Logan West Upgrade Project

Application Number: **02738** Commencement Date: **08/01/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Logan West Upgrade Project

1.1.2 Project industry type *

Transport - Land

1.1.3 Project industry sub-type

Road

1.1.4 Estimated start date *

01/07/2027

1.1.4 Estimated end date *

31/12/2030

1.2 Proposed Action details

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

Transurban Queensland (TQ), in collaboration with the Queensland Department of Transport and Main Roads (TMR), is proposing to upgrade 15 kilometres (km) of the western section of the existing Logan Motorway, between the Ipswich Motorway interchange (Formation Street) and the Mount Lindesay Highway interchange. The most significant part of these works is the provision of additional lanes over a 10 km extent between Mount Lindesay Highway and Centenary Highway. The proposed upgrade, being the Logan West Upgrade Project, is referred to as the Project (which is the Proposed Action for the purposes of the referral under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)). The Project is located within Logan approximately 18 km south of Brisbane in South East Queensland (SEQ).

TQ is a business that, among other things, operates and maintains the Logan Motorway under a concession granted by the State of Queensland. TQ performs these operations through a number of wholly owned subsidiary companies, including Queensland Motorways Pty Limited.
Accordingly, the Person proposing to take the action is Queensland Motorways Pty Limited. As such, where TQ is referred to throughout this form, this should be read as also referring to Queensland Motorways Pty Limited.

For more details refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 1.3, p. 2.**

The Logan Motorway is part of the National Land Transport Network as determined by the Commonwealth Minister for Infrastructure, Transport and Regional Development in the National Land Transport Network Determination 2020 under the *National Land Transport Act 2014* and considered nationally important road infrastructure.

The Logan Motorway is a key asset for TQ and has seen significant increases in traffic. When complete, the Project is forecast to reduce travel times by up to 20 minutes during peak periods in 2031 and remove around 6,100 vehicles from local streets (refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 2.1 and 2.2, pp. 3-4**).

The current Project concept design has been developed and refined to maximise use of existing disturbed areas (i.e. within the road median or built as close to the existing Motorway alignment as possible) and to either avoid or minimise vegetation clearing wherever possible.

A Project area has been established which incorporates the maximum disturbance footprint, including noise barriers, fauna exclusion and boundary fencing and construction facilities. The Project area comprises approximately 131 hectares (ha) and consists of Project design (permanent operational footprint of the Project, excluding the existing Logan Motorway and other existing hardstand areas) and construction footprint (temporary impact during construction only) (refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 3.1, pp. 12-23, Figure 3.1**). It is not envisaged that the Project will require the entire nominated Project area to be cleared. The Project area will be refined and reduced through detailed design and construction planning by the Design and Construction (D&C) Contractor, once appointed.

The Project works are as follows:

- In the eastbound Logan Motorway, widening from two to three lanes between the Centenary Highway eastbound entry ramp to the existing three lane section west of Mount Lindesay Highway (refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 2.4, p. 8, Figure 2.3**). Added lane between Boundary Road entry ramp and Centenary Highway exit ramp.
- In the westbound Logan Motorway:
    - Widening from two to three lanes between the existing three lane section west of Mount Lindesay Highway and the exit ramp to Centenary Highway
    - Widening from one to two lanes between Sandy Creek and Formation Street
    - Removing the traffic weave conflict between entry ramp from Formation Street and exit ramp to Brisbane Road

- Performance based ramp metering requirements on following entry ramps:
    - Southbound Centenary Highway into eastbound Logan Motorway
    - Northbound Centenary Highway into eastbound Logan Motorway
    - Northbound Centenary Highway into westbound Logan Motorway
    - Stapylton Road entry ramps into eastbound and westbound Logan Motorway
    - Paradise Road entry ramps into eastbound and westbound Logan Motorway
    - Northbound and southbound entry ramps from Mount Lindesay Highway into westbound Logan Motorway
    - Brisbane Road eastbound ramp
    - Boundary Road eastbound ramp
- Non-metered ramp for Formation Street westbound
- Upgrades to the following intersections to manage delays and queuing based on traffic analysis:
    - Formation Street southern and northern intersections
    - Stapylton Road ramp terminal intersections
    - Brisbane Road ramp terminal intersections (a new intersection for the Brisbane Road on-ramp)
    - Boundary Road ramp terminal intersections (if required, subject to detailed traffic analysis)
    - Paradise Road ramp terminal intersections (if required, subject to detailed traffic analysis)
- A new signalised intersection at the interface between the westbound Logan Motorway exit ramp to Brisbane Road and the westbound Logan Motorway entry ramp from Formation Street.

In addition to the scope listed above, the following additional items are also being considered for the reference design and are part of the assessment of the Project:

- Existing vertical clearance under the overpasses to be maintained as minimum, however increased vertical clearance to be provided for over size over mass vehicles (OSOM) where feasible by lowering the motorway pavement. New structures will provide increase clearance for OSOM vehicles
- New Intelligent Transport System (ITS) and sign gantries from the Ipswich/Brisbane Road overpass to the Mount Lindesay Highway
- A new bridge at Oxley Creek for the westbound Logan Motorway traffic and widening of the existing westbound bridge for the eastbound Logan Motorway traffic. The existing eastbound bridge for Logan Motorway traffic is proposed to be demolished.
- Retaining all overpass bridges and the Boundary Road underpass bridge
- New median and verge side road safety barriers
- Extending of existing culvert structures or replacing them if the existing structural condition is poor
- New pavement for widening areas and rehabilitation of existing pavement where feasible
- New retaining walls to minimise impact
- Protection and relocation of Public Utility Plant (PUP) assets
- Potential for new weighbridges at the Stapylton Road interchange (if required, subject to stakeholder requirements)
- New and modified noise barriers (subject to noise modelling)
- A new one-way road connecting Formation Street southern roundabout to Viking Drive to provide for the relocated Formation Street westbound on-ramp and Brisbane Road westbound off-ramp.

Refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 2.4 and 2.5, pp. 7-10** for further detail on Project activities.

TQ intend on procuring the construction of the Project through a design and construct contract model. The D&C Contractor will be responsible for developing the detailed design of the Project in an integrated manner to optimise construction to meet approval and performance specifications.

Potential impacts

Construction activities for the Project, such as clearing and grubbing of vegetation, excavation, provision of new lanes, culverts and bridge and drainage infrastructure, have the potential to result in the following direct impacts on MNES:

- Vegetation clearance and removal of conservation significant species habitat, including:
    - Coastal swamp sclerophyll forest threatened ecological community (TEC) (a direct loss of up to 0.26 ha)
    - Subtropical eucalypt floodplain forest TEC (a direct loss of up to 5.81 ha)
    - Greater glider (southern and central) habitat (direct loss of up to 34.62 ha)
    - Koala habitat (direct loss of up to 41.32 ha)
    - Spotted-tail quoll habitat (direct loss of up to 45.66 ha)
    - South-eastern glossy black-cockatoo habitat (direct loss of up to 35.84 ha)
    - Grey-headed flying-fox habitat (direct loss of up to 64.34 ha)
    - Yellow-bellied glider (south-eastern) habitat (direct loss of up to 14.35 ha).
- Fauna injury or mortality.

Potential indirect impacts to MNES include:

- Introduction and spread of invasive fauna and flora species
- Impact on plant-pollinator associations
- Localised and temporary change to surface water and to stormwater quality, such as from provision hardstand or redirection of runoff into stormwater treatment devices
- Increased bushfire risk
- Disturbance of conservation significant fauna due to increase in noise, vibration, lighting and dust.

A range of management and mitigation measures, both general and MNES specific, are proposed to avoid, and then mitigate the potential impact of the Project through the detailed design and construction stages.

Additional works not included in the Project

The Project the subject of this referral is limited to the construction phase of the Project. Early investigation works, including geotechnical investigations, contaminated land investigations, water quality monitoring, cultural heritage investigations and pavement and public utilities investigations are not the subject of this referral. These works are minor in nature, are being undertaken in previously cleared/accessible areas, and it has been concluded that the works will not have a significant impact on MNES. The above activities will be managed with the implementation of appropriate management measures in a suitable site investigation Environmental Management Plan (EMP).

All operational activities will be limited to maintenance works within already disturbed areas and will be managed by existing Environmental Management Plan (Operational) (EMP(O)) and as such, it has been concluded that the operational activities will not have a significant impact on MNES and are also excluded from the referral.

Refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 2.5, pp. 8-10** for further detail.

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? *

This section identifies the legislative requirements relevant to the Project.
Further detail is provided in **Att 1 - Matters of National Environmental Significance report_Part 1, Section 4, Table 4.1, pp. 41-44**.

Commonwealth:

- ***Environment Protection and Biodiversity Conservation Act 1999*** (EPBC Act) -
  For assessment of impacts on MNES, EPBC Act controlled action determination and approval (if required). The Project is being referred under the EPBC Act.
- ***Native Title Act 1993*** – Searches of the National Native Title Tribunal (NNTT) database have identified that the Project forms part of a wider area within the region that is subject to a Native Title Claim by Yuggera Ugarapul People which has been accepted for registration (NNTT Reference: QC2017/005). There is a small section of the Project that intersects with the Danggan Balun (Five Rivers) People Native Title claim (QC2017/007) that has been accepted for registration. The Project will undertake a Native Title Assessment to confirm whether or not the Project has the potential to impact on land for which Native Title has not been extinguished.

State:

- ***Biosecurity Act 2014*** – The Act provides biosecurity measures for the management of restricted and invasive plants or animals. The Project area is partially located within the Fire Ant Biosecurity Zone 2. A biosecurity instrument permit will be required for the movement of fire ant carrier materials to an area outside of the Fire Ant Biosecurity Zone 2. The Project will implement the general biosecurity obligation during construction as detailed in the Environmental Management Plan (Construction) (EMP(C)).
- ***Planning Act 2016*** (Planning Act) and its subordinate legislation – The Project is government supported transport infrastructure for the Planning Act, and therefore does not undergo assessment against local planning schemes. The Project will also not be assessable for vegetation clearing under the Planning Act and *Vegetation Management Act 1999*. These matters will be assessed as part of the Project assessment under the *Transport Infrastructure Act 1994*.
- ***Environmental Protection Act 1994*** *(EP Act)* – Under the EP Act all persons have a general environmental duty not to carry out an activity that causes or is likely to cause harm without taking all reasonably practicable measures to prevent or minimise the harm. The Project will be required to comply with the general environmental duty under the EP Act.
- ***Nature Conservation Act 1992*** – Portions of the Project area are mapped as containing a 'high risk' trigger area for protected plants. Prior to works commencing a protected plant survey will be required in accordance with the Flora Survey Guideline. The Project will also be required to obtain a Species Management Program (SMP) where tampering of an animal breeding place is necessary.
- ***Nature Conservation (Koala) Conservation Plan 2017*** (Koala Plan) – The Project will implement the relevant management measures from the Koala Plan within the Project area. This will include sequential clearing practices and clearing works to be conducted in the presence of a suitably qualified Koala spotter.
- ***Transport Infrastructure Act 1994*** – The Act provides a regime that allows for and encourages effective integrated planning and efficient management of a system of transport infrastructure (i.e. Roads) whereby this Project will follow. An environmental management process manual has been established to detail the process for Projects to follow.

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

The Logan West Upgrade project was announced in July 2024, following which an initial stakeholder consultation process commenced to generate broad awareness and understanding of the Project with key stakeholders, the local community, industry groups, environmental groups and motorists. The consultation process also sought to understand stakeholder ideas, interests and concerns in relation to the proposed Project, by seeking stakeholder feedback about the current condition of the Logan Motorway and any areas of improvement, as well as seek comments on the proposed upgrade and its scope.

The consultation program included:

- Meetings with local representatives, including corridor MPs/Councillors
- Nine (9) community pop-ups at key sites/events across the community
- Letterbox drops to over 18,600 local residents/businesses
- Deliberative engagement with key industry groups including the trucking industry and emergency services and environmental groups
- A communications campaign across social media, earned media, advertising (digital, radio, outdoor, social media, print)
- Three (3) electronic direct mail-outs (EDMs) reaching over 300,000 people
- Six (6) static displays.

An interactive Project website (hosted by Social Pinpoint) was also launched and promoted through mass media channels, encouraging stakeholders to leave their feedback on a virtual map, aligned to key themes or areas of concern/opportunity. Over the course of the initial consultation period, 163 comments were left on the interactive website map by stakeholders and members of the community.

The most common themes raised during the initial consultation process were related to current congestion issues, active transport connectivity, on/off ramp improvements and noise mitigation (both during construction and operation). During initial engagement with environmental groups, key themes raised included fauna connectivity and movement, aquatic fauna protection, water quality, wildlife habitat protection, flooding and ongoing consultation opportunities. Engagement with key environmental groups will continue over the coming months as the project’s design progresses.

Consultation is also underway with affected landowners (government and commercial), whose land may be impacted by partial resumptions.

A Stakeholder Engagement Strategy has been prepared by TQ for the Project, which outlines the consultation objectives to be implemented throughout the Project’s development process. This plan will continue to be updated and implemented as development progresses and will be used as the basis of the Stakeholder Engagement Strategy that will be prepared by the successful contractor for the delivery phase of the Project.

TQ will continue to engage with key stakeholders throughout 2025, including deeper engagement with Traditional Owners and key environmental groups.

1.3.1 Identity: Referring party

Privacy Notice:

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

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

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

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1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	54005139873
Organisation name	AURECON AUSTRALASIA PTY LTD
Organisation address	4006 QLD

Referring party details

Name	Gabby Singh
Job title	Senior Consultant, Environment and Planning
Phone	0420706556
Email	gabby.singh@aurecongroup.com
Address	25 King Street, Bowen Hills QLD 4006

1.3.2 Identity: Person proposing to take the action

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

No

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

Yes

Person proposing to take the action organisation details

ABN/ACN	50067242513
Organisation name	QUEENSLAND MOTORWAYS PTY LIMITED
Organisation address	4000 QLD

Person proposing to take the action details

Name	Verity Turner
Job title	Environment and Planning Director
Phone	+61 435 513 170
Email	vturner@transurban.com
Address	Level 39, 300 George Street, Brisbane QLD 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. *

TQ has a satisfactory record of responsible environmental management.

There are no past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against any TQ-owned company, including the person proposing to take the action (Queensland Motorways Pty Limited), nor against the referring person (Aurecon Australasia Pty Ltd).

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

Transurban has a Health, Safety and Environment Policy, dated April 2024. The Policy is available at this link: https://www.transurban.com/content/dam/transurban-pdfs/02/corporate-governance/HSE_Policy.pdf

TQ will comply with Transurban's Health, Safety and Environment Policy for this Project.

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	50067242513
Organisation name	QUEENSLAND MOTORWAYS PTY LIMITED
Organisation address	4000 QLD

Proposed designated proponent details

Name	Verity Turner
Job title	Environment and Planning Director
Phone	+61 435 513 170
Email	vturner@transurban.com
Address	Level 39, 300 George Street, Brisbane QLD 4000

1.3.4 Identity: Summary of allocation

Confirmed Referring party's identity

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

ABN/ACN	54005139873
Organisation name	AURECON AUSTRALASIA PTY LTD
Organisation address	4006 QLD
Representative's name	Gabby Singh
Representative's job title	Senior Consultant, Environment and Planning
Phone	0420706556
Email	gabby.singh@aurecongroup.com
Address	25 King Street, Bowen Hills QLD 4006

Confirmed Person proposing to take the action's identity

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

ABN/ACN	50067242513
Organisation name	QUEENSLAND MOTORWAYS PTY LIMITED
Organisation address	4000 QLD
Representative's name	Verity Turner
Representative's job title	Environment and Planning Director
Phone	+61 435 513 170
Email	vturner@transurban.com
Address	Level 39, 300 George Street, Brisbane QLD 4000

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

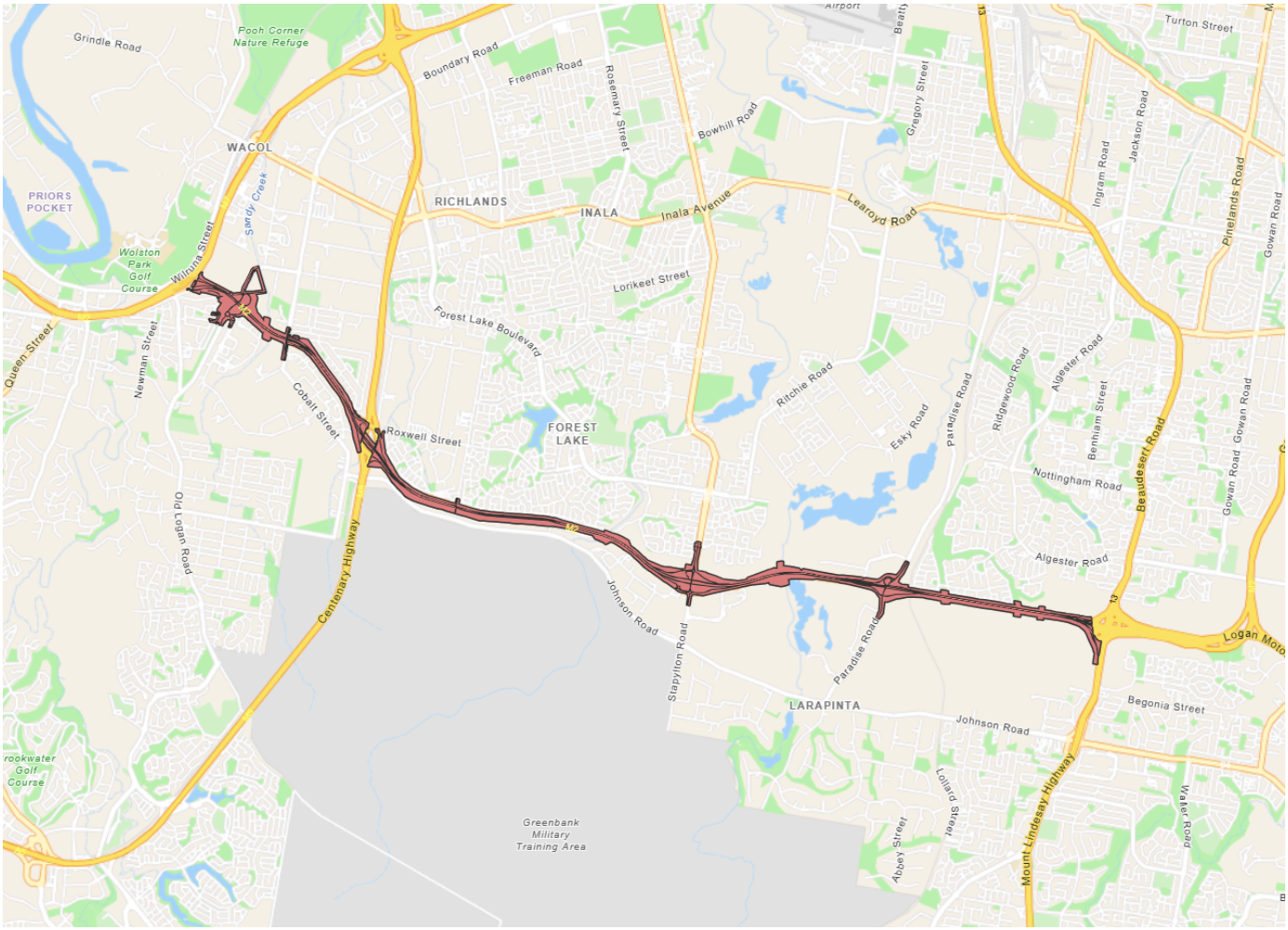
1.4 Payment details: Payment allocation

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: 131.18 Ha **Disturbance Footprint:** 131.18 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Logan Motorway, Brisbane

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

Queensland

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

No

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

The Project is located predominantly within the existing Logan Motorway tolled concession lease area and local government road and park reserve parcels. Other tenure types located within the Project area are summarised below:

- Freehold
- Reserve
- Lands Lease
- Unallocated State Land.

3. Existing environment

3.1 Physical description

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

The Project area is predominantly characterised by the existing Logan Motorway tolled concession lease area, the Logan Motorway, between Ipswich Motorway interchange (Formation Street) and Mount Lindesay Highway intersection. This is a high speed road that is subject to a large number of vehicle movements within an urban setting, including a matrix of urban built environment, urban green space, and isolated remnant and non-remnant vegetation.

Sandy Creek, Blunder Creek and Oxley Creek and aquatic habitat are present within the existing motorway and Project area.

The Project area has been subject to considerable historic anthropogenic disturbance from existing roads, walking/access tracks and non-native flora species. The surrounding areas include residential, commercial, industrial and open space. The current operational interstate rail line also intersects with the Project area.

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

The Project area is predominantly contained within the existing Logan Motorway tolled concession lease area and is for the widening of the existing road from two to three lanes between Centenary Highway and Mount Lindesay Highway and one to two lanes between Sandy Creek and Formation Street.

The intended land use will not change substantially due to the existing roads (both Logan Motorway and local government roads) as well as other infrastructure being present in the Project area, including the rail corridor and electricity easement.

The Project is in the urban footprint under the *South East Queensland Regional Plan 2017* and within a priority living area under the *Regional Planning Interest Act 2014.* The Project strategically supports these broader urban functions.

The Project extends over the Brisbane City Council (BCC) local government area, with a small portion associated with the Ipswich City Council (ICC). The existing Logan Motorway is unzoned under both the Brisbane City Plan 2015 and Ipswich City Planning Scheme 2005. Surrounding land use zones include:

- Open space
- Species purpose
- Environmental management
- Low density residential
- General industry
- Conservation
- Regional business and industry medium industry
- Regional business and industry buffer
- Residential low density.

There are no resource tenures over the Project area.

Searches of the National Native Title Tribunal (NNTT) database have identified that the Project forms part of a wider area within the region that is subject to a Native Title Claim by Yuggera Ugarapul People which has been accepted for registration (NNTT Reference: QC2017/005). There is also a small section of the Project that intersects with the Danggan Balun (Five Rivers) People Native Title claim (QC2017/007) that has been accepted for registration.

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 within the Project area.

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 elevated with slope varying from 20 m AHD to 60 m AHD towards the south-east. The lowest elevation (20 m AHD) is towards the west of the Project near the Centenary Highway at Carole Park. The highest elevation is towards the central portion of the Project near Woogaroo Street and north of the Greenbank Military Area.

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.

The Project area is predominantly contained within the existing Logan Motorway tolled concession lease area. The majority of the woody vegetation adjacent to the Logan Motorway consists of open sclerophyll forest and swamp sclerophyll forest.

The Project area consists of a modified urban environment, dominated by the existing road corridor and adjacent residential, commercial and industrial land uses. The Project area also includes areas of remnant and non-remnant vegetation.

The ecological field investigations were undertaken in accordance with the conservation advice and national survey guidelines, Survey Guidelines for Australian Threatened Birds, Quaternary Survey technique and Queensland Government Terrestrial Vertebrate Fauna Survey Guidelines for Queensland, June 2022 (version 4) (Eyre et al. 2022). These surveys were undertaken to ground-truth the mapped ecological values of the Project area (i.e. presence of vegetation communities, flora and fauna species and fauna habitat values for threatened and migratory species). A summary of survey efforts can be found in **Att 1 - Matters of National Environmental Significance_Part 1, Section 3, pp. 12-40**).

The protected matters search tool (PMST) report (refer **Att 1 - Matters of National Environmental Significance report_Part 1**, **Section 5, pp. 45-79 and Att 1 - Matters of National Environmental Significance report_Part 3, Appendix A**) indicated that there may be the presence of the following within a 5 km radius of the Project:

- 1 wetland of International importance (Ramsar)
- 7 threatened ecological communities
- 77 threatened species
- 34 migratory species.

As a result of field surveys and an assessment of likelihood of occurrence (refer **Att 1 - Matters of National Environmental Significance report_Part 3, Appendix B**), the following were considered known, likely or potentially occurring within the Project area:

- 2 TECs, being Coastal Swamp Sclerophyll Forest and Subtropical Eucalypt Floodplain Forest.
- 12 threatened species, being; Swift parrot (*Lathamus discolor*), Regent honey eater (*Anthochaera phrygia*), Greater glider (southern and central) (*Petauroides volans*), Koala (*Phascolarctos cinereus*), Spotted-tail quoll (*Dasyurus maculatus*), Australian painted snipe (*Rostratula australis*), South-eastern glossy black-cockatoo (*Calyptorhynchus lathami lathami*), Grey-headed flying-fox (*Pteropus poliocephalus*), Yellow-bellied glider (south-eastern) (*Petaurus australis*), White-throated needletail (*Hirundapus caudacutus*), Painted honeyeater (*Grantiella picta*), and Latham's snipe (*Gallinago hardwickii*).
- 5 migratory species, being; Glossy Ibis (*Plegadis falcinellus),* Fork-tailed swift (*Apus pacificus*), Oriental cuckoo (*Cuculus optatus*), and Osprey (*Pandion haliaetus)* and the White-throated needletail (*Hirundapus caudacutus*).

The Project area is not within the Moreton Bay Ramsar wetland which is located approximately 30 km east in a straight line and approximately 53-60 km downstream.

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

The Project area is predominantly contained within land associated with the existing Logan Motorway tolled concession lease area, which is within an urban setting, including a matrix of urban built environment, urban green space, and isolated remnant and non-remnant vegetation.

The majority of woody vegetation within the Project area consists of open sclerophyll forest and swamp sclerophyll forest. The open sclerophyll forest habitats were found on either alluvial, loamy and sandy plains or consolidated sedimentary geologies. Alluvial sclerophyll forests consisted of *Eucalyptus tereticornis* and *Eucalyptus siderophloia* found in riparian corridors with a grassy understorey. Loamy/sandy plains and consolidated sedimentary sclerophyll forests consisted of *Eucalyptus seeana* and *Eucalyptus racemosa* with a shrubby or grassy understorey located on lower slopes. The swamp sclerophyll forest consisted of *Melaleuca quinquenervia* and *Eucalyptus robusta* with a thick shrub layer and dense ground layer. Maintained exotic grasslands consisting of species such as *Digitaria didactyla, Eragrostis tenuifolia, Paspalum notatum* and *Megathyrsus maximus* were widespread throughout the Project area.

A review of the Atlas of Australian Soils and soil mapping of 1:100 000 scale indicated that the Project area and the surrounding area comprises four different types of soil. These include Tenosols, Kandosols, Kurosols and Dermosols.

Tenosols can be shallow or deep consisting of sand, loamy sand or clayey sand textures. Kandosols and Dermosols include fine textured clays with weak to strong structure respectively. Kurosols include acidic soils, including loam and clay texture.

A review of Atlas of Australian acid sulfate soils (ASS) and Brisbane City Plan 2015 ASS overlay mapping, indicates that majority of the Project area is located within areas of low probability of occurrence of ASS which is expected given the high elevation and location of the area. However, as per the National ASS guidelines (NEPC, 2011), the potential for the development of inland ASS in sediments within the creeks or surface water bodies is identified as a possible risk.

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 EPBC PMST identified one Commonwealth heritage place using a 5 km search radius of the Project area, being the Greenbank Military Area.

No works are occurring within the Greenbank Military Area heritage site. The Project will not cause any direct or indirect impacts on the Commonwealth Land environmental values due to the existing Logan Motorway location, removal of the Project scope in proximity of the Greenbank Military Area and the implementation of mitigation measures, together with the separation distance, including buffering afforded by the existing land uses between the Project area and the Commonwealth Land site (i.e. Johnson Road, 275 kV overhead transmission line (Powerlink) and industrial uses).

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

The Aboriginal Party for the majority of the Project area is the Yuggera Ugarapul People (QC2017/005 – QUD213/2017). A small portion of the eastern section of the Project area is located within the Danggan Balun (Five Rivers) People cultural heritage area.

There are 50 known Indigenous items or sites recorded on the Aboriginal and Torres Strait Islander Cultural Heritage Database (DSDSATSIP 2024) within the Project area.

A Cultural Heritage Risk Assessment is currently being completed for the Project and the findings will be incorporated into the detailed design and the Project EMP(C). Further the *Aboriginal Cultural Heritage Act 2003* (Qld) also provides a heritage duty of care requirement which will also be implemented by 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. *

The Project area traverses numerous water features, including mapped watercourses, drainage lines and unmapped watercourses. The major watercourses are Sandy Creek, Blunder Creek and Oxley Creek.

The Project area is located within two catchments, being the Oxley Creek and Wolston Creek catchments.

Within the Oxley Creek catchment, the following creeks cross the Project area:

- Oxley Creek (at Heathwood)
- Blunder Creek (at Forest Lake).

Within the Wolston Creek catchment, the following three creeks cross the Project area at Forest Lake:

- Sandy Creek
- Bullockhead Creek
- Spinks Creek.

Both of these catchments outlet to the Brisbane River, which flow downstream through to the Port of Brisbane and into Moreton Bay (refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 5.5, Figure 5.4 p. 81)**. There are no direct drainage flow paths from the Project area to the Ramsar wetland:

- Wolston Creek outlets at Wacol, 8 km downstream of the Project area. From this outlet location the Ramsar wetland is approximately 52 km downstream.
- Oxley Creek outlets at Graceville, 19 km downstream of the Project area. From this outlet location the Ramsar wetland is approximately 34 km downstream.

The works will not impact Moreton Bay Ramsar wetland as the capacities for both environmental and flood flows will be maintained and the Project area is located approximately 53-60 km upstream from the Moreton Bay Ramsar wetland.

Hydrologic and hydraulic modelling is currently being completed to assess the surface water runoff from the 1% Annual Exceedance Probability and rarer design storm events, including climate change, to confirm the flood immunity of TQ assets and inform the Project road/bridge/culvert design.

Refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 5.5, pp. 80-81.**

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.

—

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. *

There are no listed World Heritage Properties located within the Project area. The nearest World Heritage Property is the Gondwana Rainforests of Australia, located approximately 60 km south. No direct or indirect impacts are anticipated for World Heritage Properties (refer **Att 1 - Matters of National Environmental Significance report_Part 3, Appendix A**).

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. *

There are no listed National Heritage Properties located within the Project area. The nearest National Heritage Property is Gondwana Rainforests of Australia, located approximately 60 km south. No direct or indirect impacts are anticipated for National Heritage Properties (refer **Att 1 - Matters of National Environmental Significance report_Part 3, Appendix A**).

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	Moreton Bay

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 is not in the Moreton Bay Ramsar wetland (Ramsar wetland) site and will not cause direct impacts to the wetland values and hydrological regime of downstream environs (refer **Att 1 – Matters of National Environmental Significance report_Part 1, Section 5.4, Figure 5.4 pp. 80-81**). The Ramsar wetland site is located approximately 30 km due east at its closest point to the Project area. The Project area catchments do not directly drain into the Ramsar wetland and are approximately 53-60 km upstream from the Ramsar wetland. Furthermore, there are a number of existing urban land uses (e.g. residential, industrial) within the catchment between the Project area and the Ramsar wetland. Given the distance, no direct outlet discharge and existing urban land uses, the Project will not cause indirect impacts on the Ramsar wetland. The Project will implement the use of and compliance with TMR technical specifications MRTS 51 Environmental Management and MRTS 52 Erosion and Sediment Control to ensure avoidance of indirect impacts on the Ramsar wetland (refer **Att 2 – MRTS 51** and **Att 3 – MRTS 52**).

The Project will not impact the conveyance and storages of the large creek systems within the Wolston Creek catchment (including Sandy Creek, Bullock Head Creek and Spinks Creek) and the Oxley Creek catchment (including Blunder Creek), as such the works will not impact the Ramsar wetland as the capacities for both environmental and flood flows will be maintained (refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 5.5, figure 5.4 p. 80-81**).

The Project's current and proposed environmental management regime, including the combination of capture and treatment measures into design in accordance with TMR's Road Planning and Design Manual (TMR 2024b) and erosion and sediment control as per TMR technical specification MRTS 52 (refer **Att 3 – MRTS 52**), to be implemented during the construction and operational phases of the Project will ensure avoidance of indirect impacts occur to the Ramsar wetland and improve overall water quality entering the downstream environment from the Logan Motorway in the operational phase.

Due to the Project being upstream and within the Ramsar wetland catchment a significant impact assessment was undertaken against the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance. The significant impact assessment found the Project will not have an impact to the Ramsar wetland refer **Att 1 - Matters of National Environmental Significance report_Part 2, Section 8.1, pp. 121-123**.

Overall, no direct or indirect impacts on the Ramsar wetland are expected as a result of the Project due to:

- The Project site is located approximately 53-60 km upstream of the Ramsar wetland
- The size of the overall catchment area and current existing urban land uses within the catchment between the Project area and the Ramsar wetland
- There is no direct flow discharge to any Ramsar wetland
- No changes to the conveyance and storages of the existing catchments
- Implementation of construction (e.g. TMR technical specifications MRTS51 and 52, erosion and sediment control plan (refer **Att 2 – MRTS 51** and **Att 3 – MRTS 52**)) and operational (e.g. combination of capture and treatment measures in accordance with TMR's Road Planning and Design Manual (TMR 2024b)) mitigation measures will avoid any Project indirect impacts on the downstream Ramsar wetland (refer **Att 1 - Matters of National Environmental Significance report_Part 2, Section 7.2.4, p. 112-113)**.

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
Yes	Yes	Anthochaera phrygia	Regent Honeyeater
No	No	Argynnis hyperbius inconstans	Australian Fritillary
No	No	Arthraxon hispidus	Hairy-joint Grass
No	No	Bosistoa transversa	Three-leaved Bosistoa, Yellow Satinheart
No	No	Botaurus poiciloptilus	Australasian Bittern
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	Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
No	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
No	No	Coleus habrophyllus	
No	No	Corchorus cunninghamii	Native Jute
No	No	Cryptostylis hunteriana	Leafless Tongue-orchid
No	No	Cupaniopsis shirleyana	Wedge-leaf Tuckeroo
No	No	Cyclopsitta diophthalma coxeni	Coxen's Fig-Parrot
No	No	Dasyurus hallucatus	Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu]
Yes	Yes	Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)
No	No	Delma torquata	Adorned Delma, Collared Delma
No	No	Dichanthium setosum	bluegrass
No	No	Erythrotriorchis radiatus	Red Goshawk

Direct impact	Indirect impact	Species	Common name
No	No	Falco hypoleucos	Grey Falcon
No	No	Fontainea venosa	
No	No	Furina dunmalli	Dunmall's Snake
Yes	Yes	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Geophaps scripta scripta	Squatter Pigeon (southern)
Yes	Yes	Grantiella picta	Painted Honeyeater
No	No	Hemiaspis damelii	Grey Snake
Yes	Yes	Hirundapus caudacutus	White-throated Needletail
Yes	Yes	Lathamus discolor	Swift Parrot
No	No	Leuzea australis	Austral Cornflower, Native Thistle
No	No	Macadamia integrifolia	Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak
No	No	Macadamia tetraphylla	Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut
No	No	Macroderma gigas	Ghost Bat
No	No	Mixophyes fleayi	Fleay's Frog
No	No	Notelaea lloydii	Lloyd's Olive
No	No	Notelaea x ipsviciensis	Cooneana Olive
No	No	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew
No	No	Pachyptila turtur subantarctica	Fairy Prion (southern)
Yes	Yes	Petauroides volans	Greater Glider (southern and central)
Yes	Yes	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	Planchonella eerwah	Shiny-leaved Condoo, Black Plum, Wild Apple

Direct impact	Indirect impact	Species	Common name
No	No	Potorous tridactylus tridactylus	Long-nosed Potoroo (northern)
No	No	Pseudomys novaehollandiae	New Holland Mouse, Pookila
Yes	Yes	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Rhodamnia rubescens	Scrub Turpentine, Brown Malletwood
No	No	Rhodomyrtus psidioides	Native Guava
Yes	Yes	Rostratula australis	Australian Painted Snipe
No	No	Samadera bidwillii	Quassia
No	No	Stagonopleura guttata	Diamond Firetail
No	No	Thesium australe	Austral Toadflax, Toadflax
No	No	Tringa nebularia	Common Greenshank, Greenshank
No	No	Turnix melanogaster	Black-breasted Button-quail

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
Yes	Yes	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	Yes	Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions
No	No	White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

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 potential direct and indirect impacts from the Project are described in **Att 1 - Matters of National Environmental Significance report_Part 2, Section 6, pp. 91-97** and summarised below.

Potential direct ecological impacts due to clearing works during construction include:

- Direct removal of vegetation, being:
    - Coastal swamp sclerophyll forest TEC (a direct loss of up to 0.26 ha)
    - Subtropical eucalypt floodplain forest TEC (a direct loss of up to 5.81 ha)
- Greater glider (southern and central) habitat (direct loss of up to 34.62 ha of habitat critical to the survival of the species)
- Koala habitat (direct loss of up to 41.32 ha of habitat critical to the survival of the species)
- Spotted-tail quoll habitat (direct loss of up to 45.66 ha of habitat critical to the survival of the species)
- South-eastern glossy black-cockatoo habitat (direct loss of up to 35.84 ha of habitat critical to the survival of the species)
- Grey-headed flying-fox habitat (direct loss of up to 64.34 ha of habitat critical to the survival of the species)
- Yellow-bellied glider (south-eastern) habitat (direct loss of up to 14.35 ha of habitat critical to the survival of the species)
- Swift parrot habitat (direct loss of up to 6.54 ha of suitable habitat)
- Regent honeyeater habitat (direct loss of up to 6.48 ha suitable habitat)
- Painted honeyeater habitat (direct loss of up to 6.48 ha of suitable habitat)
- Australian painted snipe habitat (direct loss of up to 0.52 ha of habitat critical to the survival of the species)
- Latham's snipe habitat (direct loss of up to 0.52 ha of habitat critical to the survival of the species)
- White-throated needletail habitat (direct loss of up to 131.18 ha of suitable habitat)

Refer **Att 1 - Matters of National Environmental Significance report_Part 3, Appendix C** for habitat mapping.

Potential indirect ecological impacts during construction include:

- Weed proliferation resulting in changes to species composition of a vegetation community
- Construction activities impacting upon plant pollinator associations
- Altered water quality, sedimentation and hydrology from construction activities
- The loss of habitat resulting in changes to fauna densities and distributions and potentially a declined in localised species population
- Increasing edge effects resulting in changes to the species composition of woody vegetation communities (TEC) and increases the presence of introduced species
- Littering or operation of equipment resulting in ignition and bushfire impacts to vegetation communities and biodiversity values
- Generation of noise and vibration which may impact on adjacent vegetation and fauna
- Dust deposition impacting upon vegetation through reduction in photosynthetic processes.

Threatened Ecological Communities

Of the seven TECs identified in the PMST, two were ground-truthed to be present within the Project area, being:

- Coastal swamp sclerophyll forest TEC
- Subtropical eucalypt floodplain forest TEC.

Approximately 0.26 ha of ground-truthed Coastal swamp sclerophyll forest TEC intersects with the Project area. The one patch of Coastal swamp sclerophyll forest TEC was independently ground-truthed to be Class B2, which is a small patch that meets key diagnostics and has a predominantly native ground layer (more than 80 %) and is contiguous with another large area of native vegetation (DCCEEW 2022). For this

TEC, where a patch meets the key diagnostics and Class A, B1, B2, and C1 condition thresholds, the patch meets the definition of habitat critical to the survival of the ecological community. The TEC patch is also contiguous with areas of TEC outside the Project area.

Approximately 5.81 ha of ground-truthed Subtropical eucalypt floodplain forest TEC intersects with the Project area. Five patches were all independently ground-truthed to be Class B3; a large or contiguous patch, with good quality understorey and large native trees. For this TEC, where a patch meets the key diagnostics and Class A or B condition thresholds, the patch meets the definition of habitat critical to the survival of the ecological community. All TEC patches are contiguous with areas of TEC outside the Project area.

Refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 5.2.1, pp. 58-59.**

Refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 5.2.1, Figure 5.5 pp. 60-64** for the location of the ground-truth mapped TECs.

Threatened Flora

No threatened flora species under the EPBC Act were identified within the Project area during the ecological field survey conducted in December 2022, September 2023 and September/October 2024.

The detailed likelihood of occurrence assessment which was completed for threatened flora species with the potential to occur within the Project area is provided within **Att 1 - Matters of National Environmental Significance report_Part 3**, **Appendix B**.

Threatened Fauna

Twelve threatened fauna species are known or considered to have a likely or potential likelihood of occurrence within the Project area. Species are:

- Swift parrot (*Lathamus discolor*)
- Regent honeyeater (*Anthochaera phrygia*)
- Greater glider (southern and central) (*Petauroides volans)*
- Koala (*Phascolarctos cinereus*)
- Spotted-tail quoll (*Dasyurus maculatus*)
- Australian painted snipe (*Rostratula australis*)
- South-eastern glossy black-cockatoo (*Calyptorhynchus lathami lathami)*
- Grey-headed flying-fox (*Pteropus poliocephalus*)
- Yellow-bellied glider (south-eastern) (*Petaurus australis*)
- White-throated needletail (*Hirundapus caudacutus*)
- Painted honeyeater (*Grantiella picta*)
- Latham's snipe (*Gallinago hardwickii*).

No threatened fauna species were identified within the Project area
during the ecological field assessments conducted in December 2022, September 2023 and September/October 2024.

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. *

The current Project design has been developed and refined to maximise use of existing disturbed areas (i.e. within the centre road median or built as close to the existing Motorway alignment as possible) and to either avoid or minimise vegetation clearing wherever possible.

The Project area is approximately 131 ha (excluding existing Logan Motorway and other hardstand areas) and consists of Project design (permanent impact for the Project) and construction footprint (temporary impact during construction only). This Project area will be refined and reduced through detailed design development and construction planning by the D&C Contractor.

Significant impact assessments were completed for species known to occur, or considered likely or have potential to occur within the Project area, following completion of a detailed desktop assessment and field assessment. Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8, pp. 120-128.**

The Project is considered likely to have a significant impact on the following MNES:

- Coastal swamp sclerophyll forest TEC
- Subtropical eucalypt floodplain forest TEC
- Greater glider (southern and central)
- Koala
- Spotted-tail quoll
- South-eastern glossy black-cockatoo
- Grey-headed flying-fox
- Yellow-bellied glider (south-eastern).

Coastal Swamp Sclerophyll Forest TEC

The Project could remove up to 0.26 ha of Coastal swamp sclerophyll forest TEC. The TEC is already fragmented, and the Project will only impact the edge of the community.

The Project is likely to result in a significant impact due to the following:

- Reducing the extent of an ecological community
- Adversely affecting habitat critical to the survival of an ecological community
- Interfering with the recovery of an ecological community.

Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.2.1, pp. 124-126.**

Subtropical eucalypt floodplain forest TEC

The Project could remove up to 5.81 ha of ground-truthed Subtropical eucalypt floodplain forest TEC. The TEC is already fragmented, and the Project will only impact the edge of the community.

The Project is likely to result in a significant impact due to the following:

- Reducing the extent of an ecological community
- Adversely affecting habitat critical to the survival of an ecological community
- Interfering with the recovery of an ecological community.

Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.2.2, pp. 126-128.**

Koala (*Phascolarctos cinereus*) (QLD, NSW, and ACT populations)

The Project could remove up to 41.32 ha of accessible foraging and breeding habitat that is habitat critical to the survival of the species. The Project area is considered of marginal value for Koala dispersal habitat, given that vegetation present within the Project area is fragmented and does not currently provide for safe species dispersal (i.e. the vegetation located within the road reserve is generally bordered by the Motorway and fauna exclusion fencing/noise walls).

The Project is likely to result in a significant impact due to the following:

- Leading to a long-term decrease in the size of a population
- Reducing the area of occupancy of the species
- Adversely affecting habitat critical to the survival of the species
- Disrupting the breeding cycle of a population
- Modifying, destroying, removing or isolating or decreasing the availability or quality of habitat to the extent that the species is likely to decline
- Interfering substantially with the recovery of the species.

Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.3.2.1, pp. 136-144.**

Greater glider (southern and central) (*Petauroides volans*)

There is approximately 34.62 ha of habitat critical to the survival of the species within the Project area that could be removed by the Project. The areas of habitat critical within the Project area are predominantly located on the edges of habitat patches, directly adjacent and parallel to current fragmentation (i.e. within the road corridor associated with Logan Motorway).

The Project is likely to result in a significant impact due to the following:

- Leading to a long-term decrease in the size of a population
- Adversely affecting habitat critical to the survival of the species
- Disrupting the breeding cycle of a population.

Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.3.2.2, pp. 145-149.**

Spotted-tailed quoll (SE mainland population) (*Dasyurus maculatus maculatus*)

The Project could remove up to 45.66 ha of habitat critical to the survival of the Spotted-tailed quoll.

The Project is likely to result in a significant impact due to the following:

- Adversely affecting habitat critical to the survival of the species
- Interfering substantially with the recovery of the species.

Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.3.2.3, pp. 149-152.**

South-eastern glossy black cockatoo (*Calyptorhynchus lathami lathami*)

The Project could remove up to 35.84 ha of habitat critical to the South-eastern glossy black cockatoo, consisting of potential foraging habitat, comprising *Casuarina* and *Allocasuarina* trees and along roadside reserves.

The Project is likely to result in a significant impact due to the following:

- Adversely affecting habitat critical to the survival of the species
- Disrupting the breeding cycle of an important population.

Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.3.3.12, pp. 155-158.**

Yellow-bellied glider (south-eastern) (*Petaurus australis australis*)

The Project could remove up to 14.35 ha of habitat critical to the survival of the Yellow-bellied glider (south-eastern). Portions of the fragmented habitat within the Project area retain suitable tree hollows within contiguous woodlands that may support the species.

The Project is likely to result in a significant impact due to the following:

- Leading to a long-term decrease in the size of an important population of the species

- Adversely affecting habitat critical to the survival of the species
- Disrupting the breeding cycle of an important population.

Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.3.3.2, pp. 159-162.**

Grey-headed flying-fox (*Pteropus poliocephalus*)

The Project could remove up to 64.34 ha of habitat critical to the survival of the Grey-headed flying fox. Some vegetation within the Project area contains one or more of the identified winter and spring flowering tree species. Further, three Nationally Important Camps for the Grey-headed flying-fox are located within 20 km of the Project area, namely *Mount Ommaney – Westlake Drive (400), Inala, Lilac Street (1219) and Regents Park, Emerald Drive (433)*.

The Project is likely to result in a significant impact due to the following:

- Leading to a long-term decrease in the size of an important population of the species
- Adversely affecting habitat critical to the survival of the species
- Interfering substantially with the recovery of the species.

Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.3.3.3, pp. 162-167.**

The Project is not considered likely to have a significant impact on the following MNES:

- **Swift parrot (*Lathamus discolor*)**: The Project is not considered to support areas that are necessary for activities such as foraging, breeding, roosting, or dispersal for the species. The Project area is not considered to support areas of habitat critical to the survival of the Swift parrot. The majority of the Project area remains to the edges of intact vegetation and considering the available habitat surrounding the Project area and the relatively small area impacted, the impact to potential habitat for the Swift parrot within the Project area is not considered to be significant. Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.3.1.1, pp. 129-133.**
- **Regent honeyeater (*Anthochaera phrygia*)**: It was noted that the abundance of mistletoes within the Project area would not be enough to sustain foraging habitat for the species. Due to the lack of habitat critical to the survival of the species, the presence of preferred habitat in the wider area and the highly mobile nature of the species, the removal of potential species habitat within the Project area is not considered to have a significant impact on the species. Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.3.1.1, pp. 133-136.**
- **Australian painted snipe (*Rostratula australis*)**: The Project may remove foraging habitat critical for the species. However, due to the up to 0.52 ha of proposed habitat removal, the impact to habitat critical to the survival of the species within the Project area is considered unlikely to be significant. Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.3.2.4, pp. 152-155.**
- **White-throated needletail (*Hirundapus caudacutus*)**: As this species is an aerial species and rarely lands, no important habitat for the White-throated needletail will be removed as a result of the Project. Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.3.3.4, pp. 167-169.**
- **Painted honeyeater (*Grantiella picta*)**: The areas of potential species habitat within the Project area are not considered to be critical to the species survival. It was noted during field surveys that there was insufficient mistletoe within the Project area to sustain foraging habitat for the species. Refer **Att 1 - Matters of National Environmental Significance report_Part 2**, **Section 8.3.3.5, pp. 169-173.**
- **Latham's snipe (*Gallinago hardwickii*)**: The Project may remove foraging habitat critical for the species. However, due to the up to 0.52 ha of proposed habitat removal, the impact to habitat critical to the survival of the species within the Project area is considered unlikely to be significant. Refer

Att 1 - Matters of National Environmental Significance report_Part 2, **Section 8.3.3.6, pp. 173-176.**

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. *

The Project involves maximising the potential of existing transport corridor infrastructure and utilising already disturbed/fragmented land through upgrading an existing major motorway largely within the existing Logan Motorway tolled concession lease area. The Project area incorporates the maximum disturbance footprint for the Project, including noise barriers, fauna exclusion and boundary fencing and construction facilities and consists of Project design (permanent impact for the Project) and construction footprint (temporary impact during construction only). The Project area will be refined with opportunities to reduce disturbance footprints to be identified through design development and detailed construction planning by the D&C Contractor, once appointed. The Project's specification will include requirements to minimise vegetation clearing.

The Project is predominantly located within a modified urban environment, dominated by the existing road corridor, rail corridor, electricity easement and adjacent residential and industrial land uses. The Project has been designed to firstly avoid impacts to flora and fauna species and their habitat.
Where avoidance is not possible, the design and construction footprint has been minimised to the greatest extent possible at this stage of the Project, through the utilisation of the existing road medium. The widening has been designed as close to the existing alignment as possible to minimise impact on the adjoining environment and ecological values.

The existing Logan Motorway already includes fauna exclusion fencing in some areas as well as boundary fencing and noise walls which also act as exclusion barriers for some species to minimise the risk of them entering and/or attempting to disperse across the Logan Motorway. These barriers will continue to be used along the road corridor/Project area in appropriate locations. The Project will also install additional directional fauna exclusion fencing within the Project area where not currently existing (where required) to reduce potential vehicle strike and disruption to dispersal and foraging behaviours and to increase road safety.

A range of management and mitigation measures, both general and MNES specific, are proposed to avoid and reduce the potential ecological impacts of the Project (refer in **Att 1 - Matters of National Environmental Significance report_Part 2, Section 7, pp. 98-119**).

Therefore, in consideration of the quality and location of the identified habitat, the co-location of the proposed works with existing infrastructure, the extent and location of clearing and the committed mitigation measures (including measures that will be required through State management documents), it is considered that the Project 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. *

Avoidance and mitigation measures are detailed in **Att 1 - Matters of National Environmental Significance report_Part 2, Section 7, pp 98-119** and summarised below.

Avoidance measures

The Project is predominantly contained within the existing Logan Motorway tolled concession lease area, which has been subject to previous vegetation removal and ground disturbance for road infrastructure development as well as operational maintenance requirements. Most of the surrounding corridor is managed grassland areas surrounded by fauna exclusion fencing/noise walls/property boundary fence.

The current Project concept design has been developed and refined to maximise use of existing disturbed areas (i.e. within the center road median or built as close to the existing Motorway alignment as possible) and to either avoid and minimise vegetation clearing wherever possible. Where avoidance was not possible, the design and construction footprint will be minimised to the greatest extent possible, particularly in less developed areas.

Since the ecological surveys were undertaken in September/October 2024, the Project has undergone design refinements to avoid impacts to MNES identified and has removed two areas of MNES from the Project area, being:

- An area of CSSF TEC located to the east of Oxley Creek, approximately 0.07 ha
- An area of Koala/Grey-headed flying-fox habitat south of Logan Motorway along Centenary Highway, approximately 0.91 ha.

These above avoidance areas have been removed for the Project area impact calculations.

The Project team is committed to reducing impacts to MNES further through the design phase and has also identified additional potential areas of MNES to be avoided through detailed design, if possible (refer **Att 1 - Matters of National Environmental Significance report_Part 2, Section 7.1, Figure 7.1, pp. 99-109**).

Further design development will occur during the reference design and D&C Construction phase, specifically looking at avoiding areas of MNES, including to:

- Further refinement to contain temporary and permanent water quality basins and other ancillary works within the footprint
- Developing the Project's contract specification to include requirements to minimise vegetation clearing. This would include requirements to minimise clearing of mature trees that would likely be used by native MNES fauna species (e.g. Koala, Grey-headed flying fox).
- Implementing assurance measures such that all mitigation measures are being adhered to.

Specific measures to reduce impact to identified MNES

Att 1 - Matters of National Environmental Significance report_Part 2, Section 7.2, pp 110-114 provides detail on the specific measures to reduce impact to identified MNES, a summary is provided below:

- The clearing extent will be minimised, and no go areas will be clearly shown on "clearing and grubbing" detailed design drawings and denoting significant trees or no-go zones with flagging tape on site during construction to avoid removal of unintended areas
- Temporary works areas will be identified and located away from the TEC boundaries and other identified avoidance areas where possible
- Landscaping and revegetation designs will be developed with the inclusion of endemic species and specifying landscaping species to be replanted that provide foraging habitat for the Grey-headed flying-fox and resources for other species where appropriate (with regard to safety in design and maintenance requirements)
- Pre-construction surface water and groundwater monitoring will be undertaken to document baseline conditions in and adjacent to the Project area

- Hydrologic and hydraulic modelling and assessments to further inform design and construction mitigation measures to maintain typical hydrological regimes and ecological character of the existing catchments
- Maintain the existing fauna crossing and fauna fencing/barriers within the Project area (i.e. rope bridge at Mount Lindesay Highway and Koala culvert west of Mount Lindesay Highway (refer **Att 1 - Matters of National Environmental Significance report_Part 2, Section 7.2.2, Photograph 2 and 3, p. 110**))
- Install additional directional fauna exclusion fencing within the Project area where not currently included (where required) to reduce potential vehicle strike and disruption to dispersal and review the requirement of escape mechanisms from within the road corridor. The directional exclusion fencing will guide fauna to designated fauna crossing locations and wildlife movement solutions (e.g. Sandy Creek and Oxley Creek crossings). The new fauna exclusion fencing will be installed in accordance with TMR Main Roads Standard Drawing 1603, where required.
- Enhancing areas of existing habitat and ecological connectivity through design and revegetation within the Project area at Blunder Creek, Oxley Creek. Enhancements would include revegetation to support dedicated fauna movement habitat, design of fauna dedicated infrastructure as well as retrofitting of existing longitudinal and cross drainage infrastructure to facilitate wildlife movement/crossing opportunities, free from traffic interface
- Review provision of canopy bridges to provide connectivity value for arboreal species (i.e. Koala, Greater glider (southern and central), Yellow-bellied glider (south-eastern)). Canopy bridges would consist of rope ladders to provide movement opportunities for arboreal species in areas where canopy connections are currently fragmented
- Incorporate other fauna sensitive design principles in accordance with TMR's Fauna Sensitive Transport Infrastructure Delivery Manual (TMR 2024a) such as signage where appropriate.
- A combination of capture and treatment measures to be incorporated into the Project detailed design in accordance with TMR's Road Planning and Design Manual (TMR 2024b) to minimise potential indirect downstream water quality impacts and improve overall water quality entering the downstream environment from the Logan Motorway in the operational phase
- The Project's temporary and permanent lighting will be designed in accordance with the Principles of Best Practice Lighting Design, National Light Pollution Guidelines for Wildlife (DCCEEW 2023c)
- Develop and implement an Erosion and Sediment Control Plan (ESCP) signed by a registered professional engineer of Queensland in accordance with TMR technical specification MRTS52 (refer **Att 3 – MRTS 52**). This will include best practice erosion, stormwater and sediment control and designated bunded areas for construction material and refuelling activities
- A Pest and Weed Management Plan will be implemented through the D&C Contractor's EMP(C) in accordance with MRTS 51 (refer **Att 2 – MRTS 51**) to manage pest and weed being introduced to the Project area.
- Implement relevant management measures from the *Nature Conservation (Koala) Conservation Plan 2017* for the area. This will include sequential clearing practices and clearing works to be conducted in the presence of a suitably qualified Koala spotter.

TQ is committed to reducing potential impacts on protected matters through avoidance and mitigation measures.

General mitigation measures

General mitigation measures are proposed to reduce impacts upon the environment, including animals, plants and animal breeding places. These measures will also reduce impacts to the identified MNES but are not designed to specifically target these values. Measures include State-based legislative approval requirements, compliance with State-based policies/guidelines as well as general best-practice techniques.

The Project will be subject to compliance with TMR's MRTS specifications discussed below (refer **Att 2 – MRTS 51** and **Att 3 – MRTS52**) and the D&C contractor will be required to prepare and implement appropriate measures in the site specific EMP(C).

A full list of measures provided in **Att 1 - Matters of National Environmental Significance report_Part 2, Section 7.3, pp 115-119** and are summarised below.

Compliance with State-based approval processes

The Project compliance with State legislative instruments, policies and guidelines are also relevant in relation to implementing management measures which will contribute to minimising potential impacts to MNES. State-based legislative instruments applicable to the Project that are relevant to MNES are outlined in **Att 1 - Matters of National Environmental Significance report_Part 1, Section 4, Table 4.1, pp 41-44**.

TMR's Fauna Sensitive Transport Infrastructure Delivery Manual

The conservation and protection of native fauna is important to TQ. As part of the design process, guidelines outlined in TMR's Fauna Sensitive Transport Infrastructure Delivery Manual will be incorporated into the design of the Project, where relevant to reduce impacts to the identified MNES values.

TMR's Road Planning and Design Manual

TMR's Road Planning and Design Manual (TMR 2024b) provides information related to the planning, design, construction, maintenance and operation of road drainage infrastructure.

Guidelines outlined in TMR's Road Planning and Design Manual have been incorporated into the design of the Project to reduce impacts to the identified MNES.

TMR Technical Specifications

Construction activities will be carried out pursuant to the TMR's engineering standards and Technical Specifications. Environmental aspects will be managed under site specific and relevant aspects of the MRTS 51 Environmental Management and MRTS 52 Erosion and Sediment Control. Rehabilitation and landing works will be managed by MRTS 16 Landscape and Revegetation Works. Clearing requirements will be managed by MRTS 04 General Earthworks.

Refer **Att 1 - Matters of National Environmental Significance report_Part 2, Section 7.3.2, pp 115-116** for further detail on the TMR Specifications. Refer **Att 2 – MRTS 51** and **Att 3 – MRTS52.**

Application of these mitigation measures will result in avoidance and minimisation of indirect impacts to the area proximate to the Project. In addition, these mitigation measures will also directly minimise the potential magnitude of impacts to the identified MNES.

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

Significant residual impacts are those that remain after all efforts to avoid, minimise and mitigate impacts to MNES have been applied.

The Project is committed to providing a positive outcome for biodiversity which will be delivered through either an offset as per legislative processes or via biodiversity net gain initiatives.

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
Yes	Yes	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	Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
Yes	Yes	Cuculus optatus	Oriental Cuckoo, Horsfield's Cuckoo
Yes	Yes	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
Yes	Yes	Hirundapus caudacutus	White-throated Needletail
No	No	Motacilla flava	Yellow Wagtail
No	No	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew
Yes	Yes	Pandion haliaetus	Osprey
Yes	Yes	Plegadis falcinellus	Glossy Ibis
No	No	Tringa nebularia	Common Greenshank, Greenshank

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 PMST report recorded 34 listed migratory species as potentially occurring within the Project area, including a 5 km buffer (refer **Att 1 - Matters of National Environmental Significance report_Part 1**, **Section 5.3.3, p. 79 and Att 1 - Matters of National Environmental Significance report_Part 3, Appendix A**). Of these, the following four are known or considered likely to occur within the Project area:

- Oriental cuckoo (*Cuculus optatus*)
- Glossy Ibis (*Plegadis falcinellus*)
- Fork-tailed swift (*Apus pacificus*)
- Osprey (*Pandion haliaetus*).

Migratory species which are also listed as conservation significant (i.e. White throated needletail and Latham's snipe) have been assessed in the relevant section above pertaining to listed threatened species.

The Project involves several construction activities that have the potential to directly or indirectly impact on EPBC Act listed migratory bird species. Potential impacts for each of the listed migratory species are outlined below.

The direct impact to important habitat for migratory species is as follows:

- Fork tailed swift: direct removal of up to 131.18 ha of important habitat
- Oriental cuckoo: direct removal of up to 62.81 ha of important habitat
- Glossy Ibis: direct removal of up to 0.52 ha of important habitat
- Osprey: direct removal of up to 0.52 ha of important habitat.

Other potential direct impacts include:

- Direct injury or mortality of individual birds from construction machinery
- Temporary loss of suitable breeding, foraging, and dispersal habitat as a result of temporary construction related infrastructure.

Potential indirect impacts for all migratory species include:

- Habitat degradation from increased dust, run-off and sedimentation during construction activities
- Displacement from water quality, sedimentation, and hydrology alteration during construction activities
- Increased noise, light, dust, and vibration during temporary construction activities which reduces habitat quality.

Potential threats from the Project will be appropriately managed through the EMP(C).

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. *

Significant impact assessments were completed for listed migratory species known to occur, or considered likely to occur, within the Project area (including a 5 km buffer). Findings are described in **Att 1 – Matters of National Environmental Significance report_Part 2, Section 8.4, pp. 176-180** and summarised below.

Migratory species subject to significant impact assessment (DoE 2013) include:

- Oriental cuckoo (*Cuculus optatus*)
- Glossy Ibis (*Plegadis falcinellus*)
- Fork-tailed swift (*Apus pacificus*)
- Osprey (*Pandion haliaetus*)

Overall, assessment against EPBC Act Policy Statement 1.1 Significant Impact Guidelines: Matters of National Environmental Significance identified the Project was unlikely to have a significant impact to migratory species. Further, the extent of habitat present within the Project area does not meet the thresholds suggested to lead to a significant impact to migratory species.

Oriental cuckoo

Potential important habitat for Oriental cuckoo is present within the Project area (i.e. Eucalypt forest and riparian vegetation) (DoE 2015). The total area of predicted habitat considered important for woodland migrants that occurs within the Project area is below the guideline threshold for all species. Therefore, such habitat will not be substantially modified, destroyed or isolated.

Refer **Att 1 – Matters of National Environmental Significance report_Part 2, Section 8.4, Table 8.26 p. 179**.

Migratory wetland species (Osprey and Glossy Ibis)

Potential important habitat for wetland migrants is present within the Project area (i.e. wetland vegetation) (DoE 2015). The total area of predicted habitat considered important for wetland migrants that occurs within the Project area is below the guideline threshold for all species.

The Project area does not contain breeding habitat for the species. Due to the nature of the Project (road widening) and the aerial nature of species involved, no direct or indirect mortality of individuals is expected as a result of the Project.

Refer **Att 1 – Matters of National Environmental Significance report_Part 2, Section 8.4, Table 8.28 p. 180**.

Fork-tailed Swift (*Apus pacificus*)

As this species is a highly mobile aerial species and rarely lands, no important habitat for the Fork-tailed swift will be removed as a result of the Project. Therefore, no significant impact is anticipated as a result of the modification, destruction or isolation of important habitat.

No direct or indirect mortality of individuals is expected as a result of the Project. Given the nature of works, the Project is not likely to seriously disrupt the lifecycle of an ecologically significant proportion (i.e. 100 individuals) of the Fork-tailed swift.

Refer **Att 1 – Matters of National Environmental Significance report_Part 2, Section 8.4, Table 8.27 p. 179.**

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 not considered a controlled action for impacts to migratory species as it is unlikely to result in a significant impact to any migratory species, based on the results of the significant impact assessments undertaken in accordance with the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance (DEWHA, 2013). Refer **Att 1 - Matters of National Environmental Significance report_Part 2, Section 8.4, pp. 176-180**.

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 Project has included avoidance and mitigation measures to avoid and minimise impacts to migratory species. The current concept design of the Project has been developed and refined to maximise use of disturbed areas (i.e. within the existing centre road median or built as close to the existing Motorway as possible) and to either avoid or minimise vegetation clearing wherever possible.

Key mitigation measures include:

- Continued surveys/investigations as part of reference design and detailed design (i.e. water quality monitoring, acid sulfate soils, lighting, noise assessments)
- Continued refinement of the Project design footprint to further avoid impacts on MNES migratory species
- The Project's temporary and permanent lighting will be designed in accordance with the Principles of Best Practice Lighting Design, including the National Light Pollution Guidelines for Wildlife (DCCEEW 2023c)
- Development of EMP(C) in accordance with TMR technical specification MRTS 51 containing specific measures for migratory birds such as erosion and sediment control measures, sequential clearing requirements, artificial lighting requirements and pest and weed management.

Project mitigation measures are detailed in **Att 1 - Matters of National Environmental Significance report_Part 2, Section 7, pp. 98-119.**

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

There are no proposed offsets relevant 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. *

Activities associated with the Project are not considered a nuclear action, as defined in Section 22 of the EPBC Act.

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. *

There are no Commonwealth Marine Areas located within or near the Project.

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 Great Barrier Reef Marine Park (GBRMP) is located off the coast of Queensland, approximately 360 km north of the Project. Given this distance, the Project is unlikely to have any impacts on the GBRMP.

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 is a road transport project and has no relationship to 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.

Direct impact	Indirect impact	Commonwealth land area
No	No	Defence - GREENBANK TRAINING AREA

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 EPBC Act PMST identified two areas of Commonwealth Land using a 5 km search radius of the Project area, being the Greenbank Training Area (Greenbank Military Area) (31007, 31015, 31008, 31012, 31011) and Sanananda Barracks, Wacol (30187, 30184, 30185, 30191, 30188, 30191, 30188, 10189, 30186, 30190, 30192, 30193) (refer **Att 1 – Matters of National Environmental Significance report_Part 3, Appendix A**). Sanananda Barracks, Wacol is approximately 3 km north of the Project area, therefore due to its location it is not discussed further.

The Project area is not in the Greenbank Military Area and will not cause direct impacts on the Commonwealth Land environmental values. The Project area runs parallel to the Greenbank Military Area between Staplyton Road and the Centenary Highway at Heathwood, and is separated at a distance (minimum 50 m) by existing industrial land uses, a 275kV overhead transmission line, Johnson Road (local government road) and Stradbroke Street Park. The Project area is also indirectly downstream of the Greenbank Military Area, via Oxley Creek and Blunder Creek.

The Project's initial design had Project works located adjacent to the Greenbank Military Area site in two locations, near Centenary Highway and near Woogaroo Street. By applying the avoidance principle, these areas have now been removed from the Project scope to ensure no indirect impacts to the Commonwealth Land environmental values by the Project. Refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 5.6.1, pp. 82-89** for further discussion.

Owing to the existing Logan Motorway and removal of Project scope in proximity of the Greenbank Military Area, the implementation of mitigation measures (refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 5.6.1, table 5.6, pp. 82-83**), together with the separation distance between the Project area and the Greenbank Military Area, including buffering afforded by the existing land uses described above, the Project will not have any indirect impacts on the Greenbank Military Area.

As per the *Significant Impact Guidelines 1.2 Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth Agencies* (SEWPaC, 2013), the Project will not result in impacts on Greenbank Military Area (Refer **Att 1 - Matters of National Environmental Significance report_Part 1, Section 5.6.1, table 5.6, pp. 82-83)**

The Project will implement the use of and compliance with TMR technical specifications MRTS51 Environmental Management (such as appropriate fencing, EMP(C), pest and weed management plan, identification of no go zones, engagement of a fauna spotter catcher) and MRTS 52 Erosion and Sediment Control (such as ESCP) to ensure avoidance of impacts on the Greenbank Military Area (i.e. as determined under the *Significant Impact Guidelines 1.2 Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth Agencies* (SEWPaC, 2013)).

Overall, no direct or indirect impacts on the Greenbank Military Area are expected as a result of the Project due to:

- The Project is located entirely outside of the Greenbank Military Area and the scope of works that were in proximity to the Greenbank Military Area have been removed from the Project
- The separation distance between the Project area and the Greenbank Military Area, including buffering afforded by the existing land uses being existing industrial land uses, a 275 kV overhead transmission line (Powerlink), Johnson Road (local government road) and Stradbroke Street Park
- The Project area being indirectly downstream of the Greenbank Military Area, via Oxley Creek and Blunder Creek
- No impacts as determined under the *Significant Impact Guidelines 1.2 Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth Agencies* (SEWPaC, 2013)
- Implementation of construction mitigation measures (being TMR technical specifications MRTS 51 Environmental Management and MRTS 52 Erosion and Sediment Control (refer **Att 2 – MRTS 51** and **Att 3 – MRTS 52)**) and operational mitigation measures (being a combination of capture and treatment measures in accordance with TMR's Road Planning and Design Manual (TMR 2024b),

fencing in accordance with MRTS 51 Environmental Management) will avoid any Project impacts on Commonwealth Land (i.e. Greenbank Military Area).

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 not located on listed Commonwealth heritage places overseas, therefore is unlikely to have any direct or indirect impacts on this protected matter.

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? *

No

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

The Project involves maximising the potential of existing transport corridor infrastructure and utilising already disturbed/fragmented land through upgrading an existing major motorway. If a new second road were to be proposed to facilitate the additional network requirements, this would have the potential to create new and negative issues on both the regional environment and existing communities through additional clearing of intact biodiversity habitats and potential property resumptions and the severance of existing communities. Therefore, the Project is considered to be appropriately located to achieve the Project objectives, and alternative locations are not considered feasible.

If the Project were not to proceed, the following may occur:

- Increased congestion as a result of population growth increasing peak traffic demands
- Increased safety risks and motorway incidents as a result of congestion
- Community concern regarding traffic congestion
- Increase in traffic on local government road creating increased safety risks
- Increased delays in freight movement resulting in potential economic impacts.

As part of the current reference design phase, an options analysis has been undertaken for the Project at three different critical locations. Various options were developed at each location for addressing the problem identified and to achieve improved performance, operation and safety of the Motorway as well as local road network in the immediate vicinity. A summary of the options assessed in the multi-criteria analysis are provided in **Att 1 - Matters of National Environmental Significance report_Part 1, Section 2.2, Table 2.1, p. 4.**

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Matters of National Environmental Significance Report_Part 1.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	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 1 - Matters of National Environmental Significance Report_Part 1.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	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.	Link	Health, Safety and Environment Policy https://www.transurban.com/content/dam/transurba..			High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Matters of National Environmental Significance Report_Part 1.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High
#2.	Document	Att 1 - Matters of National Environmental Significance Report_Part 3.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Matters of National Environmental Significance Report_Part 1.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Matters of National Environmental Significance Report_Part 3.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Matters of National Environmental Significance Report_Part 3.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Matters of National Environmental Significance Report_Part 1.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High
#2.	Document	Att 1 - Matters of National Environmental Significance Report_Part 2.pdf Logan West Upgrade Matters of National Environmental Significance	12/03/2025	No	High

		Report that provides information to support the EPBC Act referral			
#3.	Document	Att 2 - MRTS51 Environmental Management.pdf TMR technical specifications that provides information to support the EPBC Act referral	12/03/2025	No	High
#4.	Document	Att 3 - MRTS52 Erosion and Sediment Control.pdf TMR technical specifications that provides information to support the EPBC Act referral	12/03/2025	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	Att 1 - Matters of National Environmental Significance Report_Part 1.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High
#2.	Document	Att 1 - Matters of National Environmental Significance Report_Part 2.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High
#3.	Document	Att 1 - Matters of National Environmental Significance Report_Part 3.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025		High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Matters of National Environmental Significance Report_Part 2.pdf Logan West Upgrade Matters of National Environmental Significance	12/03/2025	No	High

Report that provides information to support the EPBC Act referral

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	Att 1 - Matters of National Environmental Significance Report_Part 2.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	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	Att 1 - Matters of National Environmental Significance Report_Part 1.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High
#2.	Document	Att 1 - Matters of National Environmental Significance Report_Part 2.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High
#3.	Document	Att 1 - Matters of National Environmental Significance Report_Part 3.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High
#4.	Document	Att 2 - MRTS51 Environmental Management.pdf TMR technical specifications that provides information to support the EPBC Act referral	12/03/2025	No	High
#5.	Document	Att 3 - MRTS52 Erosion and Sediment Control.pdf TMR technical specifications that provides information to support the EPBC Act referral	12/03/2025	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Matters of National Environmental Significance Report_Part 1.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High
#2.	Document	Att 1 - Matters of National Environmental Significance Report_Part 3.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	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	Att 1 - Matters of National Environmental Significance Report_Part 2.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High

4.1.5.9 (Migratory Species) Why you do not think your proposed action is a controlled action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Matters of National Environmental Significance Report_Part 2.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Matters of National Environmental Significance Report_Part 2.pdf Logan West Upgrade Matters of National Environmental Significance	12/03/2025	No	High

Report that provides information to support the EPBC Act referral

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Matters of National Environmental Significance Report_Part 1.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High
#2.	Document	Att 1 - Matters of National Environmental Significance Report_Part 3.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High
#3.	Document	Att 2 - MRTS51 Environmental Management.pdf TMR technical specifications that provides information to support the EPBC Act referral	12/03/2025	No	High
#4.	Document	Att 3 - MRTS52 Erosion and Sediment Control.pdf TMR technical specifications that provides information to support the EPBC Act referral	12/03/2025	No	High

4.3.8 Why alternatives for your proposed action were not possible

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Matters of National Environmental Significance Report_Part 1.pdf Logan West Upgrade Matters of National Environmental Significance Report that provides information to support the EPBC Act referral	12/03/2025	No	High

5.2 Declarations

Completed Referring party's declaration

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

ABN/ACN	54005139873
Organisation name	AURECON AUSTRALASIA PTY LTD
Organisation address	4006 QLD
Representative's name	Gabby Singh
Representative's job title	Senior Consultant, Environment and Planning
Phone	0420706556
Email	gabby.singh@aurecongroup.com
Address	25 King Street, Bowen Hills QLD 4006

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

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

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

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

Completed Person proposing to take the action's declaration

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

ABN/ACN	50067242513
Organisation name	QUEENSLAND MOTORWAYS PTY LIMITED
Organisation address	4000 QLD
Representative's name	Verity Turner

Representative's job title	Environment and Planning Director
Phone	+61 435 513 170
Email	vturner@transurban.com
Address	Level 39, 300 George Street, Brisbane QLD 4000

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

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

☑ I, **Verity Turner of QUEENSLAND MOTORWAYS 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 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, **Verity Turner of QUEENSLAND MOTORWAYS 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. *