construction and operation of a pipeline.

Environmental Protection Act 1994 (**EP Act**) – an Environmental Authority (**EA**) is required for all resource activities, as defined in Schedule 2A of the Environmental Protection Regulation 2008, including gas pipelines. Assessment of impacts to Environmentally Sensitive Areas (**EASs**) forms part of the approval process for an EA.

Fisheries Act 1994 – works that involve impact to waterways or create waterway barriers may need approval under the Fisheries Act and compliance with State Code 18 – Construction or raising of waterway barrier works.

Environmental Offsets Act 2014 (**EO Act**) – A project may be conditioned with offsets where there is a significant residual impact to MNES, Matters of State Environmental Significance (**MSES**) and Matters of Local Environmental Significance (**MLES**) prescribed under the EO Act. The project is required to be assessed against the *Queensland Environmental Offsets Policy Significant Residual Impact Guideline* (**SRI Guideline**).

Nature Conservation Act 1992 (**NC Act**) – Under the NC Act permits and licences are required in relation to impacts to protected wildlife, breeding places and protected areas, including but not limited to a Species Management Program for impacts to animal breeding places. A number of matters under this NC Act form MNES and MSES.

Vegetation Management Act 1999 (**VM Act**) – The VM Act regulates native vegetation clearing in Queensland and provides a classification system for Queensland native vegetation communities (Regional Ecosystems (**REs**)), as well as categorising their threat of loss as endangered, of concern or least concern. For this project the VM Act is given effect through the EO Act, to the extent that impacts to some regulated vegetation may be conditioned to be offset under the EO Act.

Biosecurity Act 2014 (**Biosecurity Act**) – The Biosecurity Act requires a general biosecurity obligation to ensure that pests, diseases and contaminates are not spread. Specific actions are required in relation to prohibited or restricted pest flora and fauna and diseases under the Biosecurity Act.

Regional Planning Interests Act 2014 (**RPI Act**) – Consideration of the project in relation to the agricultural industry and particular areas of regional interest such as Strategic Cropping Areas (**SCAs**) is required under the RPI Act.

Local instruments

The Western Downs Regional Council Planning Scheme 2017 (**Planning Scheme**) is the local categorising instrument used to assess and decides development applications within the Western Down Regional Council Local Government Area.

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. *

APA announced the project on the Australian Securities Exchange on 22 August 2024.

Initial stakeholder consultation has been undertaken with the following groups:

- State Government agencies, including but not limited to the Department of Resources (**DoR**) and Department of Environment, Science and Innovation (**DESI**) and Department of Transport and Main Roads
- directly affected landholders and leaseholders
- Western Downs Regional Council
- First Nations people and representative groups, the Barunggam People
- Federal, State and locally elected representatives
- local communities
- mining and petroleum resource tenement holders.

APA is committed to ongoing consultation and engagement with these stakeholders throughout the life of the project. Stakeholder details for the project area provided in **Att C – Stakeholder consultation list**.

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.

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

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

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	123090933
Organisation name	APA OPERATIONS PTY LIMITED
Organisation address	2000 NSW

Referring party details

Name	Alissa Roxburgh
Job title	Environmental Approval Lead
Phone	07 35125988
Email	Alissa.roxburgh@apa.com.au
Address	L12, 80 Ann Street, Brisbane, Queensland, 4000

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? *

Yes

Person proposing to take the action organisation details

ABN/ACN	123090933
Organisation name	APA OPERATIONS PTY LIMITED
Organisation address	2000 NSW

Person proposing to take the action details

Name	Alissa Roxburgh
Job title	Environmental Approval Lead
Phone	07 35125988
Email	Alissa.roxburgh@apa.com.au
Address	L12, 80 Ann Street, Brisbane, Queensland, 4000

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. *

The proposed action is being undertaken by APA Operations Pty Limited, which is part of the APA Group and has a satisfactory record of responsible environmental management. APA has satisfactorily constructed multiple pipeline projects, including the following most recent projects which have been referred to the Commonwealth:

- 2024/09933 – East Pilbara Network Stage 1, Western Australia
- 2024/09801 – APA Sybella Creek Solar Farm, Queensland
- 2022/09382 – APA Moomba to Wilton Pipeline MW433 Compressor Station, New South Wales
- 2022/09378 – APA South West Queensland Pipeline – SS6 Compressor Station, Queensland
- 2021/9113 – Kurri Kurri Lateral Pipeline Project, New South Wales
- 2021/9104 – APA Mica Creek Renewable Energy Facility, Queensland
- 2021/9032 – APA East Coast Grid Expansion – Stage 1 MW880 SS2, New South Wales
- 2021/8900 – Northern Goldfields Interconnect Pipeline, Western Australia
- 2020/8672 – Channel Island Bridge Pipeline Replacement Project, Northern Territory.

APA has a dedicated in-house team of environment and approvals experts as well as a specialist environmental contractors as and when required. In October 2016 APA received the Golden Gecko Award for program that monitored the endangered small marsupial, the Sandhill Dunnart, during development of the Eastern Goldfields Pipeline. The award is presented by the Western Australian Department of Mines and Petroleum to recognise excellence and leadership, and acknowledge the outstanding contribution recipient have made to develop Western Australia's resources in a responsible manner.

Seven Penalty Infringement Notices (**PINs**) were issued to six APA Companies in Queensland under the EP Act in September 2022, in relation to:

- Failure to submit a new Estimated Rehabilitation Cost Decision application (6 PINS); and
- Operating without Estimated Rehabilitation Cost Decision (1 PIN).

APA has undertaken remedial action to ensure Estimated Rehabilitation Cost decisions are in place.

Two PINs were issued to East Australian Pipeline Pty Ltd (which is a related company of the proponent) under the *Environmental Planning and Assessment Act 1979* (NSW) in January 2017 in relation to sediment controls following the Victorian and New South Wales rain events in late 2016.

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

APA's environmental intent is to recognise their role as land stewards and aspire to not just respect the past but protect values for the future. APA's responsible service charter includes taking a systematic and risk-based approach to environmental management, continually analysing and working to improve environmental performance, meeting or exceeding the Australian Pipelines and Gas Associated Code of Environmental Practice for pipeline assets, contribution to the development and improvement of environmental policy and legislation in Australia and working to identify and realise environmentally sustainable business practices.

APA's Environment Policy in underpinned by a business wide commitment to operating with a culture of compliance and continuous environmental improvement, at all levels of operation. This Environmental Policy is provided at **Att D – APA Environment Policy**.

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	123090933
Organisation name	APA OPERATIONS PTY LIMITED
Organisation address	2000 NSW

Proposed designated proponent details

Name	Alissa Roxburgh
Job title	Environmental Approval Lead
Phone	07 35125988
Email	Alissa.roxburgh@apa.com.au
Address	L12, 80 Ann Street, Brisbane, Queensland, 4000

1.3.4 Identity: Summary of allocation

Confirmed Referring party's identity

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

ABN/ACN	123090933
Organisation name	APA OPERATIONS PTY LIMITED
Organisation address	2000 NSW

Representative's name	Alissa Roxburgh
Representative's job title	Environmental Approval Lead
Phone	07 35125988
Email	Alissa.roxburgh@apa.com.au
Address	L12, 80 Ann Street, Brisbane, Queensland, 4000

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.

Same as Referring party information.

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

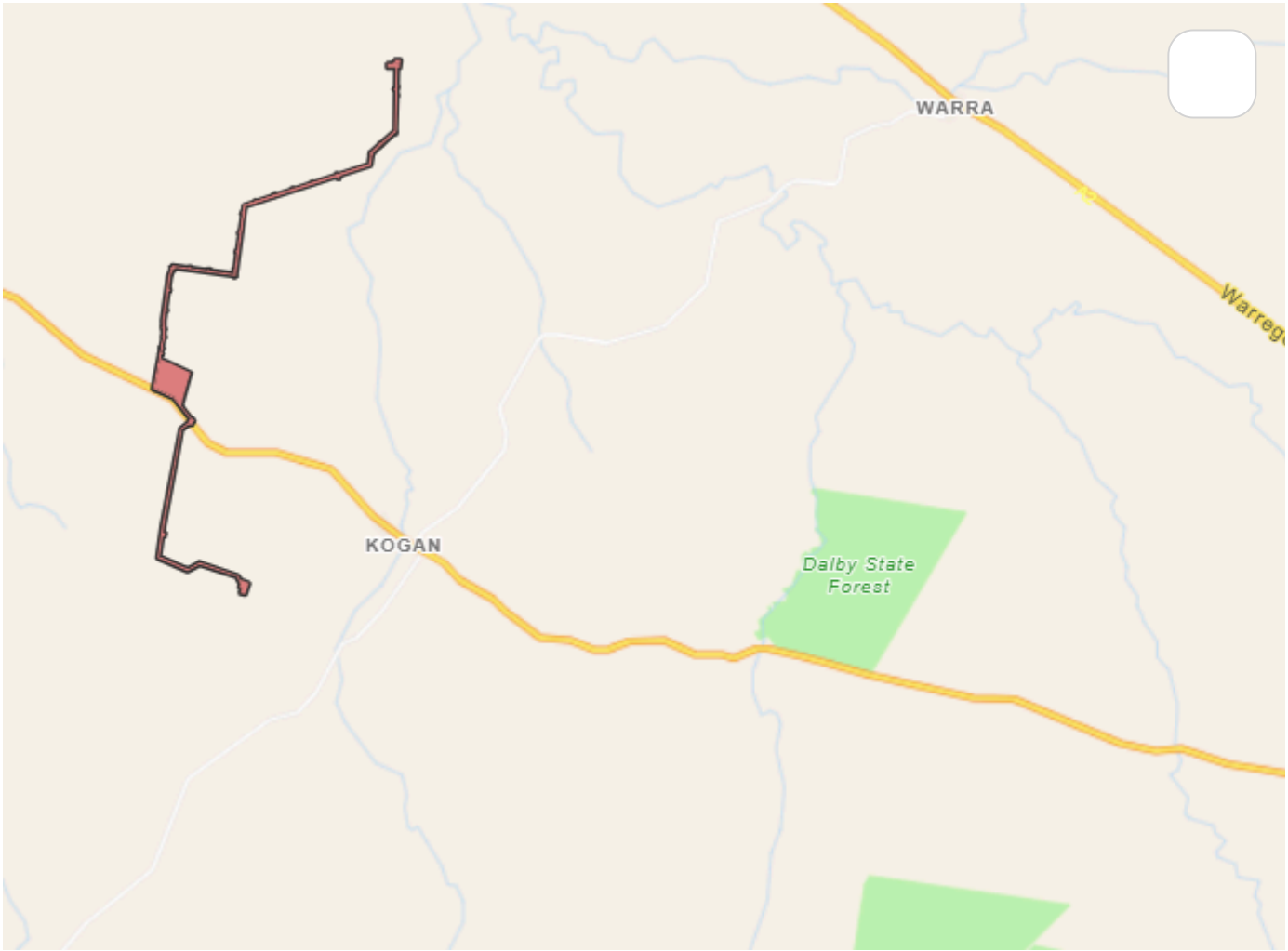
1.4 Payment details: Payment allocation

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



Maptaskr © 2024 -27.049159, 151.036276

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

Project area: 184.12 Ha
Disturbance footprint: 184.12 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Access will be via 1039 Banana Bridge Road, Brigalow

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

Queensland

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

No

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

The project area will affect primarily freehold properties, although a number of infrastructure leases, easements and state and local owned road parcels will also be traversed, including Smiths Road, North Kogan Road, Kogan Condamine Road and R Clarks Road. The project area is located across a number of

coal seam gas petroleum leases and a coal mining lease at the northern end. Geothermal, mineral development and coal exploration permits are also traversed by the project alignment, north of the Kogan Condamine Road.

A separate construction licence will be sought for the ROW and a PPL and associated easements will be sought for the operation of the pipeline, along with road crossing permits from the relevant roads authorities.

3. Existing environment

3.1 Physical description

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

The project will be located approximately 9 km south of the township of Brigalow and 5 kms north-west of the town of Kogan (refer **Att A – Location of the project**), entirely within the Inglewood Sandstone subregion of the Brigalow Belt South Bioregion. The region experiences a mean annual rainfall of generally less than 500 millimetres (**mm**) and mean temperature ranges from 19.8 degrees Celsius (**oC**) during winter to 32.6oC during summer months. All references to information sources used in the preparation of this Referral form are provided in the reference list in **Att B – Ecological Assessment Report, Section 11, page 119**..

The project area is located predominantly in the Rural Zone, with the exception of a transmission line easement in the north and Lot 6 on DY532, at the northern end of the project area, which is mapped as a Community Facilities Zone, within the Western Downs Regional Council Planning Scheme 2017 and currently supports the Kogan Creek Power Station.

The project area traverses a mosaic of cleared and vegetation properties, and dissects a number of cleared fence lines, transmission and powerline easements, access tracks, dams and local and state controlled road corridors. The landscape in which the project area is located has undergone a history of disturbance in the form of land clearing for agricultural purposes, exploration, infrastructure development. While some properties remain largely cleared, others exhibit varying degrees of regrowth and some have retained a relatively intact and contiguous native remnant vegetation cover. Vegetation is broadly characterised by mixed eucalypt woodland with *Acacia* and *Allocasuarina*/*Casuarina* species on Cainozoic sand plains and lateritic duricrust.

A number of 1st and 2nd order watercourses are dissected by the alignment, including Sixteen Mile Creek, located centrally within the project alignment (refer **Att E – Land uses surrounding the project**). There are also a number of property dams (permanent and ephemeral) located within or adjacent to the project area.

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

The land on which the project is proposed historically and continues to comprise largely agricultural properties used for grazing or rural residential purposes. More recent land uses have included natural resource extraction (gas and coal), and natural gas and energy production and distribution infrastructure including the Kogan Creek Power Station, Kogan Creek Coal Mine and Western Downs Substation. A number of transmission line, power line and gas pipeline easements are traversed by or sit adjacent to the project and property access tracks criss-cross the landscape between dams, dwellings and wells.

The Western Downs Green Power Hub is a 460-megawatt solar farm covering approximately 1,545 ha located immediately west of the project at the western end of North Kogan Road (refer **Att E – Land uses surrounding the project**).

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

There are no outstanding natural features or unique natural values within or immediately adjacent to the project area.

There are no protected areas within or adjacent to the project area, the nearest of which being, Dalby and Braemar State Forests, located approximately 15 km east and south east respectively, as well as the Chinchilla Rifle Range Nature Refuge approximately 15 km north-north-west of the project area (refer in **Att A – Project Location**).

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 project is located in the Kogan region, on the inland western slopes of the Great Dividing Range. The project area sits on the edge of broad alluvial plains associated within the Condamine River, which is located approximately 2.3 km north of the northern end of the project area. Landform of the project area is characterised by generally flat areas, with low lateritic rises in the north, and gently undulating to gradual rising lateritic hills in the south. Topographic relief and landform was relatively consistent except where the project area intersected shallow ephemeral drainage channels and low rocky ridges. The elevation ranges from approximately 320 m at Sixteen Mile Creek located centrally within the project alignment to 350 m in the north and 370 m above sea level in the south of the project alignment.

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.

In order to describe the flora, fauna and vegetation values and potential habitats within the project area an ecological assessment was undertaken for the project. Further details of the survey methods and flora and fauna values identified and mapped within the project area are described in **Att B – Ecological Assessment Report, Section 3, page 9, Section 4, page 22, Section 5, page 43 and Section 6, page 57**.

ECOLOGICAL COMMUNITIES

Vegetation communities in the project area largely comprise mixed eucalypt woodland with *Acacia* and *Allocasuarina*/*Casuarina* species on Cainozoic sand plains and lateritic duricrust. Remnant and high-value regrowth Regional Ecosystems (**REs**) were identified within and adjacent to the project area, comprising primarily REs 11.5.1/a, 11.5.20, 11.7.4 and 11.7.7. All vegetation, with the exception of two small patches of 'of concern' vegetation, are listed as 'least concern' under the VM Act. Vegetation communities recorded in the project area are described in **Att B – Ecological Assessment Report, Section 4.3, page 23 and Figures 6-1 to 6-7**. The ecological assessment for the project found that one vegetation community occurring in close proximity to the project area corresponds in diagnostic characteristics and condition thresholds to the Poplar Box Grassy Woodland on Alluvial Plains (**Poplar Box Grassy Woodland**) threatened ecological communities (**TECs**) listed under the EPBC Act. However, the closest edge of this TEC is located at least 15 m east of the project and not located within the project area (of relevance, the maximum Tree Protection Zone (**TPZ**) under the Australian Standard - Protection of Trees on Development Sites (AS4970 2009) is 15 m – as such no impacts are envisaged to trees within the TEC). No TECs were identified in the project area and none are likely to occur in the project area.

FLORA VALUES

Database searches for the project area and surrounding areas (including a 10 km buffered search area) identified 11 significant flora species as potentially occurring in the search area, including 8 listed as vulnerable or endangered under the EPBC Act. All database search results are provided in **Att B – Ecological Assessment Report, Attachment 1**. The *EPBC Act Protected Matters Search Report* is provided in **Att F –EPBC Act Protected Matters Search Report**, created 13 July 2024.

A total of 248 native and 11 exotic flora species were recorded during the field surveys. **Att B – Ecological Assessment Report,Attachment 2** provides a list of flora identified during the field surveys. Two of these exotic species (velvety tree pear (*Opuntia tomentosa*) and common pest pear (*O. stricta*)) are listed as Restricted under the Queensland Biosecurity Act and as a Weed of National Significance (**WoNS**). No threatened or near threatened flora species were identified during the field surveys and it is unlikely that any species returned form database searches would be present in the project area due to the absence of potentially suitable underlying geology, soils, terrain and vegetation assemblages and/or lack of detection of relatively distinctive species during the field surveys. An assessment of likelihood for threatened flora species to occur in the project area is provided in **Att B – Ecological Assessment Report, Attachment 3**.

THREATENED FAUNA VALUES

Habitats in the project area are considered as being in low to moderate condition, whereby significant tracts of vegetation and habitats have been historically cleared, with some areas exhibiting regrowth of varying age and quality, and ongoing land use and management in the local area resulting in a persistent

disturbance to some extent. Habitats include predominantly eucalypt and *Acacia* woodlands, with a generally shrubby understory and sparse grassy ground layer. Weed infiltration is very low and concentrated. Microhabitat features including hollows, fallen timber and raked log piles (evidence of historical clearing), and deep leaf litter were frequently encountered particularly within remnant areas. Topographic relieved and landform is relatively consistent throughout the project area, with exception of shallow ephemeral drainage channels that intersect the alignment and low rocky rises in the north and south. The landscape in which the project is located is somewhat fragmented, particularly to the west, although large tracts of connective vegetation persist.

Database searches identified 36 significant fauna species as potentially occurring in the search area, including 33 animals listed as threatened under the EPBC Act and another 8 listed under the migratory provisions of the Act. The database search results are provided in **Att B – Ecological Assessment Report**, **Attachment 1** and **Att F - EPBC Act Protected Matters Search Report**.

Field surveys recorded 135 native fauna, and 5 introduced species, including 95 birds, 15 reptiles, 23 mammals and 7 amphibians. **Att B – Ecological Assessment Report, Attachment 4** provides a list of flora identified during the field surveys. An assessment of likelihood for threatened and migratory fauna species to occur in the project area is provided in **Att B – Ecological Assessment Report, Attachment 5**. This assessment found the potential for eight EPBC Act-listed fauna to occur in the project area, due to the presence of potentially suitable, although in some cases marginal habitat in the project area. Some of these species do not have a high likelihood to occur, due to the absence of key habitat features or marginal habitat characteristics and/or scarcity of records in the region. It is quite possible these species do not use the habitat in the project area, however, their presence cannot be ruled out at this stage. Another two NC Act listed species were identified in the project area. These species are listed below and discussed in more detail in **Att B – Ecological Assessment Report,Section 5.3.1, page 46**:

Present in the project area –

- short-beaked echidna (*Tachyglossus aculeatus*) – not listed (EPBC Act), specialist least concern (NC Act)
- golden-tailed gecko (*Strophurus taenicauda*) – not listed (EPBC Act), near threatened (NC Act)

Likely to occur in the project area –

- Koala (*Phascolarctos cinereus*) – endangered (EPBC Act & NC Act)

Possibly occur in the project area –

- southern whiteface (*Aphelocephala leucopsis*) – vulnerable (EPBC Act & NC Act)
- south-eastern glossy black cockatoo (*Calyptorhynchus lathami lathami*) – vulnerable (EPBC Act & NC Act)
- squatter pigeon (southern) (*Geophaps scripta scripta*) – vulnerable (EPBC Act & NC Act)
- white-throated needletail (*Hirundapus caudacutus*) - vulnerable (migratory) (EPBC Act & NC Act)
- diamond firetail (*Stagonopleura guttata*) – vulnerable (EPBC Act & NC Act)
- Corben's long-eared bat (*Nyctophilus corbeni*) – vulnerable (EPBC Act & NC Act)
- Dunmall's Snake (*Furina dunmalli*) – vulnerable (EPBC Act & NC Act).

MIGRATORY FAUNA VALUES

No migratory birds were identified in the project area, although the fork-tailed swift (*Apus pacificus*) was recorded calling as part of studies for other projects in the region, as described in **Att B – Ecological Assessment Report, Section 5.3.3, page 55 and Section 8.1, page 60**, and assessment of the likelihood for other migratory species to use the project area found another four migratory birds possibly occur, including the white-throated needletail, Oriental cuckoo (*Cuculus optatus*), satin flycatcher (*Myiagra cyanoleuca*) and rufous fantail (*Rhipidura rufifrons*).

Potential habitat in the project area is characterised by forested communities that generally align with the broad important habitat descriptions for these species as outlined in the *Draft EPBC Act referral guidelines for 14 birds listed as migratory under the EPBC Act* (**Referral guideline for 14 migratory species**). Although, the satin flycatcher and rufous fantail may use habitats in the project area infrequently during migratory movements as habitats are potentially drier and more open than preferred by these species. The project provides potential:

- overfly habitat for white-throated needletail
- overfly habitat for fork-tailed swift
- forested habitat for Oriental cuckoo
- forested habitat for satin flycatcher
- forested habitat for rufous fantail.

The project area is unlikely to support an ecologically significant proportion of a population of any of these species, as evidence of these types of large, significant populations would be apparent presently and historically in desktop data or field observations. The occurrence of migratory species potentially using the project area is discussed in **Att B – Ecological Assessment Report, Section 5.3.3, page 55 and Attachment 5**.

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

Five geological units characterise the project area, with Qs-SQ and Kumbarilla beds being most prominent and Springbok Sandstone present at the northern end of the project area. Soils generally comprise gently undulating plains of hard pedal mottled-yellow duplex soils with minor encroachment of firm shallow siliceous loams on low hills and dissected low ranges in the far south of the project. Further details about soils and geology is provided in **Att B – Ecological Assessment Report, Section 4.1, page 22 and Figure 3**.

The project is proposed to be located within or adjacent to large tracts of remnant vegetation, largely comprising mixed eucalypt woodland. Similar vegetation is mapped by the Queensland Government for the broader area. However, the region has experienced a history of disturbance, in the form of land clearing and fragmentation for agricultural purposes, natural resource exploration, mining/extraction and infrastructure development. Evidence of this is present in the form of cleared areas, regrowth of varying stages and raked log piles, particularly in the southern portion of the project area. Eight REs were mapped within the project area during the field surveys and are shown in **Att B – Ecological Assessment Report, Section 4.3, Table 7, page 23 and Figures 6-1 to 6-7** . These REs are described as:

- RE 11.3.4 – *Eucalyptus tereticornis* and/or *Eucalyptus* spp. woodland on alluvial plains
- RE 11.5.1/a – *Eucalyptus crebra* open forest on Cainozoic sand plains
- RE 11.5.4 – *Eucalyptus chloroclada* woodland on Cainozoic sand plains and/or remnant surfaces
- RE 11.5.20 – *Eucalyptus woollsiana* open forest on Cainozoic sand plains
- RE 11.7.2 – *Acacia* spp. woodland on Cainozoic lateritic duricrust. Scarp retreat zone
- 11.7.4 – *Eucalyptus crebra* woodland on Cainozoic lateritic duricrust
- 11.7.6 – *Corymbia citriodora* and *Eucalyptus crebra* woodland to open woodland on Cainozoic lateritic duricrust
- RE 11.7.7 – *Eucalyptus fibrosa* subsp. *nobilis* open forest on Cainozoic lateritic duricrust.

RE 11.5.1 was most dominant within the project area and adjacent areas. The EPBC Act Protected Matters Search Report identified five TECs as known or likely to occur within the search area (refer **Att F – EPBC Act Protected Matters Search Report**), including:

- Brigalow (*Acacia harpophylla* dominant and co-dominant)

- Coolibah – Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions
- Natural grasslands on basalt and fine textured alluvial plains of northern New South Wales and southern Queensland
- Poplar Box Grassy Woodland on Alluvial Plains
- Weeping Myall Woodlands .

None of the communities identified in the project area were found to meet key diagnostic criteria and condition thresholds for any TECs listed under the EPBC Act. However, one community, represented by RE 11.3.2, which occurred 15 m east of the project area was found to represent the key diagnostic criteria and condition thresholds of the Poplar Box Grassy Woodland TEC. This TEC does not occur within the project area.

All of the REs identified in the project area, except RE 11.3.4, have a VM Act status of least concern and biodiversity status of no concern at present. RE 11.3.4 has an of concern VM Act and biodiversity status. Most REs were found to be present in remnant condition (i.e. the dominant canopy has greater than 70% of the height and greater than 50% of the cover relative to the undisturbed height and cover of that stratum and dominated by species characteristic of the vegetation's undisturbed canopy), however, REs 11.5.1/a, 11.5.4, 11.7.4, 11.7.6 and 11.7.7 were also present as high-value regrowth (i.e. did not exhibit remnant characteristics but have not been cleared for at least 15 years). Overall, weed diversity, abundance and distribution is relatively low within the project area potentially as a result of the skeletal soils found in the region, however, cleared and disturbed areas are prone to erosion. Further information about vegetation identified in the project area and the methods by which vegetation was characterised is provided throughout **Att B – Ecological Assessment Report, Section 2.5, page 7, Section 3.2.2, page 12 and Section 4, page 22.**

Nonetheless, the vegetation communities (remnant and regrowth) within the project area remain connected with larger tracts of contiguous remnant vegetation to the east, south and south-west, despite these broader intact areas being subject to relatively intense natural gas exploration and development activities.

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.

There are no Commonwealth listed Heritage Places on the Australian Heritage Database within or immediately adjacent to the project area.

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

The project area is located on Barunggam country. The Barunggam People, alongside Everick Heritage and ACS, undertook an Aboriginal Cultural Heritage Assessment (**ACHA**) over the area proposed for the construction of the project between December 2023 and August 2024. The assessment allows for appropriate cultural heritage management strategies to be implemented during the design and construction stages of the project. An ACHA report has been prepared for the project and can be provided to the Department upon request, due to the sensitive nature of the content, the ACHA report cannot be published.

3.4 Hydrology

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

The project area is located within the Balonne-Condamine catchment of the Murray-Darling Basin. The project traverses the catchments of Kogan Creek and Sixteen Mile Creek, which ultimately join the Condamine River approximately 2.3 km north-east and 31 km north-west of the project, respectively. Several smaller 1st and 2nd order watercourses or drainage features, including a tributary of Sixteen Mile Creek, are mapped as intersecting with the project alignment, all being ephemeral and dry at the time of the field surveys (conducted in mid-December 2023 and June and July 2024). These waterways/drainage features are recognised in Queensland Government mapping as providing for fish passage, although due to their small, and ephemeral nature are unlikely to provide permanent aquatic habitat.

A number of permanent and ephemeral property dams were recorded within or adjacent to the project area and can be seen on aerial photography within close proximity to the project area.

The EPBC Act Protected Matters Search Report for a search area encompassing the project, identified four Ramsar Sites within proximity of the project area, including:

- Banrock station wetlands complex
- Narran lake nature reserve
- Riverland
- The coorong, and lakes alexandrina and albert wetland.

The closest of these is the Narran Lake Nature Reserve, located approximately 400-500 km downstream, south-west of the project area in northern New South Wales. The remaining wetlands are between 1,100 km and 1,400 km downstream of the project area. The full EPBC Act Protected Matters Search Report for the project area is included at **Att F – EPBC Act Protected Matters Search Report**.

4. Impacts and mitigation

4.1 Impact details

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

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

4.1.1 World Heritage

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

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

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

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

No

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

No World Heritage areas are located within close proximity to the project area. The project will not have a direct or indirect impact on World Heritage matters.

4.1.2 National Heritage

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

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

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

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

No

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

No National Heritage matters are located within close proximity to the project area. The project will not have a direct or indirect impact on National Heritage matters.

4.1.3 Ramsar Wetland

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

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

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

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

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

No

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

Although a number of Ramsar wetlands have been identified as occurring downstream of the project, the nearest is at least 400 km downstream. The nature and scale of disturbance proposed as part of the project is relatively localised and can be reasonably managed and contained within the immediate project footprint, particularly due to the small order and ephemeral nature of the drainage features intersected by the project. Any indirect disturbance extending beyond the project footprint is likely to be minor, also small in scale, temporary and also relatively simply managed using industry accepted measures. Therefore, the project is not expected to have such far reaching impacts as to affect wetland values 400 km downstream. An assessment of impacts of the project on watercourse vegetation and waterways is described in **Att B – Ecological Assessment Report, Section 10.2.1, page 109-111 and Section 10.2.4, page 114-115**.

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	Adclarkia cameroni	Brigalow Woodland Snail
No	No	Adclarkia dulacca	Dulacca Woodland Snail
No	No	Anomalopus mackayi	Five-clawed Worm-skink, Long-legged Worm-skink
Yes	Yes	Aphelocephala leucopsis	Southern Whiteface
No	No	Cadellia pentastylis	Ooline
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
Yes	Yes	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo
No	No	Chalinolobus dwyeri	Large-eared Pied Bat, Large Pied Bat
No	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
No	No	Dasyurus hallucatus	Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu]
No	No	Delma torquata	Adorned Delma, Collared Delma
No	No	Dichanthium setosum	bluegrass
No	No	Egernia rugosa	Yakka Skink
No	No	Erythrotriorchis radiatus	Red Goshawk
No	No	Falco hypoleucos	Grey Falcon
Yes	Yes	Furina dunmalli	Dunmall's Snake
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
Yes	Yes	Geophaps scripta scripta	Squatter Pigeon (southern)
No	No	Grantiella picta	Painted Honeyeater
No	No	Hemiaspis damelii	Grey Snake
Yes	Yes	Hirundapus caudacutus	White-throated Needletail

Direct impact	Indirect impact	Species	Common name
No	No	Homopholis belsonii	Belson's Panic
No	No	Lathamus discolor	Swift Parrot
No	No	Lepidium monoplocoides	Winged Pepper-cress
Yes	Yes	Nyctophilus corbeni	Corben's Long-eared Bat, South-eastern Long-eared Bat
No	No	Petauroides volans	Greater Glider (southern and central)
No	No	Petaurus australis australis	Yellow-bellied Glider (south-eastern)
Yes	Yes	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
No	No	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Rostratula australis	Australian Painted Snipe
Yes	Yes	Stagonopleura guttata	Diamond Firetail
No	No	Turnix melanogaster	Black-breasted Button-quail
No	No	Xerothamnella herbacea	

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions
No	No	Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland
No	No	Poplar Box Grassy Woodland on Alluvial Plains
No	No	Weeping Myall Woodlands

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

Yes

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

The project will involve vegetation clearing, landform modification and loss and disturbance to habitats as part of construction of the project for the 40 m wide ROW and development of access tracks, laydown areas and a construction camp. This direct disturbance will require approximately 55.05 ha of vegetation clearing, including 46.4 ha of remnant and 8.65 ha of high-value regrowth vegetation. As a result of this disturbance there is also the potential for injury to fauna to occur. In addition to vegetation clearing, earthworks associated with site preparation, trenching and backfilling has the potential to cause direct injury to fauna.

Construction and maintenance activities have the potential to contribute additional indirect disturbance to vegetation and habitats in the form of; landscape fragmentation and edge effects of remaining patches of vegetation, erosion of cleared landscape and drainage features and sedimentation of watercourses and drainage features, contamination of watercourses with fuels, oils, and other hazardous materials used on site, introduction and spread of exotic flora and fauna, noise, air and light impacts and bushfire risk.

These direct and indirect activities have the potential to impact a number of MNES that are known or potentially occur within the project area, as follows (note, areas overlap):

- 55.05 ha of potential habitat for koala (*Phascolarctos cinereus*) – endangered
- 55.05 ha of overfly habitat for white-throated needletail (*Hirundapus caudacutus*) – vulnerable/migratory
- 55.05 ha of potential foraging habitat (including 46.4 ha potential breeding habitat) for south-eastern glossy black-cockatoo (*Calyptorhynchus lathami lathami*) – vulnerable
- 49.16 ha of potential foraging habitat (including 42.81 ha of potential breeding habitat) for squatter pigeon (southern) (*Geophaps scripta scripta*) – vulnerable
- 46.4 ha of potential habitat for diamond firetail (*Stagonopleura guttata*) – vulnerable
- 46.4 ha of potential habitat for southern whiteface (*Aphelocephala leucopsis*) – vulnerable
- 55.05 ha of potential foraging habitat (including 46.4 ha potential breeding/shelter habitat) for Corben's long-eared bat (*Nyctophilus corbeni*) – vulnerable
- 46.4 ha of potential habitat Dunmall's snake (*Furina dunmalli*) – vulnerable.

No direct or indirect impacts to significant flora or TECs are proposed as part of the project.

An assessment of the likelihood for threatened species and communities to occur in the project area is provided in **Att B – Ecological Assessment Report, Section 4.4, page 38, Section 4.6, page 41 and Section 5.3, page 44 and Attachments 3 and 5**. A description of the potential impacts of the project on MNES is described in more detail in **Att B – Ecological Assessment Report, Section 9, page 62-74**.

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

Yes

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

In accordance with the EPBC Act Significant Impact Guidelines the project has the potential to result in a significant residual impact to five species, dual listed under the EPBC Act and NC Act, including the:

- Koala (*Phascolarctos cinereus*)
- squatter pigeon (southern) (*Geophaps scripta scripta*)
- diamond firetail (*Stagonopleura guttata*)
- southern whiteface (*Aphelocephala leucopsis*)
- Dunmall's snake (*Furina dunmalli*).

A significant residual impact to these species is possible due to the:

- endangered status of some species and the potential for the impact to interfere with the recovery of these species, i.e. koala
- substantial habitat clearing proposed, including of potential nesting and foraging resources, in excess of 40 ha
- potential importance of populations of vulnerable species that may be present, i.e. diamond firetail, southern whiteface, squatter pigeon (southern), Dunmall's snake.

Assessment of the project against the Significant Impact Guidelines has found that a significant impact is unlikely to occur to the white-throated needletail (*Hirundapus caudacutus*), south-eastern glossy black-cockatoo (*Calyptorhynchus lathami lathami*) and Corben's long-eared bat (*Nyctophilus corbeni*). A significant impact to these species from the project is considered unlikely due to:

- the marginal quality of potential habitats present in the project area and adjacent areas
- vulnerable species' unlikely being present as important populations, i.e. Corben's long-eared bat
- the project not impacting critical habitat for these species or interfering substantially within the recovery of these species.

Further description about the potential significance of impacts of the project to MNES is provided in **Att B – Ecological Assessment Report, Section 10, page 75** including assessment of each species using the EPBC Act Significant Impact Guidelines.

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

Yes

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

Due to the extent of clearing proposed for the project, and which will result in long-term impacts to vegetation communities and habitats, there is potential for the project to have significant residual impact on five MNES (threatened species). **Att B – Ecological Assessment Report, Section 10, page 75** outlines some of the five threatened species potentially impacted by the project, their presence/absence in the area in which the project is proposed, has not been confirmed. Therefore, a precautionary approach to their assessment has been undertaken. The habitats proposed to be cleared are potentially critical to the survival of some species and for some species, a local population would be important, if present. Therefore, the project/proposed action is likely to be 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. *

The project has been designed to avoid MNES and minimise impacts to MNES where possible through easement realignment, sensitive construction methods, active management of fauna and habitats during vegetation clearing and earthworks/trenching, measures to minimise indirect impacts during construction and rehabilitation of temporarily disturbed areas.

A number of alignment options were investigated as part of initial fields surveys and some of these options abandoned due to the presence of sensitive ecological features, particularly endangered ecological communities. Additionally, siting of ancillary construction areas has drawn on ecological constraints identified during the field work, to be largely located in existing cleared and disturbed areas and access will take advantage of existing roads and property tracks to minimise the extent of additional track clearing.

Horizontal directional drilling or horizontal boring methods will be used for utility and infrastructure crossings and Queensland Government mapped Environmental Offsets areas (Category A Regulated Vegetation) in the northern section of the project.

For the vegetation and habitats that could not be avoided, a number of measures are proposed to minimise and manage impacts during construction and operation of the project and particularly vegetation clearing and earthworks components of the project, including:

- implementation of Queensland DESI approved species management program (**SMP**) under the Queensland NC Act
- pre-clearance surveys
- management of vegetation clearing and earthworks under the direction of a spotter/catcher
- management of koalas during vegetation clearing as per the Queensland *Nature Conservation (Koala) Conservation Plan 2017* to minimise direct impacts on individuals
- short-term and sequential open trenching, backfilling, dewatering and regular monitoring of trenches and open pipelines for fauna
- enforced speed limits
- sediment and erosion controls, including restricting works to dry periods, particularly around watercourses and drainage features
- weed hygiene and management measures
- standard industry accepted noise attenuation, sensitive lighting, dust minimisation and suppression techniques
- rehabilitation of temporary disturbance areas within the ROW and in ancillary construction areas, including reshaping and re-profiling of contours particularly around drainage features, and reinstatement of micro-habitat features.

Further information about avoidance, mitigation and impact minimisation measures proposed for this project area provided in **Att B – Ecological Assessment Report**, **Section 9.5, page 69-74**, and specifically for the koala, in of **Att B – Ecological Assessment Report, Section 10.1.1, page 77-81**. For the koala the following measures will be implemented:

- sequential clearing in stages or no more than 3 ha, or 3 %, of the site cleared in each stage
- ensuring periods of no clearing between stages of clearing
- maintaining links of movement of koalas during clearing
- leaving trees with koalas present and those trees with overlapping crowns until the animal moves on, to minimise disturbance to individuals.

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

It is acknowledged that offsets are likely to be required for this project, and therefore a biodiversity offset strategy and offset management plan would also be required. There has been no formal assessment of offsets as part of this project at this stage, however, the proponent is investigating offset opportunities and is in consultation with land owners in the region.

4.1.5 Migratory Species

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

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

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

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

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

Yes

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

The project will involve vegetation clearing, landform modification and loss and disturbance to habitats as part of construction of the project for the 40 m wide ROW and development of access tracks, laydown areas and a construction camp. This direct disturbance will require approximately 55.05 ha of vegetation clearing,

including 46.4 ha of remnant and 8.65 ha of high-value regrowth vegetation. As a result of this disturbance there is also the potential for injury to fauna to occur. In addition to vegetation clearing, earthworks associated with site preparation, trenching and backfilling has the potential to cause direct injury to fauna.

Construction and maintenance activities have the potential to contribute additional indirect disturbance to vegetation and habitats in the form of; landscape fragmentation and edge effects of remaining patches of vegetation, erosion of cleared landscape and drainage features and sedimentation of watercourses and drainage features, contamination of watercourses with fuels, oils, and other hazardous materials used on site, introduction and spread of exotic flora and fauna, noise, air and light impacts and bushfire risk.

These direct and indirect activities have the potential to impact approximately 46.4 ha of potential habitat for migratory birds that are known or potentially occur within the project area.

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. *

The project is unlikely to result in a significant impact to a migratory species, because in accordance with the Referral guideline for 14 migratory species:

- the clearing of approximately 46.4 ha of potential habitat is unlikely to involve important habitats or exceed the nationally significant thresholds (i.e. ≥340 ha) for clearing of important habitats, due to the common and widespread nature of the majority of communities that occur in the project area; and
- the project will not seriously disrupt the lifecycle of an ecologically significant proportion of a population, as these are unlikely to be present in the project area or surrounding areas.

Att B – Ecological Assessment Report, Section 10.1.3, page 105-109 of provides an assessment of impacts to migratory species in consideration of the Referral guideline for 14 migratory species.

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

No

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

The project is unlikely to result in a significant residual impact to a migratory species, due to the unremarkable value of the habitats in the project area for any migratory species and the lack of important habitat or ecologically significant proportions of a population of any given migratory species.

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. *

As outlined in Section 4.1.4.10 of this Referral form, design and sighting phases of this project have resulted in avoidance of impacts to ecologically important areas where possible and use of existing disturbed or cleared areas for construction purposes. However, permanent impacts are unavoidable for the construction and safe operation of the pipeline itself and therefore, a number of measures will be implemented during construction, operation and maintenance activities to minimise and manage potential residual impacts. These are described in **Att B – Ecological Assessment Report, Section 9.5, pages 69-74**.

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

No offsets are proposed for impacts to migratory species as the project has been assessed as unlikely to result in a significant residual impact to migratory species.

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 project does not involve or relate to nuclear activities.

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 does not occur within or in close proximity to any Commonwealth Marine Area. There will be no direct or indirect impacts to Commonwealth Marine Areas.

4.1.8 Great Barrier Reef

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

No

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

The project does not occur within or in close proximity to the Great Barrier Reef Marine Park and is not located within any Great Barrier Reef catchments. There will be no direct or indirect impacts to the Great Barrier Reef.

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 project does not involve a water resource in relation to large coal mining or coal seam gas development. Although the project alignment will traverse a number of watercourses/drainage features, these are ephemeral and measures, including limiting works within waterways to dry periods, and rehabilitating contours and landforms, will be taken during the construction and operation of the project to minimise impacts to the structural integrity, water quality and riparian communities associated within these watercourses. Furthermore, the project will not generate, take or interfere with groundwater in any way

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 is not proposed within or in close proximity to Commonwealth Land. There will be no direct or indirect impacts to Commonwealth Land.

4.1.11 Commonwealth Heritage Places Overseas

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

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

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

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

No

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

The project is located in Queensland and will not impact directly or indirectly any Commonwealth heritage places overseas.

4.1.12 Commonwealth or Commonwealth Agency

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

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

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

- Threatened Species and Ecological Communities (S18)

Conclusion on the likelihood of unlikely significant impacts

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

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)

- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

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

Yes

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

No

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

The project will supply renewable hydrogen and natural gas fuel to the proposed BPPP project. The BPPP was an action outlined in the Queensland Energy and Jobs Plan to provide crucial ‘firming’ capacity to support and address the variability of more renewable energy generation entering the grid in Queensland, and is required to be operational by the middle of 2026. Further information about the need for the BPPP is in the link at **Att G – CS Energy Website**.

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

No

4.3.5 Briefly describe why an alternative location for your proposed action was not possible. *

The location of the project is constrained by the location of the BPPP project and the Roma to Brisbane Pipeline. The Kogan area is earmarked for development as a clean energy hub, that takes advantage of the region, including an existing highly skilled workforce, large amounts of potentially available land, excellent connection with infrastructure, including the power grid, and existing community relations. The BPPP will connect with the Banana Bridge substation, requiring only a few hundred metres of transmission line. Information about the BPPP and green energy hub can be found in the link at **Att G – CS Energy Website**.

The intent of project planning was to identify the most direct, ecologically sensitive, cost effective and technically feasible alignment between the existing Roma to Brisbane Pipeline and proposed BPPP project. Alternative sections of the initial project alignment were investigated as part of ecology and cultural heritage surveys and focussed on areas in the far northern and far southern portions of the project area. Some of these areas were found to exhibit contiguous and better quality intact remnant communities, including a polygon of Brigalow TEC, and stretch of intact watercourse and some areas were more disturbed although did not meet property owner constraints.

While mapping and calculations were not undertaken for alternative sections, these were found to be less favourable for further investigation and in combination with outcomes of property negotiations and existing infrastructure constraints were not progressed. Furthermore, the types of impacts and mitigation measures required for alternative options in the local area would not substantially differ, due to the close proximity to these less feasible alternatives.

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

No

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

The project is required to supply renewable hydrogen and natural gas fuel to the BPPP to allow operation. The BPPP fuelled with the mixed hydrogen and natural gas will have flexible, fast-start capability and will operate in high demand periods to support variable solar and wind energy and underpin energy security for Queenslanders. Without this unique blended fuel supply, the BPPP will not operate as intended and meet its specific energy security purpose. Further information about the need, technology and benefits of the BPPP project and mixed fuel supply can be found at the link at **Att G – CS Energy Website**.

4.3.4 Alternatives: Impact and mitigation

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

No

4.3.5 Alternatives: Considered alternatives

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

Yes

4.3.5.2 Describe the details of this possible alternative that you have considered but are not proposing. *

An alternative to the proposed action, is not undertaking the action. The implications of this alternative are:

- objectives and key actions of the Queensland Energy and Jobs Plan will not be met
- firming capacity to support variability of renewable energy generation will not be achieved, i.e. by using gas firming infrastructure in the interim
- energy security requirements of the Queensland and East Coast Grid will not be realised
- Queensland Government green energy targets and energy transition away from coal, towards more renewable resources may be delayed at least in the short term to medium term.

Considering these implications, this is not considered a feasible alternative.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A - Project Location.pdf Location of project as described.	28/08/2024	Nil	High

1.2.6 Commonwealth or state legislation, planning frameworks or policy documents that are relevant to the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att B - Brigalow Pipeline Project_EAR_Rev1.1.pdf Ecological Assessment Report for Brigalow Pipeline Project	11/11/2024	No	High

1.2.7 Public consultation regarding the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att C - Stakeholder consultation list .pdf Stakeholder consultation list, and consultation outcomes to date.	13/11/2024	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att D - APA Environment Policy.pdf APA Operations wide Environmental Policy	01/01/2018	No	High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att B - Brigalow Pipeline Project_EAR_Rev1.1.pdf Ecological Assessment Report for Brigalow Pipeline Project	10/11/2024	No	High
#2.	Document	Att E - Surrounding Land uses.pdf Surrounding Landuses to the Brigalow Pipeline Project	30/08/2024	No	High

3.1.2 Existing or proposed uses for the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att E - Surrounding Land uses.pdf Surrounding Landuses to the Brigalow Pipeline Project	29/08/2024		High

3.1.3 Natural features, important or unique values that applies to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A - Project Location.pdf Location of project as described.	27/08/2024		High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att B - Brigalow Pipeline Project_EAR_Rev1.1.pdf Ecological Assessment Report for Brigalow Pipeline	10/11/2024	No	High

Project				
#2.	Document	Att F - Protected Matters - MNES layers - July 31st 2024.pdf Protected Matters Search Tool Outcomes	31/07/2024	High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att B - Brigalow Pipeline Project_EAR_Rev1.1.pdf Ecological Assessment Report for Brigalow Pipeline Project	10/11/2024	No	High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att F - Protected Matters - MNES layers - July 31st 2024.pdf Protected Matters Search Tool Outcomes	30/07/2024		High

4.3.3 Why an alternate timeline for your proposed action was not possible.

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Delivering Energy Today Powering Your Tomorrow https://www.csenergy.com.au/			High

4.3.5 Why an alternative location for your proposed action was not possible

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Delivering Energy Today Powering Your Tomorrow https://www.csenergy.com.au/			High

4.3.7 Why an alternative activity for your proposed action was not possible

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Delivering Energy Today Powering Your Tomorrow https://www.csenergy.com.au/			High

5.2 Declarations

Completed Referring party's declaration

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

ABN/ACN	123090933
Organisation name	APA OPERATIONS PTY LIMITED
Organisation address	2000 NSW
Representative's name	Alissa Roxburgh
Representative's job title	Environmental Approval Lead
Phone	07 35125988
Email	Alissa.roxburgh@apa.com.au
Address	L12, 80 Ann Street, Brisbane, Queensland, 4000

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

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

☑ By checking this box, I, **Alissa Roxburgh of APA OPERATIONS PTY LIMITED**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

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

✔ Completed Person proposing to take the action's declaration

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

Same as Referring party information.

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

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

☑ I, **Alissa Roxburgh of APA OPERATIONS PTY LIMITED**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a

serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

☑ I, **Alissa Roxburgh of APA OPERATIONS PTY LIMITED**, the Person proposing the action, consent to the designation of **Alissa Roxburgh of APA OPERATIONS PTY LIMITED** as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

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

✔ Completed Proposed designated proponent's declaration

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

Same as Person proposing to take the action information.

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

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

☑ I, **Alissa Roxburgh of APA OPERATIONS PTY LIMITED**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

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