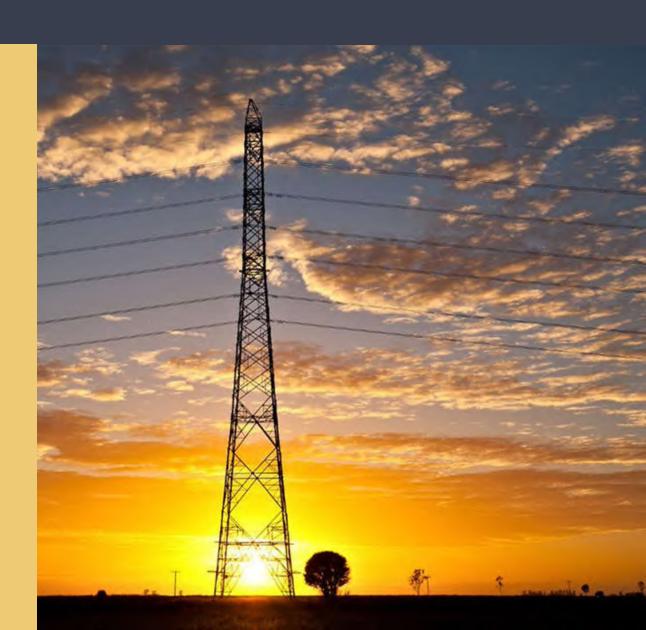




Flinders Substation Ministerial Infrastructure Designation **Assessment Report**

Volume 1 - Flinders Substation Ministerial Infrastructure Designation Assessment Report



Executive Summary

The CopperString Project (the Project) involves the construction and operation of a high voltage overhead electricity transmission line that will initially span approximately 840 kilometres (km) between Townsville and Mount Isa. The Project will connect the North West Minerals Province and to the National Electricity Market (NEM).

The Project spans seven Local Government Areas and is seeking a Ministerial Infrastructure Designation (MID) to facilitate the delivery of the Project infrastructure. On 20 May 2024 the Project received endorsement from the Department of State Development, Infrastructure and Planning (formerly the Department of State Development, Local Government, Infrastructure and Planning) to seek a MID. Separate MID approval will be sought for each of aspect of construction.

This report is the first MID for the Project and includes the development of the Flinders Substation. This *Flinders Substation MID Assessment Report* will assess topics relevant to Flinders Substation including:

- the property description and land area proposed for Ministerial Infrastructure Designation
- consultation with stakeholders
- state code responses where applicable
- an assessment of matters in the Ministers Guidelines and Rules relevant to the Flinders Substation MID.
- recommended information required for a MID made in the *Coordinators-General's evaluation report* on the environmental impact statement.

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Document Terminology

| Term | Definition |
|---|---|
| the Project | The CopperString Project, which will initially be approximately 840km in distance, commencing at Reid River west of Townsville and stretching to Mount Isa. |
| Proponent | Queensland Electricity Transmission Corporation Limited, trading as Powerlink Queensland, abbreviated to Powerlink. |
| Flinders Substation MID | Multiple Ministerial Infrastructure Designations (MIDs) will be submitted for the Project due to Project's scale. The Flinders Substation MID will be the first MID to be submitted and will include Flinders Substation which is located approximately 7km south of Hughenden. |
| Flinders Substation MID Project Area | The Environmenl Protection and Biodiversity Conservation Act 1999 approval (EPBC Act 2019/8416) requires the final Project Area is within a 5km wide study area based on the transmission centreline approved in the Project's Environmental Impact Statement (EIS). The 5km wide study area is to house permanent infrastructure including the transmission line, substations and Controlled Environment Vault (CEV) Huts. The Flinders Substation MID Project Area is within the area identified in the EBPC approval and includes the lot/plans on which the Flinders Substation MID infrastructure will be built. |
| Flinders Substation MID Area | The area of land proposed for designation under the MID process. This will be within the Flinders Substation MID Project Area and will be the area in which any construction activities and disturbance will take place. |
| Flinders Substation MID Assessment Report | This report, which assesses the requirements for MID for Flinders Substation. |
| Basis of Clearing Design (Clearing) | The Basis of Design (Clearing) (BOD(C)) documents the principles, assumptions and considerations used during the development of the clearing design. |
| Construction Zone | The Construction Zone will be the outer limit of the area that will be disturbed for the Project under the EPBC Act Approval. |

Document Context

The CopperString Project is a coordinated project under the *State Development and Public Works Organisation Act 1971* and has been the subject of an environmental assessment through an Environmental Impact Statement (EIS). Therefore, this document should be read in conjunction with the Project's EIS and the *Coordinator-General's evaluation report on the environmental impact statement*.

Changes have been made to the overall Project footprint since the approval of the EIS due to constructability issues encountered during detailed design. To understand these changes and the process the Project is following for updated Project approvals, refer to the CopperString website. The changes to the Project are not within the area of this MID Assessment Report.

Abbreviations

| Abbreviation | Description |
|--|--|
| ADR | Accepted Development Requirements |
| AEMO | Australian Energy Market Operator |
| AHD | Australian height datum |
| ALCAM | Australian Level Crossing Assessment Model |
| BOD(C) | Basis of Design (Clearing) |
| CEV | controlled environment vault |
| СНМР | Cultural Heritage Management Plan |
| CLR | Contaminated Land Register |
| Coordinator-General's evaluation report on the EIS | Coordinator-General's evaluation report on the environmental impact statement |
| CSEP | Communication and Stakeholder Engagement Plan |
| DPI | Department of Primary Industries |
| DA Rules | Development Assessment Rules |
| DCCEEW | Department of Climate Change, Energy, the Environment and Water |
| DETSI | Department of the Environment, Tourism, Science and Innovation |
| DLGWV | Department of Local Government, Water and Volunteers |
| DSDILGP | Department of State Development, Infrastructure, Local Government and Planning |
| DSDIP | Department of State Development, Infrastructure and Planning |
| DTMR | Department of Transport and Main Roads |
| EIAP | Engagement and Implementation Action Plan |
| EIS | Environmental Impact Statement |
| EMF | electro-magnetic field |

| Abbreviation | Description |
|-------------------|---|
| EMP | Environment Management Plan |
| EO Act | Environmental Offsets Act 2014 |
| EO Regulation | Environmental Offsets Regulation 2014 |
| EPBC Act | Environment Protection and Biodiversity Conservation Act 1999 |
| EPBC Act Approval | EPBC 2019/8416 |
| EP Act | Environment Protection Act 1994 |
| ERA | environmentally relevant activity |
| ESC | erosion sediment control |
| EWMS | Environment Work Method Statements |
| GBR | Great Barrier Reef |
| GHG | greenhouse gas |
| GW | gigawatts |
| ha | hectares |
| Hughenden WAF | Hughenden Workers Accommodation Facility |
| IAS | Initial Advice Statement |
| IECA | International Erosion Control Association |
| km | kilometre |
| kV | kilovolt |
| LAP | Land Access Protocol |
| LGA | local government area |
| m | metres |
| MID | Ministerial Infrastructure Designation |
| MNES | matters of national environmental significance |
| MSES | matters of state environmental significance |

| Abbreviation | Description |
|--------------|--|
| MW | megawatts |
| NEM | National Electricity Market |
| NC Act | Nature Conservation Act 1992 |
| NWMP | North West Minerals Province |
| NWPS | North West Power System |
| OCG | Office of the Coordinator-General |
| OSOM | over size over mass |
| PCSR | Pre-clearance Survey Report |
| QAS | Queensland Ambulance Service |
| QFES | Queensland Fire and Emergency Service |
| QPS | Queensland Police Service |
| QR | Queensland Rail |
| RfPC | Request for Project Change |
| RPEQ | Registered Professional Engineer of Queensland |
| RUMP | Road Use Management Plan |
| SDAP | State Development Assessment Provisions Version 3.2, effective February 2025 |
| SDPWO Act | State Development and Public Works Organisation Act 1971 |
| SEIS | EIS Supplement |
| SIMP | Social Impact Management Plan |
| SIMR | Social Impact Management Report |
| SPP | State Planning Policy |
| SRI | Significant Residual Impact (assessed under Nature Conservation Act 1992) |
| STATCOM | Static Synchronous Compensator |
| TIAs | Traffic Impact Assessments |

| Abbreviation | Description |
|---------------------|---|
| Planning Act | Planning Act 2016 |
| Planning Regulation | Planning Regulation 2017 |
| VPE | vehicle, plant and equipment |
| VPEM | vehicle, plant, equipment and machinery |
| Water Act | Water Act 2000 |
| WWBW | Waterway Barrier Works |

1. Introduction

The CopperString Project (the Project) involves the construction and operation of a high voltage overhead electricity transmission line. The Project will initially span approximately 840 kilometres (km) between Townsville and Mount Isa as shown in Figure 1. The Project will connect the North West Minerals Province (NWMP) to the National Electricity Market (NEM).

The Project was declared a coordinated project on 26 April 2019 and an Environmental Impact Statement (EIS) was required under the *State Development and Public Works Organisation Act 1971* (SDPWO Act).

The final EIS was accepted on 28 February 2022 and evaluated by the Coordinator-General who recommended the Project proceed subject to the conditions in the <u>Coordinator-General's evaluation report on the environmental impact statement</u> (Coordinator-General's evaluation report on EIS) on 21 September 2022.

The Project was also declared a 'controlled action' under the Environment Protection and Biodiversity Conservation Act (EPBC Act) on 14 May 2019 and was notified of its approval on 11 November 2022. A delegate for the Australian Minister for the Environment and Water approved the 'CopperString Transmission Line Project' as a controlled action under the EPBC Act subject to conditions in November 2022. A variation to the conditions of the EPBC Act Approval (EPBC 2019/8416) was granted on 7 March 2025. The Project was also declared a 'prescribed project' and a 'critical infrastructure project' under the SDPWO Act on 9 July 2024.

Having received environmental approval through the EIS, the next stage of the Project is to seek land use planning approvals and development permits under the *Planning Act 2016* (Planning Act). The preferred approvals pathway and the recommended conditions from the *Coordinator-General's evaluation report on the EIS* are to seek planning approval through the Ministerial Infrastructure Designation (MID) process.

A request for MID endorsement was submitted by Powerlink on 13 March 2024 and endorsement for the Project was received on 20 May 2024. As per the Project's EIS the Project will submit separate MIDs for different aspects of the Project. This approach will assist in targeted consultation with stakeholders and adjacent landholders and allow approvals to be obtained for activities that need to occur ahead of each other.

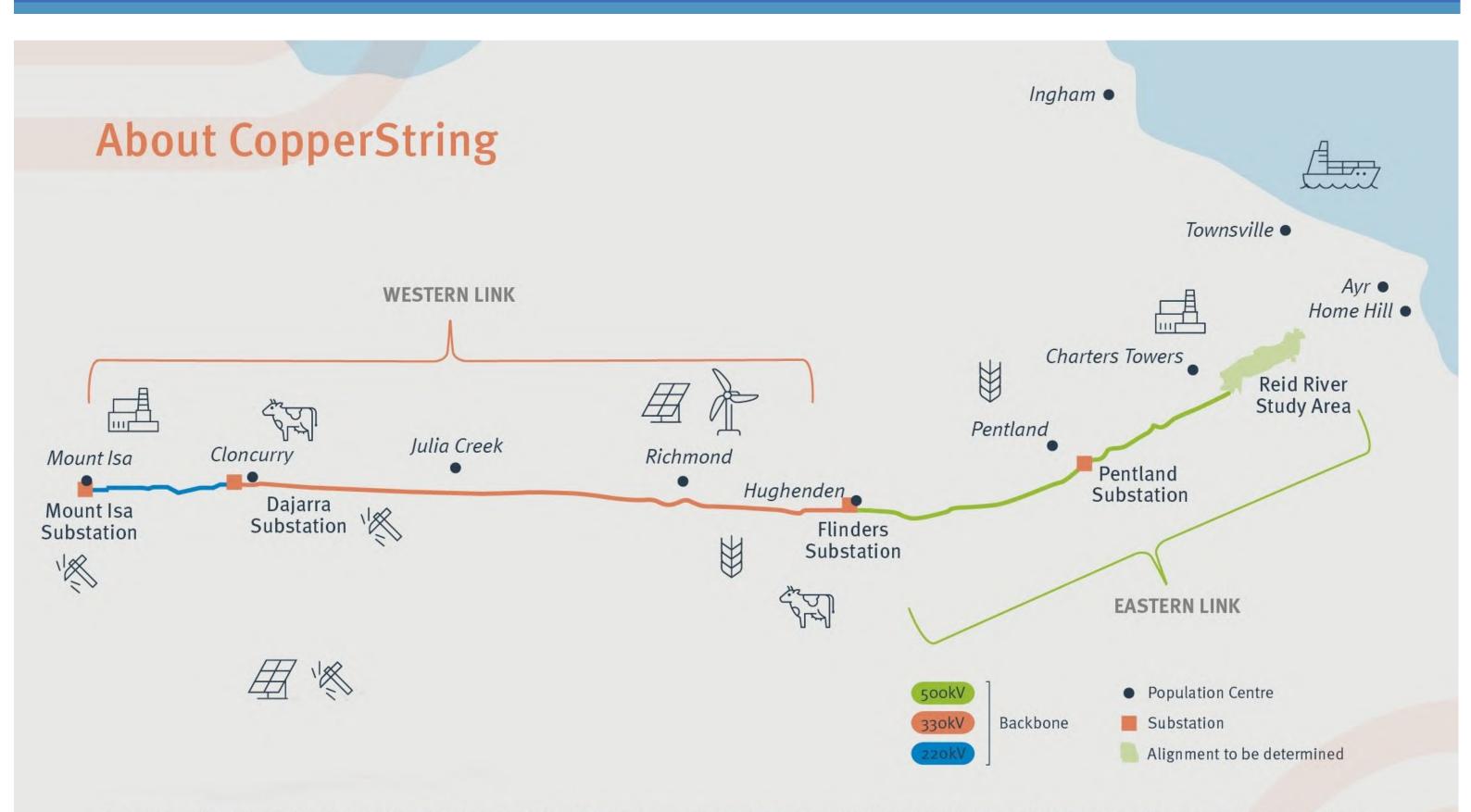
This *Flinders Substation MID Assessment Report* is for the Flinders Substation which is located approximately 6km south of Hughenden as shown in Figure 2.

This Flinders Substation MID Assessment Report is structured as follows:

- Volume 1 Flinders Substation MID Assessment Report (this document).
- Volume 2 Management Plans and Technical Reports supporting Volume 1.





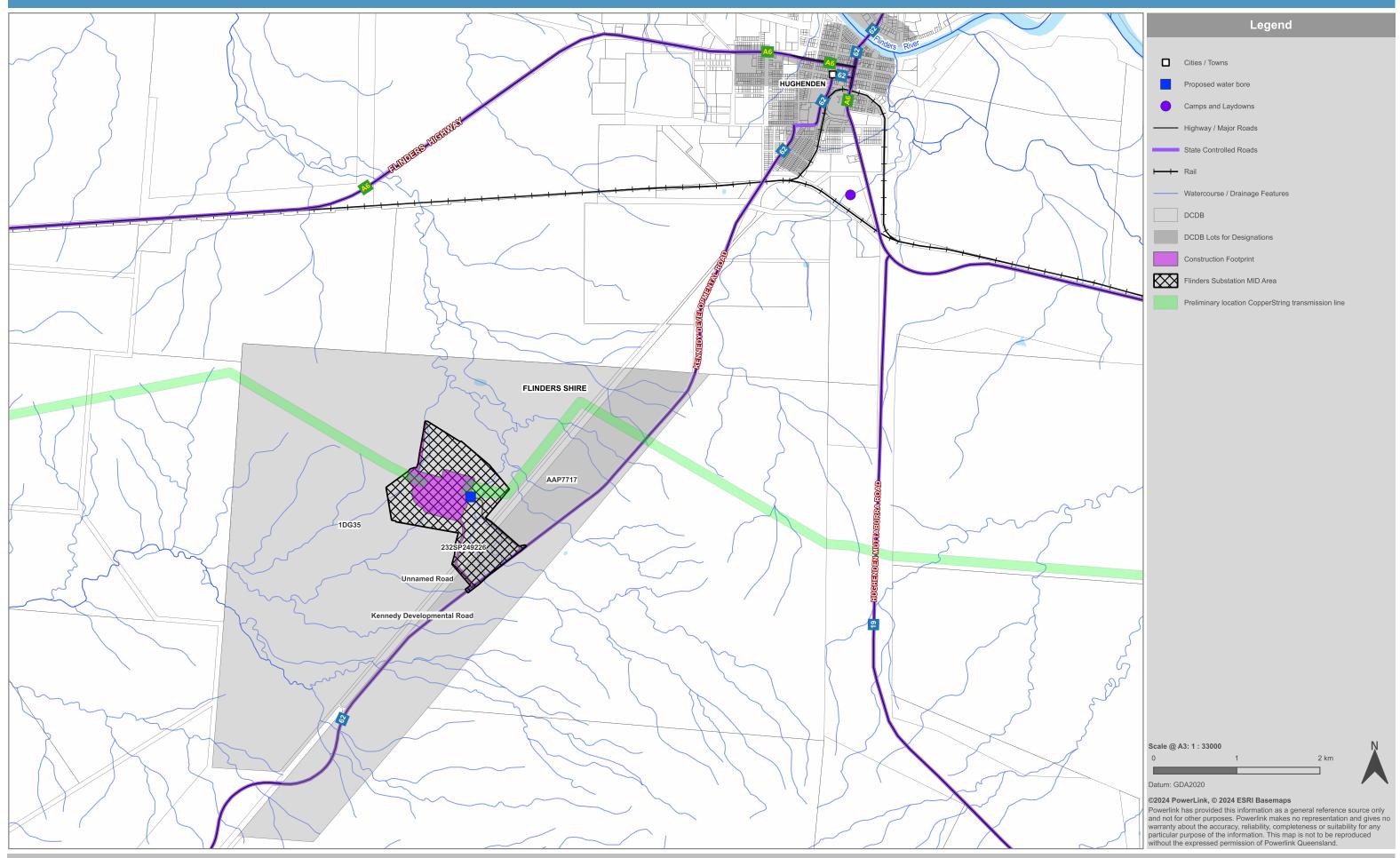


Powerlink does not distinguish between a substation or switching station for the purposes of this map. Please note the transmission line and locations of supporting infrastructure may change based on further investigations and during detailed design. Correct as at June 2025.





Figure 2



1.1 Project purpose

The Project is a high voltage electricity transmission system that commences southwest of Townsville and spans to Mount Isa with an initial distance of approximately 840km. It will facilitate access to the state electricity transmission grid and participation in the NEM for electricity consumers and support diversified energy generation opportunities through the region. Further to this, the Project will support the development of critical minerals through reliable power infrastructure to the NWMP.

1.2 Project proponent

The initial proponent of the Project was CuString Pty Ltd. CuString Pty Ltd was responsible for developing the Project (CopperString 1.0) from 2009 until it's suspension in 2011. In 2017 the Project (CopperString 2.0) was revisited by CuString Pty Ltd and a draft EIS was submitted in 2019. During the development of the draft EIS, early contractor involvement was negotiated and UGL Engineering Pty Ltd and CPB Contractors Pty Ltd were appointed as a Joint Venture Contractor for construction activities.

In March 2023 the Queensland Government announced that it would deliver the Project with the government owned transmission business Powerlink leading work on the Project. As a result, the new Proponent of the Project is: Queensland Electricity Transmission Corporation Limited ACN 078 849 233 (trading as Powerlink Queensland). The Coordinator-General was advised of these changes on 31 March 2023.

1.3 Ministerial Infrastructure Designation process

The Project will seek planning approval through the MID Process as outlined in the Project's EIS and as recommended in the <u>Coordinator-General's evaluation report on the EIS</u>. The Project will follow the process outlined in Figure 3 and in the <u>Minister's Guidelines and Rules</u> (July 2024).

Initial advice to lodge a MID was sought in March 2022 with a consultation strategy for preliminary stakeholder engagement submitted by CuString Pty Ltd in May 2022. Consultation with all parties has been ongoing since the inception of the Project and has continued during the development of the EIS and the detailed design phase. Specific consultation was undertaken in relation to the MID process with impacted parties, as outlined in section 1.5.

Powerlink sought endorsement from the Minister to lodge a MID Assessment on 13 March 2024 and the Minister advised on 20 May 2024 that the request was endorsed. The MID endorsement request sought approval from the Minister to endorse the whole Project. In line with ongoing discussions with the Department of State Development, Infrastructure and Planning (DSDIP) the endorsement sought approval to submit multiple MID assessments that reflect the construction sequence of the Project. This approach was requested due to the scale of the Project to enable a more targeted approach to consultation, a more manageable assessment process for stakeholders and to enable some construction activities to occur ahead of others.

Figure 3: Ministerial Infrastructure Designation Process



1.4 MID assessments for the Project

The Project spans seven Local Government Areas (LGAs) covering approximately 840km.

To ensure an effective assessment process the Project has sought endorsement to lodge multiple MID assessments. Assessments will align with the construction sequence of the Project.

The Project has undertaken consultation with stakeholders to develop the Project footprint and as part of the EIS. Consultation with key stakeholders has been ongoing as the design of the Project has progressed. Stakeholders are aware of the Project, and its objectives and impacts.

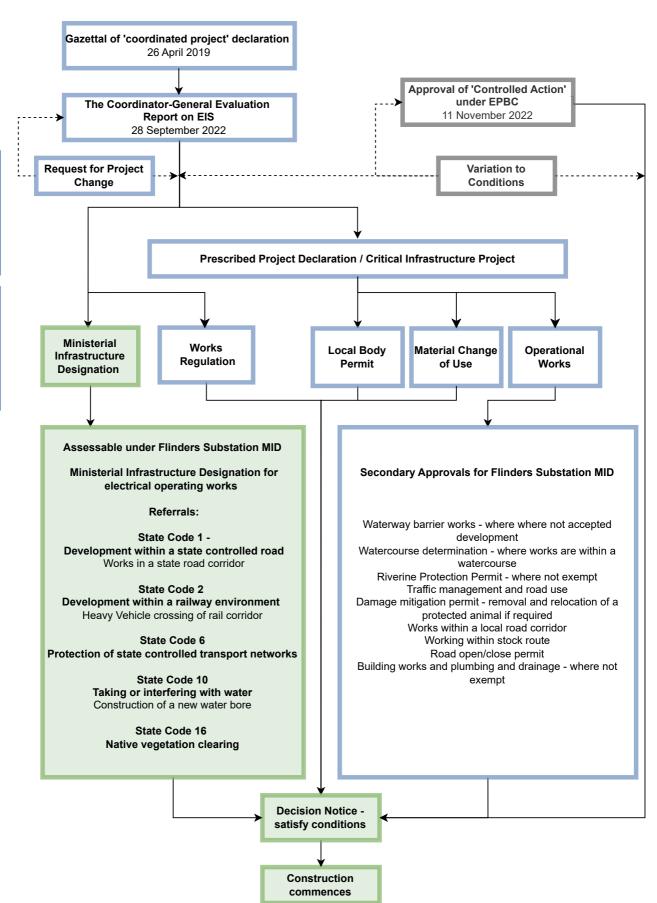
Lodgement of multiple MIDs will enable:

- more effective and targeted consultation with stakeholders for parts of the Project that potentially impact them
- MID assessments to be at a scale manageable for stakeholders to review and provide feedback
- MID assessments to be relevant to the stakeholders consulted.

Figure 4 is an overview of the Project's approvals pathway, including current approvals, project wide approvals, secondary approvals, and approvals compliance. This approvals pathway outlines the specific approvals required for the Flinders Substation MID. Whilst the MID process will seek planning approval for the major infrastructure components of the Project, there will be some aspects of the Project that will seek approval outside the MID process including some temporary workforce accommodation.



Planning Appro



1.5 Project consultation

Consultation has been undertaken since the commencement of the Project in 2019 and has continued with all relevant stakeholders as the Project has progressed.

1.5.1 Consultation during EIS development

The consultation program undertaken during the development of the EIS was in accordance with the requirements of the Coordinator-General's *Terms of Reference*.

For directly impacted landholders a *Land Acquisition Protocol* was developed to ensure a consistent process. The protocol includes each landholder having a dedicated land agent to facilitate agreements with the Project. Refer to Volume 3 Appendix E-<u>Land Acquisition Protocol</u> for more details.

Issues raised during the development of the EIS were addressed in the following manner:

- For issues raised by landholders in relation to the location of the proposed infrastructure, land agents worked
 with landholders directly to resolve issues. A proposed location for the infrastructure was presented to
 landholders and land agents worked with landholders to determine if landholder operations would be
 impacted. In some instances, alternate locations for the infrastructure were identified or the land agents and
 landholders worked together to develop agreements which met both parties' requirements.
- For issues raised in relation to construction activities, commitments were developed, or conditions were imposed by regulators to ensure these issues would be addressed during the detailed design and construction phases of the Project.
- For issues relating to Indigenous Cultural Heritage, the Project worked with Traditional Owner groups to put in place *Cultural Heritage Management Plans* (CHMPs).

Once the draft EIS was submitted and placed on public display further feedback was received and a revised EIS, Volume 4 – EIS supplement (SEIS), was developed to respond to requests for further information. For details of the consultation activities of the Project and feedback from the stakeholders and community which have informed the design and outcomes of the Project, refer to the documents outlined in Table 1.

Table 1: FIS consultation outcomes documentation

| Document | Consultation Activities |
|---|---|
| Appendix C – Public consultation report | Outlines activities undertaken by the Project prior to the submission of the EIS. Summarises feedback and was used to develop Project commitments. |
| <u>SEIS</u> | The Draft EIS was finalised in November 2020 and placed on public display from 21 December 2020 until 12 February 2021 with stakeholders and the public invited to make submissions in response to the draft EIS. Twenty-seven written submissions were received during the public notification period of the EIS. In response to the written submissions received, and following further consultation with Australian and Queensland agencies, additional information for the EIS was requested by the Coordinator-General on 17 June 2021. In response the Volume 4 SEIS was prepared which included a response to submissions and an updated commitments register. |
| Volume 3, Appendix D - Corridor Selection Report | This report outlines the different options for the Project corridor that have been considered. It provides a list of changes to the Project corridor because of either stakeholder feedback or design considerations. |

Issues raised since the submission of the EIS are consistent with feedback on the EIS and therefore mitigation and management measures identified in the <u>Coordinator-General's evaluation report on the EIS</u> are still considered to be appropriate to address any Project concerns. The Project will continue to address the conditions and recommendations in the <u>Coordinator-General's evaluation report on the EIS</u>.

The Project will continue to work with impacted stakeholders to inform them of the Project activities ahead of time and work with stakeholders to identify potential issues and resolve issues if they arise.

1.5.2 MID Consultation

Prior to seeking endorsement for the MID, consultation activities specifically relating to the MID were undertaken with the following groups:

- directly impacted landholders
- Traditional Owners
- communities
- local councils along the Project corridor.

These activities were undertaken during July and August 2023 and were to inform stakeholders of changes to the overall Project and next steps in the Project including the Project seeking a MID. Consultation with landholders has been ongoing since the approval of the EIS to finalise land agreements and organise land access. Since the initial consultation activities for the MID process, Powerlink has continued to engage with the landholders impacted by the Flinders Substation MID and Flinders Shire Council on the progress of the MID process. Further information on consultation outcomes can be found in section 9.5.

Engagement with the Queensland departments and government owned corporations has been ongoing throughout the detailed design phase of the Project. The following government stakeholders have been consulted through the preparation of this *Flinders Substation MID Assessment Report*:

- DSDIP
- Department of Transport and Main Roads (DTMR) including Queensland Rail (QR)
- Department of Local Government, Water and Volunteers (DLGWV)
- Office of the Coordinator-General (OCG).

A MID Engagement and Implementation Action Plan (EIAP) has been developed for consultation activities relating to this MID Assessment Report and the outlined activities will be implemented once the public notification period of MID assessment has commenced. A copy of the EAIP can be found in Appendix A.

1.6 Scope of Flinders Substation MID Assessment Report

This *Flinders Substation MID Assessment Report* is for Flinders Substation and will assess topics relevant to the Flinders Substation MID including:

- the property description and land area proposed for MID
- consultation with stakeholders
- state code responses (where applicable)
- an assessment of matters in Schedule 3 of the *Ministers Guidelines and Rules* relevant to the Flinders Substation MID
- recommendations relating to information required for a MID made in the *Coordinator-General's evaluation* report on the EIS.

This Flinders Substation MID Assessment Report excludes the following:

- temporary workers accommodation facilities that will provide accommodation for the Project's workforce for the construction activities occurring as part of the Flinders Substation MID approval for this work was sought separately through a Request for Project Change (RfPC) for Hughenden Workers Accommodation Facility (Hughenden WAF) through the SDPWO Act. The RfPC was approved on 30 May 2024, and the Hughenden WAF has subsequently been constructed with commissioning currently being undertaken.
- secondary approvals that are being sought outside of the MID process as shown in Figure 4
- assessment of Matters of National Environmental Significance (MNES) and Matters of State Environmental Significance (MSES) where approvals have already been obtained through the SDPWO Act as a declared coordinated project. The Project's EIS can be found on the <u>DSDIP webpage</u>.

1.7 Project changes

Changes to the Project since the submission of the EIS are outlined in Table 2. These changes are considered as 'generally in accordance' with the EIS, and it is noted for completeness that infrastructure location changes are assessed in this report.

Table 2: Flinders Substation MID Project changes

| Change | Generally in accordance with EIS | Reasons for change |
|--|---|--|
| Flinders Substation – change of location on lot/plan | Yes - change occurs within same lot. | Location on lot/plan – further consultation with landholder has identified a more suitable location on the lot/plan. |
| Flinders Substation – inclusion of concrete batching plant within the footprint of the substation. | Yes – specific concrete batching plant locations were not identified, however stated they would likely be with laydown areas. | Location identified. |
| Flinders Substation – inclusion of new water bore for water supply. | Yes – water supply options discussed in EIS do not preclude new water bore. | Identified as appropriate water supply for construction and operation phase of Flinders Substation. |

2. Project context

The Project evaluated in the Project's EIS involved approximately 1000km of high voltage overhead electricity transmission line that ran from the origin point on the Powerlink Ross Strathmore 275 kilovolt (kV) line near Townsville (Woodstock Substation) and extended to a substation at Mount Isa with one spur running south to connect some isolated mine sites. Since the submission of the EIS the following changes have been made to the Project due to constructability issues encountered during detailed design:

- The origin point of the Project has changed from a new substation west of Reid River to a new substation at Reid River due to constructability issues identified with the first 60km of the transmission line.
- The first 340km of transmission line has been upgraded to 500kV transmission line instead of 330kV to help unlock new energy generation opportunities.
- An additional substation will be required at Pentland to support the 500kV infrastructure.
- The Southern Spur identified in the EIS will not be part of the initial build.

The Project is currently in the process of updating the existing approvals to align with the new Project description. An updated Project description is provided in section 2.1 and a description of the Flinders Substation MID Project Area is provided in section 2.2.

2.1 CopperString Project description

The initial build of the Project is for the construction of approximately 840km of new electricity transmission infrastructure, south of Townsville to Mount Isa. It includes the development of transmission lines, substations, and CEV huts, as illustrated in Figure 1.

The initial build of the Project is broadly divided into two key components:

Eastern Link

The Eastern Link comprises the first section of the transmission line and will connect to the NEM from a new substation at Reid River. From the Reid River Substation a 500kV transmission line will traverse 340km to a location approximately 6 km south of Hughenden where a new substation, called Flinders Substation will be constructed. To support the 500kV infrastructure, a third substation will also be established at Pentland. The Flinders Substation will serve as a key conversion point, stepping electricity voltage between 500kV and 330kV to integrate with the adjoining Western Link of the Project. The easement corridor between Reid River Substation and Flinders substation will be 120 metres (m) wide to allow for potential future duplication.

Western Link

The Western Link covers the remaining 500km of the transmission route. It extends westward from the Flinders Substation to a newly proposed substation in Mount Isa.

A central feature of the Western Link is a 395km double-circuit 330kV transmission line from Flinders to the Dajarra Substation. At Dajarra, the voltage will be stepped down from 330kV to 220kV to align with the North West Power System (NWPS). This conversion will facilitate connections to key infrastructure, including the Ergon Energy Chumvale Substation, Dugald River Mine, and Ernest Henry Mine.

From Dajarra to Mount Isa, the transmission line will enhance and expand the transfer capacity between the Chumvale Substation and the existing Mica Creek Complex in Mount Isa.

To allow for potential future duplication, the transmission easement between Flinders and Dajarra will be 120m wide.

The Southern Spur, which is not part of the initial build of the Project, includes both the Southern Connection and the Woodya Connection. The Southern Connection runs south from Dajarra Substation as a 90km double circuit 220kV transmission line connecting to the Selwyn Substation, with an easement width of 60m. From the Selwyn Substation, the line continues south-west in the form of a double circuit 132kV transmission line connecting to the Woodya Substation, forming the Woodya Connection.

2.2 Flinders Substation MID Project description

The Flinders Substation MID is for the construction of the Flinders Substation which is located approximately 6km south of Hughenden. Flinders Substation will transform the transmission line voltage of the CopperString Project between 500kV and 330kV and will support diversified energy generation opportunities. Flinders Substation will be the first component of the Project to be constructed and will include a temporary concrete batching plant within the footprint of the substation and a new water bore adjacent to the substation.

2.3 Project value

The Flinders Substation MID is estimated to have a capital expenditure of \$270 million.

2.4 Surrounding land uses

Land surrounding the Flinders Substation MID Project Area incorporates several uses including a road reserve, stock route, an abandoned rail line and grazing. The Project design considered the placement of the Project infrastructure in relation to sensitive receptors during the development of the Project's EIS *Noise and Vibration* Volume 2 Chapter 11 Section 11.3.3 as well as during detailed design when the location change of Flinders Substation was considered. For detailed information about the existing land use, environment and potential land use impacts associated with the construction and operation of the Project and associated infrastructure, refer to Chapter 5 Land in Volume 2 of the EIS.

3. Proposed development

The Flinders Substation MID will involve the development of the following infrastructure:

- Flinders Substation
- access tracks
- concrete batching plant to support the construction of Flinders Substation
- new water bore.

3.1 Proposed Flinders Substation MID infrastructure

3.1.1 Flinders Substation

Construction of Flinders Substation will occur over a period of 12 to 18 months and is anticipated to commence in Q4 of 2025.

Flinders Substation, located in Hughenden on Lot 1 DG35, is the point at which the CopperString transmission line changes in voltage from 330 to 500kV. The role of a substation is to monitor and control the flow, stability, quality and voltage of electricity on the transmission lines connected to the facility. Equipment located within the substation is used to transform the voltage of electricity, protect the network, measure the flow of the electricity, and switch electricity between the different transmission lines and transformers on the grid. A substation is not a power station – it does not generate electricity.

The substation site will have an allowance for a small maintenance facility that consists of a dust-free building with an integral cubicle that includes amenities, an office and a hardstand for the loading and unloading of storage. The plant will include components such as reactors, transformers and static synchronous compensator (STATCOM). An unsealed helicopter landing area will be included in the footprint of the substation for emergency use.

Hazardous substance enclosure or fuel storage tanks areas will be required for commissioning and operation of the substation. Hazardous substance will be managed through the Project's *Environmental Management Plan* and managed in accordance with the *Environmental Protection Act (1994)* (EP Act).

A temporary concrete batching plant of approximately one hectare (ha) in size will be developed within the footprint of the Flinders Substation. The concrete batching plant will be required for the construction of the substation and the transmission line adjoining the substation.

3.1.2 Site Access

Access to Flinders Substation for both construction and operational activities will be from Kennedy Developmental Road. For construction activities, an existing access track on the northern portion of the Flinders Substation MID Area will be utilised. This access tracks will require minor upgrades including an upgraded turn in point and waterway crossing. For maintenance activities a new access track will need to be constructed including a new turn-in from Kennedy Developmental Road. Access track locations are shown in Figure 2.

3.1.3 Construction Concrete Batching Plant

A temporary concrete batching plant will be constructed within the proposed footprint of the Flinders Substation. It will have a footprint of approximately 1ha. Preliminary considerations for the batching plant include a production capacity of approximately 70-75m³/hr.

3.1.4 Water Bore

A new water bore will be constructed within the Flinders Substation MID Area but outside of the construction footprint of the substation. The new water bore will result in an additional 20m by 20m footprint outside the footprint of the substation. The bore will be drilled by an appropriately licenced water bore driller and meet relevant construction standards including *Minimum construction requirements for water bores in Australia* (National Uniform Drillers Licensing Committee 2020).

Photo Plate 1: Typical transmission substation



3.2 Basis of Design (Clearing)

The Basis of Design (Clearing) (BOD(C)) documents the principles, assumptions and considerations used during the development of the clearing design. It is anticipated that the BOD(C) would continue to be implemented throughout the progression of the detailed design and carried through the relevant environmental management controls and documentation for the construction and operational phase of the Project (where relevant).

3.2.1 Principles

The principals of the BOD(C) are as follows:

- provide certainty to the Department of Climate Change, Energy the Environment and Water (DCCEEW) on the ground-truthed impacts of the Project
- provide flexibility for design, construction and operational adaptation/s where necessary
- support ecological sustainable development through avoidance, minimisation and management of impacts where possible
- manage Powerlink compliance risk as far as reasonably practicable.

To achieve the principles of the BOD(C), the following key components have been developed and are detailed in the following sub-sections:

- Construction Zone
- Clearing Design
- Contingency.

3.2.2 Construction Zone

As required under the EPBC Act Approval, a Pre-Clearance Survey Report (PCSR) is required to be submitted to DCCEEW prior to construction commencing. The PCSR will include a nominated Construction Zone. The Construction Zone is more refined than the Study Area identified in the EIS. The Construction Zone is the outer limit of the area that will be disturbed for the Project under the EPBC Act Approval. This allows a level of flexibility, whilst providing a level of certainty and control to the impact areas under the EPBC Act approval.

Within the Construction Zone, the Project is required to not exceed the allocated clearing limits in the EPBC Act approval.

3.2.3 Clearing Design

The Clearing Design will be presented in the PCSR as indicative and subject to change within the Construction Zone and will be within the EPBC approved clearing limits.

3.2.4 Contingency

Powerlink will hold both a construction and operational clearing contingency for each construction element of the Project. This will be released by the Powerlink Environment and Sustainability Manager where necessary and deemed relevant in the construction and operation stages. The final contingency value will be included as part of the EPBC Act Approval.

3.3 Construction methodology

3.3.1 Indicative timeline

Construction activities for the Flinders Substation MID are planned to commence in Q4 of 2025. Construction will commence only when the required conditions for approval of the Project have been met. This will include the following:

- conditions outlined in Coordinator-General's evaluation report on the EIS
- conditions in relation to EPBC Act Approval (EPBC 2019/8416)
- conditions of this Flinders Substation MID Assessment Report
- secondary approvals including, but not limited to, road and rail crossings, waterway barrier works.

Construction of the Flinders Substations will broadly follow the activities outlined in Table 3. All construction activities will adhere to the *Construction Environment Management Plan* (CEMP) to effectively mitigate any environmental impacts. As per the recommended conditions in the *Coordinator-General's evaluation report on the EIS*, a CEMP will be prepared and submitted for approval prior to construction.

Table 3: Summary of construction activities in Flinders Substation MID Project Area

Flinders Substation

Site establishment:

- laydown area
- site establishment
- vegetation clearing
- grubbing
- bulk earthworks and erosion and sediment controls.

Water bore drilling – drilling and bore establishment by an appropriately licenced water bore driller to defined standards.

Concrete works – pier and slab foundation, cable trench and pits.

Underground services – conduits, drainage, earth grid.

Electrical works – cabling, high voltage plant erection, interconnections, construction testing.

Structure – assembly and erection.

Pavements – gravel and roadworks.

Fencing.

Commissioning – scheme testing, energisation and performance testing.

Rehabilitation of areas to be in line with approval conditions or returned to previous state.

Rehabilitation of all temporarily disturbed areas not required for the operation of Flinders Substation will be undertaken in line with the approval conditions or returned to the pre-disturbance state.

3.4 Workforce

It is anticipated that an average of 130 workers will be employed to construct Flinders Substation with a peak workforce of 300. Workers will be sourced from within and outside the Project region due to the specialist skills required to construct the Project.

Where workers are required from outside the area during the construction and commissioning periods, the workforce will be housed in temporary workforce accommodation at Hughenden WAF. The Hughenden WAF was initially approved as part of the Project's EIS, with subsequent changes to the location and size of the facility approved through a RfPC. The Hughenden WAF is currently being commissioned for operation.

The workforce accommodation facilities will be equipped with sleeping and dining facilities along with a gym and administration and office spaces. The laydown area of the workforce accommodation facilities allows light vehicles to be parked and maintained on-site with the nearby workshop.

Transport for workers to the workforce accommodation facilities will be through a mixture of fly-in-fly-out and bus-in-bus-out strategies. A mixed fleet of four-wheel drive vehicles and buses will transport personnel between the construction site and local accommodation.

Commissioning of Flinders Substation will require approximately 50 people. Approximately five people will be required to operate and maintain the substation. It is anticipated that operation and maintenance tasks requiring local accommodation will be infrequent and intermittent and have a negligible impact on local accommodation availability.

3.5 Hours of Construction

Construction activities are generally planned for 6.30am to 6.30pm Monday to Sunday. A noise assessment for the Flinders Substation MID has been completed and is provided in section 7.8.

3.6 Operation

After the construction and commissioning of Flinders Substation is complete, onsite activities will significantly reduce. Final handover will ensure that all relevant substation data is readily available, and all relevant training and operation and maintenance documentation is provided to the maintenance service provider.

Maintenance and operating policies and procedures will ensure that Flinders Substation is operated within technical parameters and performs as per requirements.

3.7 Maintenance

Powerlink's specifications and policies define design principles for substations. These specifications and policies ensure safe and cost-effective construction, operation and maintenance over a nominated design life.

Operational life expectancy of a substation is generally between 30 to 40 years or more. During the maintenance period, various components of the substation are routinely inspected and tested to identify any signs of wear, damage or malfunction. Transformers, circuit breakers, switches, protective relays and control systems are among the critical components that require regular attention.

In case of emergency repairs, additional inspections may be necessary.

3.8 Decommissioning

If required at the end of operational life, a *Decommissioning Management Plan* (DMP) will be prepared in compliance with regulatory standards. This plan will outline the decommissioning activities and identify environmental risks. The DMP will also include environmental management and mitigation measures to effectively address any environmental risks associated with decommissioning of the Project.

4. Project Background

4.1 Rationale for the Project

The Project is designed to address critical needs and opportunities within Queensland's energy network.

The Project aims to construct an electricity transmission network that enhances access to the Queensland electricity grid and enables participation in the NEM for electricity consumers and generators along the designated Project corridor. This includes existing connections and potential future connections to diversified energy generation opportunities and islanded electrical systems, such as the NWPS and isolated mines in the NWMP.

4.2 Project benefits

Following the already completed and continuing consultation process, Powerlink believes the Project will greatly support the people and industry of North and North West Queensland. It's also considered the Project:

- has undergone a series of public and private notification and consultation processes over the last six years gathering high levels of community and local authority support
- will enhance access to the state electricity grid and enables participation in the NEM for electricity consumers and generators along the designated Project corridor
- Will diversified energy generation resources to be developed and sold into the NEM
- construction is expected to support 800 direct jobs over six years
- can largely be developed and operated within a contained area within an easement that will not disrupt
 existing long standing rural land use practices
- is well understood by all stakeholders and community groups and Traditional Owner parties through extensive consultation
- has been thoroughly evaluated by all relevant Queensland departments regarding impacts to state resources and MSES
- has a Controlled Action approval for impacts to MNES by the Commonwealth Minister for DCCEEW under the EPBC Act
- has positive economic cost benefit analysis through the creation of regional jobs and other industrial expansion opportunities it is estimated the Project will unlock more than \$500 billion in new critical minerals in North and Noth West Queensland.

4.3 Feasible alternatives

Currently, there are no feasible alternatives to the Project. The Project aligns with the key priorities and objectives of both the Australian and Queensland governments, aiming to maximise socio-economic opportunities for the region while considering environmental and cultural heritage factors.

A *Corridor Selection Report* was prepared to support the EIS application in September 2022. The Project's previous 2010 route selection report served as the basis for selecting the proposed transmission line corridor. The methodology used in the 2010 route selection was re-visited to reaffirm critical project assumptions and criteria. The analysis confirmed that the 5km wide 2010 route remained the preferred route, noting that the preferred corridor to the south of the Flinders Highway was most suitable due to:

- avoidance of White Mountain National Park
- increased flood risk north of Flinders Highway, between Hughenden and Mount Isa

being a more direct route, reducing environmental impacts and capital costs.

The corridor selection process undertaken for the Project's EIS involved comprehensive multi-disciplinary reviews and consultation with landholders and other stakeholders. Several amendments were made based on feedback from consultation to avoid adverse impacts to environmentally sensitive areas, cultural heritage sites, and to address landholder requests and engineering considerations. Some additional changes to the corridor have been made since the submission of the EIS due to constructability issues encountered during detailed design at the eastern end of the Project. Further information can be found on the CopperString website. For more information on Project route selection, refer to Volume 3, Appendix D of the EIS Corridor Selection Report.

4.4 Relationship to EIS evaluated Project

Since the approval of the EIS, ongoing consultation with stakeholders and continued design refinements have led to the following minor changes to the Project in the Flinders Substation MID Project Area:

- Flinders Substation the location of the substation on the lot/plan identified in the EIS has changed due to further consultation with the landholders.
- A temporary concrete batching plant will be located within the footprint of the Flinders Substation. In the Project's EIS, concrete batching plants were identified as a construction component of the Project, however, specific locations were not defined.
- A new water bore will be located within the Flinders Substation MID Area near the substation. During the
 development of the EIS the Project was only able to access water for construction from existing water
 entitlements. As Powerlink is a construction authority and the owner of the land on which Flinders Substation
 will be constructed, the options for obtaining water are now different than identified in the EIS. A full
 assessment is provided in section 7.1.

4.5 MID endorsement request

An endorsement request, seeking endorsement to lodge multiple MID assessment reports for the Project was made to the Minister in March 2024. The Project was endorsed on 20 May 2024.

The endorsement decision stated that a MID Proposal must include and address:

- required material for making a MID specified in Schedule 3 of the Minister's Guidelines and Rules
- matters raised in any pre-lodgement minutes.

4.6 Flinders Substation MID

The first component of the Project's transmission infrastructure to be assessed through the MID process will be Flinders Substation. Construction of Flinders Substation will need to commence ahead of the transmission line due to the longer construction period. Flinders Substation is integral to the Project as it will convert power between 330kV and 500kV and the connection of a diversified mix of energy generators to the NEM. This *Flinders Substation MID Assessment Report* is prepared in accordance with the requirements of the MID endorsement for the Project and in accordance with the recommended conditions for a MID - *Coordinator-General's evaluation report on the EIS.*

5. Land and tenure

This section describes the existing land use environment and potential land use impacts associated with the construction and operation of Flinders Substation.

5.1 Land

Flinders Substation is located within a rural area south of the township of Hughenden and Flinders Highway on lot/plan 1DG235. The land surrounding the Flinders Substation location includes:

- Kennedy Developmental Road
- stock routes and stock route reserves
- Hughenden race track
- rural grazing land.

5.2 Directly impacted landholders

Flinders Substation will be constructed on a single lot/plan with access to the substation via Kennedy Developmental Road and surrounding lot/plans. The proposed designation area for Flinders Substation is based on development of the Construction Zone, outlined in section 3.2.2. Table 4 outlines the lot/plan and the proposed area of designation for the Flinders Substation and Table 5 outlines the details of the lot/plans proposed to be designated for access to the substation. Figure 5 provides detailed plans of the proposed designation area for the Flinders Substation MID.

Table 4: Flinders Substation Lot/Plan 1DG35

| Property Lot on Plan: Lot 1 DG35 | | |
|--|--|--|
| Tenure | Freehold | |
| Area for Ministerial Infrastructure Designation | 133.56 ha | |
| Local Government Area | Flinders Shire | |
| Traditional Owner | Yirendali People | |
| Existing Land Use | Grazing | |
| CopperString Infrastructure | Flinders Substation | |
| Amenity Consideration | Consultation with landholders has identified a more suitable location for the Flinders Substation than was noted in the Project's EIS, however, it is generally in accordance with the EIS as it is within the same lot/plan. This location will move the substation to within 1.2km of a sensitive receptor (closer than as described in the EIS) with this location being the preference of the owner of the closest sensitive receptor. | |
| Agreement | The parcel is owned by Powerlink. | |

Table 5: Area for Ministerial Infrastructure Designation for access

| Lot/plan | Tenure | Area for Ministerial Infrastructure Designation (ha) |
|---|-------------------------------|---|
| Kennedy Developmental Road (segpar 635021)* | Stock Route, Road Type Parcel | 25.72 |
| Inactive Rail Corridor (232SP249226) | Lands lease | 5.62 |
| Unnamed Road (segpar 635931) | Stock Route, Road Type Parcel | 2.79 |
| AAP7717 (segpar 635924)* | Lands lease | 21.91 |

^{*}note Kennedy Developmental Road and AAP7717 are overlapping land parcels

5.3 Adjoining property impact assessment

An assessment of sensitive receptors was made during the development of the EIS to determine impacts on landholders surrounding the Project. The assessment can be found in <u>Volume 2, Chapter 11 Noise and Vibration</u> of the Project's EIS. A review was undertaken as a result of the change of location of Flinders Substation.

As shown in Figure 6 the closest sensitive receptor to Flinders Substation is 1.2km from the boundary of the substation on the eastern side of Kennedy Developmental Road. As requested by the owner of the closest sensitive receptors, the location of the substation has been moved and is now 0.58km closer than identified in the Project's EIS.

The next closest sensitive receptor is approximately 5.0km from the substation.

Construction impacts at the closest sensitive receptor will be limited due to the distance of the sensitive receptor from the construction site and its location on the opposite side of Kennedy Developmental Road. An assessment of construction impacts is provided in subsequent sections of this assessment report:

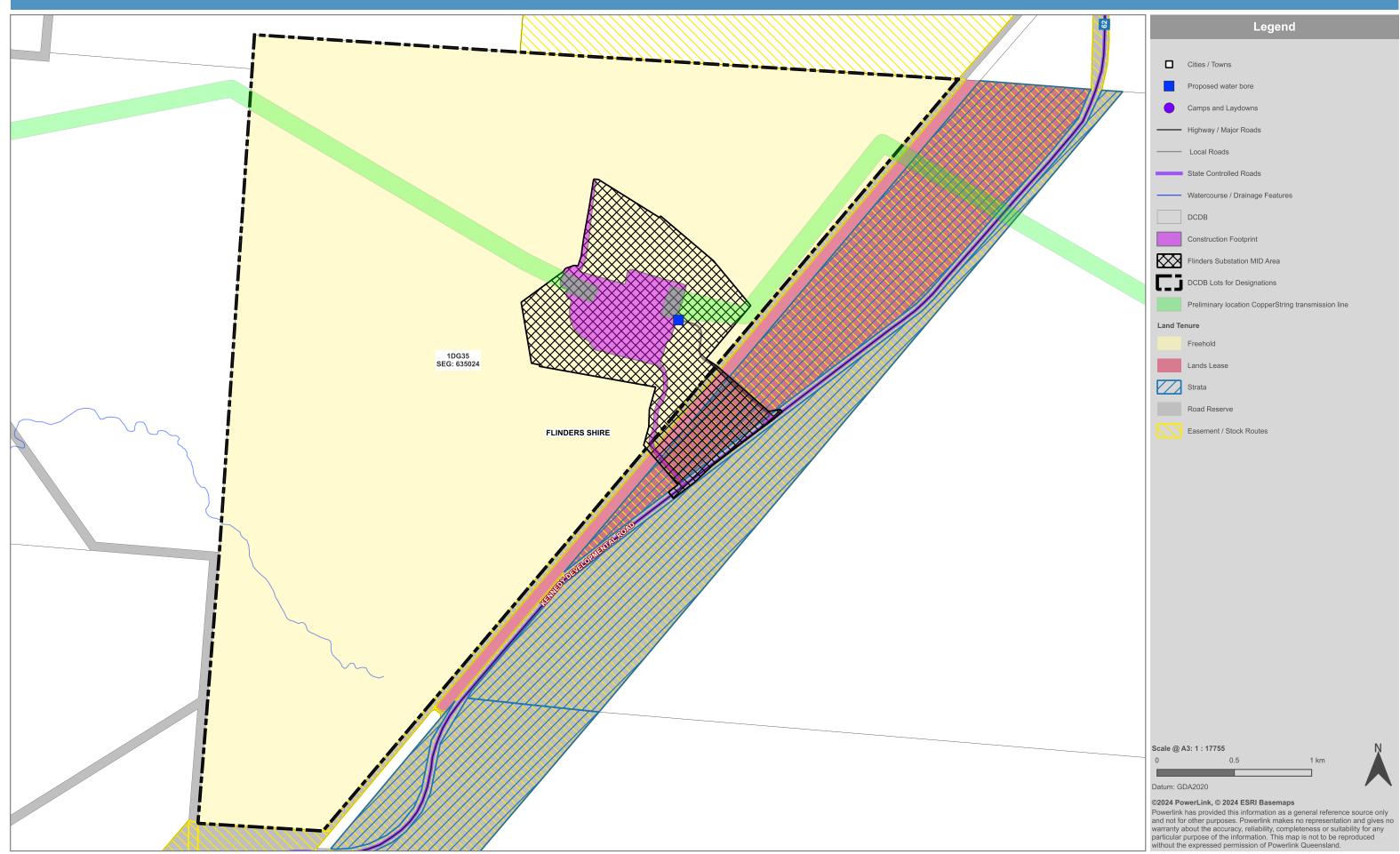
- an assessment of noise impacts is provided in section 7.8
- traffic will be managed in accordance with an approved *Traffic Management Plan* and *Road Use Management Plan (RUMP)* which will be developed prior to construction and as assessment of traffic impacts is provided in section 7.2
- other construction impacts the *Coordinator-General's evaluation report on the EIS* stated that management and mitigation measures outlined in the EIS were sufficient to manage any potential impacts of the Project on sensitive receptors. Section 7 details the Flinders Substation impacts and outlines how they will be managed during the construction of the Project.

Ministerial Infrastructure Designation Plans

Powerlink 5 co



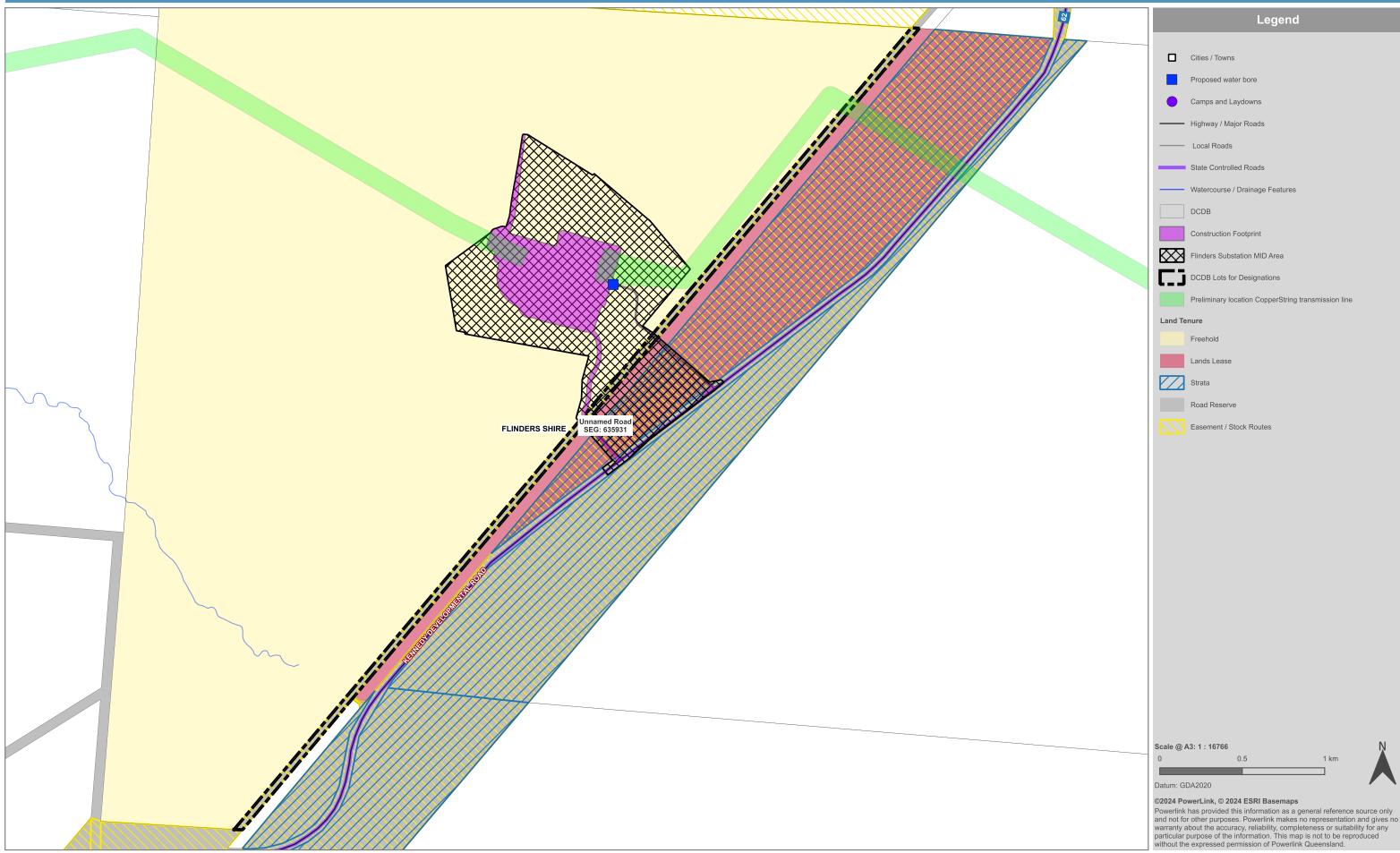
Figure 5.1 (LOT PLAN: 1 on DG35 - SEG: 635024)



Ministerial Infrastructure Designation Plans



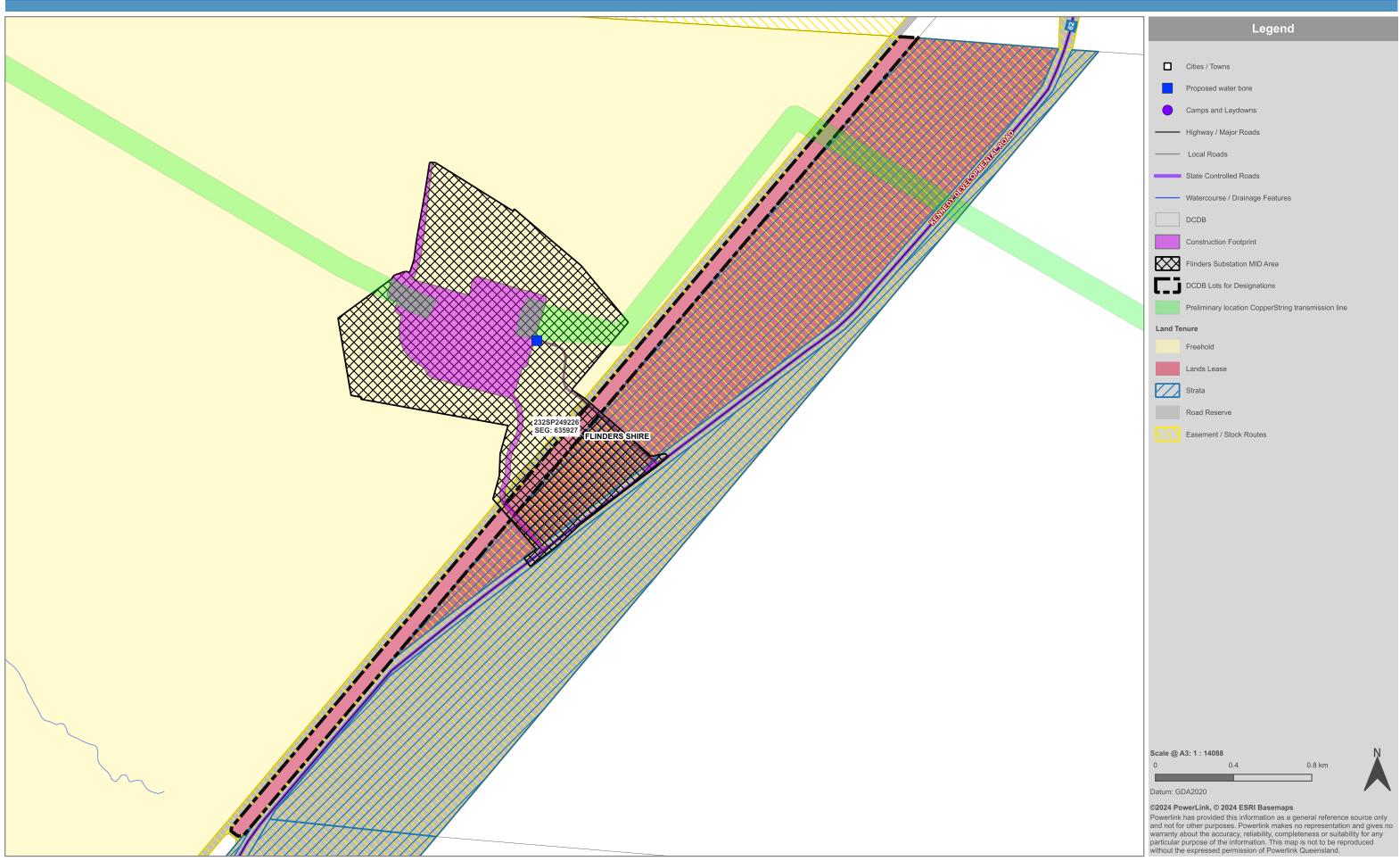
Figure 5.2 (Unnamed Road - SEG: 635931)



Ministerial Infrastructure Designation Plans

Power Copperstring BASE/

Figure 5.3 (LOT PLAN: 232 on SP249226 - SEG: 635927)

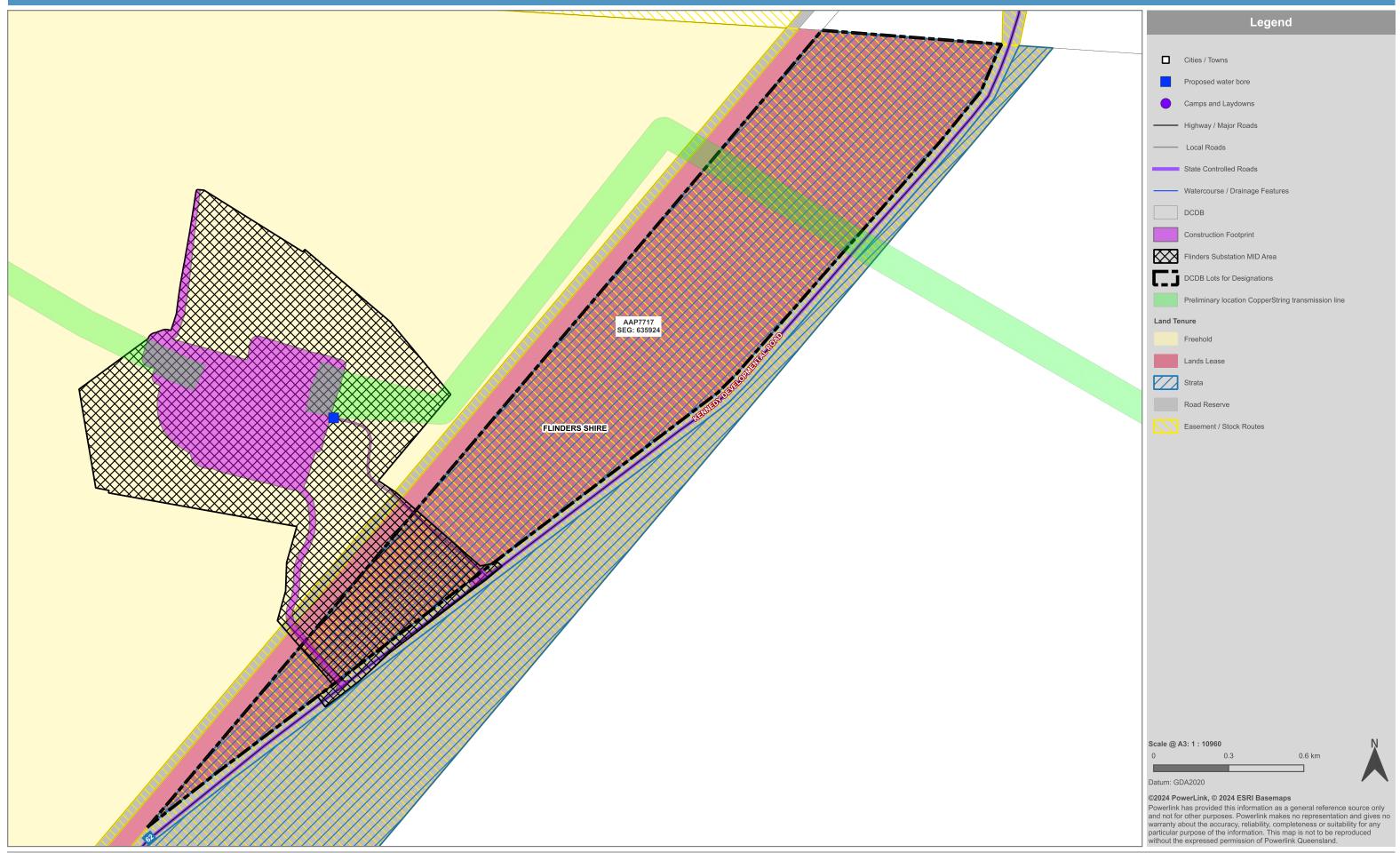


Ministerial Infrastructure Designation Plans

Powerlink



Figure 5.4 (LOT PLAN: A on AP7717 - SEG: 635924)



Ministerial Infrastructure Designation Plans



Figure 5.5 (Kennedy Developmental Road - SEG: 635021)

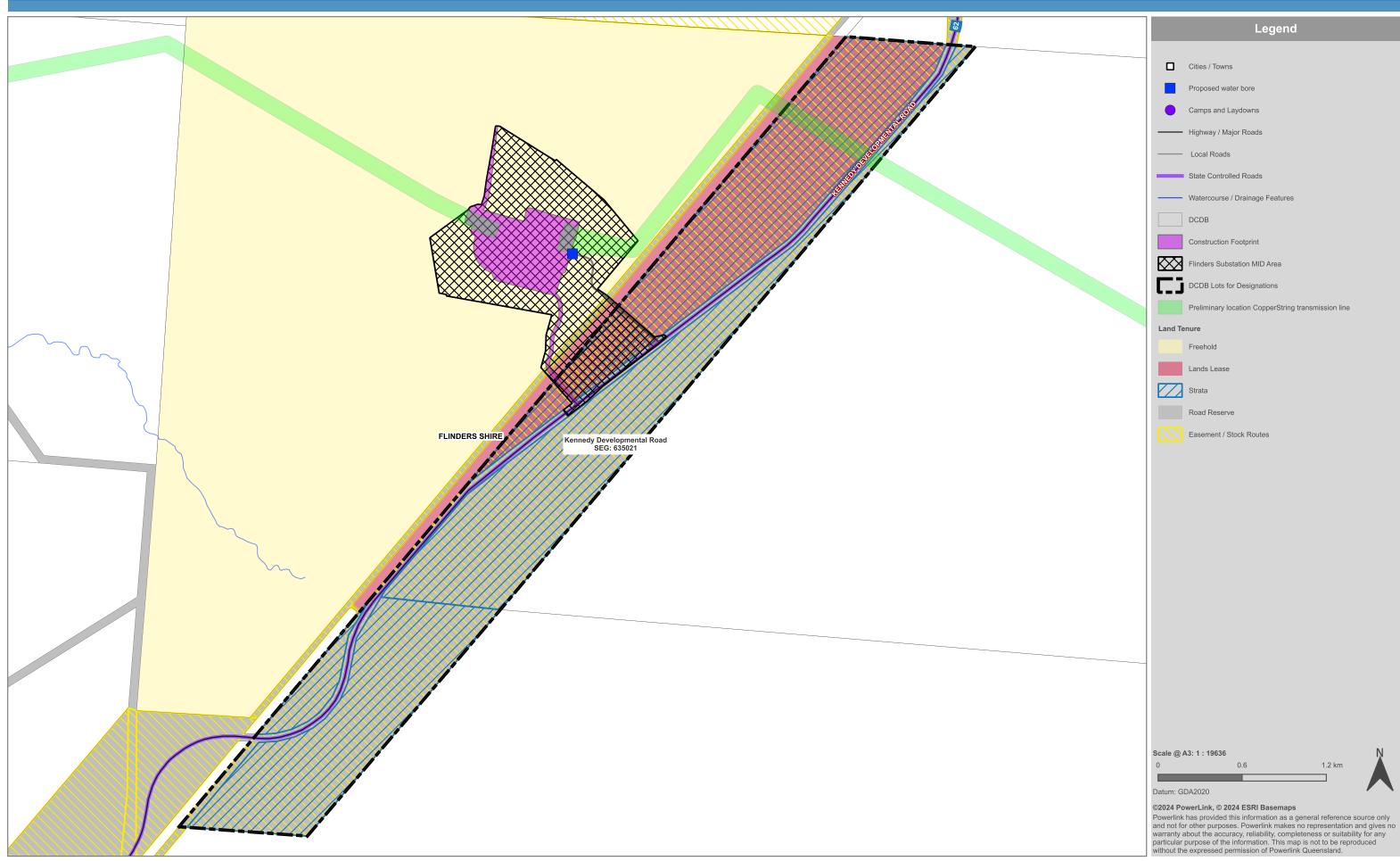
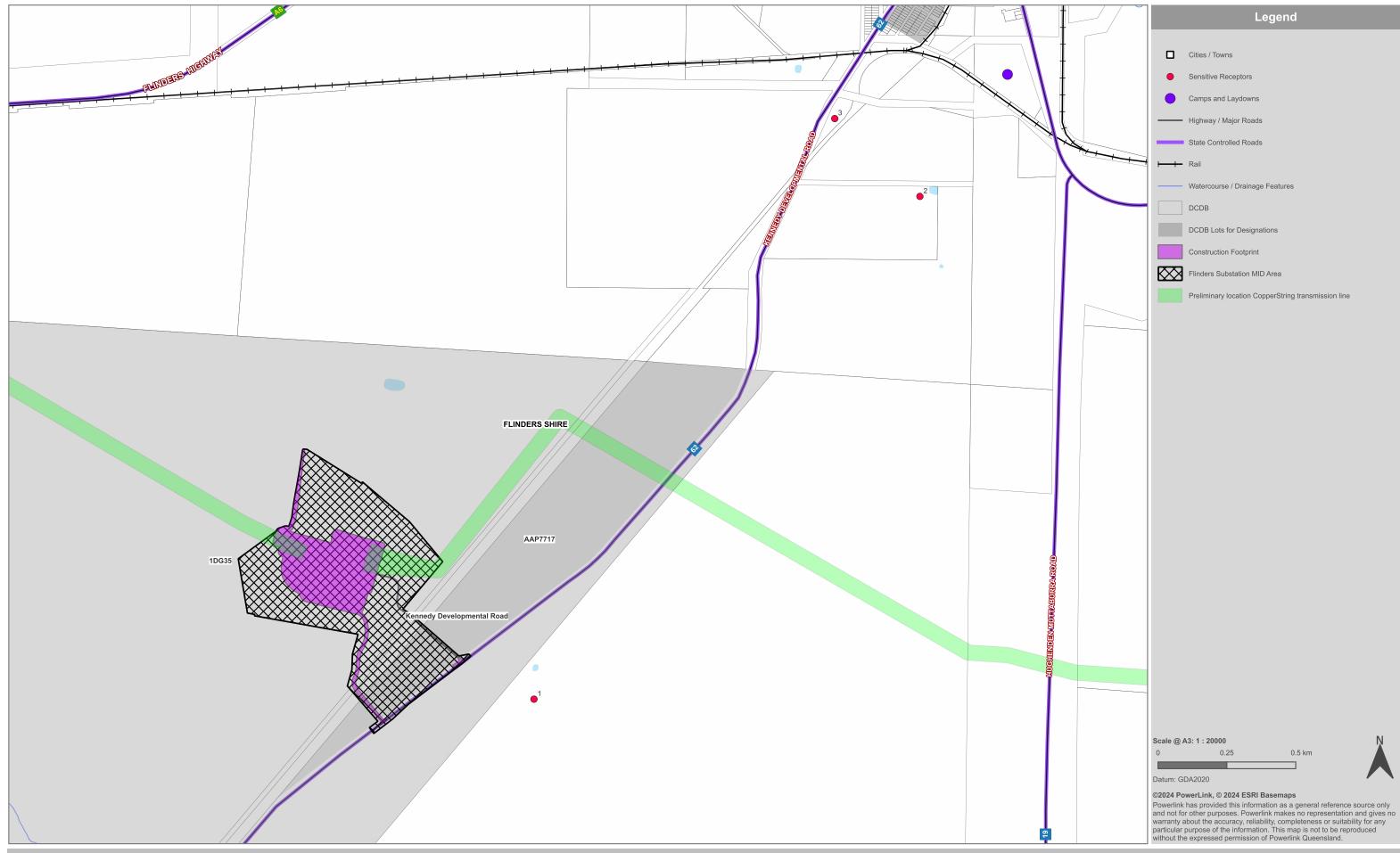






Figure 6



5.4 Other land parcels and crossings

Within the Flinders Substation MID Project Area there are other rights and interests associated with the land parcels. A summary is provided in Table 6 which references the section in this report where an impact assessment has been completed.

Table 6: Rights and Interests Flinders Substation MID Project Area

| Interest | Lot on Plan | Relevant Report Section |
|--|--------------------------------|-------------------------|
| EPM 28457 – Longhorn Resources Pty Ltd | 1DG35 AAP717 232SP249226 | n/a |
| EPC 2551 – New Emerald Energy Pty Ltd | 1DG35 232SP249226 | n/a |
| Stock Route | SR:201FLIN | Section 7.2.7 |
| Electricity infrastructure | 1DG35 AAP717 232SP249226 | Section 7.1.4 |

6. Regulatory framework

The following sections describe the regulatory framework which governs the Project's approval and provides an assessment against the framework.

6.1 State planning framework

6.1.1 State Development and Public Works Development Act 1971

The SDPWO Act facilitates coordinated infrastructure planning and development to support economic and social progress; and provides for the appointment of a Coordinator-General as a corporation sole, representing the Crown. The SDPWO Act gives the Coordinator-General the power to:

- manage major infrastructure projects
- declare a project to be a 'coordinated project' and coordinate the Environmental Impact Assessment (EIA) of the project
- coordinate and regulate programs of works
- enter and authorise entry onto land to undertake works
- · compulsorily acquire land
- implement and manage state development areas.

6.1.1.1 Coordinated project

In accordance with the SDPWO Act, an Initial Advice Statement (IAS) was lodged with the Coordinator-General for the Project, in February 2019. The purpose of the IAS was to provide the Coordinator-General with sufficient information to make a 'coordinated project' declaration under Section 26(1)(a) of the SDPWO Act. The Project was declared a coordinated project under the provisions of the SDPWO Act on 26 April 2019. This decision was published in the Queensland Government Gazette [vol 380, No. 93 of 26 April 2019].

On 14 May 2019, the Delegate for the Australian Minister for the Environment decided that the Project was a 'controlled action' and was subject to the Bilateral Agreement between the Commonwealth and the State of Queensland under Section 45 of the EPBC Act relating to Environmental Assessment. On 11 November 2022, the Delegate for the Australian Minister for the Environment and Water approved the Project subject to conditions.

The final EIS for the Project was accepted by the Coordinator-General on 28 February 2022 subject to conditions and recommendations included in the *Coordinator-General's evaluation report on the EIS* September 2022.

6.1.1.2 Prescribed project and critical infrastructure project

The Project was declared a prescribed project and critical infrastructure project under Section 76E of the SDPWO Act on 9 July 2024. As the Project initially covers an area of approximately 840 km across Queensland from Townsville to Mount Isa and, spanning seven LGAs the prescribed project status was sought to enable the Coordinator-General, if necessary, to intervene in state and local government approval processes to ensure timely decision-making for the prescribed project by:

- acting as a point of contact for the proponent within government to streamline government communications
- coordinating local and state government agencies regarding statutory approvals required for the Project
- facilitating discussions and information exchanges between the proponent and other stakeholders (e.g. local authorities and state government agencies).

6.1.2 Planning Act 2016

The Planning Act is the principal land use planning legislation administered by the Queensland Government. The Planning Act seeks to establish an efficient, effective, transparent, integrated, coordinated, and accountable system of land use planning, development assessment and related matters that facilitates the achievement of ecological sustainability.

Section 44 of the Planning Act identifies the relevant categories of development which include:

- Prohibited development development for which a development application may not be made.
- Assessable development development for which a development approval is required.
- Acceptable development development for which a development approval is not required.

The Planning Act defines 'development' as any of the following:

- carrying out building work
- carrying out plumbing or drainage work
- carrying out operational work
- reconfiguring a lot
- making a material change of use of premises.

Where the 'development' is to be undertaken as part of the Project and is considered assessable development, a development permit will be required under the Planning Act for that activity.

The process for which 'assessable development' is assessed is not found in the Planning Act but in the *Development Assessment Rules* (DA rules), which is a statutory instrument made under Section 68(1) of the Planning Act. The DA rules outline the process for lodging, referring, assessing and deciding an application and the public notification requirements.

The State Development Assessment Provisions Version 3.2, effective February 2025 (SDAP) sets out the matters of interest to the state and provides the criteria for assessing development applications where the State Government is the assessment manager or referral agency for a development application.

The Planning Act aims to coordinate all assessable development under other acts to minimise the legislative burden on regulatory agencies. The legislation managed under the Planning Act is discussed in the following sections.

The MID process is a land use planning process under Chapter 2, Part 5, Section 35 of the Planning Act that allows the Minister (administering the Planning Act) to designate premises for a type of infrastructure. The process provides infrastructure entities, such as Powerlink, a streamlined whole-of government response on a request for infrastructure. This process is further described in section 6.4.1.

6.1.3 Planning Regulation 2017

The policy objective of the *Planning Regulation 2017* (Planning Regulation) is to prescribe instruments and address matters provided for under the Planning Act and provide the mechanics for the operation and implementation of the Act. The Planning Regulation has been developed following an extensive review of state interests and ensures that matters requiring regulation or assessment are consistent with the principles for the review of state interests, as follows:

- State interests are managed through the most appropriate and effective planning tool for delivery.
- The state is accountable for state issues, local issues are a local government matter.

- State involvement in land use planning and development assessment occurs only where it is essential i.e. where a matter is of particular importance, has an unacceptable level of risk, or requires state expertise.
- Amendments align with the Planning Act, including a performance-based planning focus.
- Issues that are beyond the scope of the land use planning and development system under the Planning Act are addressed by other means.

Part 2, Division 4 sets out the mechanisms for the MID allowed for under Section 35 of the Planning Act. This process is further described in section 6.4.1.

6.1.4 State Planning Policy

The *State Planning Policy* (SPP) makes sure the state's interests in planning are protected and delivered as part of local government planning across Queensland.

The SPP outlines 17 state interests arranged under five broad themes:

- liveable communities and housing
- economic growth
- environment and heritage
- safety and resilience to hazards
- infrastructure.

The SPP also contains guiding principles to ensure the plan-making and development assessments systems are outcome focused, integrated, efficient, positive and accountable.

An assessment of the Project against the SPP was undertaken for the EIS and is available in section 4.7 of Volume 2, Chapter 4 <u>Legislation and Approvals</u> of the Project's EIS.

6.1.5 State Development Assessment Provisions

The SDAP sets out the matters of interest to the state for development assessment, where the Chief Executive administrating the Planning Act, is responsible for assessing or deciding development applications. The SDAP is prescribed in the Planning Regulation.

The SDAP identifies the following as relevant matters of state interest applicable to the Project:

- development in a state controlled road
- development in a railway environment
- protection of state transport networks
- clearing of native vegetation.

Although the Project will be considered exempt clearing work once designation has been granted, assessment of the Flinders Substation MID against State Code 16 has been undertaken for the purpose of obtaining designation. An assessment of the Project against the relevant state codes is provided in section 6.4.2 and Appendix C.

6.1.6 Environmental Offsets Act 2014

The Queensland environmental offsets framework consists of the:

• Environmental Offsets Act 2014 (EO Act), which coordinates the delivery of environmental offsets across jurisdictions and provides a single point-of-truth for offsets in Queensland.

- Environmental Offsets Regulation 2014 (EO Regulation) being the subordinate legislation to the EO Act, provides details of the prescribed activities regulated under other legislation and prescribed environmental matters to which the EO Act applies.
- the Queensland Environmental Offsets Policy Version 1.8 which provides a single, consistent, whole-ofgovernment policy for the assessment of offset proposals to satisfy offset conditions. An environmental offset compensates for unavoidable impacts on significant environmental
- matters, (e.g. valuable species and ecosystems) on one site, by securing land at another site, and managing that land over a period of time, to replace those significant environmental matters which were lost.

Under the EO Act an environmental offset is defined as an activity undertaken to counterbalance a Significant Residual Impact (SRI) of a prescribed activity on a prescribed environmental matter (MSES). A list of prescribed activities is identified in Schedule 1 of the *Environmental Offset Regulation 2014*. The MID process has the ability to assess and approve various prescribed activities which are assessable development under the Planning Act and Planning Regulations. However, the MID process under the Planning Actis not considered a prescribed activity for the purposes of providing an offset under the EO Act and therefore does not require significant residual impacts to be offset under the EO Act.

Furthermore, under the *Environmental Offsets Act 2014*, the State cannot duplicate conditions for offsets for prescribed environmental matters that are MSES, where the Commonwealth has provided conditions requiring offsets for the same or substantially the same prescribed environmental matter. As this Project has gone through a bilaterial EIS assessment process, with environmental offset conditions issued under the EPBC Act, matters that are both MNES and MSES have been assessed under the EPBC Act.

6.2 Regional planning

Regional plans provide the framework for the management of growth and development in a region to 2031. Regional plans can be either:

- a statutory planning instrument which has been signed off by the Planning Minister and gives effect to the policies and direction of the regional plan
- a non-statutory planning instrument which has not been signed off by the Planning Minister.

6.2.1 North West Regional Plan

The North West Regional Plan is a statutory instrument under relevant legislation developed in 2010 and covers the area in which the Flinders Substation MID is located. The purpose of the plan is to provide the framework for integrating federal, state and local government planning agendas, linking infrastructure and service provision to manage future population change to 2031. The plan aims to strengthen the link between the region's prosperity, continued development of mineral resources and the need to invest in other industries to provide an economically sustainable future.

An assessment of the Project against the purposes of the North West Regional Plan is available in section 4.7.3 of Volume 2, Chapter 4 <u>Legislation and Approvals</u> of the Project's EIS.

6.3 Local planning instruments

The MID process allows for coordinated assessment across all levels of government and does not require assessment and approval against local government planning schemes. Despite this, the local government planning schemes have been considered in this application to appreciate the existing and future intent of the surrounding land uses and expectations of the local community.

The Flinders Substation MID is located within one LGA being Flinders Shire. Each LGA is subject to the Local Planning Instrument under the Planning Act and has local laws in force under the Local Government Act 2009.

Within Flinders Shire, this MID is located within a Rural Zone and is defined as Major Electricity Infrastructure. Major Electricity Infrastructure uses in the Rural Zone is considered Accepted Development (development for which development approval is not required). A review of the Flinders Substation MID against the *Flinders Shire Planning Scheme 2017* is provided in the following section.

6.3.1 Flinders Shire Council

Flinders Shire Planning Scheme 2017 commenced in February 2009, in accordance with the Sustainable Planning Act 2009, with the planning scheme made consistent with the Planning Act.

The Flinders Shire Planning Scheme 2017 zones the Flinders Substation MID Project Area within Flinders Shire as 'Rural'. The relevant planning scheme definitions for the Project, including temporary construction activities, are as follows:

Rural Zone Code

The purpose of the rural zone is to—

- (a) provide for rural uses and activities; and
- (b) provide for other uses and activities that are compatible with—
 - (i) existing and future rural uses an activities; and
 - (ii) the character and environmental features of the zone; and
- (c) maintain the capacity of land for rural uses and activities by protecting and managing significant natural resources and processes.

Substation means the use of premises—

- (d) as part of a transmission grid or supply network to--
 - (i) convert or transform electrical energy from 1 voltage to another, or
 - (ii) regulate voltage in an electrical circuit; or
 - (iii) control electrical circuits; or
 - (iv) switch electrical current between circuits; or
- (e) for a telecommunications facility for—
 - (i) works, as defined under the Electricity Act section 12 (1); or
 - (ii) workforce operational and safety communications.

A concrete batching plant is included within the definition of high impact industry within the planning scheme.

High impact industry means the use of premises for an industrial activity--

- (a) That manufacturing, producing, processing, repairing, altering, recycling, storing, distributing, transfer or treating of products; and
- (b) but a local planning instrument applying to the premises states is a high impact industry; and
- (c) That complies with any thresholds for the activity stated in a local planning instrument applying to the premises, including, for example, thresholds relating to the number of products manufactured or the level of emissions produced by the activity.

Under the planning scheme, the *substation* is considered code assessable and concrete batching (*high impact industry*) is impact assessable. The proposed uses should consider the rural zone code and industry and

infrastructure activities code. These uses can be developed generally in accordance with the Rural Zone Code and Industry and Infrastructure Activities Codes. Accordingly, the proposal can be developed in a manner consistent with the subject zoning.

6.4 Approval framework

6.4.1 MID Process

The Project is proposed as 'Infrastructure' assessable under the Planning Act MID process. A MID is a planning process under Chapter 2, Part 5 of the Planning Act that allows the Minster to designate premises for a type of infrastructure. The process provides infrastructure entities a streamlined, considered whole-of government response on a request for infrastructure. Three statutory instruments support the MID function, namely:

- the Planning Act which includes provisions for making, amending, extending or repealing MIDs
- the Planning Regulation which identifies the types of infrastructure that may be designated
- the Minister's Guidelines and Rules which includes processes for making or amending MIDs.

Section 35 of the Planning Act identifies that the Planning Regulation describes the types of infrastructure that may be designated by the Minister. Schedule 5, Part 2, Item 7 of the Planning Regulation identifies 'electricity operating works', being operating works under the *Electricity Act 1994*, as infrastructure which may be designated. Section 36 of the Planning Act provides criteria for making a MID, stating:

- 1. To make a designation, a designator must be satisfied that
 - a. the infrastructure will satisfy statutory requirements, or budgetary commitments, for the supply of the infrastructure; or
 - b. there is or will be a need for the efficient and timely supply of the infrastructure.

The Project achieves the requirements of Section 36(1) of the Planning Act through providing for the efficient and timely supply of infrastructure through the following points:

- The Project is a high voltage electricity transmission system that runs from Reid River southwest of Townsville to Mount Isa initially spanning an area of approximately 840km.
- The Project will facilitate access to the state electricity transmission grid and participation in the NEM for electricity consumers and other energy generators throughout the Project area.
- The proposed Project is a significant part of the high voltage backbone transmission infrastructure as it will facilitate the transmission of energy from diversified energy producers to the locations where the power will be consumed
- The Project will also support the development of critical minerals supplies through reliable power infrastructure to this region.

To make a designation under Section 36 of the Planning Act the Minister must be satisfied that adequate environmental assessment, including adequate consultation has been carried out in relation to the Project. This Project has been subject to an EIS under the SDPWO Act. This process included the preparation of a detailed environmental assessment in accordance with the Project *Terms of Reference* developed in consultation with state agencies and local government stakeholders and landholders who are impacted by the Project. The Flinders Substation MID is 'generally in accordance' with the Project approved under the EIS process as changes fall within the 'study area' identified in the Project's *Terms of Reference* and are within the same lot/plans nominated as part of the EIS. These changes are minor and are being assessed through this MID process. Seeking land use planning approval via the MID process is consistent with the Coordinator-General's recommendations.

6.4.2 State Development Assessment Provisions

The SDAP sets out the matters of interest to the state for development assessment. The SDAP is prescribed in the Planning Regulation.

Table 7 identifies the State Codes potentially being triggered for the delivery of the Flinders Substation MID with a full assessment of relevant state code to be found in Appendix C.

Table 7: Planning Act approvals considered under MID assessment

| State Code | Included in this MID | Assessment Trigger (Schedule 10, Planning Regulation 2017) |
|---|--|---|
| State Code 1 – Development in a state controlled road | Assessable for Flinders Substation MID | Part 9 Infrastructure-related referrals Div 4, Subdivision 2, table 4 - Material change of use of premises near a State transport corridor Mitigation measures associated with road repair and maintenance will occur along the Flinders Highway. Assessment of the Flinders Substation MID against State Code 1 is provided in Appendix C |
| State Code 2 – Development in a railway environment | Assessable for Flinders Substation MID | Part 9 Infrastructure-related referrals Div 4, Subdivision 2, table 4 - Material change of use of premises near a State transport corridor Access to Flinders Substation will be across an inactive rail corridor. An assessment against State Code 2 is provided in Appendix C. |
| State Code 6 – Protection of state transport networks | Assessable for Flinders Substation MID | Part 9 Infrastructure-related referrals Div 4, Subdivision 1, table 1 - State transport infrastructure generally The construction of the Project may have impacts to the state transport infrastructure, public passenger transport infrastructure, active transport infrastructure and public passenger services from the development or maintenance of the operating performance of the transport network through increased traffic during construction. This will generally be limited to the Flinders Highway. Assessment of the Flinders Substation MID against State Code 6 is provided in Appendix C. |
| State Code 9 – Great Barrier Reef (GBR) wetland protection areas | Not assessable for Flinders Substation MID | Part 20 Wetland protection area Div 2, Section 34 - Operational work in wetland protection area The Project is not located within any mapped Great Barrier Reef (GBR) wetland protection areas. |
| State Code 10 – Taking or interfering with water | Assessable for Flinders Substation MID | Part 19 Water-related development Div 1, Section 29 - Operational work that involves taking or interfering with water Pursuant to OSW/2020/5467 Exemption requirements for constructing authorities for the take of water without a water entitlement (Version 4.01 dated 05/02/2021) and Chapter 2, Part 3, Division 1 of the Water Act 2000 (Water Act), Powerlink is a "constructing authority" and is exempt from water entitlement licencing subject to compliance with conditions therein. |

| State Code | Included in this | Assessment Trigger (Schedule 10, Planning Regulation 2017) |
|--|--|---|
| | | As such, the Flinders Substation MID of the Project meets the definition of Accepted Development under Schedule 7, Part 3, Section 5 (1) (a) of the <i>Planning Regulation 2017</i> for operational work for taking or interfering with water. |
| | | Whilst Powerlink is a construction authority, the construction of a new bore is assessable under State Code 10. Therefore, an assessment of the proposed new water bore against State Code 10 is provided in Appendix C. |
| State Code 13 – Unexploded ordnance | Not assessable for Flinders Substation MID | Part 4 Contaminated Land Div 1, Section 6 - Material change of use on contaminated land The Flinders Substation MID is not located on any lots listed on the EMR or the CLR and therefore it is not assessable under contaminated land. The Project is not located on any areas mapped as having substantial unexploded ordnance potential and therefore it is not referable and an assessment against State Code 13 is not required. |
| State Code 14 – Queensland heritage | Not assessable for Flinders Substation MID | Part 8 Heritage places Div 2, Section 15 – Development on or adjoining a Queensland heritage place No heritage places are located within or adjacent to the Flinders Substation MID. |
| State Code 15 – Removal of quarry material from a watercourse or lake | Obtain outside of MID process if required | Part 19 Water-related development Div 2, Section 30 - Development for removing quarry material Materials for the Project will be sourced from existing commercial quarries. Should additional material need to be sourced, approvals will be obtained outside of the MID process. |
| State Code 16 – Clearing of Native vegetation | Exempt when assessed as part of the MID process | Part 3 Clearing native vegetation Div 2, Section 5 - Clearing native vegetation on prescribed land Mapped native vegetation will be required to be cleared as a part of the Flinders Substation MID. The assessment of clearing native vegetation was assessed as part of the EIS process. Clearing of assessable vegetation forms part of the Infrastructure Designation Process under the Planning Act. Where a designation is granted (allowing impacts to an allotment) for a Project, assessable development items (such as clearing native vegetation) become 'Exempt Clearing Work' under <i>Planning Regulation 2017</i> , Schedule 21 Part 1 (14). In addition, Powerlink hold a Transmission Authority under the <i>Electricity Act 1994</i> . Under the <i>Planning Regulation 2017</i> , Schedule 21 Part 1 (10) the Project is 'Exempt Clearing Work'. Although the Project will be considered Exempt Clearing work once designation has been granted, an assessment of the Flinders Substation MID against State Code 16 for the purpose of obtaining designation is provided in Appendix C. |
| State Code 18 – Constructing or raising waterway barrier works in fish habitat | Not assessable for Flinders Substation MID | Part 6 Fisheries Div 4, Section 12 - Operational work for waterway barrier works If WWBW are required, works will be managed in accordance with the ADR for constructing or raising a WWBW, including notification to DPI where required. |

| State Code | Included in this MID | Assessment Trigger (Schedule 10, Planning Regulation 2017) |
|--|--|---|
| State Code 22 – Environmentally Relevant Activity (ERA) | Not assessable for Flinders Substation MID | Part 5 Environmentally relevant activities Div 2, Section 8 - Material change of use for an environmentally relevant activity No ERAs are required for the Flinders Substation MID. |

6.4.3 Approvals outside the MID

The Project currently holds a number of approvals and will seek other approvals outside of the MID process. The approvals listed in Table 8 are currently approved, awaiting approval or will be sought outside the MID process. Some additional approvals may be required during the construction phase for specific locations and will be managed in accordance with any conditions imposed on the Project or other approvals pathways. A *Regulatory Approvals Plan* was developed for the Project's EIS and can be found in Appendix L of the EIS. An updated *Regulatory Approvals Plan* will be developed for the Project's CEMP.

Table 8: Approvals outside the MID process

| Legislation | Authority | Reasoning | Approval |
|---|---|--|--|
| Commonwealth | | | |
| Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) | Department of Climate Change, Energy the Environment and Water (DCCEEW) | Significant Impact on MNES | EPBC Act Approval (EPBC 2019/8416) received on 11 November 2022 with variation of conditions of approval conditions received on 7 March 2025. |
| State | | | |
| State Development and Public Works Organisation Act 1971 | Office of the Coordinator- General | Prescribed project and critical infrastructure project | Gazetted as a prescribed project and a critical infrastructure project on 9 July 2024. |
| Fisheries Act 1994 | Department of Primary Industries (DPI) | Waterway Barrier Works (WWBW) | Where WWBW Accepted Development Requirements (ADR) cannot be met, separate specific approval(s) outside of the MID Proposal will be undertaken where necessary as part of construction activities. |
| Nature Conservation Act 1992 (NC Act) | DETSI (Department of the Environment, Tourism, Science and Innovation) | Clearing Protected Plants | There are (no) high risk areas mapped protected plants within the Flinders Substation MID. Should any be identified during construction, required Protected Plants Permits will be obtained as part of construction activities. |
| | | Tampering with animal breeding places. | A <i>Species Management Program</i> will be obtained for the Project. |

| Legislation | Authority | Reasoning | Approval |
|--------------------------------------|--|--|---|
| Transport Infrastructure Act 1994 | Department of Transport and Main Roads (DTMR) | Undertaking works within a State-controlled Road Corridor. | Section 102 Electricity Act 1994 |
| Building Act 1975 | Private certifier | Building work for the substation | Powerlink is a public sector entity under the Planning Act, and as such, building work is Accepted Development by operation of Section 21(2) of the <i>Building Act 1975</i> and Schedule 7, Part 1 of the <i>Planning Regulation 2017</i> , subject to Powerlink complying with any relevant provisions for the building work. |
| | | | The state has its own framework for ensuring compliance in relation to government building projects, which includes assessment by a building certifier and retaining all records of building work compliance assessment at each stage of the delivery process. Powerlink will be subject to this framework for the Project. |
| Plumbing and Drainage Act 2018 | Flinders Shire Council | Plumbing and drainage work for the substation. | Certification will be obtained for any Plumbing and Drainage work required for the Flinders Substation. |
| Water Act 2000 | DLGWV | Unmapped watercourses | If required a watercourse determination will need to be completed before construction can commence. Refer to section 7.4.5. |

7. Environmental assessments

This section provides details of the environmental assessments undertaken for the Flinders Substation MID, details impacts and how impacts will be managed during construction and operation.

Environmental impacts for the Project will be mitigated and managed in accordance with the process outline in Figure 7. The Environmental Management Plan (EMP) for the Project is provided in Volume 2. It outlines the objectives and general requirements for the Project's environmental management and aligns to the conditions outlined in the *Coordinator-General's evaluation report on the EIS* and the EPBC approval.

Prior to commencement of construction activities an *Environmental Annexure* and *Environmental Work Plans* (a geospatial representation of any key environmental features and constraints) will be developed to detail Project specific environmental management requirements. The contractor would then be expected to develop a Construction Environmental Management Plan (CEMP) that meets the requirements of the *Environmental Specification*, the EMP and *Environmental Annexure*.

Operational activities will be undertaken in accordance with the EMP and Environmental Work Plans.

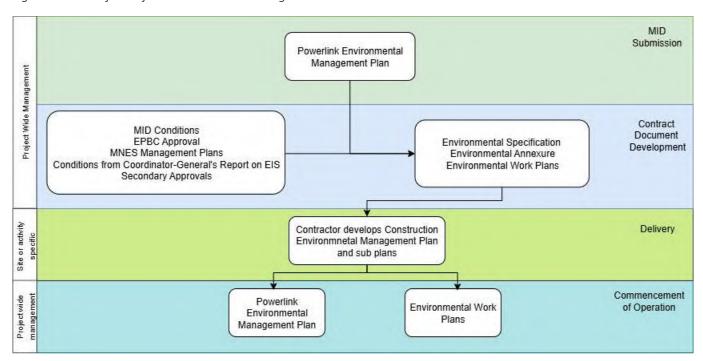


Figure 7: Process for Project environmental management

7.1 Services infrastructure

7.1.1 Water supply

No potable water will be required for Flinders Substation. A new water bore will be installed to source water for the construction activities of Flinders Substation. As defined in the *Acquisition of Land Act 1967*, Powerlink is a constructing authority, which provides allowances for taking water under Section 99 of the *Water Act 2000*

(Water Act). Water taken under this exemption must meet the requirements outlined in the document *Exemption requirements for constructing authorities for the take of water without a water entitlement (DRDMW, 2021).*

Regular consultation has been undertaken with the Department of Local Government, Water and Volunteers, who are the administering authority for the Water Act, to determine appropriate pathways for taking of water approvals.

7.1.2 Wastewater infrastructure

The Flinders Substation MID will have very limited impacts on wastewater infrastructure with limited wastewater produced during the construction and operation of infrastructure in the Flinders Substation MID. During construction temporary amenities will be available onsite. Once operational Flinders Substation will contain an office area with associated amenities including toilets and showers. The wastewater generated by these facilities will either be connected to town services, stored and pumped offsite or treated onsite. Due to the small scale of the proposed facilities, ERA63 will not be triggered for the Flinders Substation MID. Wastewater generated from the concrete batching plant will be managed in accordance with the soil and water general requirements of the Project's EMP in Volume 2.

7.1.3 Storm water infrastructure

Flinders Substation will have limited potential impacts on existing stormwater infrastructure during construction and operation as it is located in a rural area. Any impacts will be managed through management plans in line with condition 27(a) in the *Coordinator-General's evaluation report on the EIS*. Plans will be prepared prior to commencement of work for each location.

7.1.4 Electricity infrastructure

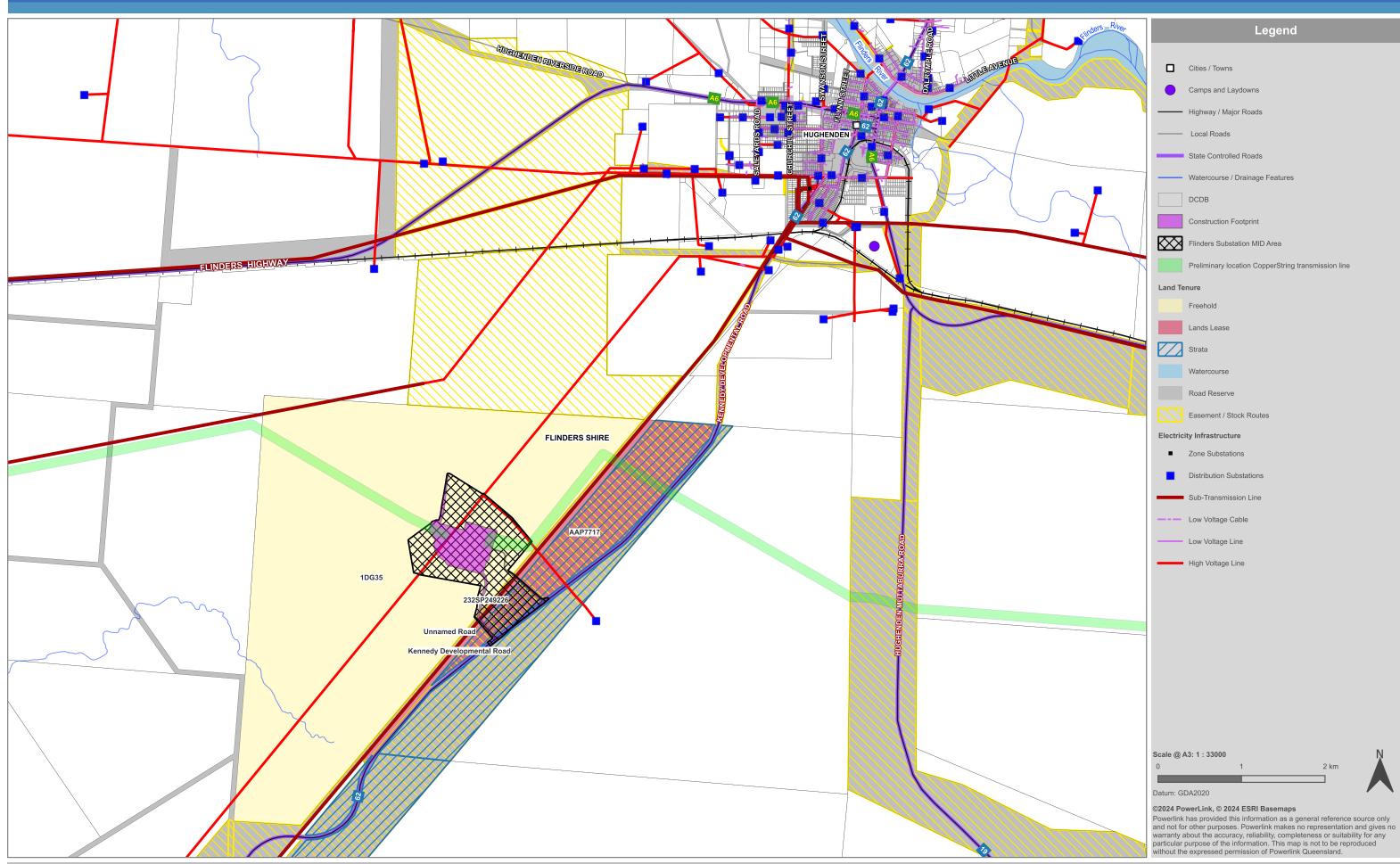
The Flinders Substation MID Project Area contains existing electricity infrastructure, as illustrated in Figure 8. Some modifications, such as relocating, connecting, or replacing existing lines, will be necessary. Energy Queensland have been consulted in initial discussion on the Project and it's impacts as well as engaged with the construction of Hughenden WAF. Moving forward, the Project team will continue to engage with Energy Queensland in accordance with established protocols to minimise and mitigate any potential effects on the existing transmission lines and the broader electricity network.

Electricity Infrastructure





Figure 8



7.1.5 Waste infrastructure

Waste for the Project will be managed in accordance the general requirements and objectives outlined in the EMP in Volume 2. The following waste management hierarchy will be implemented (from most to least preferable):

- avoid or reduce
- reuse or repurpose
- recycle
- recover
- treat and dispose.

Initial consultation with Flinders Shire Council has been undertaken to determine potential capacity for waste disposal, however, further consultation will be required once the types and volumes of materials to be disposed of are clearly understood.

7.1.5.1 Potential waste impacts

An initial assessment identified potential waste impacts for the Project associated with construction, these include, but are not limited to:

- incorrect classification of waste
- generation of unnecessary or excess waste
- inadequate storage and disposal or regulated waste
- contamination of the environment and nuisance to sensitive receptors and the surrounding community from uncontrolled wasters and litter.

7.1.5.2 Management measures

Waste management mitigation measures are designed to ensure compliance with relevant legislation and Project approvals and to reduce the risk of impacts. A summary of waste controls applicable include:

- during planning, a waste assessment will be undertaken to determine appropriate storage, disposal and management requirements for the Project
- implementation of the waste management hierarchy
- for each waste stream, appropriate segregation, handling and storage arrangements will be implemented
- waste transport and receiving facility for waste streams, including regulated waste, will be in accordance with regulatory requirements
- any permits or licences required for the storage, transportation and/or disposal of waste will be in accordance with regulatory requirements.

7.2 Traffic and transport

Traffic impact assessments were undertaken for the Project to address Part B of the Coordinator-General's recommended conditions for MID. The following sections provide a summary of the Traffic Impact Assessments (TIAs) for both state controlled roads and Flinders Shire in relation to the Flinders Substation MID. The full *Traffic Impact Assessment for State Controlled Roads* and *Traffic Impact Assessment for Flinders Shire* can be found in Volume 2 of this report. Traffic and transport impacts will be managed in accordance with relevant recommendations from those assessments and the EMP provided in Volume 2.

The road network in the vicinity of the Project includes both state-controlled roads and local authority roads as shown in Figure 9. The state-controlled roads are under the management of the Department of Transport and Main Roads (DTMR) with the local authority roads are under the management of Flinders Shire Council. An assessment of the traffic impacts of the Flinders Substation MID is provided in section 7.2.1

Flinders Substation MID does not intersect any active railway crossings, however, Project traffic will cross active rail corridors. An assessment of traffic impacts on rail for Flinders Substation MID is provided in section 7.2.2.

7.2.1 Traffic assessment

The following vehicle movements would be expected during the construction phase of the Project:

- transport of workers to and from Hughenden WAF
- rigid delivery vehicles and semi-trailers and truck and dog vehicles for delivery of materials other than Over Size Over Mass (OSOM) equipment e.g. fill from quarries, waste removal
- OSOM vehicles for delivery of oversized substation equipment and civil construction machinery.

The summary of the traffic impact assessment incorporating the Flinders Substation concludes:

- The increase in traffic volumes would not reduce the road network operation to unacceptable levels, however, there are some roads where the traffic volumes are above the practical capacity based on the road width. Mitigation has been proposed for some of these roads where appropriate.
- There are a small number of areas with local schools, which introduces a crash risk associated with additional traffic volumes and heavy vehicles. The recommendation is to limit travel during peak school drop-off and pick-up times and brief the community and drivers of the construction traffic and associated risks.
- Construction access suitability is predominantly impacted by the condition of the road, which is variable across the proposed access routes. With regular monitoring and maintenance undertaken prior to and during construction, the risk of crashes due to poor road condition can be appropriately managed.
- The operation and maintenance phase risk is negligible, with no recommended actions required for implementation.

A summary of the required mitigations is shown in Table 9 noting that where the initial risk due to road condition was considered low, it was not included. A full traffic assessment is provided in the *Traffic and Transport Impact Assessment TMR and Traffic and Transport Impact Assessment Flinders Shire* in Volume 2.

Table 9: Flinders Substation MID Road Mitigation Summary

| Road Name | Existing Issue Summary | Required Mitigation Summary |
|--------------------------------|--|---|
| Townsville Port Access Road | Concentrated specific crash history. | Provide safety training for drivers. |
| Flinders Highway | Missing turn treatments at several intersections. | Add turn treatments that are sufficient for the proposed peak construction traffic volumes. |
| | Turn treatments are required to be added at several driveway entries to the proposed construction access road. | Add turn treatments that are sufficient for the proposed peak construction traffic volumes. |

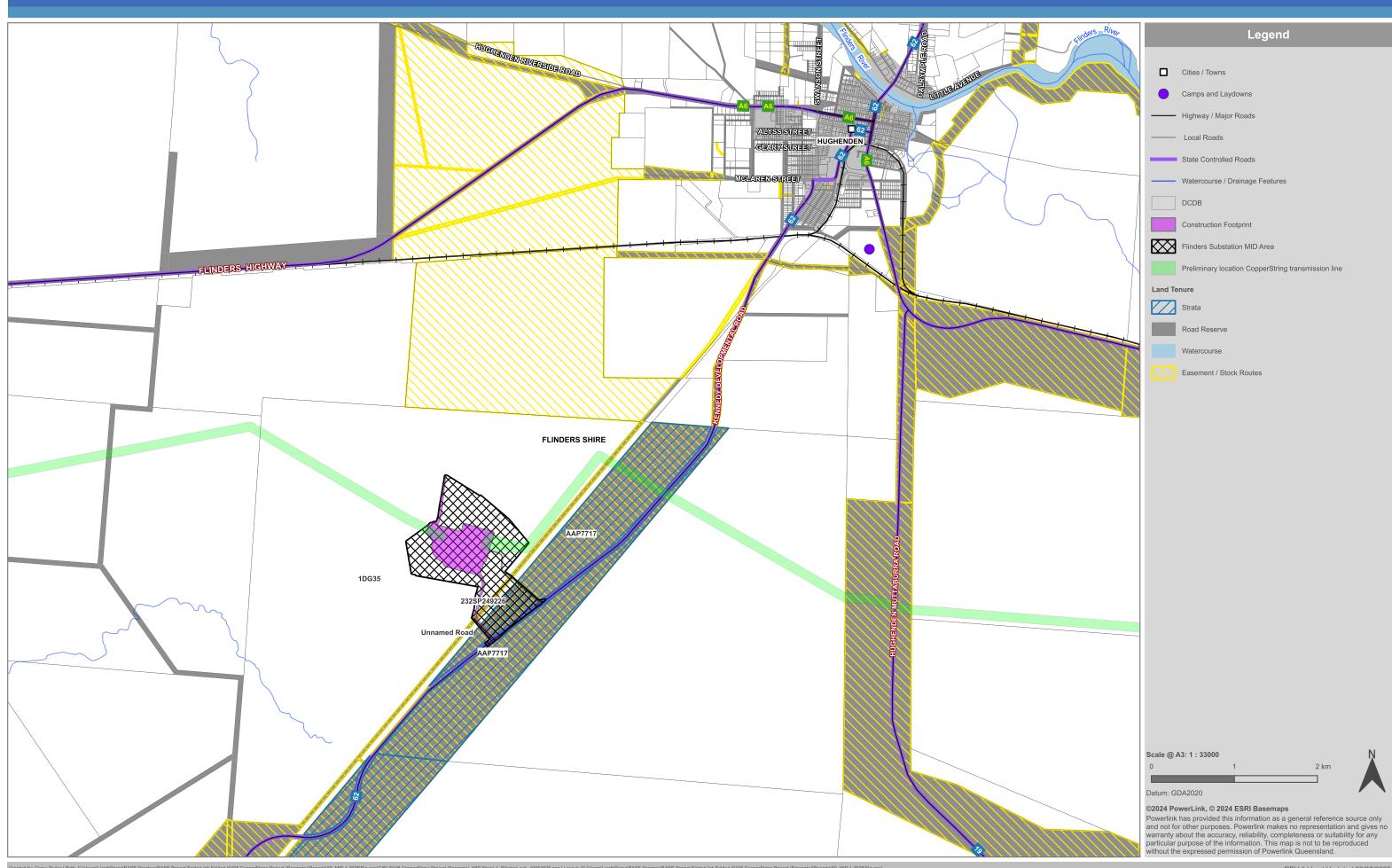
| Road Name | Existing Issue Summary | Required Mitigation Summary |
|-------------------------------|--|---|
| | Sight distances at various intersections/ driveways/ approaches do not meet relevant requirements. | Inspect the road prior to construction works, encourage drivers to report concerns, maintain vegetation where limiting, design and install advanced warning signage, where Council/ DTMR owned road furniture is obstructing sight distance, contact the relevant road authority to get it removed. |
| | Rail crossings do not meet relevant standards. | Install relevant rail crossing signage and line marking. |
| | Existing intersection geometry may not be suitable to accommodate construction vehicles. | Upgrade intersections to ensure there is sufficient space for vehicles to safely manoeuvre. |
| | Potential queuing back onto Flinders Highway due to rail crossings on side roads. | Inform drivers as to the location of rail crossings and instruct them to avoid queuing when trains are crossing, by continuing ahead on the Flinders Highway and turning around, or by other means. |
| | Sight distances at various driveways do not meet the relevant requirements. | Design and install advanced warning signage, where Council/ DTMR-owned road furniture is obstructing sight distance. |
| Kennedy | Missing turn treatments at several intersections. | Add turn treatments that are sufficient for the proposed peak construction traffic volumes. |
| Developmental Road (South) | Turn treatments are required to be added at several driveway entries to the proposed construction access road. | Add turn treatments that are sufficient for the proposed peak construction traffic volumes. |
| | Rail crossing does not meet relevant standards. | Install relevant rail crossing signage and line marking. |

Flinders Substation MID - Transport Infrastructure





Figure 9



7.2.2 Rail impacts during construction phase

Flinders Substation MID infrastructure will not occur within proximity of any active rail corridors, however, Project traffic will cross rail lines for transport of Project infrastructure. A summary of crossings, an assessment of issues and potential mitigation measures outlined in Table 10 from the origin point of The Port of Townsville. Where the initial risk assessment of rail impacts concluded the risk was low these have not been included in Table 10.

Project access for Flinders Substation will cross an inactive rail corridor on lot/plan 232SP249226. Due to it being an inactive rail corridor, an assessment of impacts and potential mitigations to reduce impacts has not been conducted for this crossing. An assessment of State Code 10 has been made and is provided in Appendix C.

Table 10: Rail Crossing risk assessment

| Rail Crossing Name | Existing Issue Summary | Required Mitigation Summary |
|--|--|---|
| Mount Isa Line: Flinders Highway (east of Redcliffe Road) crossing | Rail crossing flashing signals ahead signage is not provided on the eastbound approach to the rail crossing. As such, drivers may be unaware of an upcoming rail crossing, reducing the time in which they have to stop at a rail crossing. This has the potential to result in a moderate-speed collision between a vehicle and a train, causing death or serious injury. | Install railway crossing flashing signals ahead signs, railway crossing flashing signals ahead on side road assemblies and/or active advanced warning assemblies as required per AS 1742.7 on active-controlled railway crossings. |
| Mount Isa Line: Kennedy Developmental Road (south) crossing | Rail crossing ahead signage is not provided on the southbound approach to the rail crossing. It is unknown as to whether rail crossing ahead signage is provided on the northbound approach to the rail crossing. Should no rail crossing ahead signage be provided, drivers may be unaware of an upcoming rail crossing, reducing the time in which they have to stop at a rail crossing. This has the potential to result in a moderate-speed collision between a vehicle and a train, causing death or serious injury. | Install rail crossing ahead signs, railway crossing diagrammatic warning assemblies, railway crossing on side road assemblies, rail crossing diagrammatic warning signs on side roads assemblies and stop sign ahead assemblies as required per AS 1742.7 for passive-controlled railway crossings. |
| | Rail crossing diagrammatic warning assemblies are not provided on the southbound approach to the rail crossing. It is unknown as to whether rail crossing diagrammatic warning assemblies are provided on the northbound approach to the rail crossing. Should no diagrammatic warning assemblies and rail crossing ahead signage be provided, drivers may be unaware of an upcoming rail crossing, reducing the time in which they have to stop at a rail crossing. This has the potential to result in a moderate-speed collision between a vehicle and a train, causing death or serious injury. | Install rail crossing ahead signs, railway crossing diagrammatic warning assemblies, railway crossing on side road assemblies, rail crossing diagrammatic warning signs on side roads assemblies and stop sign ahead assemblies as required per AS 1742.7 for passive-controlled railway crossings. |

| Rail Crossing Name | Existing Issue Summary | Required Mitigation Summary |
|--------------------|---|--|
| | A give-way line is not provided in the southbound direction at the rail crossing. This has the potential to result in vehicles stopping too close to the rail line, resulting in a moderate-speed collision between a vehicle and a train, causing death or serious injury. | Provide Rail X, stop line, give-way lines and/ or no overtaking lines pavement marking as required per AS 1742.7. |
| | It is unknown as to whether no-overtaking lines are provided within the centreline on the northbound and southbound approaches to the rail crossing. Should no-overtaking lines not be provided, drivers may overtake on approach to rail crossings, reducing their ability to stop during times in which a train may be approaching. This has the potential to result in a moderate-speed collision between a vehicle and a train, causing death or serious injury. | Provide Rail X, stop line, give-way lines and/ or no overtaking lines pavement marking as required per AS 1742.7. |
| | Measured S1: Road not accessible Required S1: 138m As Kennedy Developmental Road was unable to be accessed, S1 from the northbound direction was not able to be measured. Should S1 not meet the requirements, there is increased potential of a moderate-speed collision between a vehicle and a train, causing death or serious injury. | Where sight distance is insufficient due to topography (or otherwise) the following options can be considered: • Design and install advance rail warning signage (or other traffic control devices as warranted) to suitably warn of the upcoming rail crossing • Clear obstructions such as vegetation/ signage where viable, as outlined in management and mitigation measures 8 to 12; or • Reduce the approach speed limit of road vehicles such that the sight distance meets the requirements of AS 1742.7. |
| | Measured S1: Road not accessible Required S1: 180 m As Thornhill Tamworth Road was unable to be accessed, S1 from the northbound direction was not able to be measured. Should S1 not meet the requirements, there is increased potential of a moderate-speed collision between a vehicle and a train, causing death or serious injury. | Where sight distance is insufficient due to topography (or otherwise) the following options can be considered: • Design and install advance rail warning signage (or other traffic control devices as warranted) to suitably warn of the upcoming rail crossing • Clear obstructions such as vegetation/ signage where viable, as outlined in management and mitigation measures 8 to 12; or • Reduce the approach speed limit of road vehicles such that the sight distance meets the requirements of AS 1742.7. |

7.2.3 Consultation with Department of Transport and Main Roads

Consultation with DTMR has been undertaken to ensure the requirements for Traffic and Transport are met. The Project team has had ongoing meetings with DTMR to understand the requirements for TIAs and possible OSOM routes for work commencing at Flinders Substation. Appendix B details the consultation undertaken with DTMR for traffic and transport including Oversize Over Mass (OSOM) movements for the Project.

DTMR was provided with copies of the Project TIAs to clarify feedback. Feedback on the TIAs is summarised in Table 11. Feedback is for all aspects of the Project including the Flinders Substation MID.

Table 11: Traffic and transport consultation feedback

| Date | Feedback |
|------------------------|---|
| | State controlled roads TIAs already prepared can be submitted with the upcoming MID application(s). |
| | The following items should be clearly addressed which may not have been considered in detail to date: |
| | Pavement Impact Assessment – |
| | The TIA's should include a detailed Pavement Impact Assessment prepared in accordance with DTMR's Guide to Traffic Impact Assessment (GTIA) – December 2018 and the associated Pavement Impact Assessment Practice Note. The Pavement Impact Assessment should take into consideration all construction vehicles required for the transmission line associated with the Flinders Substation MID and should identify the potential impact upon the state-controlled road network. Where possible the Pavement Impact Assessment should clarify whether it is assessing the pavement impact associated with solely the Flinders Substation MID or whether it is for the entire Project to assist in conditioning any possible monetary contributions. |
| | OSOM movements – |
| DTMR 21 May 2024 | An assessment of the haulage route should be undertaken for OSOM components to demonstrate that these components can safely be transported to site without impacting upon the operating conditions or structural condition of the State-controlled road network. We are arranging a meeting with our structures and heavy vehicle access teams to assist Powerlink with preparing this assessment where possible. |
| | Railway impacts Primary concern is the proximity of the railway level crossings to the surrounding road network (in particular the Flinders Highway), and the risk of short stacking occurring as a result of the construction and/or operation of the transmission alignment. DTMR requires the TIAs to clearly identify the existing railway level crossings (public and occupational) that will be relied upon by the Project. DTMR requires the attached Australian Level Crossing Assessment Model (ALCAM) data to be provided, specifically noting that traffic volumes are daily totals not peak period averages. Further specific information is required regarding the number of bus movements to allow the railway manager to undertake an appropriate assessment. Attached is further information to assist with preparing the ALCAM Data, including how the |
| | information should be presented. Please note, as discussed in today's meeting, this information can be provided as a separate document or appendix to the TIAs for the MIDs. |

Date **Feedback** TIAs should provide confirmation of the extent of separation between Tower and transmission alignment components from the Railway corridor. It is noted that the Project is not expected to encroach into or within close proximity of the railway corridor. This may be able to be managed through conditions upon the MID. Rail corridor noise is unlikely to be a concern due to the nature of the Flinders Substation MID and the location of the works. Stormwater and flooding impacts should also be addressed where any works occur within close proximity to the Railway corridor. Stormwater Management Plans and Flood Impact Assessments should demonstrate that there is no actionable nuisance or material worsening of impacts upon the railway corridor due to the Project. Should further discussions be required regarding possible conditions or structures of conditions, an additional meeting can be arranged. **OSOM movements** An assessment of the haulage route should be undertaken for OSOM components to demonstrate that these components can safely be transported to site without impacting upon the operating conditions or structural condition of the State-controlled road network. We are arranging a meeting with our structures and heavy vehicle access teams to assist Powerlink with preparing this assessment where possible. Outlined are requirements are from Appendix 2, Part B, recommended condition 7 in the Coordinator-General's evaluation report on the EIS. The condition will be up to the MID team to determine in consultation with DTMR as to whether it will be required on any MID, but it should provide advance notice of what DTMR may require. Conditions highlighted in bold are additional requirements that may be sought by DTMR after assessment of Hughenden Workers Accommodation Change Evaluation: (a) Prior to the commencement of works prepare a RUMP and Construction Traffic Management Plan (CTMP). (b) RUMP/s and CTMP/s are to be prepared in consultation with the relevant transport authorities, (DTMR, Queensland Rail, Department of Education, and local government councils). Other agencies including the Queensland Police Service (QPS), the Queensland Ambulance Service (QAS) and the Queensland Fire and Emergency Services (QFES) are to also be consulted as necessary in preparation of the RUMP/s and CTMP/s. (c) The CTMP must be RPEQ (Registered Professional Engineer of Queensland) certified and include/address: Be informed by the TIA (State Roads) and TIA (Local Roads). (i) (ii) Proposed construction traffic volumes. Office of (iii) Temporary road closures including emergency service access. Coordinator-(iv) Impacts on local school bus routes. General Traffic management requirements associated with over-size / over-mass vehicle movements to (v) and from the Hughenden Workers' Camp. 21 May (vi) Over dimensional road loads crossing rail infrastructure (e.g. rail level crossings and rail bridges) 2024 including measures maintaining the safety and operational integrity of railway level crossings. (vii) Hazardous/dangerous goods transportation. (viii) Maintenance and remediation works in the event of road damage caused by Project traffic. Management and maintenance of property and access tracks. (ix) A communication strategy. (x) (xi) A Fatigue Mitigation Strategy to ensure that workers do not drive when fatigued to ensure the ongoing safety of road users. (xii) Pick-up / meeting locations for staff when travelling to and from workers camps at the start and end of their rostered rotation. (d) Identify the necessary legislative requirements for installation of Project components on DTMR land (e.g. State-controlled roads and railways), justify locating such assets on public land, and provide RPEQ certified plans and work methodology compliant with relevant legislation. Submit a copy of the RUMP/s and CTMP/s to DTMR (North.Queensland.IDAS@tmr.qld.gov.au & Ministerialdesigations@tmr.qld.gov.au), DSDILGP (Department of State Development, Infrastructure, Local

| Date | Feedback |
|------|---|
| | Government and Planning - Infrastructuredesignations@dsdilgp.qld.gov.au) and all local government councils traversed by the Project. |
| | (f) The construction of the development must be undertaken in accordance with the CTMP. |

7.2.4 Oversize over mass movements

An *Over Size Over Mass Management Plan* has been prepared for the Project and can be found in Volume 2. The intent of this report is to provide DTMR with comfort that the OSOM components can access the site without impacting upon the safety, structural condition, or operating conditions/functional intent of the State transport network.

The likely potential haulage route will require traversing with numerous existing structures. DTMR assisted the Project team to provide information on load capacity of these structures. Due to the heavy loads to be transported, a high level review of the existing structures has been completed for the purpose of identifying any structures which may be unsuitable to support the anticipated haulage loads/vehicles, and in these instances, comment on the suitability of approval with conditions.

The most structurally sound route was determined to be Port of Townsville, Townsville Ring Road in High Range, Gregory Developmental Road in Charters Towers and the Flinders Highway from Charters Towers to Hughenden as shown in Figure 10, Figure 11 and Figure 12. This route has some overhead constraints of 5.4m to 5.5m at the Riverside Gardens overpass in Townsville along with some other structures. These can be found in section 2.1 of the OSOM report included in Volume 2. They have been assessed as suitable for the estimated dimensions of a maximum laden load height of 4.788m for Flinders Substation.

Figure 10: Proposed route for OSOM from Townsville to Marathon



Figure 11: Proposed route for OSOM in Charters Towers



Figure 12: Proposed route for OSOM through Hughenden



The DTMR assessment outcomes for all structures and configurations (61 structures) except BIS ID 7638 Hann Creek and BIS ID 7562 Ivan Baldwin Bridge, resulted in TR05 - Permit vehicle on bridge centreline at the speed limit with no other heavy vehicles present on the bridge. This suggested to the review team that all the proposed configurations would be suitable for the estimated loads to be successfully transported from the Port of Townsville to the Flinders Substation site with restrictions across these structures.

The DTMR assessment outcomes for BIS ID 7638 Hann Creek are:

- 12.4T/axle TR05 Permit vehicle on bridge centreline at the speed limit with no other heavy vehicles present on the bridge
- 13.4T/axle TR06 Permit vehicle on bridge centreline at no more than 10km/hr with no other heavy vehicles present on the bridge.

This suggests to the review team that all of the proposed configurations would be suitable for the estimated loads to be successfully transported from the Port of Townsville to Flinders Substation site with restrictions across this structure.

This assessment highlighted one bridge that would be an issue for some of the test configurations namely the BIS ID 7562 Ivan Baldwin Bridge over the Burdekin River on Hervey Range Road.

The review highlighted Ivan Baldwin Bridge had the following results:

- 15x8 + 15x8 trailer arrangements Total combination mass of 549.5T (payload Statcom Transformer 170T + additional contingency mass 30T), 13.4T/axle row; Result 13% overload, Can't Cross
- 15x8 + 15x8 trailer arrangements Total combination mass of 519.5T (payload Statcom Transformer 170T),
 12.4T/axle row; Result 4% overload, Can't Cross
- 5x8 + 6x8 + 15x8 trailer arrangements Total combination mass of 544.4T (payload Statcom Transformer 170T).
 11.6T/axle row. Result TR06 Permit vehicle on bridge centreline at no more than 10 km/hr No other heavy vehicles present on the bridge (Refer DTMR Email 21/06/2024 Yannis Vamvakas Appendix 2.1)
- 15x8 + 15x8 trailer arrangements Total combination mass of 519.5T (payload Statcom Transformer 170T), 12.06T/axle row (RJA calculated loading); Result 1% overload but possible acceptance with special conditions (Refer DTMR Email 28/06/2024 Yannis Vamvakas Appendix 2.1a).

This suggests to the review team some of the proposed configurations would be suitable for the estimated loads to be successfully transported from the Port of Townsville to Flinders Substation site with restrictions across this structure.

No road or structure modifications are anticipated on the proposed route. Other projects along the proposed route will need to be considered during the permitting process.

Rail crossings and timings will need to be considered further during the permitting process to ensure transportation activities do not conflict with QR operations.

7.2.5 Further works

Based on the consultation with DTMR and the OCG, the following further works and updates will be undertaken prior to the commencement of construction:

- State-controlled road impacts:
 - Pavement Impact Assessment

Railway impacts:

- o Traffic Impact Assessment update incorporating:
 - the risk of short stacking occurring as a result of the construction and/or operation of the Project
 - ALCAM data
 - confirmation of the extent of separation between tower and Project corridor components from the railway corridor
 - stormwater and flooding impacts addressing any works occur within close proximity to the Railway corridor.

7.2.6 Traffic, road and rail impacts during the operational and maintenance phase

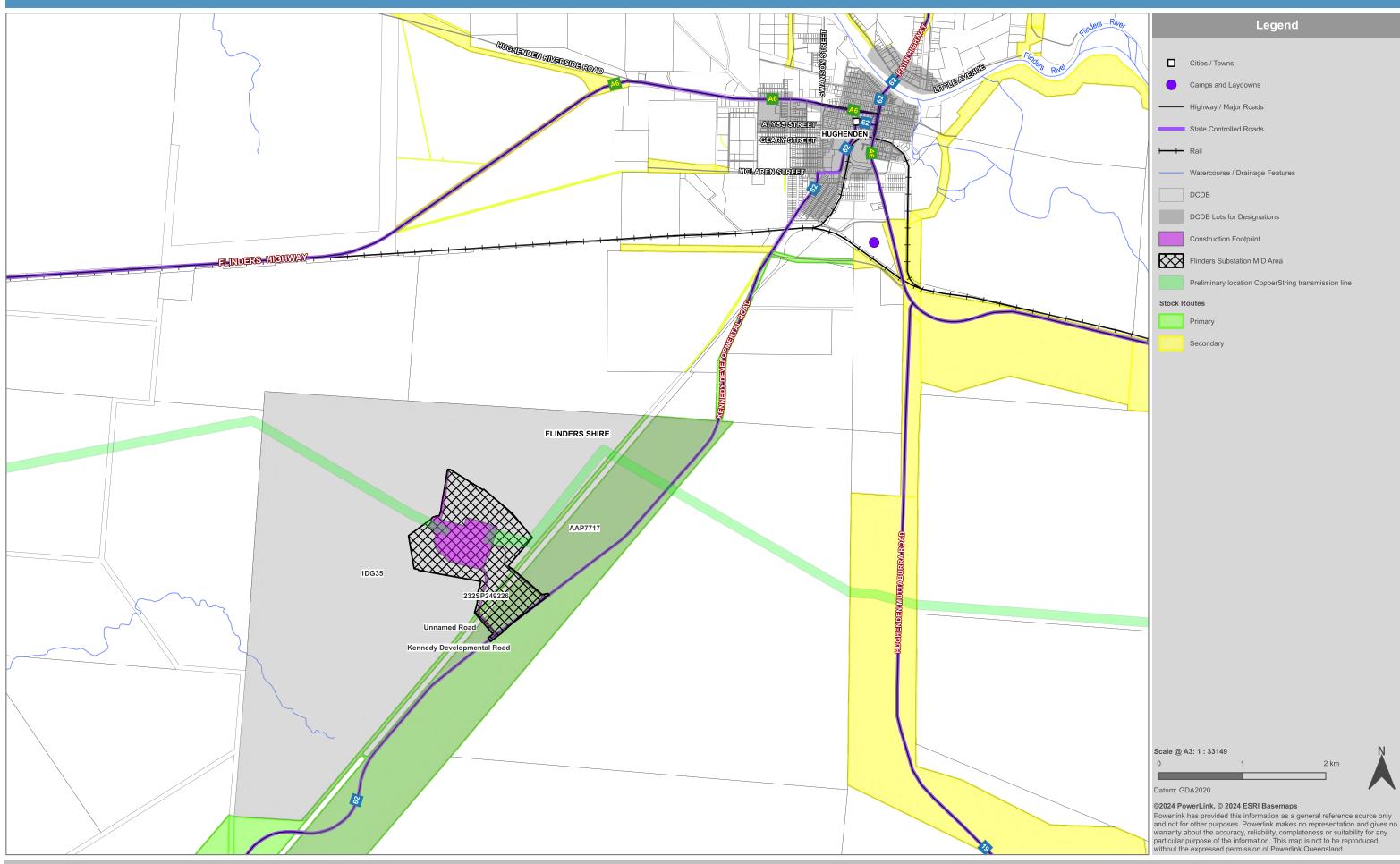
Inspections of the transmission lines will be completed periodically, generating very low traffic volumes. The substations would also have low operational traffic volumes, expected to be less than one vehicle per day. Additional light and heavy vehicle movements may occur during minor and major maintenance outages. Based on this, the traffic and road risks during the operation and maintenance phase are lower than the construction traffic risks due to the significantly lower traffic volumes. For further information refer to Volume 2 of this report.

7.2.7 Stock routes

The Flinders Substation MID will cross one primary stock route, stock route number SR201FLIN, as shown in Figure 13. This stock route follows the Kennedy Developmental Road reserve. Impacts will relate to construction site access as the substation footprint does not fall within the stock route. Impacts will mostly be limited to the construction phase with little impact during the operation and maintenance phases. Impacts of construction will be managed through a management plan that will be prepared in line with EMP provided in Volume 2.



Figure 13



7.3 Ecological assessment

An Ecological Assessment Report for the Flinders Substation MID (the EAR) was prepared by Base (2025) to inform this Flinders Substation MID Assessment Report in relation to potential impacts on MSES. The EAR documents the extent and location of MSES within the Flinders Substation MID area. The EAR also assesses potential impacts on MSES, identifies suitable management measures to avoid and mitigate potential impacts on MSES, and assesses offset requirements for significant residual impacts (SRI) on MSES as a result of the Flinders Substation development.

The EAR considered previous relevant MSES assessments including the EIS, the *Coordinator-General's evaluation* report on the EIS, and the Stage 1 Pre-clearing Survey Report (Stage 1 PCSR) (Base, 2024). The full EAR is provided in Volume 2. A summary of the key findings from the EAR is provided below.

7.3.1 Matters of State Environmental Significance

7.3.1.1 Regulated vegetation (regional ecosystems)

There is no Category B (Endangered) or Category B (Of Concern) REs mapped or confirmed present by the field surveys within the Flinders Substation MID Area.

There are four Category B (Least Concern) REs mapped within the Flinders Substation MID Area. Two of these Category B (Least Concern) REs, RE 4.9.1c and RE 4.3.15, were confirmed as being present within the Flinders Substation MID Area by the field survey. However, neither of these REs constitutes MSES.

7.3.1.2 Essential habitat

There is no essential habitat for Endangered, Vulnerable or Near Threatened plants or animals mapped or identified during field surveys within the Flinders Substation MID Area.

7.3.1.3 Protected wildlife habitat (flora)

There are no high-risk areas for protected plants, as shown on the flora trigger map, present within the Flinders Substation MID Area. The field surveys did not identify any plants listed as Endangered or Vulnerable under the NC Act within the Flinders Substation MID Area. As such, the Flinders Substation MID will not impact on any protected wildlife habitat for flora.

7.3.1.4 Regulated vegetation (intersecting a defined watercourses)

There are no *Vegetation Management Act 1999* (VM Act) mapped wetlands, and therefore regulated vegetation associated with a wetland, identified within or adjacent to the Flinders Substation MID Area. Additionally, while there are a number of VM Act mapped watercourses intersecting the MID Area, the grassland REs associated with these watercourses do not constitute MSES under the EO Act and. As such, the Flinders Substation will not impact on any MSES Regulated Vegetation intersecting a defined watercourse.

7.3.1.5 Protected wildlife habitat (fauna)

The Flinders Substation does not contain any areas of mapped protected wildlife habitat for Endangered, Vulnerable or Special Least Concern fauna. However, field surveys identified suitable habitat for the following MSES fauna species within the Flinders Substation MID Area:

- Julia Creek dunnart (Sminthopsis douglasi) Vulnerable under the NC Act
- grey falcon (Falco hypoleucos) Endangered under the NC Act
- short-beaked echidna (*Tachyglossus aculeatus*) Special Least Concern under the NC Act.

The extent of habitat for these species within the Flinders Substation MID Area and the construction footprint is shown in Table 12.

7.3.1.6 High ecological significance and high ecological value wetlands and watercourses

There are no high ecological significance or high ecological value wetlands or watercourses mapped, or field verified, within the Flinders Substation MID Area.

7.3.1.7 Queensland Waterways for Waterway Barrier Works

One moderate (amber) and two low (green) risk waterways for waterway barrier works are mapped within Flinders Substation MID Area. The northern access track to be used for the construction phase may require a waterway crossing to be constructed or upgraded within a moderate (amber) risk waterway. If works to the waterway crossing are required, these will be carried out in accordance with the ADR.

7.3.1.8 Protected Areas

There are no Protected Areas within Flinders Substation MID Area.

7.3.2 Summary of MSES

The extent of MSES within the Flinders Substation MID Area and the construction footprint are provided in Table 12.

Table 12: Clearing Impact on MSES

| MSES | Extent within Flinders Substation MID area | Extent within construction Footprint |
|--|---|--------------------------------------|
| Protected Areas | Not present | Not present |
| Regulated Vegetation | | |
| Regulated Vegetation (Endangered or Of Concern RE) | Not present | Not present |
| Regulated Vegetation (defined watercourse) | Not present | Not present |
| Regulated Vegetation (essential habitat) | Not present | Not present |
| Protected Wildlife Habitat | | |
| Julia Creek dunnart (Sminthopsis douglasi) | 152.82 ha | 35.68 ha |
| grey falcon (Falco hypoleucos) | 152.82 ha | 35.68 ha |
| short-beaked echidna (Tachyglossus aculeatus) | 152.82 ha | 35.68 ha |
| Wetlands and Watercourses | | |
| HEV or HES waters | Not present | Not present |
| Queensland waterways for waterway barrier works | 1 Moderate (amber) risk 2 Low (green) risk | 1 Moderate (amber) risk |

7.3.3 Potential Impacts

The potential impacts on MSES as a result of the Flinders Substation MID are described in detail in the EAR (Volume 2). A summary of the potential impacts during construction and operation is provided below.

7.3.3.1 Construction Phase Impacts

During the construction phase, the Project is expected to cause localised losses of flora and fauna habitat, predominantly due to clearing for the substation footprint, access tracks, and temporary construction areas within the construction footprint. Potential impacts from construction include:

- vegetation clearing impacts
 - o 35.68 ha of Julia Creek dunnart habitat
 - o 35.68 ha of grey falcon habitat
 - 35.68 ha of short-beaked echidna habitat.
- vehicle strikes
- increased weeds and pests
- erosion, sedimentation and dust
- hazardous chemical contamination
- construction noise and vibration
- uncontrolled fire.

7.3.3.2 Operational Phase Impacts

During the operational phase, environmental impacts from the Project are expected to be minimal. Nevertheless, the operational phase will pose some degree of ongoing risk, in particular fauna collision with occasional maintenance vehicles and potential to introduce weeds within the substation area and access tracks. The potential operational impacts include:

- vehicle strikes
- increased weeds
- erosion and sedimentation (access tracks only)
- light spill
- uncontrolled fire.

7.3.4 Mitigation measures for MSES

The Project has been designed to minimise clearing of native remnant vegetation and fauna habitat. Strict clearing limits under the EPBC Act Approval apply to works within Julia Creek dunnart habitat. The areas subject to the clearing limits for Julia Creek dunnart also represent grey falcon and short-beaked echidna habitat. Through compliance with the EPBC Act Approval clearing limits, impacts on habitat for Julia Creek dunnart, grey falcon and short-beaked echidna will be avoided and minimised as far as possible.

Where clearing is unavoidable, mitigation measures including fauna management (during clearing) and rehabilitation of temporarily disturbed areas (following construction) will be implemented to negate impacts from clearing. Pre-construction fauna surveys will inform the final detailed design and micro-siting of infrastructure during construction, such as final locations of access tracks, water bore components or temporary laydowns to avoid key habitat features where possible. These measures will further mitigate impacts from clearing on Juila

Creek dunnart, grey falcon and short-beaked echidna, as well as other Least Concern fauna utilising the Construction Footprint. The loss of habitat for Julia Creek dunnart will be offset in accordance with the EPBC Act Approval conditions and the Stage 1 *Offset Management Plan*, which has been approved by the DCCEEW.

Disturbance to watercourses has also been minimised through planning and detailed design. Works within watercourses for access tracks will be only as required. Existing waterway crossings will be used where available. Any works constituting waterway barrier works will be undertaken in accordance with the ADR.

The Stage 1 MNES Management Plan to be approved by the DCCEEW will manage impacts on Julia Creek dunnart. The management measures proposed in the Stage 1 MNES Management Plan will also mitigate impacts on other NC Act protected species that may utilise the Flinders Substation MID Area, including grey falcon and short-beaked echidna. The Stage 1 MNES Management Plan will outline the requirements for rehabilitation of temporarily disturbed areas.

The Project will implement a High Risk and Low Risk Species Management Program (SMP) in accordance with the NC Act to manage impacts on breeding habitat for Julia Creek dunnart, grey falcon, short-beaked echidna and Least Concern animals protected under the NC Act.

All management measures included in the Stage 1 MNES Management Plan and Stage 1 SMP, together with the standard environmental management controls detailed in the Powerlink Environmental Management Plan, will be integrated into the project's Construction Environmental Management Plan (CEMP) and other site-specific environmental plans to be implemented by the Contractor.

7.3.5 Significant residual impacts on MSES

The project description for the Flinders Substation MID is generally in accordance with the Project EIS. The Project applied the principles of 'avoid, minimise and mitigate' and Powerlink have endorsed this approach, which is evident through:

- avoidance and minimisation of impacts to environmental values as identified in Volume 3 Appendix D of the Project's <u>Corridor Selection Report</u>
- mitigation of impacts through implementation of management measures, primarily identified in management plans available in Volume 2 of this report
- the Coordinator-General's evaluation report on the EIS found that:
 - o "There is considerable overlap between the MNES and MSES relevant to the project".
 - o "The Project has been determined to be a controlled action under the EPBC Act."
 - "Accordingly, an offset would be provided for significant residual impacts on MNES."
 - o "This negates the need for the Queensland Government to also require offsets on MSES values where they overlap with MNES".

7.3.5.1 Protected wildlife habitat

Julia Creek dunnart

The EAR determined that construction of the substation will impact on approximately 35.68 ha of potential habitat for the Julia Creek dunnart. The EIS and *Coordinator-General's evaluation report on the EIS* considered that the loss of Julia Creek dunnart habitat for the Project was a SRI and would require an offset.

For MNES and MSES listed species, such as the Julia Creek dunnart, maximum approved clearing limits are addressed in the EPBC Act approval. The EPBC Act approval prescribes the clearing limits for Julia Creek dunnart

habitat as listed in Table 13 for the stage of the Project relevant to the substation. Powerlink has provided offsets to account for clearing of Julia Creek dunnart habitat. Based on this, no further mitigation for clearing of Julia Creek dunnart is considered necessary.

Table 13: Clearing limits under condition 2B of the EPBC Act Approval and the expected clearing impacts on species habitat

| Species habitat in Stage 2B | Clearing limit under Condition 2B of the EPBC Act Approval (ha) | Extent of habitat within the indicative clearing footprint (ha) | Difference (ha) |
|-----------------------------|---|---|-----------------|
| Julia Creek dunnart | 410.3 ha | 35.68 ha | -374.62 ha |

Grey falcon

The EAR determined that construction of the substation has the potential to impact on approximately 35.68 ha of potential grey falcon foraging habitat. The SRI assessment for grey falcon in the EAR found that the Flinders Substation would not likely result in an SRI for the species. These results were consistent with the assessment of impacts for this species in the EIS and the recommendations in the *Coordinator-General's evaluation report on the EIS*. Given the Flinders Substation is unlikely to have a SRI on the grey falcon, an offset is not considered to be required for the loss of habitat for this species.

Short-beaked echidna

Approximately 35.68 ha of potential habitat for the short-beaked echidna may be impacted by the clearing for the Flinders Substation. The EAR considered the impacts on the species were consistent with the impacts assessed in the EIS and evaluated in the *Coordinator-General's evaluation report on the EIS*. As such, the EAR determined that further assessment of the significance of impacts on this species was not necessary and an offset for the loss of habitat for short-beaked echidna is not required.

7.3.5.2 Queensland Waterways for Waterway Barrier Works

Permanent infrastructure for the substation will be located to avoid waterways. One new permanent access track will be located outside waterways. One temporary access track required for construction will intersect a moderate (amber) risk waterway. Any new waterway crossing will be designed in consultation with the DPI and will comply with the ADR for constructing or raising WWBW. As such, any waterway crossing works will be considered accepted development under the *Planning Act* and *Fisheries Act* and will not require offsets.

7.3.5.3 Other MSES assessed in the EIS

A number of other MSES were assessed in the EIS. These MSES were confirmed to be absent within Flinders Substation MID Area and no SRI is expected on these matters, as outlined in Table 14.

Table 14: Additional MSES assessed in the EIS

| MSES Category | Trigger | Presence in Flinders Substation MID Area | SRI |
|--------------------|--|--|-----|
| Connectivity areas | A prescribed RE (containing remnant vegetation that is required for ecosystem functioning) that is of sufficient size and configured in a way that maintains ecosystem functioning, and will remain in the landscape | The EIS assessment of impacts on vegetation connectivity confirmed that the Project will not change the number of core remnant areas on site and the impact on core remnant vegetation would be minimal. The Coordinator-General's Report on the Project EIS noted that no offset would be | No |

| | despite threatening processes (within the meaning of the NC Act) | required for this MSES value due to the minimal impacts. | |
|---|---|--|----|
| Designated precinct in a strategic environmental area (SEA) | Areas (designated precinct) prescribed within the Regional Planning Interests Regulation 2014 | No SEAs are intersected by or mapped in proximity to the designation area. | No |
| Declared fish habitat areas | An area declared under the <i>Fisheries</i> Act 1994 to be a fish habitat area | The designation area does not intersect any declared fish habitat areas. | No |
| Marine plants | Marine plants are protected under the Fisheries Act 1994. | The designation area will not require the removal of marine plants during the construction of waterway crossings as it is not located within a coastal area. | No |
| Legally secured offset areas | All legally secured offset areas. | The designation area does not intersect any legally secured offset areas. | No |

7.4 Soils and water

A water resources and water quality impact assessment and a soils assessment were undertaken as part of the Project's EIS and they can be found in Volume 2, Chapter 9 <u>Water resources and water quality</u> and Chapter 6 <u>Geology and Soils</u> of the EIS.

The following sections address impacts on soils, water quality and waterways identified in the EIS and provides additional information, where required, in relation to the Flinders Substation MID.

7.4.1 Soils

7.4.1.1 Soil description

Flinders substation is located within the Mitchell Grass Downs. Mitchell Grass Downs surface geology is described as a flat landscape that comprises river-borne and windblown (alluvial and aeolian) soils that overlie almost horizontal sequences of relatively young sandstone, muddy sandstone and limestone rock types. These sedimentary sequences are gently up-warped rocks that formed within a vast marine basin. The strata are locally incised by rivers, exposing tropical weathering characteristics. This region represents a relatively tectonically stable zone of sedimentary accumulation and basin formation. The dominant soil type in the Mitchell Grass Downs bioregion is Vertosols described as cracking clay soils. The Project corridor through the Mitchell Grass Downs is located at an elevation of approximately 140m Australian height datum (AHD).

7.4.1.2 Soils Impact assessment

Flinders Substation site will be cleared of vegetation and benched for construction. Foundations for the substation equipment will be excavated, and an earth grid will be installed under the entire substation site.

In addition to the substation, a temporary concrete batching plant will be established in the same footprint.

7.4.2 Unexploded ordnance

Properties within the Flinders Substation MID are not identified as having potential for unexploded ordnance.

7.4.3 Contaminated land

There are no properties within the Flinders Substation MID Project Area that are listed on the Contaminated Land Register (CLR) or Environmental Management Register (EMR) as shown in Table 15.

Table 15: EMR/CLR searches within Flinders Substation MID

| Lot/plan* | Listed on EMR/CLR | Reasons for listings | Date of search |
|-------------|-------------------|----------------------|----------------|
| 1DG35 | No | | 10/06/2025 |
| 1PER201053 | No | | 12/06/2025 |
| 232SP249226 | No | | 12/06/2025 |

^{*}note – AAP does not have a lot number and is therefore not searchable on the EMR/CLR.

Should the Project encounter any contaminated land, it will be managed in accordance with the EMP found in Volume 2.

7.4.4 Acid sulphate soils

Acid sulphate soils are commonly found at elevations below 5m AHD and sometimes beneath newer soils below elevations of 20m AHD. Acid sulphate soils are safe when undisturbed but if they are dug up or drained, the pyrite in the soil reacts with oxygen and oxidises. This process turns pyrite into sulfuric acid, which can damage the environment, buildings, roads and other structures (DESI, 2019).

Project activities will occur above 20m AHD, and it is unlikely that pyrite-forming conditions exist in the area of the Flinders Substation. In the event of acid sulphate soils or potential acid sulphate soils occurring in the corridor selection, management of the soils will be in accordance the EMP included in Volume 2 of this report.

7.4.5 Water

7.4.5.1 Water Act 2000

Taking of Water

As outlined in section 7.1.1, Powerlink is a constructing authority, which provides allowances for taking water under Section 99 of the Water Act without the need for a water license from DLGWV, provided the requirements outlined in the document OSW/2020/5467 Exemption requirements for constructing authorities for the take of water without a water entitlement (DRDMW, 2021) are met.

A potable water supply is not required for Flinders Substation. For supply of water for construction of Flinders Substation, a new water bore will be installed. As the owner of the land, Powerlink can lawfully construct a bore under Schedule 9 of the *Water Regulation 2016* as a bore is not assessable development if:

- it is in the Gulf Water Plan Area; and
- the works are more than 200m from a boundary of a parcel of land; and
- it is 400m from another water bore.

The proposed water bore is within the Gulf Water Plan Area and meets the minimum setback distances outlined above and therefore will be considered accepted development. In addition to meeting the standards required for taking of water under the exemption for construction authorities, the bore will need to be constructed to meet

the requirements of a legally constructed bore. This includes the bore to be drilled by a licensed operator and meet the construction standards for a bore within the Great Artesian Basin.

Consultation with DLGWV (formerly the Department of Regional Development Manufacturing and Water) has confirmed this approach for construction activities within the Gulf Water Plan Area. Consultation outcomes with DLGWV are provided in Appendix E. An assessment of State Code 10 is also provided in Appendix C to demonstrate compliance with the State Development Assessment Provisions.

Watercourses

The Watercourse Identification Map records unmapped watercourses within this MID Project Area, as shown in Figure 14. Within the designation area there are seven unmapped watercourses, with the construction footprint impacting five. Four of these unmapped watercourses have no noticeable riparian features of a watercourse.

One unmapped watercourse does have riparian and bank features and will form part of northern construction access for the substation utilising the existing access track through the watercourse. It is expected that some minor grading or improvement work might be required to ensure it is suitable for the expected construction traffic. As part of pre-construction work a watercourse determination will be prepared and submitted to DLGWV Water Services to confirm if the unmapped watercourses within the construction footprint are watercourses under the Water Act 2000. Where watercourses are confirmed, all temporary works within the bed and banks will be constructed and rehabilitated (post construction) in accordance with the Riverine Protection Permit exemption requirements and any other Powerlink EMP requirements for managing temporary disturbance areas.

Where unmapped watercourses are determined to be drainage features, consideration will be given to overland flow when completing drainage design.

7.4.5.2 Waterway Barrier Works

According to the Coordinator-General's recommended conditions to the Minister, MID Application works must comply with the DPI ADR for operational work that is constructing or raising a WWBW (DAF, 2018) or liaise with DPI on the construction or raising of WWBW regarding an Operational Works Permit.

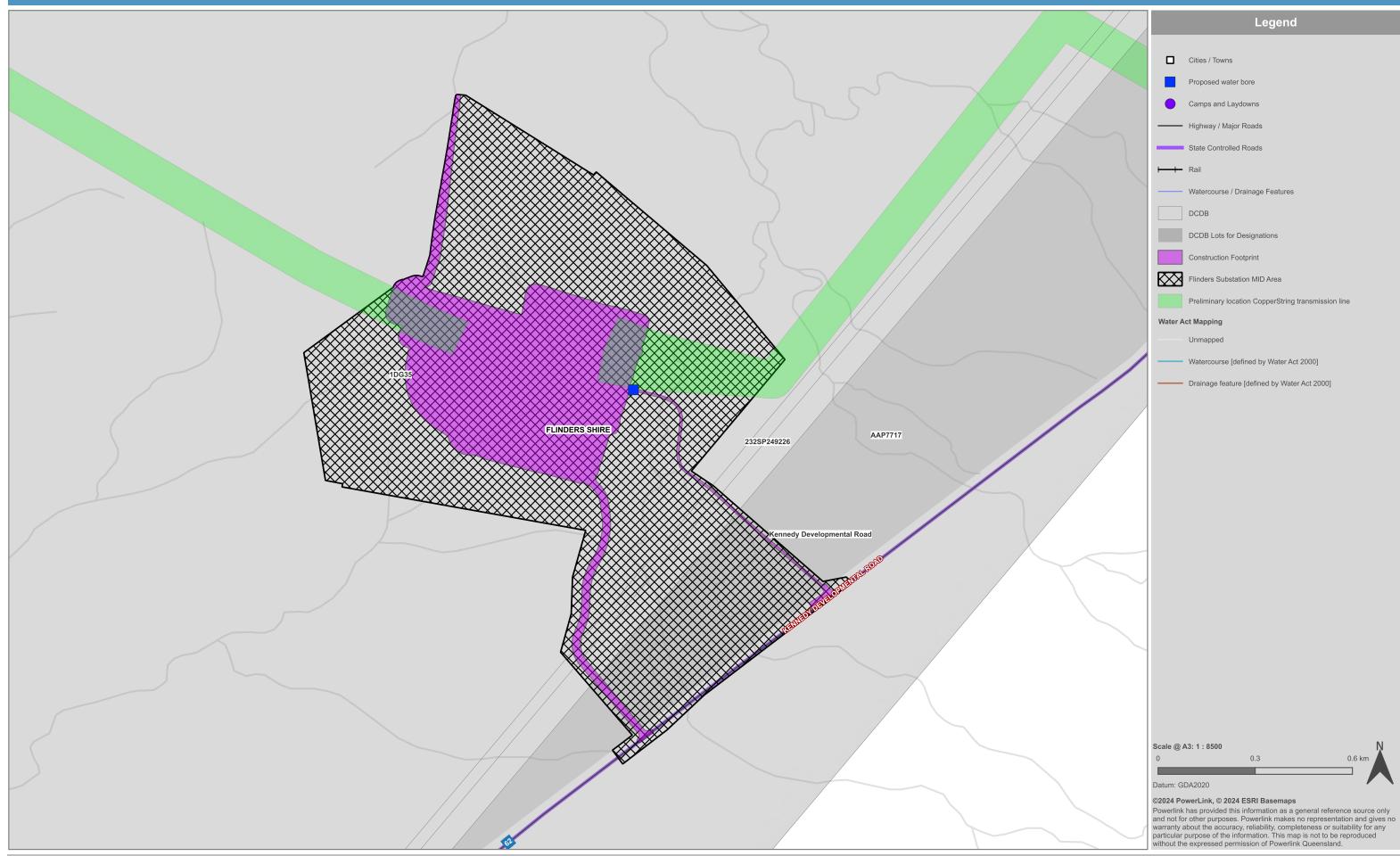
Within the Flinders Substation MID Area there are three mapped waterways, two mapped as low risk (green) waterways and one mapped as a moderate risk (amber) waterway as shown in Figure 15. Construction access for will utilise an existing track which will cross the amber waterway using the existing water crossing.

Should it be necessary to upgrade the crossing for construction activities the works will be managed in accordance with the ADR for constructing or raising a WWBW, including notification to DPI where required.



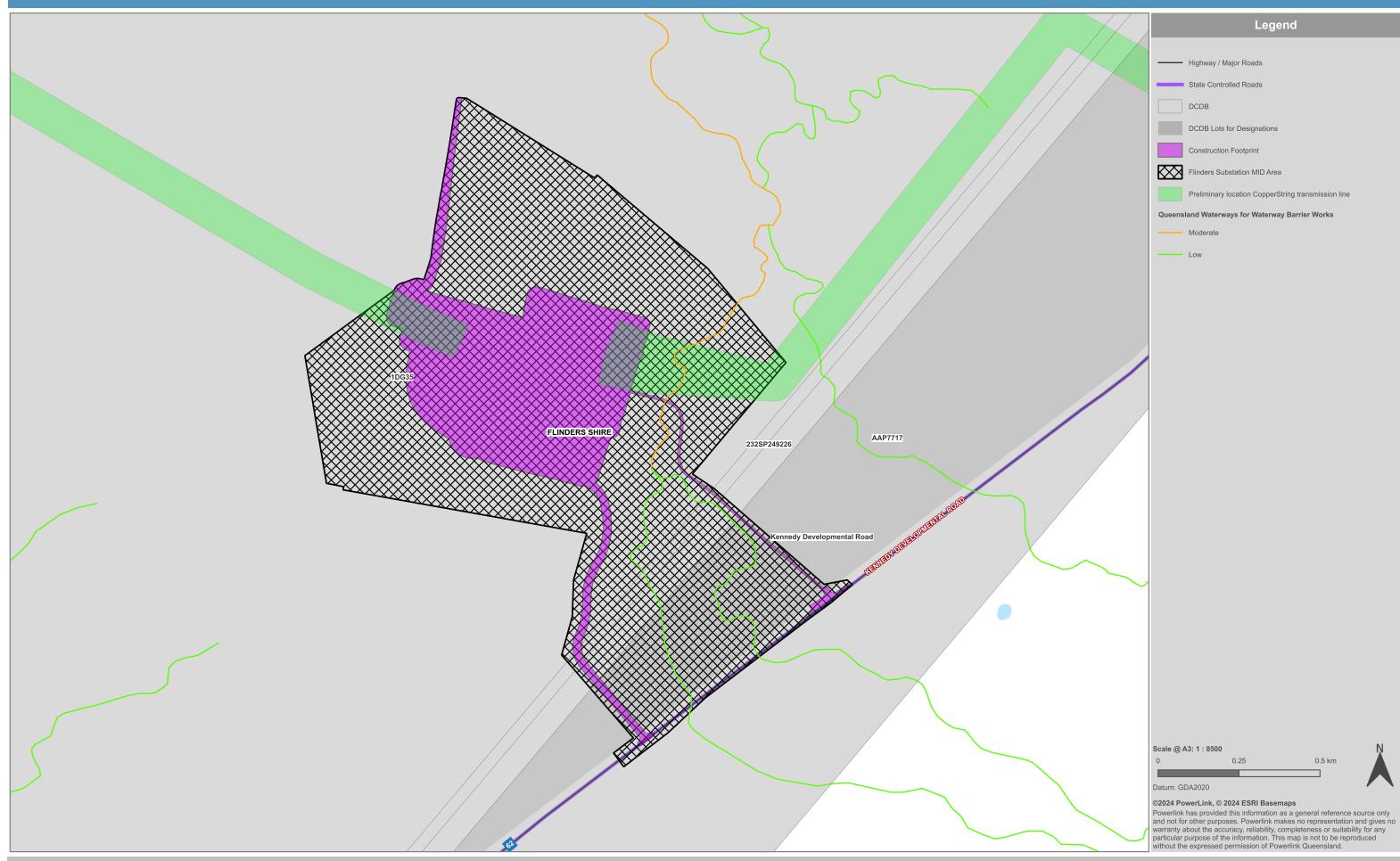


Figure 14









7.4.5.3 Water quality impact assessment

Table 16 provides a summary of potential impacts to water quality associated with the Project.

Table 16: Potential water impacts

| Activity | Associated Potential Impacts |
|---|---|
| Clearing and grubbing | Increased sediment load in run off impacting aquatic fauna and flora. |
| Cutting and filling | Erosion associated with bulk earthworks resulting in sedimentation and negative impacts to water quality. |
| Waterway crossings | Implementation of waterway crossings resulting in additional erosion and sedimentation. |
| Spills of fuel/hydraulic fluids | Negative impacts to soil and water quality through introduction of hydrocarbons and other contaminants. |
| Excavation | Impacts to aquatic fauna and flora through increased turbidity. |
| Concreting | Water quality negatively impacted though increase in pH and sedimentation. |
| Storage and use of flammable and combustible liquids and solids | Water quality negatively impacted through introduction of hydrocarbons and other contaminants. |
| Runoff from hardstand areas, e.g. laydown | Water quality negatively impacted through increased turbidity. |

7.4.6 Soils and water management measures

The risk of water quality impacts for the Project were anticipated to be high-low during the development of the EIS. Management measures will be designed to meet the objective outlined in the EMP of no adverse impacts on water bodies as a result of soil disturbing activities with disturbed sites rehabilitated to a stable condition. To achieve the objective, the Project will manage activities in accordance with the EMP provided in Volume 2. This will include management measures for:

- soil disturbance managed in accordance with *International Erosion Control Association Best Practice Erosion and Sediment Control Guidelines* 2008
- dewatering methods
- concrete washout
- taking of water in accordance with Exemption requirements for constructing authorities for the take of water without a water entitlement (OSW/2020/5467)
- excavation or placing of fill in a waterway will be carried out in accordance with Riverine Protection Permit Exemption Requirements (WSS/2013/726)
- record keeping
- stockpiling of soil.

7.5 Biosecurity

A initial biosecurity assessment was completed as part of the Project's EIS and can be found in <u>Volume 2</u> <u>Chapter 8</u> *Biosecurity* to ascertain the potential biosecurity matters for the Project. Since the submission of the EIS an *Ecological Assessment Report* (EAR) for the Flinders Substation MID has been prepared and can be found in Volume 2. The EAR identifies any Weeds of National Significance (WoNS) and restricted invasive species under the *Biosecurity Act 2014* (Biosecurity Act) for the Flinders Substation MID Area.

7.5.1 Potential waste impacts

The risk of spreading or introducing invasive plants and animals is greatest during the construction phase of the Project, due to the large amount of vehicle movement during construction. The transportation of machinery and materials have a high potential to carry invasive plants and animals between points of origin and work fronts. Whilst the construction phase poses the greatest risk, the pre-construction phase and the operational phases also have risks, predominately associated with vehicle movements, and will also require mitigation and management measures to be in place.

Within the footprint of the Flinders Substation MID Area, a total of eight introduced flora species were observed during field surveys including *Vachellia nilotica* (prickly acacia) which is classed as category 3 under the Biosecurity Act and is a WoNS.

7.5.2 Management measures

Biosecurity for the Project will be managed through each stage of the project in accordance with the EMP provided in Volume 2. During the planning stage, the biosecurity management will be focused on consultation with property owners on property specific biosecurity matters. As the project progresses to construction and operation additional mitigation and management measures for those activities will be implemented.

A full list of mitigation and management measures are provided in the EMP in volume 2, and summarised below:

- active consultation with landholders regarding property specific matters, including access and vehicle washdowns
- baseline biosecurity surveys ongoing monitoring of identified biosecurity matters and access tracks
- Project specific inductions and training for relevant staff, including any property specific measures
- minimise vehicle and machinery movements and ground disturbance, especially in areas where biosecurity matters have been identified
- temporary or permanent vehicle and personnel washdown and/or disinfectant facilities
- responsibly distribute herbicides as appropriate and with no adverse impacts on adjacent land activities or protected fauna, flora or waterways.

7.6 Greenhouse gas emissions

A greenhouse gas (GHG) assessment was undertaken for the Project's EIS, see <u>Volume 2, Chapter 10 Air and Greenhouse Gas.</u>

Greenhouse gases for the Project will be emitted during both the construction and operation phases. The Project will identify potential greenhouse gasses generated during construction and operation of the Project, opportunities to reduce emissions through energy efficiency and renewable energy sources, and consider GHG offsetting where required. Management of GHG will align with relevant Australian and Queensland government climate change policy applicable at the time of approval.

The objectives for GHG management will include:

- reduce greenhouse gas emissions associated with the Project and all relevant emissions sources
- incorporate energy efficiency initiatives into Project design, procurement, engineering, construction and operation
- provide consistent and accurate reporting on greenhouse gas emission levels in compliance with relevant legislation.

All other air quality impacts, mitigation, and management matters are discussed in section 7.7, below, including management of sulphur hexafluoride gas.

7.7 Air quality

An air quality assessment was completed as part of the Project's EIS and can be found in <u>Volume 2 Chapter 10</u>. Air quality for the Project will be managed in accordance with the general requirements and objectives outlined in the EMP in Volume 2.

7.7.1 Potential air quality impacts

The closest sensitive receptor to the Flinders Substation MID is approximately 1.2km from the boundary of the construction area of the Flinders Substation with the next closest sensitive receptor being approximately 5km. The distance of the sensitive receptors from the construction site in the Flinders Substation MID will limit impacts, however, a summary potential impacts is provided in Table *17*.

Table 17: Potential air quality impacts

| Environmental Value | Impacts to Environmental Values |
|---|---|
| The qualities of the air environment that are conducive to protecting the health and biodiversity of ecosystems | Temporary localised impacts associated with dust generated by construction activities and traversing access tracks. Construction activities to be undertaken during daylight hours wherever possible. |
| The qualities of the air environment that are conducive to human health and wellbeing | Temporary localised impacts associated with dust generated by construction activities and traversing access tracks. |
| The qualities of the air environment that are conducive to protecting the aesthetics of the environment, including the appearance of buildings, structures and other property | Temporary localised impacts associated with dust generated by construction activities and traversing access tracks. |
| The qualities of the air environment that are conducive to protecting agricultural use of the environment | Temporary localised impacts associated with dust generated by construction activities and traversing access tracks. Land holders will be kept informed of activities on their properties. |

7.7.2 Management measures

Air quality risks to sensitive receptors will be managed through specific consultation and mitigation activities to address air quality of the Project. Air quality objectives include:

- reduce impacts on air quality and to ensure ambient air quality on sensitive receptors is maintained
- ensure the Project complies with regulatory requirements under the *Environmental Protection Act 1994* and any conditions and approvals of the Project

 operate vehicles and machinery in a proper and efficient manner to minimise emissions, including dust, associate with construction and maintenance activities (includes both onsite activities and transporting materials to and from site).

General air quality risks for the Project will be mitigated and managed in accordance with the EMP, as summarised below:

- vehicles to be restricted to existing access unless otherwise required and travelling speed restricted on unsealed and off-road access tracks, vehicles fitted with appropriate dust mitigation devices, and turned off when not in use
- schedule activities to minimise air quality impact, monitor air quality, and implement dust suppression as required
- sulphur hexafluoride gas (SF₆) shall be handled to minimise the potential for loss to atmosphere and not be intentionally vented to atmosphere.

7.8 Noise and vibration

A Noise and Vibration assessment was completed as part of the Project's EIS and can be found in <u>Volume 2</u> <u>Chapter 11 Noise and Vibration</u> and provides context for the impact assessment for the construction and operation of Flinders Substation. General noise and vibration objectives and mitigation and management measures are provided in the EMP in Volume 2.

7.8.1 Impact assessment

7.8.1.1 Construction

The landscape in which Flinders Substation MID is located is rural, with low levels of background noise. Noise generated during construction of Flinders Substation will be temporary with noise impacts in the form of heavy vehicle movements, movement of machinery, general personnel presence and concrete batching.

Since the submission of the EIS, the location of the Flinders Substation has moved approximately 0.58km closer to the nearest sensitive receptor. This was agreed between Powerlink and the owner of the closest sensitive receptor.

In accordance with EP Act, construction activities are permitted to occur between the standard construction hours of 6.30am to 6.30pm Monday to Saturday. For construction to occur outside of standard construction hours, noise will need to meet the criteria outlined in the EP Act for audible noise. A noise assessment report has been prepared, and is available in Volume 2, to demonstrate that noise criteria for construction will be able to be meet the noise criteria of the EP Act between 6.30am to 6.30pm Monday to Sunday.

Construction activities are generally expected to occur from 6.30am to 6.30pm Monday to Sunday, however, due to the heat experienced in the Flinders region during the summer months there may be times where the Project will require work outside of these hours. To ensure that the Project meets the requirements outlined in the EP Act, the Project will seek a condition for the MID that works outside of these hours may occur. Further information on the proposed condition can be found in section 10.

Noise during construction has the greatest potential to impact on livestock. Landowners will be consulted as part of the construction scheduling process to manage stock access and potential impacts. Many species of wildlife are highly mobile and will exhibit avoidance behaviour if there are loud and persistent noises. With the cessation of activity and noise wildlife will return to the affected area and noise impacts are temporary.

7.8.1.2 Operation

During operation of the substation, noise emissions may include corona effects due to high voltage levels. While more common for transmission lines, corona effects can also occur at substations.

The corona is the term applied to the electrical discharge that can occur due to an intense localised electric field adjacent to an energised part. Energised surfaces, such as conductors, are surrounded by regions of high electric field strength causing ionisation of the air. The corona effect is caused by minor electrical discharge from the conductors into the ionised air and is strongest during wet weather. If this effect was to represent a health hazard, then it should also operate in the absence of power lines due to the natural, slowly fluctuating unidirectional electric field called "fair weather field". This field exists everywhere in the open and is discharged from point sources such as the end of pointed leaves. Further assessment on electro-magnetic fields is provided in *Volume 3 Appendix AC Electro-magnetic field specialist study* of the Project's EIS.

Corona effects are relatively small in fair weather but can become significant under electrically charged clouds. One potential impact of corona effect is audible noise characterised by a crackling sound that is normally heard during light rainfall and humid conditions as a consequence of water droplets mixing with dust on the conductor itself creating a migrating electricity leakage path. This is generally not audible beyond 100m from the infrastructure. The nearest sensitive receptor to Flinders Substation is approximately 1.2km away and noise associated with the operation of the substation is unlikely to be heard.

With the exception of the above, noise associated with the operation of infrastructure at Flinders Substation is expected to be commensurate with a rural environment, with noise limited to wind effects on structures.

7.8.2 Management measures

General noise and vibration impacts will be managed in accordance with the EMP in Volume 2. A summary of the general requirements for noise outlined in the EMP are provided below:

- selection of appropriate plant and equipment for each task and relevant plant and equipment is fitted with noise attenuation devices as appropriate and turned off when not in use
- scheduling of loud noise events, and regular noise producing activities to minimise impacts
- project inductions to include information on noise minimisation, including any relevant policies and procedures.

7.9 Electro-magnetic field

Electro Magnetic Fields (EMF) are found everywhere electricity or electrical equipment is used, including in the home, office, work sites and around substations.

Electric fields are present in any appliance plugged into a power point which is switched on or on stand-by. They are proportional to the voltage of the appliance and the distance the user is from it. They are strongest close to their source and their strength diminishes rapidly as you move away, in much the same way as noise decreases as you move away from the source. Electric fields are also shielded by most objects including trees, buildings and even human skin.

Magnetic fields are present in any appliance plugged into a power point, switched on and operating. They are proportional to the amount of electrical current flowing in the device. When an appliance is completely turned off, there is no magnetic field. Again, these are strongest close to their source, and their strength diminishes rapidly as you move away.

The power industry in Australia has a proactive management program specific to EMF at power frequencies (50 Hertz). In conjunction with this, the Australian Government's Australian Radiation Protection and Nuclear Safety Agency also maintains continual oversight of emerging research into the potential health effects of EMF exposure from powerlines and other electrical sources in order to provide accurate and up-to-date advice. The scientific evidence from independent bodies does not establish that exposure to EMF found around the home, the office or near powerlines and other electrical sources is a hazard to human health.

The Australian Radiation Protection and Nuclear Safety Agency publishes guidelines for EMF exposure relating to all relevant situations to ensure community safety and the safety of electricity industry staff who work at much closer distances. For magnetic fields, Powerlink's transmission network is designed and operated well below the general public exposure guideline limits of 200 micro-Tesla. Similarly for electric fields, the network is designed and operated to observe the recommended general public guideline limit of 5 KV/m.

Powerlink recognises community interest in EMF and is committed to working closely with landholders, the local community and other stakeholders by:

- taking a prudent avoidance approach. Where possible, locating proposed transmission infrastructure away from houses and habitable buildings so they do not materially add to EMF levels that already exist in a typical household environment
- providing information to the public regarding the latest findings from independent and credible scientific research into potential health impacts.

For more information about the Project's approach to EMF visit Powerlink's website.

7.10 Hazards health and safety

A hazards, health and safety assessment was completed as part of the Project's EIS and can be found in <u>Volume 2</u> <u>Chapter 17 Hazards, Health and Safety.</u> An *Emergency Response Plan* for construction related activities will be prepared and enacted should the need to respond to an emergency arise.

The Project will manage operational risks to health hazards and safety as outlined in the *Electrical Safety Act 2002*, the *Electrical Safety Regulations 2013* and *Energy Networks Australia National Guidelines* and also support the objective of the *National Electrical Safety Code* and worker safety as outlined in Powerlink's Health, Safety and Environment Policy. Further, prior to operation, Powerlink will prepare an *Emergency Response Plan* for Flinders Substation, which will provide guidance on planning, preparation, response and recovery from operational emergency events.

7.10.1 Flooding

Flood modelling indicates the Flinders Substation location will not be impacted by flooding. Sensitive electrical equipment on site, for example transformers, control cabinets, neutral earth reactors and switch gear, will be designed to occur above any 0.5% Annual Exceedance Probability flood levels.

During construction any flooding and or rain events will be managed in accordance with an *Emergency Response Plan* for the Project.

7.10.2 Drought

Drought is defined as consecutive years of below average rainfall. Within the Project area significant years of drought have included periods between

- 1985 1989
- 1992 1996
- 2001 2006
- 2013 2019.

There are records of longer periods where below average rainfall was recorded, and although not every one of these years is dry there was a drying trend across these years. Periods of drought are typically associated with increased evaporation (especially during summer months). The inland climatic zone exhibits high rainfall variability and with approximately 75 percent of the rainfall falling in the summer, a wet season failure can result in severe water shortages.

7.10.2.1 Potential Impact

Whilst drought is frequently experienced in much of the Project area, it is unlikely to cause any direct impacts to people or property in association with the Project. Indirect impacts such as the increase in fire risk, due to hot temperatures and dry conditions, may result from drought. Due to the relatively short period of construction, the impact of drought on construction of the Project is not expected to be significant and can be managed should a drought occur. The direct impact on operations is also low. However, drought is often associated with other climate extremes which can result in a number of other issues that may affect operations including an increased risk of fire, dust storms and land degradation.

7.10.2.2 Mitigation and management

The increased risk of fire for construction due to drought will be managed in line with construction management plans which will align to the management measures provided in EMP in Volume 2. If an emergency arises as a result of drought, responses will be managed in accordance with an *Emergency Response Plan* for construction and operation.

7.10.3 Storm events

Storm events resulting in heavy rain, locally strong winds, hail, and lightning, are expected in the Project area between October and April. Storm events may also create short term localised flooding on access tracks and in construction areas.

Storm events present minor risks to Project infrastructure and construction and operation activities. Potential impacts include direct damage to transmission line components, as well as short-term effects on safety and access. Risks from storm events will be managed through the construction and operational Emergency Response Plans.

7.10.4 Bushfire

Bushfires can occur at any time of the year in Australia, however, the peak bushfire season for north Queensland is during the dry season, (winter and spring), when temperatures are higher, and fuel loads are dry. Bushfire conditions are influenced by a combination of climate systems but are typically driven by hot, dry winds blowing from central Australia. The end of the fire season in north Queensland is determined by the onset of moister conditions, often as the result of a tropical cyclones developing near the Queensland coast.

7.10.4.1 Potential impacts

Flinders substation does not sit within a bushfire prone area as shown in Figure 16. In areas that are not bushfire prone, there is still a risk of grassfire. Grassfires are fast moving and are low to medium intensity. They typically damage crops, livestock and infrastructure such as fences.

7.10.4.2 Mitigation and Management

The Project's EMP found in Volume 2 outlines the general requirements for managing bushfire risk. An *Emergency Response Plan* will be developed to respond to any bushfire outbreaks. Operation and maintenance activities will be managed in accordance with section 7.10.

7.10.5 Lightning

Lightning is a natural hazard that could impact Project infrastructure once constructed. It is also a hazard to construction and operational/maintenance workers and others outdoors. Thunder is the sound caused by the electrical discharge of lightning, therefore thunderstorms are always associated with lightning (BOM, 2020). Thunderstorm data recorded from weather stations between 1990 and 1999 indicate there is a higher risk of an annual average of 15-20 thunderstorm days within the area of Hughenden.

7.10.5.1 Potential Impact

Lightning is a common natural hazard that is likely to be experienced more frequently during the wet season but may occur at any time throughout the year. The risks associated with lightning include personal injury/electrocution from direct lightning strike and conductive coupling, which occurs when lightning strikes a transmission structure, or when there is a phase to ground fault. Lightning also increases the risk of bushfires.

7.10.5.2 Mitigation and management

Construction activities will mostly occur outside of the wet season, which will reduce potential exposure to lightning. Lightning activity will be monitored throughout the day during the wet season or when there are indications of storm activity in other times of the year. Lightning weather planning will be considered as part of work pre-start meetings should lightning be predicted or if unexpected lightning occurs, the *Emergency Response Plan* will be followed.

For operations and maintenance activities similar work practices will be implemented and will be in line with the documents outlined in section 7.10.

7.10.6 Cyclones

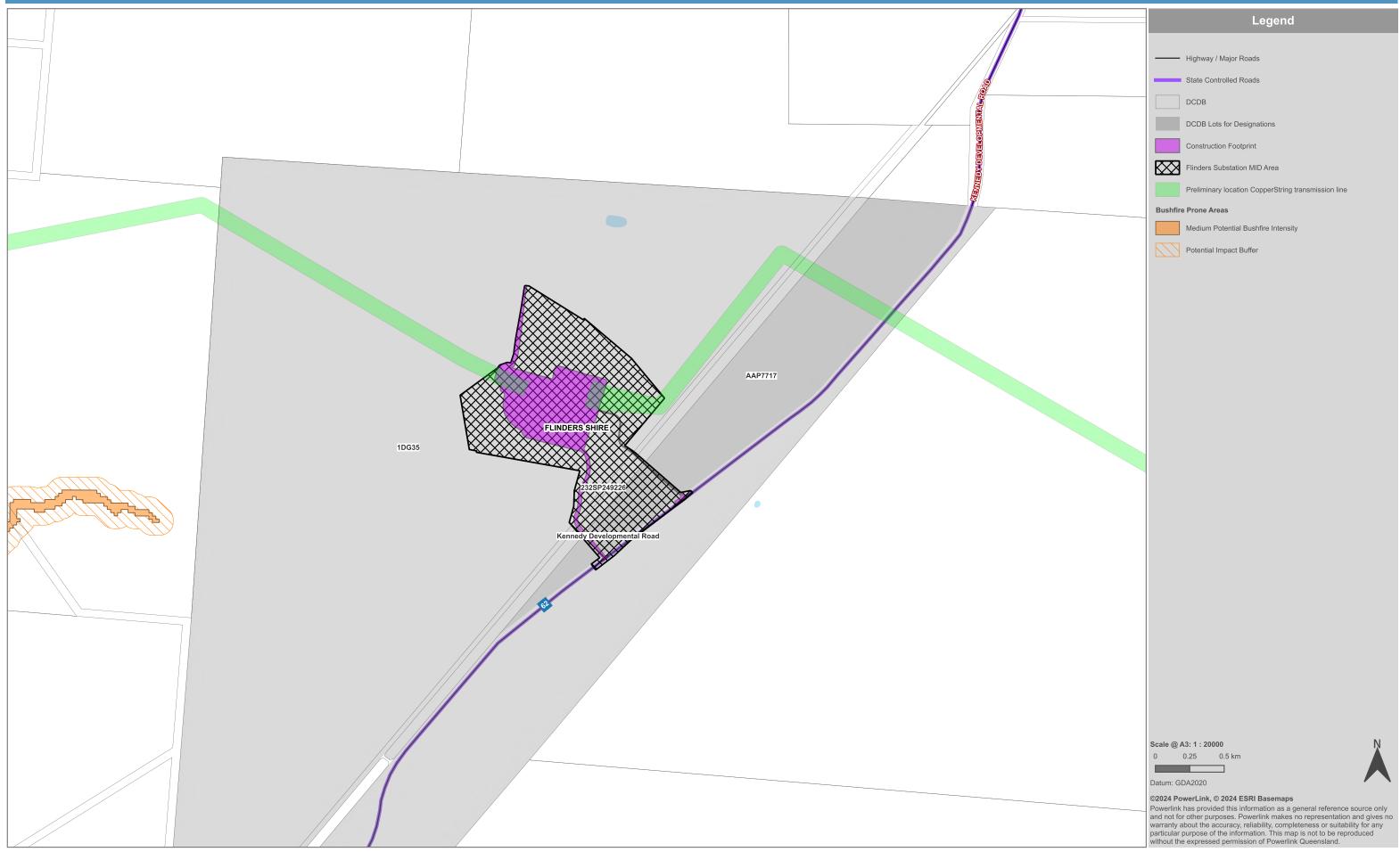
Tropical cyclones are low pressure systems that form over warm tropical waters, typically when the sea surface temperature is above 26.5 degrees. Tropical cyclones can bring destructive winds, heavy rainfall and storm surges. The Australian cyclone season officially runs from November to April. Reliable tropical cyclone data has been recorded since the 1970s and shows that on average around 11 cyclones form in the Australian region each season. Not all cyclones cross the coast.

Risks associated with tropical cyclones are greatest in coastal areas, as cyclones quickly degrade into rain depressions after crossing the coast and winds become less destructive. However, the impacts of cyclones can be experienced deep into the interior of Queensland, as the rains associated with cyclones can result in significant widespread flooding, which can isolate communities for extended periods. Much of the Project area experienced such an event in late January and early February 2019. During this event tropical low TL-13U was the principal





Figure 16



system associated with a long-lived and disastrous monsoon event that brought unprecedented rainfall and flooding to parts of north west Queensland and Townsville (BOM, 2020a).

Storm surges are not a risk for the Flinders Substation MID as the nearest infrastructure will be located 350km from the coast, however, other impacts such as wind and flooding could cause impacts to the Project including isolation of locations.

7.10.6.1 Potential impacts

The infrastructure will be designed to meet applicable wind codes. Infrastructure is at risk of damage when wind speeds exceed those used in the design. Impacts can include structural failure due to wind pressure and impacts from objects flying into transmission infrastructure. These impacts may be experienced during a cyclone or other weather event. The majority of the Project area is not at risk from cyclonic winds however there is potential for strong winds throughout the entire Project area.

7.10.6.2 Mitigation and management

Engineering design of the structures and foundations will meet the requirements of the Wind Code. Engineering design controls will have consideration of the foundation size, spacing and placement of infrastructure to mitigate any cyclonic winds for this wind hazard zone.

7.10.7 Earthquakes

Historical records indicate that earthquake activity is low around Hughenden, however, there have been earthquakes up to magnitudes of six near Townsville and Charters Towers. Although the risk of earthquake is low, it cannot be discounted. The Project will be designed in accordance with accepted civil engineering practice for the region which includes consideration of managing natural hazards and risks for structures.

7.10.8 Climate change

Climate change is influencing the frequency and severity of hazardous climate-related events such as cyclones, storms and bushfires in Australia, including influencing temperature, environmental moisture, weather patterns and fuel conditions.

There have been significant changes observed in recent decades towards more dangerous bushfire weather conditions for various regions of Australia, in particular more extreme conditions during summer in eastern areas and an earlier start to the bushfire season, with dangerous weather conditions occurring earlier in spring than they did in previous years.

7.10.8.1 Potential Impacts

Risks from climate change are associated with changes to the frequency and severity of hazardous climate-related events such as cyclones, storms, and bushfires. There is a risk that climate-related impacts could affect the long-term viability of the Project, for example increased flood levels, higher temperatures and frequent/severe bushfires may impact Project infrastructure.

7.10.8.2 Mitigation and management

Risks from climate change are associated with increased frequency and severity of other natural hazards, such as cyclones, bushfires and floods. As such this risk will be managed in line with the construction and operational *Emergency Response Plan*.

7.10.9 Emergency management

Powerlink will maintain a state of emergency preparedness as a commitment to its workforce, local communities and other relevant stakeholders. While prevention is seen as the primary instrument of avoiding the risks identified in the above risk assessment and throughout the EIS, an *Emergency Response Plan* will be developed. The *Emergency Response Plan* will assist in minimising the severity of any emergency and the damage and disruption that may arise from any emergency.

7.11 Cultural heritage

The Project's scale, and the nature of the construction activities required, has the potential to impact cultural heritage.

Powerlink has established processes, and significant experience in working closely with Traditional Owners, for the management of cultural heritage risks in development and has a *Cultural Heritage Management Framework* in place. Powerlink has negotiated *Cultural Heritage Management Plans* (CHMPs) with the relevant Native Title parties (the Aboriginal Parties) for the Project, in accordance with the *Aboriginal Cultural Heritage Act 2003*, and intends to legally and appropriately manage any Aboriginal cultural heritage risks through the implementation of these agreements.

CHMPs have been developed for the Western Link of the Project with the appropriate Aboriginal Parties. CHMPs for the Eastern Link of the Project are currently in development with negotiations currently taking place with the Aboriginal Parties. The existing CHMPs for the Western Link are in effect and are being reviewed with the aim of updating them to reflect project changes that have taken place since those CHMPs were signed. Discussions with the Aboriginal Parties are currently taking place.

In relation to the Flinders Substation MID Project Area, a CHMP has been developed in consultation and agreement with the Yirendali People. Cultural heritage surveys, potential impacts, and cultural heritage finds, in the lead up to and during construction will be managed in accordance with that CHMP.

The Project will not impact on any listed places of local or state heritage significance.

7.12 Native title

A tenure and native title extinguishment analysis has been completed for the Project. For the Flinders Substation MID the Flinders Substation is located within the area of the Yirendali People Core Country Claim (QUD495/2006), in which native title has been determined not to exist. As a result, native title is not required to be addressed for this part of the Project scope.

7.13 Social impact

A social impact assessment was undertaken for the Project's EIS and can be found in <u>Volume 2 Chapter 14 and Volume 3 Appendix Z</u>. As a result of the assessment in the EIS, the <u>Coordinator-General's evaluation report on the EIS recommended the condition that a Social Impact Management Plan (SIMP) should be prepared prior to commencement of any construction activities, and a <u>Communication and Stakeholder Engagement Plan</u> (CSEP) will need to be submitted as part of the SIMP.</u>

Since the submission of the Project's EIS there has been a change submitted for the location of the Hughenden workforce accommodation facility. The change report requested a change to conditions that allows the Project to deliver a SIMP for each stage of the Project to ensure a more targeted approach to social issues. The Coordinator-General considered this change to conditions and stated that a more targeted approach to social impacts would

be achieved through staging SIMP's based on LGAs. As a result of this approach, the Coordinator-General updated the conditions 2(a), 3(b)(ii) and (b)(iii) which relate to the *SIMP* and *CSEP* and imposed a new condition for the Proponent to report annually on how social impact management actions address cumulative impacts across LGA's affected by the Project. The updated conditions can be found in *Appendix 1 Imposed Conditions*, of the *Coordinator-Generals Change Report – no. 1 Hughenden workers accommodation camp*.

A SIMP was developed for Flinders Shire LGA to support construction of Hughenden WAF and was approved in June 2024. As the Flinders Substation MID is also located in the Flinders Shire, the SIMP and CSEP will be updated to incorporate additional impacts and management measures before commencement of construction activities in line with the Project's conditions of approval.

8. Compliance with Coordinator-General's evaluation report on the EIS

Table 18: EIS Part A - Social conditions

| Condition | Description | Section | Sub-section | Condition requirement | Compliance with evaluation report |
|-----------|-----------------------------|---------|-------------|---|---|
| | | | | Part A - Social Conditions | |
| 1 | General | (a) | - | The proponent must advise the Coordinator-General in writing of the commencement of project construction within twenty (20) business days of the date of commencement. | Not applicable to this MID assessment report. |
| | | (a) | - | The proponent must submit to the Coordinator-General for approval a <i>Social Impact Management Plan</i> (SIMP) prior to construction commencing in a local government area. The SIMP is to be reviewed, and if necessary, updated in response to changed circumstances or increased knowledge of impacts, and/or project components commencing construction within the local government area. The updated SIMP is required to be submitted to the Coordinator-General. | Flinders Shire SIMP prepared and submitted to the Coordinator- General. The SIMP be updated prior to commencement of construction of Flinders Substation. |
| | | (b) | - | The SIMP for each local government area must outline the proposed management measures for key impacts identified in the project's EIS social impact assessment. | Complies |
| 2 | Social Impact Management | (c) | - | The SIMP must include a communications and stakeholder engagement plan in accordance with Condition 3. | A CSEP has been prepared as part of the SIMP and will be updated prior to commencement of construction. |
| | Plan | (d) | - | The SIMP must include details of the legacy projects that are proposed and/or have been agreed with the local government or other stakeholders, including forecasted timeframes for implementation. | Complies |
| | | (e) | - | The SIMP for each local government area must include a monitoring and evaluation framework that includes performance indicators and desired management outcomes for the identified key impact areas. | Complies |
| | | (f) | - | The proponent must publish the SIMP for each local government area on their website within one month of the Coordinator-General's approval of the plan. Each update of the SIMP must be published on the proponent's website within one month of the updated SIMP's submission to the Coordinator-General. | Complies |

| Condition | Description | Section | Sub-section | Condition requirement | Compliance with evaluation report |
|-----------|--------------------------------|---------|-------------|--|---|
| | | (g) | | The proponent must implement the SIMP for each local government area. | Complies |
| | | (a) | - | The proponent must prepare a communications and stakeholder engagement plan (CSEP) that is to be submitted as part of the related SIMP to the Coordinator-General for approval, in accordance with Condition 2 of this part. | A CSEP has been prepared as part of the SIMP and will be updated prior to commencement of construction. |
| | | (b) | | The CSEP must include the following: | |
| | | - | (i) | objectives and key performance indicators | Complies |
| | | - | (ii) | a summary profile of the local community, focusing on potentially affected stakeholder groups, including where those groups may be outside the local government area | Complies |
| | | - | (iii) | an analysis of key stakeholders and stakeholder issues, including where stakeholders or issues may be outside the local government area | Complies |
| | | - | (iv) | communication activities and tools | Complies |
| 2 | Communications and stakeholder | - | (v) | roles and responsibilities for engagement | Complies |
| 3 | engagement plan | - | (vi) | engagement schedules and/or action plan | Complies |
| | plan | - | (vii) | monitoring and reporting requirements | Complies |
| | | - | (viii) | an appropriately scaled complaints management process | Complies |
| | | - | (ix) | processes for incorporating stakeholder feedback into further development of project-specific impact mitigation strategies | Complies |
| | | - | (x) | processes for providing timely notification to local job seekers and industry service providers (including Aboriginal and Torres Strait Islander businesses) regarding potential employment and procurement opportunities | Complies |
| | | - | (xi) | reporting on land access management plans developed for each landholder to document agreed access, rehabilitation, communication and compensation arrangements | Complies |
| | | - | (xii) | processes for providing advanced notice to the stakeholders of construction activities, including: any works which may occur outside of standard working hours; interruptions to utility services; changed traffic, access and parking | Complies |

| Condition | Description | Section | Sub-section | Condition requirement | Compliance with evaluation report |
|-----------|--|---------|-------------|--|--|
| | | | | conditions; changed marine facility access, or periods of predicted high noise, vibration or traffic activities | |
| | | (c) | - | The CSEP is to be reviewed and, if necessary, amended in response to changed circumstances or increased knowledge of impacts, and/or project components commencing construction within the local government area. | Complies |
| | | (a) | - | The proponent must report on the implementation and effectiveness of measures to manage the project's social impacts during the construction stages. | Not applicable to this MID assessment report |
| | | (b) | - | The proponent is to provide an annual <i>Social Impact Management Report</i> (SIMR) to the Coordinator-General for each year of construction, from the commencement date of project construction. | Not applicable to this MID assessment report |
| | | (c) | | The SIMR must: | |
| 4 | Reporting on implementation and Social | | (i) (ii) | describe the social impact management actions undertaken with respect to each of the key impacts identified in the project EIS social impact assessment and the effectiveness of these actions in achieving the management objectives and performance indicators established for each impact area in the SIMP. describe how the social impact management actions address any cumulative | Not applicable to this MID assessment report |
| | Impact Management Plan | - | (iii) | impacts across local government areas affected by the project. where relevant, identify any new impacts (negative and positive) on project-affected communities from the project during the relevant construction stages and the management actions undertaken to address them. | Not applicable to this MID assessment report |
| | | | (iv) | describe the status of legacy projects proposed and/or agreed with local governments or other stakeholders. | |
| | | - | (v) | report key themes received from consultation on the project in line with the CSEP and via complaint mechanisms, including how key complaints were resolved. | Not applicable to this MID assessment report |
| | | (d) | - | Each SIMR must describe the construction workforce management and mitigation strategies that have been implemented. This must include a description of: | Not applicable to this MID assessment report |
| | | - | (i) | actions undertaken to support development of the skills base and future local workforce of the regional area | Not applicable to this MID assessment report |

| Condition | Description | Section | Sub-section | Condition requirement | Compliance with evaluation report |
|-----------|-------------|---------|-------------|---|--|
| | | - | (ii) | the number of workers who identify as having a disability, identify as an Aboriginal or Torres Strait Islander or are female. | Not applicable to this MID assessment report |
| | | (e) | - | Each SIMR is to be made publicly available on the proponent's website within one (1) month of review completion by the Coordinator-General. | Not applicable to this MID assessment report |

Table 19: Part A: Recommended information requirements for any MID request(s)

| Number / identifier | Recommendation | Compliance with Project Evaluation Report |
|------------------------|--|---|
| 1 | The location and design of the project alignment and supporting infrastructure components including in a MID request(s) should generally reflect the alignment and components of the project assessed in the EIS and evaluated in the Coordinator-General's evaluation report for the project. MID request(s) may be made for delivery the project as described in the EIS in stages. | All changes are generally in accordance with the EIS and any changes are described in section 1.7 |
| 2 | Any MID request(s) must include reference to the project EIS and the Coordinator-General's evaluation report for the project including conditions, recommendations and proponent commitments. | References to the Coordinator-General's conditions, and the EIS are provided throughout this MID assessment report. The project commitments referenced in the Coordinator-General's Evaluation Report are being considered and addressed by Powerlink, where relevant, outside of this MID. |
| 3 | Any MID request(s) must ensure that the current versions of State Development Assessment Provisions (SDAP) and/or vegetation mapping are used and referred to in any MID request(s). | This report complies |
| 4 | Any MID requests(s) must include a report on outcomes of consultation with relevant local government councils. This report should detail: • preferred worker accommodation arrangements with each council, including: • location of accommodation, and whether this requires construction of a new facility or upgrade/use existing facility. • appropriate servicing arrangements for the facility/facilities • detail induction arrangements for each location to address potential impacts on local communities • waste disposal arrangements where use of council waste facilities has been agreed. | Refer to section 9.5 for outcomes of consultation with Flinders Shire Council. |

| Number / identifier | Recommendation | Compliance with Project Evaluation Report |
|------------------------|---|--|
| 5 | Any MID request(s) must include a report on consultation with owners/operators of existing infrastructure (rail, road, electricity, gas) detailing agreements on crossing separations and any planed outages to operation of existing infrastructure due to commencement of the action. | Refer to section 9. |
| 6 | Any MID request(s) is to include a report on consultation with directly impacted landholders detailing: potential locations of project infrastructure, components and activities for each property how potential land use conflicts and amenity considerations are to be managed for each property access and options agreements reached with landholders, and ongoing engagement or negotiations. | Refer to section 9. |
| 7 | Any MID request(s) is to include a report on consultation with Department of Mines Natural Resources Manufacturing and Regional and Rural Development (formerly Department of Resources and relevant local government councils regarding the use of existing licensed and authorised water sources during construction. This report should detail outcomes of this consultation and detailed agreed water supply solutions for construction of the project. | Refer to section 9. |
| 8 | Any MID request(s) must report outcomes of consultation with relevant local government councils, DPI and other relevant government agencies regarding waterway crossings for project access tracks. This should include any requirements for waterway barrier works approvals associated with access tracks for the project identified through this consultation. | Refer to section 9. |
| 9 | Any MID request(s) is to include updated information on progression of desktop flood risk studies, including detailed hydraulic modelling, to confirm predicted project impacts to existing flood regimes. | Refer to section 7.10.1 |
| 10 | Any MID request(s) for the project which intersects the Ballara Nature Refuge is to specifically report on consultation progress with the Ballara Nature Refuge landholder, and on progress made by that landholder in engagement with DES regarding revocation of part of the Nature Refuge and development of an updated conservation agreement. | Ballara Nature Refuge is not within the area of the Flinders Substation MID. |
| 11 | A TIA which complies with the Department of Transport and Main Roads' Guide to Traffic Impact Assessment (GTIA) to the Department of Transport and Main Roads is to be provided within a MID request. | Refer to section 7.2 and Volume 2 |
| 12 | The proponent is required to consult the Port of Townsville regarding berth availability and height restrictions for transport of project components and material and report on this consultation and outcomes in information provided to support the MID request(s). | Refer to section 9. |

9. Consultation

9.1 MID consultation

Since the approval of the EIS, the Project has maintained consistent engagement with all impacted parties. Feedback from stakeholders is consistent with feedback raised during the EIS consultation. To support this *Flinders Substation MID Assessment Report* consultation has been undertaken with impacted parties specifically in relation to matters outlined in the *Coordinator-General's evaluation report on the EIS*.

In line with the conditions in the *Coordinator-General's evaluation report on the EIS* and subsequent changes to conditions due to the Hughenden WAF RfPC, a SIMP and a CSEP for Flinders Shire LGA have been developed and implemented as work has commenced within the LGA. These documents will be updated to include the construction of Flinders Substation prior to commencement of construction activities.

For the Flinders Substation MID, Project infrastructure will only be constructed one lot/plan which is owned by Powerlink. Other lot/plans directly impacted by the Flinders Substation MID are road reserves and an abandoned rail line and will be crossed to allow access to the substation. Consultation for public notification of the Flinders Substation MID will occur in accordance with an *Engagement and Implementation Action Plan* provided in Appendix A.

9.2 Consultation activities

Consultation activities outlined in section 1.5.2 have occurred since the submission of the EIS. Activities have focussed on progressing design of the Project through feedback from stakeholders, informing stakeholders of proposed changes and informing stakeholders of the next steps of the Project, including land use planning approval via the MID process. Whilst some of these activities do not directly impact the submission of this Flinders Substation MID Assessment Report, they do provide important outcomes for the stakeholders directly impacted by the Project.

Table 20: Stakeholder consultation activities

| Stakeholder | Activities |
|------------------------|--|
| Flinders Shire Council | Ongoing meetings and correspondence to discuss: Project, timelines and impacts Potential legacy p opportunity of Hughenden WAF at completion of Project water usage for construction activities and Hughenden WAF waste management MID submission for Flinders Substation Construction, commissioning and operation of Hughenden WAF. |
| Ergon Energy | Meetings to engage Ergon Energy in relation to impacts on existing network, and how to engage Ergon as part of the Project works. |
| Landholders | Ongoing consultation on location of infrastructure including constraints identification and access to land as outlined in Volume 2 Land Access Protocol. Option agreements negotiated and exercised. |

| Stakeholder | Activities |
|-------------------------------------|--|
| | Communication packs identifying the next steps in the Project including the Project seeking multiple MIDs for different stages of the Project were provided to each landholder in July and August of 2023. |
| Traditional Owners | Ongoing consultation to complete surveys of Project area and management of CHMPs. |
| Community | Community consultation sessions were held at Hughenden in August of 2023. |
| DTMR including Queensland Rail (QR) | Ongoing discussions with DTMR and QR to assess the Project's TIAs and OSOM movement and to identify any additional information requirements for the <i>Flinders Substation MID Assessment Report</i> . Refer to Appendix B. |
| DLGWV | Regular meetings during 2023 to determine appropriate pathway for taking of water approvals. Appendix E details specific consultation activities and outcomes. |
| Ministerial Briefing | Ministerial briefing to confirm submission of the Flinders Substation MID. |
| Port of Townsville | Discussion on options for storage and hardstand. |
| Businesses | Supplier/business opportunity roadshows and release of works packages October 2023. Portal for expression of local business interest. Supplier capability development programme – designed to upskill local businesses within the Project area to enable local businesses to become a supplier to Powerlink. |

9.3 Relationship to other projects

A number of other projects are currently proposed in the vicinity of CopperString. Table 21 provides an overview of the projects currently under development or proposed within the area of the Flinders Substation MID. As CopperString will provide accommodation for workers through the development of its own workers' accommodation facilities there will be no impact on local accommodation facilities. CopperString identified during the EIS development that the Project is likely to impact on local resources including emergency management and competition for local employees. The Flinders Shire SIMP and CSEP details Project opportunities, impacts and mitigation measures.

Table 21: Relationship to other projects

| Project | Status |
|---|--|
| Mt James Windfarm LGA – Flinders Shire Council | A proposed 1GW windfarm located approximately 100km north of Hughenden. |
| Richmond – Julia Creek Vanadium Project LGA – Richmond Shire Council | A proposed vanadium mine located approximately 45km north of Richmond. An EIS currently being prepared to determine environmental impacts. |

| Project | Status |
|---|--|
| Windlab / Fortescue Future Industries Prairie Wind Farm | Proposed 800MW windfarm located north of Hughenden |
| LGA – Flinders Shire Council | |
| Windlab / Fortescue Future Industries Wongalee Wind Farm | Proposed 1GW windfarm located north of Hughenden. |
| LGA – Flinders Shire Council | |

9.4 Consultation feedback

Consultation with stakeholders across the Project has resulted in the following general feedback:

- Stakeholders, including local councils, government entities, Traditional Owners, businesses, industry groups, impacted landholders and the community, have generally expressed support for the Project.
- Entities including DTMR, DLGWV and Local Councils are working with the Project to address conditions in the Coordinator-General's evaluation report on the EIS and will continue to work with Powerlink to ensure any conditions that may be outlined in a MID will be met.
- In instances where impacted landholders have raised concerns regarding the Project, the proponent has sought to resolve issues by relocating the Project, identifying opportunities for mitigation of Project impacts by relocating infrastructure or negotiating agreements to enable minimisation of impacts to operations.
- All impacted Traditional Owner groups have a CHMP in place with surveys of the Project corridor being completed to identify any culturally significant areas.
- Feedback from communities across the corridor has shown overall support, with local businesses expressing
 interest in Project-related employment and supply chain opportunities. Other feedback has related to
 broader opportunities for economic development and temporary construction impacts. The Project is
 committed to addressing community and key stakeholder concerns and minimising associated impacts during
 construction.

The Project will continue to work with impacted communities and key stakeholders to mitigate impacts and maximise opportunities in line with the Flinders Shire SIMP and CSEP and the Project commitments.

9.5 Consultation outcomes

As a result of consultation with Project stakeholders within the Flinders Substation MID Project Area, the following outcomes have been achieved since the commencement of the Project:

- Consultation with impacted landholder and the closest sensitive receptor has resulted in the relocation of Flinders Substation on the agreed lot/plan to a new position. Consultation will continue with adjacent landholders during construction, where appropriate, to ensure impacts are managed and mitigated.
- A CHMP is in place for the Yirendali People with surveys being undertaken of the Flinders Substation MID Area. Any finds will be managed in accordance with the CHMP.
- Continued consultation with Flinders Shire Council to manage construction waste.
- Ergon Energy have been consulted and engaged as part of the construction of Hughenden WAF and will
 continue to be engaged through the existing engagement model prior to the commencement of construction
 of Flinders Substation.

- DTMR and QR have been consulted on the development of TIAs for the Project and have provided feedback on preliminary documents for other aspects of the Project. This feedback has been incorporated into the TIA for State Controlled Roads and TIA for Flinders Shire that are submitted in Volume 2 of this Flinders Substation MID Assessment Report. Consultation feedback with DTMR is provided in Appendix B.
- DTMR was consulted in the preparation of an *OSOM Report* which identified a route for the delivery of OSOM components of Flinders Substation. The *OSOM Report* is provided in Volume 2.
- An approvals pathway for water management was identified with DLGWV for Flinders Shire and consultation will continue to ensure compliance with the approvals advice.
- Across Flinders Shire \$10.87 million in local supplier spend has been recorded and this is part of the total \$21 million in local supplier spend across the full CopperString corridor.

As a result of consultation, the Project has identified there are likely to be impacts on the following as a result of Flinders Substation MID:

- emergency management resources
- traffic increase in construction traffic
- social impacts impacts of additional workers and construction activities within the communities
- construction impacts including dust, noise and air
- biosecurity impacts.

To manage and mitigate the impacts listed above, the following management plans have been developed or will be developed prior to commencement of construction of Flinders Substation:

- Emergency Response Plan
- Traffic Management Plans will be prepared to manage and mitigate construction impacts.
- CEMP and other management plans including Air Quality Management Plan, Noise and Vibration
 Management Plan and Biosecurity Management Plan. These plans will align with the EMP provided in Volume
 2 of this MID assessment report.
- SIMP and CSEP Flinders Shire already has an existing SIMP and CSEP in place due to the construction of the Hughenden WAF. These plans will be updated prior to the construction of Flinders Substation.

9.6 Consultation strategy for MID assessment

In accordance with *The Minister's Guidelines and Rules version 3.0* a EIAP which meets the requirements prescribed in Schedule 4, Section 7 of the guideline has been submitted. A copy of the EIAP can be found in Appendix A.

9.7 Ongoing consultation

Powerlink will continue to consult with communities and key stakeholders to meet conditions outlined in the *Coordinator-General's evaluation report on the EIS* and the Project's CSEP during all phases of the Project. The following procedures and strategies are in place to support effective consultation with all stakeholders or will be prepared as the Project moves from design to construction:

Ongoing consultation with landholders to finalise tenure agreements, final design details and property access.
 This will be developed in line with Powerlink's Land Access Protocol as supplied in Volume 2 which outlines Powerlink's approach to accessing land for planning, investigation, easement acquisition, construction, and maintenance activities.

- The Flinders Shire SIMP and CSEP will be updated to reflect additional activities within the region as a result of construction of the Flinders Substation.
- Continued engagement with suppliers and businesses including roll-out of the Project's Supplier Capability Development Programme.
- Continued engagement with DTMR, Department of Mines Natural Resources Manufacturing and Regional and Rural Development and other government agencies to deliver the conditions of the Project including liaising with any road or rail authority for permission to construct on their land.
- Continued engagement with DLGWV to ensure the take of water for construction activities meets the requirements of the Water Act.
- Consultation with Ergon Energy to minimise impacts and disruption to existing transmission network.

10. Flinders Substation requested MID conditions

10.1 Construction hours and noise management proposal for Flinders Substation MID

In addition to the standard construction hours of Monday to Saturday from 6:30am to 6:30pm, it is proposed that construction activities for Flinders Substation also occur on Sundays during the same hours. A noise assessment has been conducted to ensure compliance with the Environmental Protection Act 1994 (EP Act), confirming that noise generated during these activities will not be audible at the nearest sensitive receptor.

Based on the findings of the impact assessment included in this report, the Project requests that a condition be included in the Flinders Substation MID to permit construction noise on Sundays between 6:30am and 6:30pm.

While most construction is expected to occur within the hours of 6:30am to 6:30pm, Monday to Sunday, there may be occasions when work outside these hours is necessary. This is anticipated due to the extreme heat experienced in the Flinders region during summer, which may require certain activities to be scheduled in the early morning or after sunset. The Project also requests a condition that allows work outside of 6.30am to 6.30pm Monday to Sunday to be included in the Flinders Substation MID.

10.2 Requested conditions for inclusion in the Minister's Decision Notice

The following conditions are requested for inclusion the *Miniter's Decision Notice*:

Prior to commencing work, a Construction Environmental Management Plan (CEMP) will be submitted to the Department of State Development, Infrastructure and Planning (DSDIP), addressing the following:

1. Construction Hours:

- a. Construction will occur between 6:30am and 6:30pm, Monday to Saturday.
- b. Work will also occur on Sundays between 6:30am and 6:30pm, in accordance with noise limits set by the *Environmental Protection Act 1994*.
- c. Where construction outside of these hours is required, it will be permitted under the following conditions:
 - Neighbouring properties will be consulted and notified at least 48 hours prior to the commencement of works.
 - Works will be conducted in accordance with an Out of Hours Guideline, submitted as part of a Noise and Vibration Management Plan.
 - Noise levels will not exceed the limits specified in the Noise and Vibration Management Plan.
 - Mitigation measures outlined in the Noise and Vibration Management Plan will be implemented to minimise noise impacts on neighbouring properties.

11. Volume 2 - Management Plans and Technical Reports

The following management plans and technical reports can be found in Volume 2:

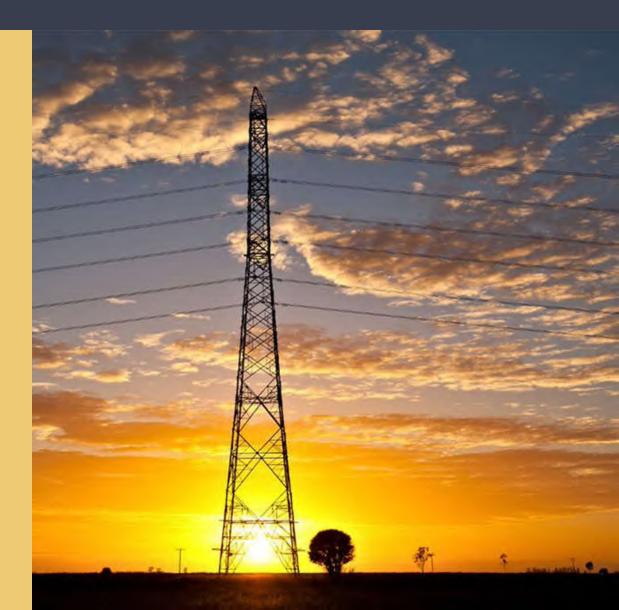
- 1. Environment Management Plan (EMP)
- 2. Land Access Protocol
- 3. Traffic Impact Assessment State Roads
- 4. Traffic Impact Assessment Flinders Shire Council
- 5. Over Size Over Mass Management Plan
- 6. Noise Assessment Report Flinders Substation
- 7. Flinders Substation Ecological Assessment Report.





Appendix A

Engagement Implementation and Action Plan



Ministerial Infrastructure Designation Engagement Implementation and Action Plan



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DOCUMENT CONTROL

| Document title | Ministerial Infrastructure Designation Engagement Implementation and Action Plan |
|----------------|--|
| Prepared by | Raegen Perkins – Project Engagement Specialist |
| Reviewed by | Ian Turton – Project Approvals Specialist |

| Approved by | Name | Title | Date |
|-------------|--------------------|----------------------------------|------------|
| | Susannah Greenleaf | Manager Community & Stakeholders | 30/06/2025 |

Revision history

| Revision | Revision date | Revision description |
|----------|---------------|--|
| А | 23/06/25 | Revised to align with project resequencing |

Introduction

The CopperString Ministerial Infrastructure Designation (MID) Engagement Implementation and Action Plan (EIAP) outlines Powerlink's approach to communication and engagement in support of the Queensland Government's MID process.

It aligns with the CopperString Communication and Stakeholder Engagement Plan (CSEP) which sets the benchmark for project-wide communication and engagement to ensure consistent and transparent engagement across all stages of our infrastructure lifecycle.

This plan aims to:

- provide approvals pathway and previous engagement context
- identify and analyse key stakeholders, including issues, approach, tools and tactics
- outline risks and associated mitigations
- provide an overarching approach for engagement with identified key stakeholders, as well as key messages
- detail communication and engagement activities for each stage of the MID approval process.

Objectives

The objectives of the MID EIAP are to:

- ensure information about the approvals pathway and project timeline, is understood by those who are potentially affected and/or interested in the project
- ensure those potentially affected by and/or interested in the project have an opportunity to provide their feedback
- demonstrate to stakeholders how feedback has been, or will be, considered
- demonstrate a commitment to building long-term relationships with stakeholders based on trust and mutual respect
- record and report on feedback received and ensure it is considered by Powerlink and our delivery partners, including impact identification and measures for management and/or mitigation.

Project context

About the project

CopperString initially involves building approximately 840 kilometres (km) of new electricity transmission line from Townsville to Mount Isa. It will connect Queensland's North West Minerals Province (NWMP) to the National Electricity Market (NEM).

The project includes:

- 500kV transmission line from Hughenden to near Townsville
- 330kV transmission line from Hughenden to Cloncurry
- 220kV transmission line from Cloncurry to Mount Isa
- substations and workforce accommodation and facilities in strategic locations along the corridor.

Project status

Powerlink took responsibility for project delivery on behalf of the Queensland Government in March 2023.

Since this time, significant work has been undertaken to advance detailed design and project approvals, secure critical electrical equipment, and enhance overall construction readiness. Sections of the transmission line design have also been modified to address constructability challenges at both ends of the project corridor.

In April 2025, the Queensland Treasurer announced Powerlink and Queensland Investment Corporation (QIC) will work in partnership to deliver the project. The shared focus is to deliver CopperString in a way that represents value to Queenslanders, delivers economic benefits to North and North West Queensland, and best meets Queensland's power system requirements.

In June 2025, the Queensland Government announced it will invest \$2.4 billion in the State Budget for CopperString.

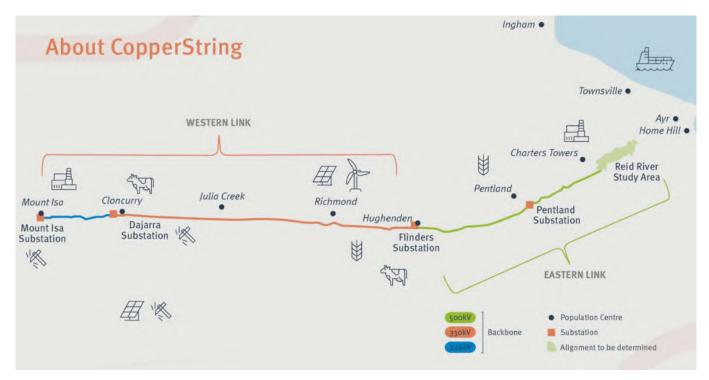
Powerlink will now prioritise work on the project's Eastern Link (Townsville to Hughenden) while QIC complete an assessment of the project, focused on ensuring value for money and identifying delivery models to support private sector investment.

Project staging

Due to the size and scope of CopperString, project delivery will be staged.

Figure 1 shows the project's proposed backbone between Townsville and Mount Isa.

Figure 1: CopperString backbone showing the Eastern Link and Western Link



Works on the Eastern Link commenced in July 2024 with the construction of the project's first workforce accommodation and facilities (WAF) in Hughenden. This WAF is now complete.

It is anticipated on-ground works will commence on Flinders Substation as part of the Hughenden Hub in 2025/2026. Powerlink is progressing planning and environmental approvals for the Eastern Link prior to further construction commencing.

Powerlink will review project delivery on the Western Link pending the outcomes of QIC's analysis of options to deliver best economic value.

Statutory approvals

In September 2022, the Queensland Coordinator-General published an evaluation report on the project's Environmental Impact Statement (EIS) determining the project could proceed, subject to conditions, and was referred to the Australian Government for approval.

In November 2022, a delegate for the Australian Minister for the Environment and Water approved the 'CopperString Transmission Line Project' as a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), subject to conditions.

Since Powerlink became responsible for project delivery on behalf of the Queensland Government in March 2023, the team has worked to refine the project's design and delivery.

This includes increased transmission line voltage of 500kV between Townsville and Hughenden to facilitate access to diversified energy generation opportunities, and additional assessment of the Hughenden WAF under the application for project change process administered by the Queensland Coordinator-General.

A properly made application for project change for Hughenden WAF was submitted to the Office of the Coordinator-General on 1 March 2024 with approval of the conditioned Flinders Shire Social Impact Management Plan (SIMP) and CSEP granted on 19 June 2024.

Works regulation amendment

Powerlink requested that the Coordinator-General recommend to the Minister for State Development and Infrastructure and Governor in Council that Hughenden, Richmond and Julia Creek WAF works proceed under a works regulations amendment.

Under the State Development and Public Works Organisation Act 1971 (SDPWO Act), a works regulation may be made that directs a local body – which includes Government Owned Corporations such as Powerlink – and/or the Coordinator-General to undertake works.

The works regulation was approved by the Governor in Council on 20 June 2024.

Ministerial Infrastructure Designation

CopperString was endorsed for the <u>Ministerial Infrastructure Designation</u> (MID) assessment process on 20 May 2024. This process is managed by the Department of State Development, Infrastructure and Planning with input from other government agencies.

Core transmission infrastructure such as substations, communications huts and transmission lines, and ancillary infrastructure such as WAFs (excluding Hughenden, Richmond and Julia Creek WAFs as noted above) will be assessed through the MID process.

CopperString will be progressed through the submission of several MID applications to align with project sequencing once confirmed.

Preliminary engagement has been undertaken with directly impacted landholders, Traditional Owners, communities, and other key stakeholders at a whole-of-project level to ensure those with an interest in the project had an opportunity to provide initial feedback. See Table 1 for more detail including timing and tactics.

Following lodgement of each MID proposal, the Minister for State Development, Infrastructure and Planning will initiate consultation by writing to relevant local governments and impacted landholders to invite submissions.

During this time, Powerlink will also undertake public consultation with landholders, community members and other key stakeholders to share project information and how to make a submission to the Department of State Development, Infrastructure and Planning.

Previous engagement

CopperString 1.0 and CopperString 2.0

Project engagement has been ongoing since the first iteration of CopperString was publicly announced in 2010. During this time baseline data was collected and an impact assessment undertaken until the project was put on hold in September 2012.

CopperString 2.0 was reactivated in 2019 with significant community consultation and stakeholder engagement undertaken to develop social licence and increase project awareness, including associated benefits and impacts.

At this time, work focused on progressing the transmission line design, statutory approvals and engagement with landholders and other key stakeholders along the proposed alignment. As such, communication and engagement activities were aligned with project development including the Terms of Reference and Environmental Impact Statement (EIS) phases, and included:

- engaging potentially impacted landholders and other key stakeholders in communities along the proposed alignment in an open, transparent, targeted and equitable way
- informing landholders and other key stakeholders about corridor selection and potential project impacts
- working with landholders and other key stakeholders to understand project impacts, including issues and opportunities that could impact corridor selection and the broader project.

CopperString

Powerlink took responsibility for delivering CopperString in March 2023.

Since this time, the project-wide engagement focus has been supporting statutory approvals through consultation with Traditional Owners, landholders, communities, industry and other key stakeholders along the alignment, as well as on-ground activities to support WAF construction and to develop the capability and capacity of the local supply chain.

Table 1 provides an overview of targeted engagement activities across the corridor since Powerlink took responsibility for project delivery. Activities build on engagement with landholders and other key stakeholders in previous iterations of the project.

Note, as CopperString is a geographically large and complex project, milestones have not been linear, and some activities have been undertaken in parallel.

Table 1: Completed and ongoing project engagement activities under Powerlink's direction

| Timing | Targeted engagement activity | Stakeholders | Purpose | Method of engagement |
|------------------------------|--|--|--|--|
| April 2023 – July 2023 | Project transition to Powerlink (project-wide) | Landholders Primary regulatory authorities Queensland and Australian government departments and agencies Local government Elected representatives Traditional Owners Local businesses, supply chain and industry organisations Environmental groups and advocacy bodies | Establish project communication channels and touchpoints Introduce Powerlink and key project personnel to stakeholders and communities along the project corridor Transition and build on relationships with key stakeholders Ensure CopperString RRG is fit for purpose and establish membership/meeting cadence Engage with regulatory authorities and | For target stakeholders: Meetings and briefings Letters Memberships Presentations Attendance at advocacy body and industry events Attendance at RRG meetings For target stakeholders and broader communities: 1800 number establishment Project email establishment |

| Timing | Targeted engagement activity | Stakeholders | Purpose | Method of engagement |
|-------------------------------|--|--|---|---|
| | | CopperString Regional Reference Group (RRG) Broader communities | government agencies to determine the next steps in the approvals process | Project webpage establishment Key messages and FAQs Social media Fact sheets Project newsletter |
| May 2023 – June 2023 | Field investigations and early works (project-wide) | Landholders Queensland and Australian government departments and agencies Local government Elected representatives Traditional Owners Broader communities Media | Announce early works including progressing detailed engineering design for the expanded 500kV transmission line Undertake field surveys and geotechnical works throughout the corridor in advance of construction starting in 2024 Communicate anticipated impacts and mitigation, with landholders, key stakeholders and communities | For target stakeholders: Letters Works notifications For target stakeholders and broader communities: Media release Project webpage update Social media |
| July 2023 – August 2023 | Preliminary MID and 500kV consultation (project-wide) | Landholders Primary regulatory authorities Queensland and Australian government departments and agencies Local government Elected representatives Traditional Owners Local businesses, supply chain and industry organisations | Support Queensland and Australian government statutory approvals and MID process communication and engagement requirements Share information on project status, 500kV change, intention to seek a MID, next steps and how to get involved Consult on the expanded project | For target stakeholders: Community information drop-in sessions (Townsville, Ayr, Charters Towers, Pentland, Hughenden, Richmond, Julia Creek, Cloncurry and Mount Isa) Meetings and briefings Letters Landholder information packs |

| Timing | Targeted engagement activity | Stakeholders | Purpose | Method of engagement |
|----------------------------------|---|---|--|--|
| | | Environmental groups and advocacy bodies Broader communities Media | parameters and sequencing Communicate with landholders, key stakeholders and communities | 1:1 meetings with land agents and impacted landholders For target stakeholders and broader communities: Traditional and digital media advertising Project webpage update Key messages and FAQs Social media Fact sheets Project newsletter Media release |
| October 2023 – May 2024 | Local and First Nations industry participation (project-wide) | Local businesses, supply chain and industry organisations Queensland and Australian government departments and agencies Local government Traditional Owners Environmental groups and advocacy bodies Broader communities | Engage with industry and suppliers to test local market and understand capability and capacity Engage with First Nations supply chain Support the development and initial implementation of the CopperString Indigenous Participation Plan (IPP) and Local Economic Participation Plan (LEPP) Support the development of the CopperString supplier register | For target stakeholders: Community information drop-in sessions (Townsville, Ayr, Charters Towers, Hughenden, Richmond, Julia Creek, Cloncurry and Mount Isa) Supplier register emails Meet the Buyer sessions held in conjunction with DSDIP (Mount Isa, Cloncurry, Julia Creek, Richmond Hughenden, Charters Towers, Ayr, Townsville). ICN Gateway For target stakeholders and broader communities: |

| Timing | Targeted engagement activity | Stakeholders | Purpose | Method of engagement |
|---------------|--|--|---|---|
| | | | | Traditional and digital media advertising Project webpage update Key messages and FAQs Social media Fact sheets Project newsletter Media release |
| March 2024 | Hughenden workforce accommodation and facilities request for project change (Flinders Shire) | Landholders Broader community Primary regulatory authorities Local government Traditional Owners Local businesses, supply chain and industry organisations Environmental groups and advocacy bodies Media | To comply with statutory engagement requirements and further establish relationships within the region Targeted engagement within Flinders Shire to meet with the project team, provide an update on project progress, including the approvals process, and to ensure accessible opportunities to gather information and provide feedback Share information about opportunities for involvement and procurement, and introduce the local supply chain to our delivery partner | For target stakeholders: Meetings and briefings Community information drop-in sessions (Hughenden) Industry briefing session with Hughenden Chamber of Commerce Resident project notification Door-knock Calling card For target stakeholders and broader communities: Static display at Flinders Shire Public Library, including a hard copy of the request for project change documentation Traditional and digital media advertising Project webpage update Posters |

| Timing | Targeted engagement activity | Stakeholders | Purpose | Method of engagement |
|---------------------------|------------------------------------|--|--|--|
| | | To Londbaldova | Due to significant | Key messages and FAQs Social media Fact sheets Project newsletter Media release Project visualisations and imagery |
| June 2024 – current | Eastern alignment review | Landholders Primary regulatory authorities Queensland and Australian government departments and agencies Local governments Elected representatives Traditional Owners Local businesses, supply chain and industry organisations Environmental groups and advocacy bodies CopperString RRG Broader communities | Due to significant constructability issues, Powerlink is investigating an alternative corridor between the Burdekin River and Reid River. Government briefings commenced in late June 2024 Release a recommended corridor for public consultation, followed by a final corridor, taking into consideration topographical constraints and extensive field investigations Engage genuinely and transparently with community, landholders and Traditional Owners to refine and inform this corridor Determine the easement alignment for the transmission line within the final corridor | For target stakeholders: Meetings and briefings Letters and emails Community information drop-in sessions (Woodstock and Burdekin) State agency forum For target stakeholders and broader communities: Recommended Corridor and Substation Site Selection Report Final Corridor and Substation Site Selection Report Final Corridor and Substation Site Selection Report Project webpage update Key messages and FAQs Social media Fact sheets Project newsletter Interactive and static maps Feedback form |

| Timing | Targeted engagement activity | Stakeholders | Purpose | Method of engagement |
|------------------------|---|---|---|---|
| | | | Determine the location of supporting infrastructure Align with the intent of Powerlink's Transmission Easement Engagement Process | |
| July 2024 – current | Supplier Capability Development Program delivery | Local suppliers Traditional Owners Local Government Industry | To provide genuine opportunities for local and Indigenous industry participation in the project supply chain To support the outcomes outlined in the project's Supplier Engagement Strategy To build local supplier capability and capacity to support the broader project pipeline | For target stakeholders: Free workshops (online and in-person) 1:1 support Supplier Information Guide Supplier Engagement Strategy For target stakeholders and broader communities: Project webpage update Key messages and FAQs |

In addition to the above targeted activities, engagement with landholders, Traditional Owners, communities and key stakeholders has been ongoing across the project alignment. This includes:

- 1:1 engagement with directly impacted landholders, including land access protocols and options agreements
- 1:1 engagement with Traditional Owners and Native Title holders to develop Cultural Heritage Management Plans, and discuss opportunities for meaningful involvement
- meetings, briefings and working groups with local councils and other key stakeholders to discuss impacts and opportunities, from project planning and construction to operations and legacy outcomes
- engagement to support the development of Social Impact Management Plans (SIMPs) and localised CSEP
 Implementation Plans
- collaborative construction mobilisation forums with state agencies and other organisations including the
 Department of State Development, Infrastructure and Planning, Department of Transport and Main Roads,
 Queensland Rail, the Port of Townsville Limited, local governments and emergency services to discuss roads,
 rail, shipping and other project component and materials transport considerations
- ongoing liaison with the Port of Townsville Limited to discuss berth availability and height restrictions for the transport of project components and materials
- participation in the Northern Project Coordination Group committee and Supply Chain and Workforce subgroup meetings which bring together state agencies, organisations, and other key stakeholders across the

region to leverage opportunities and minimise risks across project sectors in North and North West Queensland

- involvement at local community events, including attendance, sponsorship support and pop-up stalls
- meetings and briefings with elected representatives
- CopperString RRG meetings.

Stakeholders

Table 2 summarises stakeholder groups, including approach and tools and tactics, specific to the MID process. These groups are consistent with the overarching CopperString CSEP and stakeholder mapping.

Table 2: Stakeholders, issues and approach, and identified tools and tactics

| Stakeholder group | Interests | Approach | Tools and tactics |
|---|---|--|---|
| Primary regulatory authorities | Project status Statutory approval compliance MID process compliance | Early and ongoing engagement Establish and maintain regular, proactive and two-way communication with relevant feedback loop in place | Meetings and briefings, as required Regular communication in-person and online |
| Other Queensland and Australian government departments and agencies | Governance Project ownership Legislation implementation Local and Indigenous participation Supply chain capability and capacity Workforce and job opportunities Regional development Water management Environmental matters Planning and public works Utilities, roads, rail and port infrastructure, including logistics for transport of project components and materials Health and community wellbeing Safety | Early and ongoing engagement Establish and maintain regular, proactive and two-way communication with relevant feedback loop in place | Meetings and briefings, as required Regular communication in-person and online Letters/emails Project newsletter including information on how to make a submission |

| Stakeholder group | Interests | Approach | Tools and tactics |
|--|---|--|--|
| | Legislation implementationMID process | | |
| Queensland and Australian government elected representatives | Portfolio and constituent impacts and opportunities Potential escalation point for landholders, community members and other key stakeholders | Early and ongoing engagement Maintain regular communication and engagement through Government Relations team | Meetings and briefings, as required Regular communication in-person and online Letters/emails Project newsletter |
| Local government | Legacy infrastructure Community investment Local supply chain and industry participation Biosecurity Water Jobs and economic development Impacts to local roads and infrastructure MID process and accessibility | Early and ongoing engagement Establish and maintain regular, proactive and two-way communication with relevant feedback loop in place | 1:1 meetings and briefings, as required Regular communication in-person and online Letters/emails Project newsletter including information on how to make a submission FAQs Project webpage |
| Traditional Owners | Indigenous participation Economic benefits Cultural Heritage Native Title Environmental impacts on Country Genuine pathway into project MID process and accessibility | Early and ongoing engagement Maintain regular communication and engagement through Property Project and Indigenous Partnerships teams | Meetings and briefings, as required Regular communication in-person and online Letters/emails Project newsletter including information on how to make a submission FAQs Project webpage |
| Directly impacted landholders | Land access Local roads impacts Compensation Acquisition Visual amenity | Early and ongoing engagement Maintain regular communication and engagement through dedicated and consistent relationship manager in | 1:1 engagement, as required Regular meetings (inperson or via phone) Consistent Landholder Relations relationship manager |

| Stakeholder group | Interests | Approach | Tools and tactics |
|--|--|--|---|
| | Transmission infrastructure impacts Construction impacts Operational impacts MID process and accessibility | Landholder Relations team Build relationships through nominated Powerlink personnel to establish two-way communication, build trust and facilitate early resolution of emerging issues | Letters/emails Project newsletter including information on how to make a submission FAQs Project webpage Hard copy documents available in key location/s |
| Local businesses, supply chain and job seekers | Skills development Supply chain development Jobs Labour draw impacts Sustainable economic development MID process and accessibility | Clear and consistent messaging to potential subcontractors and suppliers regarding project opportunities | Project newsletter including information on how to make a submission FAQs Project webpage Hard copy documents available in key location/s |
| Industry, service providers and advocacy bodies | Regional environmental impacts and issues Renewable energy Local business and supply chain involvement Cumulative impacts Liveability Capability and capacity building Sustainable economic development Impacts to and opportunities for enhanced telecommunications MID process and accessibility | Establish and maintain regular, proactive and two-way communication with relevant feedback loop in place Utilise existing communication channels to extend reach of project communication and engagement activities | Meetings and briefings, as required Letters/emails Project newsletter including information on how to make a submission FAQs Project webpage Hard copy documents available in key location/s |
| Local schools and community groups | Community benefits Sponsorships and grants MID process and accessibility | Maintain regular communication and engagement through Project Engagement and | Meetings and briefings, as required Letters/emails Project newsletter including information on |

| Stakeholder group | Interests | Approach | Tools and tactics |
|--|---|--|---|
| | | Community Relations teams Utilise existing communication channels to extend reach of project communication and engagement activities | how to make a submission FAQs Project webpage Hard copy documents available in key location/s |
| Adjacent landholders and residents | Local roads impacts Visual amenity Construction impacts Operational impacts MID process and accessibility | Provide clear communication of project progress Ensure project communication channels are known and the project team is easily accessible Gather feedback and provide timely responses to enquiries Employ proactive issues management and communications activities to mitigate and/or counteract potential concerns | Meetings and briefings, as required Letters/emails Project newsletter including information on how to make a submission FAQs Project webpage Hard copy documents available in key location/s |
| Broader community and all other stakeholders | Opportunities for project participation and feedback Sponsorships and grants Construction impacts Operational impacts MID process and accessibility | Communicate via various channels to raise awareness of the project, upcoming activities and opportunities to provide feedback Provide various feedback methods to enable stakeholders and communities to easily access information and participate | Project newsletter including information on how to make a submission FAQs Project webpage Powerlink social media channels Hard copy documents available in key location/s |

Risk management

Table 3 outlines risks and proposed mitigation measures specific to MID communication and engagement.

Risks will be assessed in accordance with Powerlink's risk assessment matrix checklist and managed in accordance with the CopperString CSEP and associated management protocols.

Table 3: MID communication and engagement risks and proposed mitigation

| Risk | Proposed mitigation/s |
|---|---|
| Lack of understanding of project sequencing and associated approvals | Engage early and often and maintain open lines of communication Promote mechanisms for project information and how to speak with and provide feedback to the project team Undertake regular briefings with key stakeholders Broadly share project staging maps and visual tools alongside clear and easy-to-understand key messaging about the rationale for and benefits of the project's planned sequencing |
| Lack of understanding of MID process and how to provide feedback | Design and roll out communication and engagement action plans for each MID submission to comply with MID process requirements and support genuine, timely and accessible engagement with all key stakeholders Broadly share messaging and communication materials (including FAQs) to explain the MID process and how to provide feedback, ensuring information is accessible to all interested stakeholders Ensure the community and key stakeholders know how they can get in touch with the project team to seek information and have questions answered |
| Engagement fatigue due to long history of project and delivery timeline | Clear and consistent messaging at each phase of project delivery to show progress and build understanding Leverage project communication and engagement activities to share benefits and opportunities, and create excitement and anticipation Engage genuinely with community and key stakeholders to establish and maintain relationships Use relationship management tool to track and report on all communication and engagement and monitor sentiment |
| Lack of uptake for stakeholder engagement activities | Design and deliver communication and engagement activities that meet the needs of stakeholders Continue to refine activities based on feedback Ensure clear roles and responsibilities for communication and engagement activities, including adequate resourcing Use relationship management tool to track |

Overarching approach

Ministerial endorsement for the MID process was submitted at a whole-of-project level in March 2024 and approved in June 2024. This approval included endorsement to submit several discrete MID proposals in line with project sequencing.

The endorsed MID#1 – which comprised approximately 200km of 330kV transmission line between Hughenden and Kynuna, Flinders Substation and Nonda Controlled Environment Hut – was submitted to DSDIP in October 2024.

Since this time, project sequencing has been revised, and MID submission staging is under review. In May 2025, DSDIP endorsed a revised MID strategy for MID#1 to include Flinders Substation only. It is anticipated staged MID submissions will include:

- Flinders Substation MID
- Eastern Link MID (multiple proposals)
- Western Link MID (multiple proposals).

Consultation will occur sequentially for each proposal once submitted and acknowledged by the Minister in accordance with the Ministerial Guidelines and Rules and the *Planning Act 2016* for a period determined by the Minister.

The action plan indicated in Table 4 summarises communication and engagement activities proposed to be undertaken along the project alignment in stages. This plan will be refined in line with statutory approvals, project progress and stakeholder feedback.

Activities build on previous engagement with Traditional Owner groups, landholders, communities and other key stakeholders and will align with the principles, roles and responsibilities, and policies and procedures outlined in the CopperString CSEP.

Detailed action plans for each submission will be added as appendices to this EIAP as planning progresses.

Project-wide staged action plan

Table 4: Staged MID action plan

| MID submission | Responsibility | Stakeholder group/s | Indicative tools and tactics | Target timing |
|---|--|---|--|---|
| Flinders Substation MID Relevant infrastructure: Flinders Substation | Project Engagement Government Relations Indigenous Relations Landholder Relations | Queensland Minister for Planning Queensland Coordinator- General Office of the Coordinator- General | Prescribed activities: Public notice (newspaper advertisement/s) Letters/emails to surrounding landholders and key stakeholders Hard copy documents | March 2024 – MID endorsement request submitted October 2024 – MID#1 submitted May 2025 – revised MID#1 strategy endorsed by DSDIP |

| MID submission | Responsibility | Stakeholder group/s | Indicative tools and tactics | Target timing |
|--|--|---|--|--|
| | | Queensland Government department reps Flinders Shire Council Mayor Flinders Shire Council Councillors Flinders Shire Council operational reps Landholders Elected representatives Traditional Owners/Native Title holders Wider community Local businesses, supply chain and industry organisations Environmental groups and advocacy bodies | available in key location/s Supplementary activities: Project webpage update 1:1 meetings and briefings, as required Project update newsletter Print and digital advertising Social media campaign Project presentations, as required Key messages, FAQs and fact sheets Maps and diagrams Media release | July 2025 – submit Flinders Substation MID proposal August 2025 – notification and targeted engagement September 2025 – anticipated MID approval (if accelerated assessment is undertaken by DSDIP) April 2026 – anticipated MID approval (if no accelerated assessment is undertaken by DSDIP) |
| EASTERN LINK MID (MULTIPLE PROPOSALS) Relevant infrastructure and proposed staging: Pentland Substation and Pentland WAF Flinders to Pentland transmission Line Reid River Substation and Reid River WAF Pentland to Reid River transmission | Project Engagement Government Relations Indigenous Relations Landholder Relations | Queensland Minister for Planning Queensland Coordinator- General Office of the Coordinator- General Queensland Government department reps Flinders Shire Council Mayor Flinders Shire Council Councillors | Prescribed activities: Public notice (newspaper advertisement/s) Letters/emails to surrounding landholders and key stakeholders Hard copy documents available in key location/s Additional activities: Project webpage update | ■ Timing TBC |

| MID submission | Responsibility | Stakeholder group/s | Indicative tools and tactics | Target timing |
|--|--|---|--|---------------|
| line and Charters Towers WAF (note, staging is subject to change and dependent on overall project staging) | | Flinders Shire Council operational reps Charters Towers Regional Council Mayor Charters Towers Regional Council Councillors Charters Towers Regional Council operational reps Townsville City Council Mayor Townsville City Council Councillors Townsville City Council operational reps Landholders Elected representatives Traditional Owners/Native Title holders Wider community Local businesses, supply chain and industry organisations Environmental groups and advocacy bodies | 1:1 meetings and briefings, as required Project update newsletter Print and digital advertising Social media campaign Project presentations, as required Key messages, FAQs and fact sheets Maps and diagrams Media release | |
| WESTERN LINK MID (MULTIPLE PROPOSALS) Relevant infrastructure and proposed staging: Flinders to Dajarra transmission line | Project Engagement Government Relations Indigenous Relations Landholder Relations | Queensland Minister for Planning Queensland Coordinator- General | Prescribed activities: Public notice (newspaper advertisement/s) Letters/emails to surrounding landholders and key stakeholders | ■ Timing TBC |

| MID submission | Responsibility | Stakeholder group/s | Indicative tools and tactics | Target timing |
|---|----------------|---|---|---------------|
| Dajarra Substation and Cloncurry WAF Dajarra to Mount Isa transmission line Mount Isa Substation (note, staging is subject to change and dependent on overall project staging) | | Office of the Coordinator-General Queensland Government department reps Flinders Shire Council Mayor Flinders Shire Council Councillors Flinders Shire Council Operational reps Richmond Shire Council Mayor Richmond Shire Council Councillors Richmond Shire Council Mayor Richmond Shire Council Operational reps McKinlay Shire Council Operational reps McKinlay Shire Council Councillors McKinlay Shire Council Councillors Cloncurry Shire Council Operational reps Cloncurry Shire Council Councillors Cloncurry Shire Council Operational reps Mount Isa City Council Mayor Mount Isa City Council Councillors Mount Isa City Council Operational reps Mount Isa City Council Operational reps Mount Isa City Council Operational reps | Hard copy documents available in key location/s Additional activities: Project webpage update 1:1 meetings and briefings, as required Project update newsletter Print and digital advertising Social media campaign Project presentations, as required Key messages, FAQs and fact sheets Maps and diagrams Media release | |

| MID submission | Responsibility | Stakeholder group/s | Indicative tools and tactics | Target timing |
|----------------|----------------|---|------------------------------|---------------|
| | | Landholders Elected representatives Traditional Owners/Native Title holders | | |
| | | Wider community Local businesses, supply chain and industry organisations | | |
| | | Environmental groups and advocacy bodies | | |

Key messages

The following Questions and Answers (Q&As) are specific to the MID process.

Project-wide approved messaging is contained within the CopperString key message bank and Q&As document. Additional key messaging will be developed in line with project and stakeholder needs.

Ministerial Infrastructure Designation

What is a MID?

A Ministerial Infrastructure Designation (MID) helps support the delivery of community infrastructure such as hospitals, schools, emergency services stations, powerlines, sporting facilities, water supply infrastructure and sewerage treatment plants.

The MID process provides an alternative to lodging a development application with local government and is managed by the Department of State Development, Infrastructure and Planning (DSDIP) with input from other government agencies.

The Minister for State Development, Infrastructure and Planning is responsible for making decisions on MID proposals and, under the *Planning Act 2016*, can make, amend, extend, or repeal a MID.

How is a MID different from an Environmental Impact Statement (EIS)?

An EIS considers project impacts to determine if environmental conditions are required for the project to proceed. A MID is an alternative process for land use planning approval. Where necessary, the Minister can impose requirements on a MID to ensure the adequate provision of services and that certain outcomes or impacts are addressed.

Why is Powerlink seeking a MID for CopperString 2032?

The project crosses seven Local Government Areas (LGAs) each with its own set of planning regulations. The MID process simplifies planning and approvals by allowing the project to be assessed at a whole-of-government level by a single assessment manager (the Minister) who all stakeholders can engage with and provide feedback to.

What does a MID allow?

A MID allows a project to be assessed at a whole-of-government level. It does not allow a project to skip the development application process.

The MID process provides an alternative to lodging a development application with local government. It also does not allow for any changes to an existing agreement you may have with Powerlink. The project's existing conditions of approval, imposed by the Queensland Coordinator-General during the EIS process, cannot be changed. In fact, additional conditions may be imposed through the MID process as part of the planning assessment.

How will the MID process run?

Due to the size and scope of CopperString, we will lodge several MID proposals to support the development of the transmission line and supporting infrastructure across the corridor.

We have undertaken preliminary engagement with impacted landholders, key stakeholders, and communities to ensure those interested were given an opportunity to provide initial feedback before MID proposals were lodged.

Following the lodgement of each MID proposal, the Minister will initiate formal consultation by writing to relevant local governments and impacted landholders to invite submissions.

Submissions must be made to the Minister via DSDIP.

During this time, Powerlink will also undertake public consultation with landholders, community members and other key stakeholders to share project information and how to make a submission to DSDIP.

How can I have my say during the MID process?

Following the receipt of each MID proposal, the Minister will commence formal consultation by writing to relevant local government/s and impacted landholders, inviting submissions on the MID Assessment Report. Local government and landholders are typically given a minimum of 15 business days to make a submission.

During this time, Powerlink will also undertake public consultation with landholders, community members and other key stakeholders.

Submissions regarding the MID Assessment Report must be made to the Minister by the advertised due date. This can be done:

- online at <u>www.planning.qld.gov.au/planning-framework/infrastructure-planning/ministerial-infrastructure-designations</u> which lists MID requests open for consultation
- via email infrastructuredesignation@dsdilgp.qld.gov.au
- by post to PO Box 15009, City East, QLD 4002.

How will I know the MID process is underway?

If your property is impacted by a MID proposal, you will receive formal notification via the Minister who will outline the proposal and how to provide feedback. Powerlink will also engage directly with landholders on MID processes.

Will I be notified of all the MIDs and/or can I provide a submission on more than one MID?

You will receive formal notification of any MID that directly impacts you. The MID process also includes statutory requirements for a public notice and invites feedback from the wider public.

While you may receive formal notification of more than one MID if you are impacted by more than one MID, you are also welcome to provide a submission on any MID proposal submitted for the project.

What does a MID mean for the community?

The MID process provides one set of planning regulations that will apply to the whole project, making the process simpler to assess. While these regulations will be assessed at a Queensland Government level, local government regulations will need to be addressed, along with evidence of general compliance.

How is a MID proposal assessed and decided on?

A comprehensive assessment of land use planning matters relating to a MID proposal is undertaken by DSDIP, along with considering advice from other state agencies and technical experts.

The Minister then decides on the MID proposal after considering the assessment and submissions received during public consultation.

Community concerns that are not specific to the proposal's material land use planning matters are not considered under the planning framework and are out of scope for the assessment of the MID. Where relevant, these matters are provided to the relevant state agency or authority for consideration.

What will be included under each MID?

MID proposals will include temporary and permanent infrastructure components needed to develop the project. This includes, but is not limited to, towers, substations, access tracks, workforce accommodation and facilities, communications huts and laydown areas.

The MID assessment focuses on the proposed land use, and its associated impacts including traffic, car parking, stormwater, noise, ecology, amenity, and built form.

How do I find out more about the MID process?

For more information on the MID process please visit the DSDIP website at https://planning.statedevelopment.qld.gov.au/planning-framework/infrastructure-planning/ministerial-infrastructure-designations.

How can I provide feedback on a MID proposal?

During the DSDIP public comment period, submissions must be lodged with the Queensland Planning Minister on or before the advertised due date. This can be done:

- online at https://www.planning.qld.gov.au/planning-framework/infrastructure-planning/ministerial-infrastructure-designations
- via email infrastructuredesignation@dsdilgp.qld.gov.au
- by post to PO Box 15009, City East, QLD 4002.

For more information on the submission process, you can contact the MID team directly on 1300 967 433 or via infrastructuredesignation@dsdilgp.qld.gov.au.

How can I provide general feedback on the project?

You can provide general feedback on the project by:

- contacting your local Landholder Relations or Indigenous Partnerships team representative directly
- contacting your local Project Engagement Specialist team representative directly
- emailing the project team via copperstring@powerlink.com.au
- submitting feedback via our online form*.

^{*}Please note feedback submitted via our online form is informal only. Submissions regarding a MID proposal must be made to the Minister. This can be done via the following website which lists MID requests that are open for consultation: https://planning.statedevelopment.qld.gov.au/planning-framework/infrastructure-planning/ministerial-infrastructure-designations. Visit the 'Requests open for consultation' tab towards the bottom of the webpage and search for 'CopperString'.

Appendix 1 – Flinders Substation MID action plan

The first application for MID assessment under the project's revised sequencing is Flinders Substation. This submission impacts the following local government areas:

• Flinders Shire.

Indicative timing for Flinders Substation MID is as follows:

- July 2025 submit Flinders Substation MID proposal to DSDIP
- August 2025 notification and targeted engagement
- September 2025 anticipated MID approval (if accelerated assessment is undertaken by DSDIP)
- April 2026 anticipated MID approval (if no accelerated assessment is applied).

Figure 2: Map of Flinders Substation



Engagement to support Flinders Substation MID

In addition to the project-wide and preliminary MID engagement listed in 'Previous engagement', consultation has been ongoing in Flinders Shire across a broad range of stakeholders. Most recently, and specific to the MID process, this includes:

- briefings on the project's approvals strategy and MID process with Flinders Shire Council elected and operational representatives in April 2024 and May 2024
- sharing project collateral, including information outlining the MID process, at community and industry events such as the Hughenden Festival of Outback Skies in May 2024 and Hughenden Chamber of Commerce events throughout 2024
- briefing the Member for Traeger in August 2024

- correspondence with Flinders Shire Council operational representatives regarding on-ground MID consultation in October 2024
- ongoing engagement with the landholder directly impacted by Flinders Substation and subsequent land purchase by Powerlink in October 2024
- ongoing fortnightly meetings with Flinders Shire Council CEO and operational representatives, including an update on the revised MID application for Flinders Substation in June 2025
- targeted engagement with Yirendali Traditional Owner group representatives in June 2025.

Information regarding the project's MID process is also detailed on the CopperString website.

Action plan

Table 5 outlines communication and engagement activities proposed for Flinders Substation MID. Activities will be undertaken in accordance with mandatory MID process requirements and Powerlink's principles of stakeholder engagement outlined in the CopperString CSEP.

Where actions are managed by the Minister and/or DSDIP, Powerlink will provide technical support as required as well as manage ongoing engagement with Traditional Owners, landholders and other stakeholders about activities underway.

Note, and is indicative timing assumes accelerated assessment and may change in line with project progress and feedback from government agencies, landholders and other key stakeholders.

A detailed list of project stakeholders, including Powerlink team roles and responsibilities, is contained within the project's stakeholder map which exists as a living document for internal use.

Table 5: MID#1 communication and engagement action plan

| Action Responsibility Stakeholder group/s | Indicative tools and tactics | Notes |
|---|------------------------------|-------|
|---|------------------------------|-------|

Submit Flinders Substation MID proposal and prepare for formal consultation

This MID submission relates to Flinders Substation. Consultation will occur separately for each submission once submitted and acknowledged by the Minister in accordance with the Ministerial Guidelines and Rules and the Planning Act 2016.

| Submit MID proposal to DSDIP | Project Development | DSDIPMinister for Planning | MID documentation | July 2025 | |
|--------------------------------------|-------------------------|---|--|-------------------|---|
| Informal landholder engagement | Landholder Relations | ■ Landholders | Phone calls/SMSEmails | June/July 2024 | Informal check-in and provide context as required to landholders impacted by Flinders Substation MID |
| Informal Traditional | Indigenous Relations | Traditional Owners | Phone calls/SMSEmails | June/July 2025 | Informal check-in and provide context |

| Action | Responsibility | Stakeholder group/s | Indicative tools and tactics | Timeframe | Notes |
|--|-----------------------|-------------------------------|---|-------------------|---|
| Owner/ Native Title holder engagement | | | | | as required to Traditional Owner groups impacted by Flinders Substation MID • Yirendali |
| Informal Local Council officer level engagement | Project Engagement | Local council representatives | Phone callsEmailsMeetings | June/July 2025 | Provide context within existing meetings as appropriate to officer-level Council representatives: Flinders Shire Council. Request advice on suitable locations for hard copy MID documentation for community access. |
| Review and update stakeholder list | Project Engagement | • All | Stakeholder list | June/July 2025 | Review stakeholder currency. Note notification must be sent to stakeholders identified in the endorsed strategy. |
| Prepare comms materials | Project Engagement | ■ All | Project webpage content Update digital form Landholder/key stakeholder letters/emails FAQs Project newsletter Social media posts | June/July 2025 | Content must include: project proposal, including description of the land and type of infrastructure how the proposal can be viewed or accessed how to make a submission |

| Action | Responsibility | Stakeholder group/s | Indicative tools and tactics | Timeframe | Notes |
|---------------------------------------|-------------------------|---|--|-------------------|--|
| | | | ■ Public notice | | the day by when submissions may be made to the Minister. Note, allow time for Ministerial approval of collateral and booking advertising. |
| Coordinate government briefings | Government Relations | Elected representatives Local councils Queensland Government departments and agencies | Phone callsEmails | June/July 2025 | Government reps have been briefed on the MID process throughout 2024 and 2025. Further correspondence will be by letter/email. |

Commence formal consultation following Minister's advice

Following receipt of Flinders Substation MID, the Minister will commence consultation by writing to local governments and landholders inviting submissions on the MID. Local governments and landholders are typically provided a minimum of 15 business days to make a submission. Powerlink may commence consultation on the same day or following the Minister's consultation, ensuring the public consultation period end date is no earlier than the end date of the Minister's consultation period.

| • | | | | | |
|--------------------------|-------------------------|---|--|-------------|--|
| Government engagement | Government Relations | Elected representatives Local Mayors and Councillors Queensland Government departments and agencies | Letters/emails 1:1 meetings/ briefings, as required FAQs Project newsletter | August 2025 | |
| Landholder engagement | Landholder Relations | ■ Landholders | Letters/emails 1:1 meetings and briefings, as required FAQs Project newsletter | August 2025 | |

| Action | Responsibility | Stakeholder group/s | Indicative tools and tactics | Timeframe | Notes |
|---|---|---|--|-------------|---|
| Traditional Owner/ Native Title holder engagement | Indigenous Relations | Traditional Owners | Letters/emails 1:1 meetings and briefings, as required FAQs Project newsletter | August 2025 | |
| Update external- facing project comms touchpoints and publish public notice | Project Engagement | - All | Project webpage including digital form, FAQs, project newsletter Social media Hard copy MID engagement documents including assessment report and FAQs Public notice | August 2025 | Brief Powerlink reception to ensure 1800 calls received can be appropriately responded to/directed regarding MID queries. Ensure hard copies are available at key locations in: Hughenden. |
| Distribute stakeholder corro including emails, newsletter distribution and phone calls, as required | Project Engagement Government Relations | Queensland and Australian government departments and agencies Local businesses, supply chain and industry organisations Environmental groups and advocacy bodies CopperString RRG Broader communities | Letters/emails 1:1 meetings and briefings, as required FAQs Project newsletter | August 2025 | |

| ction | esponsibility | takeholder roup/s | idicative tools | imeframe | otes |
|-------|---------------|----------------------|-----------------|----------|------|
| Ac | R | St P | an | F | ž |

Following consultation by the Minister, Powerlink will be given a copy of any submissions received, or a notice that no submissions were received. This is so Powerlink can appropriately consider and address matters raised in the submissions, including making any necessary changes to the proposal. After considering any submissions, Powerlink must provide the Minister with any further or amended technical reporting to address matters raised in the submissions.

The Minister will make a decision on the MID proposal after considering the assessment and submissions received during community consultation.

| community cons | suitation. | | | | |
|---|----------------------------|---|--|------------------------------|---|
| Prepare comms materials | Project Engagement | ■ All | Project webpage content Landholder/key stakeholder letters/emails FAQs Project newsletter | August/ September 2025 | |
| Landholder engagement | Landholder Relations | Landholders | 1:1 meetings and briefings, as required FAQs Project newsletter | August/ September 2025 | |
| Traditional Owner/ Native Title holder engagement | Indigenous Partnerships | Traditional Owners | Letters/emails 1:1 meetings and briefings, as required FAQs Project newsletter | August/ September 2025 | Finalise Native Title arrangements. Legal advice required. |
| Update external- facing project comms touchpoints | Project Engagement | - All | Project webpage including digital form, FAQs, project newsletter | August/ September 2025 | Brief Powerlink reception to ensure 1800 calls received can be appropriately responded to/directed regarding MID queries. |
| Government engagement | Government Relations | Elected representatives | Meetings/ briefings, as required | August/ September 2025 | |

| Action | Responsibility | Stakeholder group/s | Indicative tools and tactics | Timeframe | Notes |
|---|---|---|---|------------------------------|-------|
| | | Local Mayors and Councillors Queensland Government departments and agencies | Emails/lettersPresentations | | |
| Distribute stakeholder corro including emails, newsletter distribution and phone calls, as required | Project Engagement Government Relations | Queensland and Australian government departments and agencies Local businesses, supply chain and industry organisations Environmental groups and advocacy bodies CopperString RRG Broader communities | Letters/emails 1:1 meetings and briefings, as required FAQs Project newsletter | August/ September 2025 | |

Gazettal of designation

The Department will notify directly affected landholders and local governments of Minister's decision to designate land for the project. This is published in the Queensland Government Gazette and updated on the Department's website.

| Update external- facing project comms touchpoints | Project Engagement | • All | Project webpage | September 2025 | |
|---|---|---|--|-------------------|--|
| 'Closing the loop' key stakeholder engagement | Landholder Relations Government Relations Project Engagement Indigenous Relations | Landholders Local governments Traditional Owners/Native Title holders | 1:1 meetings and briefings Emails/letters Website update | September 2025 | Powerlink to 'close the loop' with landholders and other stakeholders on project approval. |

Contact us

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Appendix B

Department of Transport and Main Roads consultation



| Date | Engagement Type | Description | DTMR Team Engaged | Attendees | Record Attached |
|------------|-----------------|--|---|---|-----------------|
| | | | | | |
| 19/03/2024 | Meeting | CopperString 2032 DTMR Coordination and Interfaces Meeting | DTMR Corridor Management (Northern District), Project Planning (Northern) | Michael Craperi (MC), Ryan Jones (RJ), Gina Turner (GT), Derryn Boland (DB), Guy Raffe (GR), Regina Lovic (RL), Kurt Baker (KB), Domitianus S Budiono (DSB), Katherine Wilson (KW) | Yes |
| 4/04/2024 | Meeting | CopperString 2032 DTMR Coordination and Interfaces Meeting | DTMR Corridor Management (Northern District), Project Planning (Northern) | Michael Craperi (MC), Ryan Jones (RJ), Peter Tarlinton (PT), Derryn Boland (DB), Regina Lovic (RL), Ian Turton (IT), Domitianus S Budiono (DSB), Denise M Hinneberg (DH), Fred Stratford (FS) | Yes |
| 18/04/2024 | Meeting | CopperString 2032 DTMR Coordination and Interfaces Meeting | DTMR Corridor Management (Northern District), Project Planning (Northern) | Michael Craperi (MC), Ryan Jones (RJ), Peter Tarlinton (PT), Derryn Boland (DB), Ian Turton (IT), Domitianus S Budiono (DSB), Fred Stratford (FS), Nick Poon (NP), Guy Raffe (GR) | Yes |
| 1/05/2024 | Meeting | CopperString 2032 DTMR Coordination and Interfaces Meeting | DTMR Corridor Management (Northern District), Project Planning (Northern) | Michael Craperi (MC), Ryan Jones (RJ), Peter Tarlinton (GT), Derryn Boland (DB), Ian Turton (IT), Fred Stratford (FS), Denise M Hinneberg (DH), Nick Poon (NP) | Yes |

| Date | Engagement Type | Description | DTMR Team Engaged | Attendees | Record Attached |
|------------|-----------------|---|--|---|---|
| 14/05/2024 | Email | CopperString 2032 DTMR Road Upgrades - DTMR Action Item Responses | DTMR Corridor Management (Northern District), Project Planning (Northern) | Peter W Tarlinton, Derryn A Boland, Michael Craperi, Ryan Jones, Ian Turton, Regina Lovic, Guy Raffe, Kurt Baker, Frederick Stratford, Nick Poon, Emma Mccaughey, Gina F Turner, Katherine J Wilson, Domitianus S Budiono, Denise M Hinneberg | Yes |
| 16/05/2024 | Meeting | CopperString 2032 DTMR Coordination and Interfaces Meeting | DTMR Corridor Management (Northern District), Project Planning (Northern) | Michael Craperi (MC), Ryan Jones (RJ), Peter Tarlinton (PT), Derryn Boland (DB), Ian Turton (IT), Fred Stratford (FS), Denise M Hinneberg (DH), Gina Turner (GT), Domitianus S Budiono (DSB) | No - Recording available |
| 21/05/2024 | Meeting | CopperString 2032 Interagency Introductory Meeting - DTMR, DHLGPPW, OCG & Powerlink | DTMR, DHLGPPW, OCG, Powerlink | | Refer to Section 7.2.3 in Volume 1 |
| 31/05/2024 | Meeting | CopperString OSOM / Structures Initial Discussions | DTMR Corridor Management (Northern District), DTMR Heavy Vehicle Access Team, DTMR E&T Structures | Michael Craperi (MC), Peter Tarlinton (PT), Derryn Boland (DB), Guy Raffe (GR), Lana Johnson (LJ), Yannis VamVakas (YV) | No - Outputs incorporated into OSOM Report – Flinders Substation |
| 18/06/2024 | Meeting | CS32 - OSOM Results Way Forward Discussion | DTMR Corridor Management (Northern District), DTMR Heavy Vehicle Access Team, DTMR E&T Structures | Michael Craperi (MC), Peter Tarlinton (PT), Derryn Boland (DB), Guy Raffe (GR), Lana Johnson (LJ), Yannis VamVakas (YV) | No - Outputs incorporated into OSOM Report – Flinders Substation |

| MEETING DETA | ILS | | | |
|----------------|---|-------|-----------------------------|--|
| Meeting Title: | CopperString 2032 – TMR Meeting | Date: | 19 th March 2024 | |
| Location: | Microsoft Team / DTRM Townsville Meeting Room & Stockyard (Bowen Hills) | Time: | 2:30pm – 4:00pm | |
| Chair: | Michael Craperi | | | |
| Attendees: | tendees: Michael Craperi (MC), Ryan Jones (RJ), Gina Turner (GT), Derryn Boland (DB), Guy Raffe (GR), Regina Lovic (RL), Kurt Baker (KB), Domitianus S Budiono (DSB), Katherine Wilson (KW) | | | |
| Apologies: | Nick Poon (NP) Emma McCaughey (EM) Vik Dhiman (VD) | | | |

| Item | Comments/ Actions | Who | Da Da |
|------|--|-----|----------|
| 1. | Introduction - Purpose of the Meeting | | |
| | Introduce key personnel including Powerlink (PLQ), Powerlink's contractor the joint venture (JV) CPB UGL, Powerlink's subcontractor assisting project management Phase 3 Projects (P3P) and the Department of Transport and Main Roads (TMR). | | |
| | Provide TRM with a Copperstring 2032 project overview including project required road upgrades. | | |
| | Understand the TMR processes including approvals, design, schedule, handover and discuss opportunities and strategies to deliver the significant works. | | |
| | Provide context to PLQ's and TMR's initial meeting held on Tuesday 12.03.2024 including brief discussions around a coordinated project approach. | | |
| | Establish regular communications and engagement with TMR Regions and Districts. | | |
| 2. | Around The Table Personnel Introductions | | |
| | Domitianus Budiono TMR - Principal Engineer (Project Planning) Infrastructure Management and Delivery | | |
| | Katherine Wilson TMR - Acting Principal Advisor Infrastructure - Management and Delivery | | |
| | Gina Turner TMR - Manager Project Planning and Corridor Management - Infrastructure Management and Delivery | | |
| | Michael Craperi PLQ - Acting Area Construction Manager Civil | | |
| | Derryn Boland PLQ Subcontractor - Phase 3 Projects - Senior Project Manager | | |
| | Guy Raffe PLQ Subcontractor – Phase 3 Projects – Project Manager | | |
| | Regina Lovic PLQ - Policy & Government Relations Advisor – North Queensland | | |
| | Ryan Jones UGLCPB JV – Project Manager | | |
| | Kurt Baker – PLQ Project Development Director | | |
| 3. | Copperstring 2032 Project Overview | | |
| | Copperstring 2032 Project Overview Presentation attached and discussed. | | |
| | Additional key messages discussed: | | |
| | Copperstring 2032 is part of QLD governments plan to reach 80% renewable energy by 2035. We're already at almost 28%. Queensland's transformation to renewable energy is protecting and creating jobs, growing local industries, giving us energy security and creating a cleaner, brighter world for everyone. | | |
| | Queensland is powering ahead with cleaner, cheaper energy to protect and create jobs. | | |





| | Commental Actions Who Due | | | | | | |
|------|---|-----|------|--|--|--|--|
| ltem | Comments/ Actions | Who | Date | | | | |
| | GT asked whether there was two stages between Hughenden and Cloncurry. Stages | | | | | | |
| | detailed Hughenden to Cloncurry are stage 1 & 2. Cloncurry to Mt Isa is stage 3 and | | | | | | |
| | Mulgrave to Hughenden is stage 4. It was confirmed that the northern and southern | | | | | | |
| | spur are not part of the current Copperstring 2032 scope and not be included in road upgrade/MID submissions. | | | | | | |
| | GT briefly discussed a Green Energy & Critical Minerals Planning Project with regard | | | | | | |
| | to supporting road network and infrastructure however it has not commenced. | | | | | | |
| ۱. | Copperstring 2032 Traffic Impacts and Proposed Works | | | | | | |
| | Traffic Impacts and Proposed Works Presentation as per attached was discussion. | | | | | | |
| | Key outcomes from JV Presentation: | | | | | | |
| | GT raised importance of oversize and over mass (OSOM) load inputs required for | | | | | | |
| | early planning including assessing cumulative impacts and that OSOM loads require a separate permit. Note our discussion in the meeting was not about permit | | | | | | |
| | requirements. | | | | | | |
| | KB asked who reviews Ministerial Infrastructure Designation application (MID). GT | | | | | | |
| | confirmed GT's Team (Planning and Corridor Management) reviews MID for comment. TMR need to confirm the process for how the MID and information will | | | | | | |
| | need to be reviewed for cumulative impacts including OSOM loads. Katherine will | | | | | | |
| | confirm this. (ACTION TMR) | KW | | | | | |
| | RJ requested a key point of contact within TMR for the Project (JV + PLQ) to liaise | | | | | | |
| | within. GT advised several points of contact will likely be appointed within TMR | | | | | | |
| | (primary & backup). GT to confirm appropriate contact internally and confirm and respond to PLQ /JV (ACTION TMR) | GT | | | | | |
| | GT asked on what traffic counts were used. RJ confirmed Traffic counts taken in mid | | | | | | |
| | 2023 from Townsville to Mt Isa and supplemented by historical data. This was used | | | | | | |
| | within the TIA's. | | | | | | |
| | KW asked if consideration has been given to overhead structures such as power lines and gentries at for major deliveries (OSOM). By confirmed will be a port of every | | | | | | |
| | and gantries etc for major deliveries (OSOM). RJ confirmed will be a part of over mass over size submission. The current TIA considers construction traffic (excluding | | | | | | |
| | OSOM) for the project within typical design vehicle up to a B Double. OSOM not | | | | | | |
| | consider in the Current TIA's and will be assessed separately. OSOM information to | МС | | | | | |
| | be provided to TMR. (ACTION PLQ) | | | | | | |
| | RJ noted intersection upgrades assume a Rural Basic Left Turn Treatment (BAL) or a Rural Basic Dight Turn Treatment (BAB) standard CT called whather consideration | | | | | | |
| | Rural Basic Right Turn Treatment (BAR) standard. GT asked whether consideration of different intersection types at higher traffic counts towards the eastern end of the | | | | | | |
| | project is warranted, noting where traffic is higher and consideration may need to be | | | | | | |
| | given to channelized right turn. RJ confirmed the detailed design will determine | | | | | | |
| | suitable intersection treatment with each intersection assessed and considered | | | | | | |
| | independently. | | | | | | |
| | Note Driveways terminology means a new access to the easement. JV confirmed concept designs for driveways completed to date may require Extended | | | | | | |
| | Design Domain (EDD) to meet site distance requirements etc. GT advised EDD will | | | | | | |
| | be considered due to TMR not expecting something to last 20 years for something | | | | | | |
| | that is only required for 4 years etc. | | | | | | |
| | JV currently engaging contractor to undertake a drive of the network to do a detailed | | | | | | |
| | survey pickup to approx. 50m either side of the road and dilapidation survey. GT discussed TMR use Chart View GIS map for the network which holds all the data | | | | | | |
| | G1 discussed TMR use Chart View GIS map for the network which holds all the data from TMR investigations (pavement condition, pavement design, structures & | | | | | | |
| | culverts, road geometry, etc). GT thought investigation works may have already | | | | | | |
| | been done within the project footprint. GT offered to share chart view data with the | | | | | | |
| | Project. JV to contact TMR with who will need access, what locations and arrange | RJ | | | | | |
| | data access (ACTION JV) GT asked whether there is a strategy with Legal Council. PLO and IV are engaging | 1.0 | | | | | |
| | GT asked whether there is a strategy with Local Council. PLQ and JV are engaging directly with local councils. Flinders Shire progressing, Richmond scheduled. | | | | | | |





| ETING AGENE | DA / MINUTES | | |
|-------------|--|------------------------|-----------|
| Item | Comments/ Actions | Who | Du Dat |
| | GT advised of example of how assessment of how a road network was undertaken by TMR for Townsville Port for Burdekin Falls Dam Road Project where rock was transported between the sites and a dilapidation formed the basis of what condition to return the asset to. Might be an option for Local Councils. RJ presented and discussed current QTRIP information and investment relevant to the Project Footprint. GT confirmed TMR can provide more detail and give project overviews for the QTRIP investments particularly along the Flinders Highway. Northern District do impact assessment reviews for North West District and will liaise with them. JV to advise TMR what areas or projects that they would like further detail on (ACTION JV) TMR to provide further information based on this request. (ACTION TMR) For a submission and approvals strategy GT advised to submit reasonable sections at a time. Further breakdown and more structure to submission strategy to be considered in next meeting GT noted opportunities for concept info to be reviewed for early feedback. Traffic volumes and forecasted volumes to be included. GT requested early concept information to provide early feedback. GT ask about Hughenden camp. Workers accommodation would be ready by 1st April 2025 for start of transmission line construction. | RJ GT | |
| | GT advised TIA would need to use worker movements in calculations from camps hubs etc (ie not just construction traffic). RJ advised that camp traffic including transport to/from site & to/from airport is included in the TIA. GT request data and modelling should be supplied and how inputs have been | MC | |
| | calculated. PLQ/JV to provide all TIA's to date. (ACTION PLQ) RJ asked who to send this information to, who is the point of contact. GT will talk to IT re file sizes and also an internal point of contact to nominate initially. (ACTION TARK) | GT | |
| | TMR) GT noted need to establish a common naming convention for all correspondence. JV to send through correspondence naming convention (ACTION JV) GT will make people aware that these applications are priority. (ACTION TMR) GT requested Key Contacts List for JV & PLQ (name, role, contact, etc). (ACTION PLQ & JV) GT will have a blockage, delay and escalation process when reviewing project | RJ GT MC & RJ | |
| | submissions. GT would like to start the OSOM reviews as early as possible. KW queried if the widening identified in TIA's is enough for the OSOM. RJ noted major deliveries of OSOM is primarily going to the substation locations and these routes will be assessed and considered in road upgrades. GT – noted other projects will have other OSOM loads i.e wind farms. | | |
| | Concept designs for driveway locations, concept designs for most TMR roads and what is proposed as the standard treatment. RJ to send through (ACTION JV) DSB asked what pavement design life has been applied for the proposed upgrades. GT & JV/PLQ discussed and noted design requirements to be developed in further detail in upcoming meeting to agree. Pavement to suit construction traffic and the current road pavement condition / type. | RJ | |
| | GT said we need to determine an appropriate strategy on how to review the impact of construction traffic on the existing roads i.e dilapidation. I.E. TMR can't look at the project to rebuild the Flinders. Agree reasonable process between the project and TMR is required. Gina has a State Development Meeting tomorrow (20/03/2024). There is no strategy in place at this level. GT will raise awareness of the coordinated project and impact. | | |
| | in place at this level. GT will raise awareness of the coordinated project and impact to roads (Coordinator General). Construction is through an approval process. Conflicts in possession of sites such as the Burdekin Falls Dam Road may be an issue (TMR work / other works). Temporary traffic management and speed restrictions will need to be reviewed across the network. | | |





| Item | Comments/ Actions | Who | Due Date |
|--------------|--|-----|-------------|
| | Next Meeting Thursday 4th April, 1:30pm. Online Teams Meeting acceptable to TMR. Agreed fortnightly meeting moving forward. JV discussed the program of the project and will send though a detailed schedule of works. (ACTION JV) TMR concerned about their capacity to meet expected schedule. Further discussion | RJ | |
| | once JV provide further works. • Discussed coordinated approach. Regina to follow up within PLQ and advise. (ACTION PLQ) | RL | |
| 5. | Action Summary | | |
| | TMR to confirm the process for how the MID and information will need to be reviewed for cumulative impacts including OSOM loads. | KW | |
| | TMR to confirm appropriate point of contacts internally and advise. | GT | |
| | OSOM information to be provided to TMR. | MC | |
| | JV to contact TMR with who will need access to Chart View GIS Map, what locations and arrange data access. | RJ | |
| | JV to advise TMR what areas or projects in QTRIP that they would like further detail on. | RJ | |
| | TMR to provide further information based on QTRIP further details request. | GT | |
| | PLQ to arrange for all TIA's to be sent to TMR to assist in review of traffic data modelling assessments. | МС | |
| | TMR to advise who to send TIA's to/who is the point of contact and discuss internally with IT how to share large data files. | GT | |
| | JV to provide correspondence naming convention. | RJ | |
| | Make TMR people aware that these applications are priority. | GT | |
| | PLQ to provide key contracts list. | MC | |
| | JV to provide key contracts list. | RJ | |
| | JV to send concept designs for driveway locations, intersections and widening's including is proposed as the standard treatment. | RJ | |
| | JV to provide a detailed schedule of works. | RJ | |
| | PLQ to follow up coordinated project approach within PLQ and advise. | RL | |
| NEXT MEETING | DETAILS | | |
| Date: | Thursday 4 th April 2024. 1:30pm | | |
| _ocation: | Teams Meeting / Stock Yard Room – Bowen Hills Office | | |
| Attachments: | Nil | | |





| MEETING DETA | ILS | | | |
|----------------|---|-----------------|-----------------------------|--|
| Meeting Title: | CopperString 2032 – TMR Meeting | Date: | 04 th April 2024 | |
| Location: | Microsoft Team / Stockyard Bowen Hills | Time: | 1:30pm – 3:00pm | |
| Chair: | Michael Craperi | | | |
| Attendees: | endees: Michael Craperi (MC), Ryan Jones (RJ), Peter Tarlinton (GT), Derryn Boland (DB), Regina Lovic (RL), Turton (IT), Domitianus S Budiono (DSB), Denise M Hinneberg (DH), Fred Stratford (FS) | | | |
| Apologies: | Nick Poon (NP), Emma McCaughey (EM), Vik Dhiman (VD), Gi Baker (KB), Katherine Wilson (KW) | na Turner (GT), | Guy Raffe (GR) Kurt | |

| | Commental Actions Who | | | | | |
|------|--|-----|----------|--|--|--|
| Item | Comments/ Actions | Who | Da Da | | | |
| 1. | Introduction - Purpose of the Meeting | | | | | |
| | Meeting Attendees Brief Intro: Regina Lovic (PLQ) Policy and Government Relations Advisor for North QLD.; Derryn Boland (P3P (PLQ Subcontractor)) Project Manager engaged by Powerlink to help be an interface with TMR and the Shires and hopefully bring some efficiencies along with knowledge of TMR construction standards and requirements; Fred Stratford (PLQ) Interface between the Project and Materials Procurement Group Looks after the transport interface so will need to know all about OSOM requirements and what the network restrictions are.; Ian Turton (PLQ) Approvals and Property Team\State Government Approvals Interacting with the coordinator general who is a regulator on this project as well as the Planning Minister through the ministerial designation process (MIDs).; Michael Craperi (PLQ) Acting Area Construction Manager not just for the road upgrades but also the internal civil works; Peter Tarlinton (TMR) Senior Town Planner One of the key contacts for a district in terms of the assessment of those traffic impact assessments and providing that sort of local context for a lot of the applications that are coming through from the coordinator general and the ministerial infrastructure designation team as well.; Denise Hinneberg (TMR) Principal Advisor Corridor Management Works closely with Peter.; Ryan Jones (JV) Project Manager Looking after Early works, road upgrades, camps, TlAs; Domitianus S Budiono (TMR) Project Manager for the current Clean Energy project in the northern region. Overview of Agenda TIA's & Concept Design & sent to TMR – Gina previously and also to Peter Consideration of TMR setting up G drive. Amendments (RFPC – Request for Project Change) for Hughenden camp sent 03.04.24 & being reviewed by TMR | | | | | |
| 2. | Road Upgrade Scope | | | | | |
| | Schedule – JV presentation with schedule dates for each road | | | | | |
| | Road Upgrade to be done prior to first access crew (pioneering crew). Late this year to late 2027. | | | | | |
| | Possible for some works to be done under traffic management in short term to meet schedule. | | | | | |
| | Reviewed JV presentation with dates per road (attached for reference) | | | | | |
| | Priority Hughenden Camp then transmission line with work typically running from Hughenden to Cloncurry, then 2nd work front | | | | | |





| Item | Comments/ Actions | Who | Due Date |
|------|---|-----|-------------|
| | Key Milestone 1 st April 2024 Kennedy Development road for Flinders Substation, then progressively along transmission line. Work will need to start late 2024 for this to be achieved (considering the wet season Dec-Mar) | | Date |
| | TMR Road Upgrades | | |
| | Existing Intersections | | |
| | Existing Intersection Upgrade – circa 44 locations, (no intention to remove) | | |
| | | | |
| | <u>Driveways</u> | | |
| | Driveways (New Intersections) – circa 55 locations, (no intention to remove) will be used during construction then intermitted access for maintenance by PQ | | |
| | TMR asked question regarding bollards 'closing' off driveways, RJ clarified no, however each driveway would have gate setup at the property boundary / fencing including rumble grids, etc | | |
| | Road Upgrades | | |
| | Richmond Winton Rd | | |
| | 15km widening required – currently on QTRIP (widen & resurface) | | |
| | Julia Creek Kynuna Rd | | |
| | o 5km widening required | | |
| | Ayr Ravenswood Rd | | |
| | 14km widening + significant repair / upgrade | | |
| | o Required by mid 2026 | | |
| | Potential for alignment change in this area to reduce or remove Ary Ravenswood Rd upgrade – TBC | | |
| | o Possible interface with Sunwater Project | | |
| | Burdekin Falls Dam Rd | | |
| | o 39km widening | | |
| | Potential for alignment change in this area to reduce Burdekin Rd upgrade – TBC regardless of any changes work on road will still be required | | |
| | Noted Interfaces with Sunwater Project | | |
| | Sunwater/TMR have engaged in early discussions regarding Burdekin Falls Dam Road. PT noted significant construction traffic from Sunwater Project, scope unknown for road itself as yet. PT will likely be the interface for the BFD Project as well. | | |
| | TMR suggested PLQ & Sunwater meeting to discuss interface (nil engagement to date) | | |
| | Discussed QTRIP investments which interface with the project – Action from previous meeting sent to TMR for response on QTRIP specific information / details. ACTION RJ to send to TMR QTRIP further info request to DH, PT, DB. | | |
| | Brief Overview of road upgrade schedule | | |





| Item | Comments/ Actions | Who | Due Date |
|------|---|-----|-------------|
| | JV presentation to run through the top 5 priorities (attached to minutes) 1. Flinders Highway / Hughenden Camp — upgrade TMR intersection to be done prior to operating camp (March 2024) but prior to wet season. Flinders performing road upgrades and plan to engage for TMR works as they are a TMR prequalified contractor. Urgent for project. IT — change request for coordinator general 3 weeks ago. Peter has referral. PQ expecting comment back from Coordinator General. Any questions get in touch with lan Turton. PT was preparing some comments to send back to the OCG but nothing of significance to raise at this time. 2. Kennedy D Road into Flinders Sub To be completed before march, noting wet season. Also second driveway to the east. 3. Flinders Highway / Unnamed Road into PTL-FLR 284 ot FLR-DJR_82. Intersection upgrade. | | Date |
| | 5. Flinders Highway / Marathon Stanford Road Intersection upgrade. Denise queried sealing of gravel roads at intersections regarding gravel / mud pulled onto Highway & not on highway and maintenance. RJ confirmed intersection will be sealed, seal to extend up minor road off highway – extent of local road sealing to vary depending on site conditions. | | |
| | PT queried – Rail interface where intersection are close to rail crossings, concern is the design vehicle of B doubles and short stacking possible issue. RJ noted discussions were commencing with QR to address and is identified in TIA. JV to investigate and intersection designs will be on a case by case basis where design will consider this and increase left / right turn lanes to avoid issues. Acknowledged may be a few bespoke design requirements. | | |
| 3. | Designs | | |
| | Concept designs and supporting information sent to TMR (Transmittal 240328). Typically based on Basic Rural Left (BAL) and Basic Rural Right (BAR). Detailed design to follow. TIA assessment of road condition and width (indicative / qualitative). Detailed road survey & dilapidation to commence from Monday 15 th April (for Stages 1 & 2 only) will be a more detailed assessment. Denise raised OSOM and what has been included / considered in TIA's todate RJ confirm TIA currently considers standard deliveries, construction movements and construction traffic (i.e up to B-Doubles. Typically OSOM deliveries procured by PLQ. FS (PQ) developed a presentation with preliminary information on OSOM todate incl. number of deliveries, etc noting specific loads / masses not yet known. Presentation not run through in meeting. Design development, delap & survey Staged project Approach Otion Wasses of planned design submissions broken into areas | | |





| AGE | NDA / MINUTES | | D |
|------|--|-----|-------------|
| Item | Comments/ Actions | Who | Due Date |
| | DESIGN REQUIREMENTS | | |
| | | | |
| | Design Standards | | |
| | Western Queensland Best Practice Guidelines discussed, DH suggested any local knowledge to be sort directly with North West | | |
| | district and typically not rely upon these guideline for design | | |
| | - DTMR Standards – TMR Pavement Design Supplement | | |
| | Aust Roads Standards PT noted in assessment TMR will bring in relevant personnel in the | | |
| | areas to advise. Subgrade treatment & pavements design will contact | | |
| | North West District for further discussions. (Best practice Guidelines) | | |
| | Suggested to develop mud map for areas of each design standard where differ due to local conditions and best practice. ACTION DB – | | |
| | Coordinate design standard mud map and key regional contacts | | |
| | with TMR | | |
| | But But and the | | |
| | <u>Design Documentation</u> Design Documentation – noted individually these are basic designs, however | | |
| | significant quantum of driveways and intersections requires a lot of review and | | |
| | approval. Proposed key design documentation is: | | |
| | SID Drawings (GA's (incl signs & lines), typical sections, drainage | | |
| | details, swept path & sight dist. checks, pavement & subgrade | | |
| | treatment details, etc) | | |
| | Design model PT comment regarding above proposed design documentation | | |
| | is it looks appropriate with potential addition of drainage | | |
| | analysis for intersection upgrade where drainage impacted. | | |
| | Discussed PT providing example of documentation requirement to ensure we are all aligned | | |
| | PT noted key deliverable is For Construction and As | | |
| | Constructed Drawings | | |
| | Denise noted the above list looks right – will check with design and advise. ACTION DH – Check with TMR Design Team on | | |
| | required drawing packages | | |
| | o PT noted private accessed (driveways) possibly less detail | | |
| | required (as wont be an ongoing used / maintained TMR asset) | | |
| | <u>Chartview</u> Description of the chartview to provide more info on roads and existing | | |
| | RJ noted Chartview to provide more info on roads and existing pavement conditions. | | |
| | Domi re chartview cannot provide external access, however | | |
| | can provide data in excel format. Requested specific details for what the Project really needs. | | |
| | Action RJ to refine list of what outputs are required from | | |
| | Chartview with priorities and respond to Domi previous | | |
| | email. Domi asked if we are interfacing with Central Qld Region. | | |
| | O Domi asked if we are interfacing with Central Qid Region. Comment no as we do not impaction CQ region. RJ to refine | | |
| | location. | | |
| | Design Gates / submission | | |
| | Design Gates – PT confirmed no mandatory design gates, only pood final IEC design for formal process. However all | | |
| | need final IFC design for formal process. However all discussed informal review on concept design and comments | | |
| | will likely be beneficial and expediate the whole process. | | |





| 14 | Due Due | | |
|------|---|-----|------|
| Item | Comments/ Actions | Who | Date |
| | Who submitted to: PT confirmed 100% Design (IFC) with no | | |
| | supporting docs seen previously generally try to meet 2 weeks. Application / approval will be a 2 stage approach for works. | | |
| | Application / approval will be a 2 stage approach for works. 1. Condition Approval - Management plans, insurance, bonds, | | |
| | once met then TMR issue authority to commence. | | |
| | 2. Authority to Commence - Contractor to apply for road | | |
| | corridor permit / traffic control permit. | | |
| | ACTION PT to document process TMR Processes and Timeframes to provide clarity | | |
| | Denise suggest get them in a soon as you possibly can. | | |
| | IT raised how this is all presented and how links to MID | | |
| | Denise confirmed MID different legislation to TIA. | | |
| | o PT note use TIA to inform MID for assessment. Process is MID | | |
| | goes to Planning assessment team then to Peter. Goes to TMR team in Brisbane then to PT for comment. | | |
| | TWR team in Brisbane then to PT for comment. | | |
| 4. | Construction | | |
| | Coordinated Project Approach - Update | | |
| | Regina Lovic Update for coordinated Project Approach, nil time in this meeting to run through, presentation / email to be sent with Minutes | | |
| | Governance Requirements | | |
| | Construction verification, monitoring/inspection | | |
| | RJ asked what requirements TMR need with regard to | | |
| | construction verification and inspection/monitoring | | |
| | PT confirm TMR only require As Constructed Drawings (PDEC) within time frame after construction complete. | | |
| | (RPEQ) within timeframe after construction complete TMR to provide cheat sheet for requirements of paperwork for | | |
| | governance. ACTION PT to send through "Cheat Sheet" | | |
| | for some general guidance on what sort of documentation | | |
| | is required for each standard of works or if it's a driveway | | |
| | Noted is generally in inline with asset inspection requirements. | | |
| | Handover requirements (QA, as-builts, etc) discussed including in anything an apprint TMP title block was required PT noted by | | |
| | anything on a particular TMR title block was required. PT noted no particular template or title block, just RPEQ sign off on drawings was | | |
| | only deliverable after construction. No other QA submission or handover | | |
| | required | | |
| | RJ discussed DTMR approved subcontractor's v's CPB/UGL managing | | |
| | works directly. PT confirmed no difference between TMR pre approved | | |
| | and CPB. Noted pre qual may influence bond amount. If not pre qualified TMR will ask for qual/experience which may take some time. | | |
| | | | |
| | TIA's TIA's sent to TMR (Transmittal 240328). | | |
| | TIA's sent to TMR (Transmittal 240328). Consideration of amendment to TIA's. | | |
| | PT noted TIA does not detail traffic impact of FIFO roster details (travel | | |
| | days) including Hughenden Camp TIA | | |
| | TMR advise to expect to flagged formally in response to RFPC. TIA BAD/BAL depositing assessed and values in our according to the control of the contro | | |
| | TIA BAR/BAL depending on speed and volume – in sum scenarios may require a channelised right turn option. TMR will flag. | | |
| | Noted change request (RFPC) – potential to delay decision to camp | | |
| | approval. Daily movements are covered in TIA but roster change | | |
| | (FIFO) not included. | | |
| | RJ confirmed typical Civil rosters are all in all out with some other | | 1 |
| | rosters expected for the various different tasks (substations / stringing / | | |





| Item | Comments/ Actions | Who | Due Date |
|------|--|---------------------------------------|------------------------------------|
| | RJ noted to provide more details regarding rooster change over movements ACTION. Fred to send through Key dot points about procurement when more information is available. | | |
| | OSOM deliveries | | |
| 5. | Review of Previous Actions | | |
| | TMR to confirm the process for how the MID and information will need to be reviewed for cumulative impacts including OSOM loads. Ongoing. When PLQ provide details TMR can bring in heavy vehicle personnel to advise. | KW & PT | |
| | TMR to confirm appropriate point of contacts internally and advise. | GT & PT to advise | |
| | OSOM information to be provided to TMR. | FS | |
| | JV to contact TMR with who will need access to Chart View GIS Map, what locations and arrange data access. | RJ Complete | Closed new action created |
| | JV to advise TMR what areas or projects in QTRIP that they would like further detail on. | RJ Complete | Complete |
| | TMR to provide further information based on QTRIP further details request. | GT Outstanding send to Peter | |
| | PLQ to arrange for all TIA's to be sent to TMR to assist in review of traffic data modelling assessments. | MC | Complete |
| | TMR to advise who to send TIA's to/who is the point of contact and discuss internally with IT how to share large data files. Sent to Peter | GT | Complete |
| | JV to provide correspondence naming convention. Ongoing | RJ | |
| | Make TMR people aware that these applications are priority. | GT | |
| | PLQ to provide key contracts list. | MC | Complete |
| | JV to provide key contracts list. | RJ | Complete |
| | JV to send concept designs for driveway locations, intersections and widening's including is proposed as the standard treatment. Peter has access to the transmittal that Derryn sent | RJ | Complet |
| | JV to provide a detailed schedule of works. | RJ | |
| | PLQ to follow up coordinated project approach within PLQ and advise. | RL | |
| | Action Summary | | |
| | Coordinate design standard mud map and key regional contacts with TMR | DB | |
| | Check with TMR Design Team on required drawing packages | DH | |
| | RJ to refine list of what outputs are required from Chartview with priorities and respond to Domi previous email. | RJ | |
| | PT to document process TMR Application / approval Processes and Timeframes to provide clarity | PT | |





| MEETING AGEN | NDA / MINUTES | | |
|--------------|---|-----|-------------|
| Item | Comments/ Actions | Who | Due Date |
| | PT to send through "Cheat Sheet" for some general guidance on what sort of documentation is required for each standard of works or if it's a driveway | PT | |
| | Provide more details regarding rooster change over movements ACTION. | RJ | |
| NEXT MEETING | DETAILS | | |
| Date: | Thursday 18 th April 2024. 1:30pm | | |
| Location: | Teams Meeting / Stock Yard Room – Bowen Hills Office | | |
| Attachments: | Nil | | |



| MEETING DETAILS | | | | | |
|-----------------|--|-------|-----------------------------|--|--|
| Meeting Title: | CopperString 2032 – TMR Meeting | Date: | 18 th April 2024 | | |
| Location: | Microsoft Team / Stockyard Bowen Hills | Time: | 1:30pm – 3:00pm | | |
| Chair: | Derryn Boland / Ryan Jones | | | | |
| Attendees: | Michael Craperi (MC), Ryan Jones (RJ), Peter Tarlinton (GT), Derryn Boland (DB), Ia Turton (IT), Domitianus S Budiono (DSB), Fred Stratford (FS), Nick Poon (NP), Guy Raffe (GR) | | | | |
| Apologies: | Emma McCaughey (EM), Vik Dhiman (VD), Gina Turner (GT), Kurt Baker (KB), Katherine Wilson (KW), Denise M Hinneberg (DH), Regina Lovic (RL) | | | | |

| MEETING AGE | MEETING AGENDA / MINUTES | | | | |
|-------------|---|-----|-------------|--|--|
| Item | Comments/ Actions | Who | Due Date | | |
| 1. | Introduction - Purpose of the Meeting | | | | |
| | Status update on the project and TMR interface. | | | | |
| 2. | Road Upgrade Scope | | | | |
| | TMR Road Upgrades | | | | |
| | Existing Intersections | | | | |
| | <u>Driveways</u> | | | | |
| | Road Upgrades | | | | |
| | ACTION RJ to send to TMR QTRIP further info request to DH, PT, DB. Update 240418: PT has shot through request to NW District by Tuesday. | | | | |
| | RJ has asked for a District TMR rep to attend future meetings as we discuss detail around specific roads within North West District. ACTION PT will flag request for TMR District Reps with the DD for who would be the best point of contact. Noted Typically Road Corridor Permits (RCP) and Traffic Control (TC) Permits will be handled through Cloncurry (North West District). | | | | |
| 0 | Decima | | | | |
| 3. | Designs GENERAL | | | | |
| | GENERAL | | | | |





| ETING AGENDA / MINUTES | | | |
|------------------------|--|-----|-------------|
| Item | Comments/ Actions | Who | Due Date |
| | DESIGN REQUIREMENTS | | |
| | Design Standards | | |
| | ACTION DB – Coordinate design standard mud map and key regional contacts with TMR | | |
| | Update 240418: DB to follow up with PT on best contacts. | | |
| | <u>Design Documentation</u> Design Documentation – ACTION DH – Check with TMR Design Team on required drawing packages | | |
| | Update 240418: Ongoing PT to include in pending response | | |
| | Chartview Action RJ to refine list of what outputs are required from Chartview with priorities and respond to Domi previous email. COMPLETE Now with DB | | |
| | Compiling info from Chartview currently in process. Missing some roads and these will be compiled and sent through to TMR hopefully in one hit. | | |
| | Domi questioned widening and highlighted structures pre 1976 will need to be replaced entirely (across full width of road). Pre 2000 will need to be inspected and assessment made whether require upgrade / replacement. Noted this is a TMR road design manual requirement. Major culverts inspections get done regularly and are itedntified in Chartview data. Individual inspection reports can be supplied if required / on request. | | |
| | ACTION DB\GR to flag in the chartview reports. Minor culverts will need to be inspected by project when widening. Just what the project is touching (not whole network). | | |
| | ACTION DSB to provide design manual requirement for culvert inspection replacement. | | |
| | ACTION PT to send through any hydraulic assessment requirements for design | | |





| MEETING AG | ENDA / MINUTES | | |
|------------|--|-----|-------------|
| Item | Comments/ Actions | Who | Due Date |
| | OSOM – PT advised that they will provide a list of structures that have already been assessed for recent or impending other projects to provide comes context / advise (through structures and heavy vehicles team). | | |
| | <u>Design Gates / submission</u> ACTION PT to document process TMR Processes and Timeframes to provide clarity | | |
| | Update 240418: In progress part of email PT is preparing to respond to multiple actions. | | |
| 4. | Construction | | |
| | Coordinated Project Approach - Update | | |
| | | | |
| | Governance Requirements | | |
| | Construction verification, monitoring/inspection | | |
| | TMR to provide cheat sheet for requirements of paperwork for governance. | | |
| | ACTION PT to send through "Cheat Sheet" for some general guidance on what sort of documentation is required for each standard of works or if it's a driveway. | | |
| | Update 240418: In progress part of email PT is preparing to respond to multiple actions | | |
| | TIA's | | |
| | RJ noted to provide more details regarding rooster change over movements relating to RfPC for Hughenden Camp RJ Update: Formal request received and Pitt Sherry is working on that, will return inline with requested information and dates | | |
| | OSOM deliveries | | |





| Item | Comments/ Actions | Who | Du Dat |
|------|---|-----|-----------|
| | FS presentation re PQ deliveries including OSOM items. | | |
| | ACTION DB to send through Wind farms and hydro projects OSOM requirements for previous approvals request to PT. | | |
| | PT Caveat was existing project assessed for OSOM todate only really to assess up to Charters Towers. Hughenden OSOM for Wind Farm was typically bit smaller deliveries | | |
| | Conductor drums are to be transported by Semi with est 4 – 6 drums per load. (not OSOM) | | |
| | Deliveries managed by the supplier. OEM will arrange an appropriate heavy lift transport operators. They drove the network recently to become familiar with site conditions. | | |
| | JV provide some buildings at the subs but they won't be overly large. JV to provide more details when available. FS made note of ongoing maintenance requirements in terms of replacement items during life of asset. | | |
| | JV\PQ to coordinate to make sure consideration is given to the OSOM in widening and intersection upgrades. | | |
| | ACTION: FS to provide JV with inputs of OSOM when available. | | |
| | Discussed MID #1 Submission (Transmission line from Finders Substation (Hughenden) heading west to Cloncurry (Up to Cloncurry River) | | |
| | Noted MID#1 which includes Flinders Substation should include OSOM details. | | |
| | Confirmed the OSOM details for MID #1 submission would be under standalone assessment / report (NOT a part of TIA) | | |





| ETING AC | GENDA / MINUTES | | |
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| Item | Comments/ Actions | Who | Due Date |
| | Noted and acknowledged the detail in OSOM report for MID#1 would be preliminary in terms of size, vehicle config, qty as design is not finalised. As much detail in terms of size and masses as possible should be provided. | | |
| | PT noted it has caused an issue in the past when projects have been approved without review OSOM details and subsequently identified not physically possible transport the items through the network. Up to circa 2000T. | | |
| | PT Confirmed he can provide insights on TMR timeframes for their involvement in MID process | | |
| | It is unlikely that the OSOM information would be available for end of May. | | |
| | This information re OSOM would not really affect the content of the TIA. | | |
| | For windfarms TMR generally undertook a swept path etc and the permits to transport followed. | | |
| | MID/TIAs to reference a report to follow (post MID submission on condition) detailing OSOM. High level details to be included in the MID as stand alone report. | | |
| | ACTION: MC IT RJ DB GR FS to have follow up meeting re inputs for transport / OSOM inclusion into MID # 1 as separate Report. Also discuss TIA in general to agree on TIA inputs included in MID #1 Submission. | | |
| | ACTION: IT to send PT previous Decision Notice requirements from past projects (Genex) to gauge how similar the requirements could be. | | |
| 5. | Review of Previous Actions | | |
| | TMR to confirm the process for how the MID and information will need to be reviewed for cumulative impacts including OSOM loads. | KW & PT | |





| Item | Comments/ Actions | Who | Due Date |
|------|---|----------------------|------------------------------------|
| | Update 240418: Ongoing, when PQ provide details TMR can bring in heavy vehicle personnel to advise. | | |
| | IT wanted to ensure there is linkage between MIDs. PT has been talking to Brisbane DTMR team to arrange a meeting with whole of DTMR & PQ. This may include Rail assessment team (they will also assess the MID). IT targeting end of May for MID#1 Flinders West (not the camp). ACTION PT arrange meeting with the Brisbane team and IT/PQ to ensure coordination of submission documentation. | | |
| | TMR to confirm appropriate point of contacts internally and advise. | GT & PT to advise | Complete |
| | OSOM information to be provided to TMR. | FS | Ongoing |
| | JV to contact TMR with who will need access to Chart View GIS Map, what locations and arrange data access. | RJ Complete | Closed new action created |
| | JV to advise TMR what areas or projects in QTRIP that they would like further detail on. | RJ Complete | Complete |
| | TMR to provide further information based on QTRIP further details request. | PT | Ongoing |
| | PLQ to arrange for all TIA's to be sent to TMR to assist in review of traffic data modelling assessments. | MC | Complete |
| | TMR to advise who to send TIA's to/who is the point of contact and discuss internally with IT how to share large data files. Sent to Peter | GT | Complete |
| | JV to provide correspondence naming convention. Ongoing | RJ | Ongoing |
| | -Make TMR people aware that these applications are priority. | GT | Complete |
| | PLQ to provide key contracts list. | MC | Complete |
| | JV to provide key contracts list. | RJ | Complete |
| | JV to send concept designs for driveway locations, intersections and widening's including is proposed as the standard treatment. Peter has access to the transmittal that Derryn sent | RJ | Complete |
| | JV to provide a detailed schedule of works. | RJ | Complete |
| | PQ to follow up coordinated project approach within PQ and advise. | RL | ТВА |
| | Coordinate design standard mud map and key regional contacts with TMR | DB | Ongoing |
| | Check with TMR Design Team on required drawing packages | DH | Ongoing |





| Item | Comments/ Actions | Who | Due Date |
|------|--|-------|---|
| | RJ to refine list of what outputs are required from Chartview with priorities and respond to Domi previous email. | RJ | Complete |
| | PT to document process TMR Application / approval Processes and Timeframes to provide clarity | PT | Ongoing |
| | PT to send through "Cheat Sheet" for some general guidance on what sort of documentation is required for each standard of works or if it's a driveway | PT | Ongoing |
| | Provide more details regarding rooster change over movements ACTION. | RJ | Ongoing via separate process to respond to info request |
| | New Action Summary | | |
| | ACTION DB\GR to flag in the chartview reports. Minor culverts will need to be inspected by project when widening. Just what the project is touching (not whole network). | DB/GR | |
| | ACTION DSB to provide design manual requirement for culvert inspection replacement. | DSB | |
| | ACTION PT will flag request for TMR District Reps with the DD for who would be the best point of contact. | PT | |
| | ACTION PT to send through any hydraulic assessment requirements. | PT | |
| | ACTION DB to send through Wind farms and hydro projects OSOM requirements for previous approvals request to PT. | DB | |
| | ACTION: FS to provide JV with inputs of OSOM when available. | FS | |
| | ACTION: MC IT RJ DB GR FS to have follow up meeting re inputs for transport / OSOM inclusion into TIA updates including from Powerlink warehouse to Site. | MC | |
| | ACTION IT to send PT previous Decision Notice requirements from past projects to gauge how similar the requirements could be. | IT | |





| MEETING AGENDA / MINUTES | | | | |
|--------------------------|---|-----|-------------|--|
| Item | Comments/ Actions | Who | Due Date | |
| | ACTION PT arrange meeting with the Brisbane team and IT/PLQ to ensure coordination of submission documentation. | PT | | |
| NEXT MEETING | G DETAILS | | | |
| Date: | Thursday 2 nd May 2024. 1:30pm (TBC) | | | |
| Location: | Teams Meeting / Stock Yard Room – Bowen Hills Office | | | |
| Attachments: | Nil | | | |





| MEETING DETAILS | | | | | |
|-----------------|--|-------|--------------------------|--|--|
| Meeting Title: | CopperString 2032 – TMR Meeting | Date: | 1 st May 2024 | | |
| Location: | Microsoft Team / Stockyard Bowen Hills | Time: | 2:00pm – 3:00pm | | |
| Chair: | Derryn Boland / Ryan Jones | | | | |
| Attendees: | Michael Craperi (MC), Ryan Jones (RJ), Peter Tarlir Turton (IT), Fred Stratford (FS), Denise M Hinneberg | | | | |
| Apologies: | Emma McCaughey (EM), Vik Dhiman (VD), Kurt Baker (KB), Katherine Wilson (KW), Regina Lovic (RL), Guy Raffe (GR), Domitianus S Budiono (DSB), Gina Turner (GT), | | | | |

| MEETING AGE | MEETING AGENDA / MINUTES | | | | |
|-------------|--|-----|----------|--|--|
| Item | Comments/ Actions | Who | Due Date | | |
| 1. | Introduction - Purpose of the Meeting | | | | |
| | Minutes Legend: Black – General Notes and previous updates Blue – Latest Updates on existing Actions in progress Red – New Actions from this meeting | | | | |
| | Status update on the project and TMR interface. | | | | |
| 2. | Road Upgrade Scope | | | | |
| | TMR Road Upgrades | | | | |
| | Existing Intersections | | | | |
| | <u>Driveways</u> | | | | |
| | Road Upgrades | | | | |
| | ACTION RJ to send to TMR QTRIP further info request to DH, PT, DB. Update 240418: PT has shot through request to NW District by Tuesday. | | | | |
| | Update 240501 – PT had a meeting yesterday with the relevant TMR parties, PT putting together response. Basically 90% still in planning and are not yet funded, 1 is funded and in delivery replacing floodways for local roads, 1 completed pavement strengthening Flinders Highway sections between Julia Creek and Cloncurry. | | | | |
| | RJ has asked for a District TMR rep to attend future meetings as we discuss detail around specific roads within North West District. Noted Typically Road Corridor Permits (RCP) and Traffic Control (TC) Permits will be handled through Cloncurry | | | | |





| MEETING A | MEETING AGENDA / MINUTES | | | |
|-----------|--|-----|----------|--|
| Item | Comments/ Actions | Who | Due Date | |
| | (North West District). ACTION PT will flag request for TMR District Reps with the DD for who would be the best point of contact. | | | |
| | Update 240501 - PT Andrew Hobbs will be contact point Manager Project Planning and currently ADD. | | | |
| | ACTION: DB/GR to arrange a meeting date for RJ to give a General intro session to bring Andrew Hobbs up to date on the journey to date and seek input on the design standards that maybe District Specific. | | | |
| 3. | Designs | | | |
| | GENERAL | | | |
| | DESIGN REQUIREMENTS | | | |
| | Design Standards | | | |
| | ACTION DB – Coordinate design standard mud map and key regional contacts with TMR Update 240418: DB to follow up with PT on best contacts. Update 240501: DB sent email (240501) for District Contracts for design liaison. District Contacts will be Peter Tarlinton and Andrew Hobbs - Closed | | | |
| | Design Documentation Design Documentation – ACTION DH – Check with TMR Design Team on required drawing packages Update 240418: Ongoing PT to include in pending response. Update 240501 – PT thought he had already sent, ACTION PT to check his out box for Action response email. | | | |
| | <u>Chartview</u> | | | |
| | Compiling info from Chartview currently in process. Missing some roads and these will be compiled and sent through to TMR hopefully in one hit. Domi questioned widening and highlighted structures pre 1976 will need to be replaced entirely (across full width of road). Pre 2000 will need to be inspected and assessment | | | |





| Item | Comments/ Actions | Who | Due Date |
|------|---|-----|----------|
| | made whether require upgrade / replacement. Noted this is a TMR road design manual requirement. Major culverts inspections get done regularly and are identified in Chartview data. Individual inspection reports can be supplied if required / on request. OSOM – PT advised that they will provide a list of structures that have already been assessed for recent or impending other projects to provide comes context / advise (through structures and heavy vehicles team). | | |
| | ACTION DB\GR to flag in the chartview reports. Minor culverts will need to be inspected by project when widening. Just what the project is touching (not whole network). Update 240501: DB/GR culverts will be identified as the design progresses. Once we have specific design footprint we can assess the culverts for age/condition/further inspection requirements. Inspection will be by the JV designer. RJ Will the design need to be a full drainage assessment or like for like? PT/DH response is the assessment was for the local impact of works and culvert replacement only not wider hydraulic check and assessment for overall suitable of drainage. Further action for DH to check / confirm this. ACTION DH said she thinks it will be like for like for culvert extensions/replacements hydraulic assessment but she will check with the TMR designers/structures eng and confirm. ACTION PT to send through any hydraulic assessment requirements for design. If widening and affect the drain, is it a local check or more widespread (maybe ties in with the above action by DH). | | |
| | culvert inspection replacement. Update 240501: Complete 240419 | | |
| | <u>Design Gates / submission</u> | | |
| | ACTION PT to document process TMR Processes and Timeframes to provide clarity Update 240418: In progress part of email PT is preparing to respond to multiple actions. ACTION PT to check his out box for Action response | | |





| Item | Comments/ Actions | Who | Due Date |
|------|--|-----|----------|
| 4. | Construction | | |
| | Coordinated Project Approach – Update | | |
| | | | |
| | Governance Requirements | | |
| | Construction verification, monitoring/inspection | | |
| | TMR to provide cheat sheet for requirements of paperwork for governance. | | |
| | ACTION PT to send through "Cheat Sheet" for some general guidance on what sort of documentation is required for each standard of works or if it's a driveway. | | |
| | Update 240418: In progress part of email PT is preparing to respond to multiple actions | | |
| | ACTION PT to check his out box for Action response email. | | |
| | TIA's | | |
| | RJ noted to provide more details regarding rooster change over movements relating to RfPC for Hughenden Camp RJ Update: Formal request received and Pitt Sherry is working on that, will return inline with requested information and dates | | |
| | Update 240501 RJ Got TIA back from P&S and sending to PQ today. Back to Coordinator General on Friday, then back to TMR/Planning. | | |
| | DH Queried % of Fly in Fly out Verses Drive in Drive Out. RJ likely very minimal. FIFO is likely mostly out of BNE and some out of TSV. Major town with an airport. PT questioned fatigue management policies. RJ Fatigue Management Plan will be in place to manage DIDO. | | |
| | OSOM deliveries | | |
| | FS presentation re PQ deliveries including OSOM items. | | |
| | ACTION DB to send through Wind farms and hydro projects OSOM requirements for previous approvals request to PT. | | |
| | Update 240501: DB sent email (240501) formally requesting any information relating to previous OSOM approvals through PT. | | |





PT Caveat was existing project assessed for OSOM to date only really to assess up to Charters Towers. Hughenden OSOM for Wind Farm was typically bit smaller deliveries

Conductor drums are to be transported by Semi with est 4 - 6 drums per load. (not OSOM)

Deliveries managed by the supplier. OEM will arrange an appropriate heavy lift transport operators. They drove the network recently to become familiar with site conditions.

JV provide some buildings at the subs but they won't be overly large. JV to provide more details when available. FS made note of ongoing maintenance requirements in terms of replacement items during life of asset.

JV\PQ to coordinate to make sure consideration is given to the OSOM in widening and intersection upgrades.

ACTION: FS to provide JV with inputs of OSOM when available. Heavy Vehicle Management Plan or an appendix to the TIA. No universal name for the document which contains the necessary information.

ACTION: PT to send through what needs to be included in the "Heavy Vehicle Management Plan".

PT indicated Swept path (for Intersections), review of structures (bridges, culvert, traffic signals, lights, guardrail/barriers, OH Power, etc..), delivery combination & configuration, mass/weights, identify potential upgrades to be required. In that Doc provide detail on overtaking opportunities, stopping bays to ensure that functionality is not affected. DH good to know what speeds the transports can go would be a factor. What impacts to intersections and any intersection required to be closed. 275 transformer at Ross Dam had one semi on front one on back and the bed had a heap of axles. In terms of potentially conditioning approval things, TMR want the comfort / check the feasibility that the proposed OSOM can physically get to site. PT checking for any documents in Public Records to include if possible as a guide. Biggest things are structures and also swept paths so it can be physically get there. Includes OH Powerlines, Culverts. DB Queried how do we obtain the information needed to undertake that assessment and prepare the documentation needed to be submitted. PT indicated a DATA request for condition assessment of structures. Then Structures team can do an initial check based on the route, load and combination arrangement.

IT summarised that the MID application process is to identify show stoppers for OSOM deliveries, with further detail and analysis post MID but prior to construction required.





| Item | Comments/ Actions | Who | Due Date |
|------|--|-----|----------|
| | ACTION DB/FS to Send through likely route, estimated configurations and loads in a data request. | | |
| | Discussed MID #1 Submission (Transmission line from Finders Substation (Hughenden) heading west to Cloncurry (Up to Cloncurry River) | | |
| | Noted MID#1 which includes Flinders Substation should include OSOM details. | | |
| | Confirmed the OSOM details for MID #1 submission would be under standalone assessment / report (NOT a part of TIA) | | |
| | Noted and acknowledged the detail in OSOM report for MID#1 would be preliminary in terms of size, vehicle config, qty as design is not finalised. As much detail in terms of size and masses as possible should be provided. | | |
| | PT noted it has caused an issue in the past when projects have been approved without review OSOM details and subsequently identified not physically possible transport the items through the network. Up to circa 2000T. | | |
| | PT Confirmed he can provide insights on TMR timeframes for their involvement in MID process | | |
| | It is unlikely that the OSOM information would be available for end of May. | | |
| | This information re OSOM would not really affect the content of the TIA. | | |
| | For windfarms TMR generally undertook a swept path etc and the permits to transport followed. | | |
| | MID/TIAs to reference a report to follow (post MID submission on condition) detailing OSOM. High level details to be included in the MID as stand alone report. | | |
| | ACTION: MC IT RJ DB GR FS to have follow up meeting re inputs for transport / OSOM inclusion into MID # 1 as separate | | |





| Item | Comments/ Actions | Who | Due Date |
|------|---|-----|----------|
| | Report. Also discuss TIA in general to agree on TIA inputs included in MID #1 Submission. | | |
| | Update 240501 - complete | | |
| | ACTION: IT to send PT previous Decision Notice requirements from past projects (Genex) to gauge how similar the requirements could be. | | |
| | UPDATE 240501 Complete, Kidston didnt have OSOM. | | |
| | New Items Raised 240501: | | |
| | Contributions and Bonds that may be applicable to the project discussion. | | |
| | DH indicated that they have some Agreements with LG that bonds aren't applicable. TMR works also have no bonds. Contributions would likely still apply as it is a separate funding stream. Goes towards pavement impact assessment. DH indicated that TCC they are a self assurer. Who would be the entity or applicant. RJ advised JV would be the designer, contractor would be council (first instance), Applicant would be PQ. ACTION DH will confirm if Bonds would be applicable. | | |
| | RJ Keen to how do we pull back timeframes and approvals. Look at concurrent approval process. Example lodging Road Corridor Permit (RCP) and TGS early concurrently with road work application under Section 33. We will flag this in the coming weeks on how we propose to make this work. DH indicated TMR is willing to work with the project wherever possible. | | |
| | PT questioned now that Powerlink has taken over will Copperstring be Public Infrastructure. IT advised yes. PT advised this just affects how they assess overhead road crossing approvals and had been asked the question. | | |
| | DH GIS request location of the line is it possible to get digital information of location. IT said should be fine as it is public information but would come with a disclaimer. ACTION: MC/IT Get DB GIS information and I can pass this onto TMR. | | |





| ltem | Comments/ Actions | Who | Due Date |
|------|---|---------|---|
| | | | |
| 5. | Review of Previous Actions | | |
| | TMR to confirm the process for how the MID and information will need to be reviewed for cumulative impacts including OSOM loads. Update 240418: Ongoing, when PQ provide details TMR can bring in heavy vehicle personnel to advise. | KW & PT | |
| | IT wanted to ensure there is linkage between MIDs. PT has been talking to Brisbane DTMR team to arrange a meeting with whole of DTMR & PQ. This may include Rail assessment team (they will also assess the MID). IT targeting end of May for MID#1 Flinders West (not the camp). ACTION PT arrange meeting with the Brisbane team and IT/PQ to ensure coordination of submission documentation. | | |
| | OSOM information to be provided to TMR. | FS | Ongoing |
| | TMR to provide further information based on QTRIP further details request. | PT | Ongoing |
| | JV to provide correspondence naming convention. Ongoing | RJ | Ongoing |
| | PQ to follow up coordinated project approach within PQ and advise. | RL | ТВА |
| | Coordinate design standard mud map and key regional contacts with TMR | DB | Ongoing |
| | Check with TMR Design Team on required drawing packages | DH | Ongoing |
| | PT to document process TMR Application / approval Processes and Timeframes to provide clarity | PT | Ongoing |
| | PT to send through "Cheat Sheet" for some general guidance on what sort of documentation is required for each standard of works or if it's a driveway | PT | Ongoing |
| | Provide more details regarding rooster change over movements ACTION. | RJ | Ongoing vi separate process to respond to info reques |
| | ACTION DB\GR to flag culverts in the chartview reports. Minor culverts will need to be inspected by project when widening. Just what the project is touching (not whole network). | DB/GR | In progress |
| | ACTION PT will flag request for TMR District Reps with the DD for who would be the best point of contact. | PT | Complete |





| | | 10.55 | |
|------|---|-------|----------|
| Item | Comments/ Actions | Who | Due Date |
| | ACTION PT to send through any hydraulic assessment requirements. | PT | Ongoing |
| | ACTION PT to send through Wind farms and hydro projects OSOM requirements. | PT | Ongoing |
| | ACTION: MC IT RJ DB GR FS to have follow up meeting re inputs for transport / OSOM inclusion into TIA updates including from Powerlink warehouse to Site. | MC | Complete |
| | ACTION IT to send PT previous Decision Notice requirements from past projects to gauge how similar the requirements could be. | H | Complete |
| | New Action Summary | | |
| | ACTION: DB/GR to arrange a meeting date for RJ to give a General intro session to bring Andrew Hobbs up to date on the journey to date and seek input on the design standards that maybe District Specific. | DB/GR | |
| | ACTION PT to check his out box for Action response email. | PT | |
| | ACTION DH said she thinks it will be like for like for culvert extensions/replacements hydraulic assessment but she will check with the TMR designers/structures eng and confirm. | DH | |
| | ACTION PT to send through any hydraulic assessment requirements for design. If widening and affect the drain, is it a local check or more widespread (maybe ties in with the above action by DH). | PT | |
| | ACTION: PT to send through what needs to be included in the "Heavy Vehicle Management Plan". | PT | |
| | ACTION FS to Send through likely route, estimated configurations and loads in a data request. | FS | |
| | ACTION DH will confirm if Bonds would be applicable. | DH | |
| | ACTION: MC/IT Get DB GIS information and I can pass this onto TMR. | MC/IT | |
| | tilis office Twire. | | |





| MEETING AGENDA / MINUTES | | | | | |
|--------------------------|--|-----|----------|--|--|
| Item | Comments/ Actions | Who | Due Date | | |
| | | | | | |
| | | | | | |
| | | | | | |
| NEXT MEETIN | G DETAILS | | | | |
| Date: | Thursday 16 th May 2024. 2:00pm (TBC) | | | | |
| Location: | Teams Meeting / Stock Yard Room – Bowen Hills Office | | | | |
| Attachments: | Nil | | | | |



From: Peter W Tarlinton < Peter.W.Tarlinton@tmr.qld.gov.au>

Sent: Tuesday, May 14, 2024 2:56 PM

To: Derryn A Boland < <u>Derryn.A.Boland@tmr.qld.gov.au</u>>; Michael Craperi < <u>michael.craperi@powerlink.com.au</u>>; Ryan Jones

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Subject: CopperString 2032 TMR Road Upgrades - TMR Action Item Responses

Good afternoon all,

As discussed during our recent meeting, please see below for an itemised response to TMR's actions from the attached meeting minutes.

I acknowledge that this is quite a comprehensive email so please take your time to review it and if you have any questions or concerns, feel free to give me a call.

1. Advice Regarding Road Works / Road Access Works Application Timeframes and Approval Processes

- Receiving approval from TMR to undertake works within the road reserve is a multi-stage process, and has either 2 or 3 steps depending on the type of works.
- For new or changed property access locations to a State-controlled road, approval from TMR is required in accordance with s62 of the Transport Infrastructure Act 1994.
- This requires details of the location, type, and intended use of the access along with concept plans that can be approved by TMR. This does not permit works to be undertaken within the State-controlled road corridor.
- Generally, TMR can assess a s62 application and issue a permit within **10 business days** should no further information be required from the Applicant.
- In accordance with section 33 of the Transport Infrastructure Act 1994, written approval is required to be obtained from the Department of Transport and Main Roads to carry out road works, including road access works, intersection upgrades, or general road works such as widening, on a State-controlled road.
- The road works approval process is a two (2) step procedure as outlined below:
 - o Step 1 Conditional Approval
 - RPEQ certified detailed design documentation that conform to the requirements of the Road Planning and Design Manual are required to be submitted to TMR. TMR recommends engaging a pre-qualified engineer that is suitably qualified in road design. The advantages of using a prequalified engineer include:
 - Knowledge and experience of TMR standards and procedures; and
 - Experience in undertaking works on a state-controlled road.
 - Refer to the attached road access works factsheet for information on what is required to be submitted as part of your road access works application.
 - TMR will undertake an assessment of the documentation submitted, amendments may be required prior to a Conditional Approval being issued. As the name suggests a Conditional Approval will include conditions.
 - The following is an example of the type of items that may be conditioned:
 - A Traffic Management Plan (where access works may pose a safety risk to the road users)
 - Performance Bond (depending upon the nature of the works and to ensure the works are completed)
 - Maintenance Provisions.
 - This process can take time. The amount of time will depend on the road works required. Please take this into consideration as part of your project programming to ensure that gaining approval does not delay construction. Generally, we will require up to 20 business days to complete our assessment and issue works. However, should we require further information, reporting, or amended plans, it can take longer.
 - PLEASE NOTE: A conditional approval for road works does not authorise you to commence work.
 - o Step 2 Authority to Commence Work
 - Prior to any work being undertaken within the boundary of the state-controlled road, an Authority to Commence Work approval is required to be issued by TMR.
 - For an Authority to Commence Work to be issued all requirements included in the Conditional Approval are required to be fulfilled.
 - TMR may also require the items below prior to the start of construction:
 - A meeting onsite prior to the start of construction;
 - The proposed timing and duration of works; and/or
 - An indemnity signed by the applicant;
 - A performance bond; and
 - A traffic management plan
 - Once the above documentation has been provided and the conditions of the conditional approval achieved, an authority to commence permit can be issued.
 - An authority to commence permit can generally be issued within 5-10 business days, assuming that all required documentation has been provided.
 - Once the works are completed TMR will require you to provide evidence that the road works were constructed as approved by providing 'as constructed' drawings. The return of any bond may be dependent upon the provision of these drawings.

2. Confirmation from Design Team Regarding Required Drawing Packages

The following will be required for conditional approval (as a minimum):

- Plans to a scale of 1:50 prepared by a RPEQ.
- Extent of plans would depend on the scale of the works, but would typically include:
 - o General Arrangement Plan
 - o Linemarking and Signage Plan
 - o Drainage Plan
 - o Pavement Details
 - Sections

• Stormwater Management Plans may also be required should the works alter TMR drainage infrastructure.

The following will be required for authority to commence work (as a minimum):

- Compliance with the conditions of the conditional approval. For example:
 - Nominate and provide details of the RPEQ who will inspect, certify and issue RPEQ certified as-constructed drawings at the completion of the works.
 - All works are to be in accordance with TMR's Road Planning and Design manual, Road Drainage Manual, Road Pavement Manual, TMR's Technical Specifications, Standards and Standard Drawings.
 - Construction of Road Works is to proceed without unreasonable interruption to traffic and in accordance with TMR's Manual of Uniform Control Devices. This includes but is not limited to:
 - Taking all steps necessary to protect the public during construction; and
 - Provision of adequate signage and barriers.
 - o A Traffic Management Plan to be submitted in accordance with TMR specifications.
 - A site plan showing relevant details such as access to the site and location of any site facilities within the road reserve must be submitted to TMR.
 - TMR officers are to be allowed access to the project site for the purpose of ensuring compliance with TMR's conditions of approval.
 - Any damage to the existing road infrastructure caused by carryout out the road works is to be rectified/repaired at no cost to TMR.
 - o Road works are to be constructed at no cost to TMR.
 - o A completed 'Deed of Indemnity' for the road works (completed by the Principal Contractor) to be submitted to TMR.
 - Submission of 'Principal Contractors Details and Bonds Estimate'.
- Depending on the scale of works proposed, additional documentation may be required, including:
 - o Environmental Management Plan.
 - Erosion and Sediment Control Plan.
 - o Construction Management Plan.
 - Community Engagement / Consultation Plan.

3. Advice Regarding Documentation Required for QA Documentation

The following will be required for practical completion (as a minimum):

- Advice in writing that the works are completed.
- A certificate signed by a RPEQ that the road works are practically complete.
- Testing and inspection plans.
- Documentation of dimensional check.
- Certified RPEQ as constructed plans, including survey model and a letter that lists and describes any variations and the reasons for the variations.

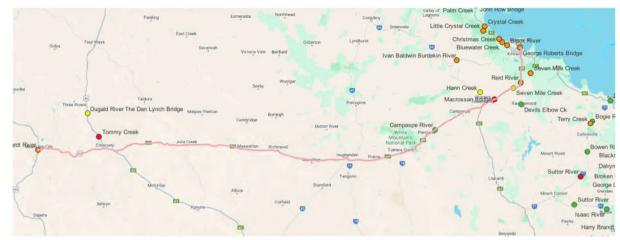
4. QTRIP Scheduling and Projects Relating to CopperString Alignment

- Investment ID: 2340159 Pending Funding
- Investment ID: 1106598 Funded for delivery however all works are on local roads and relate to installation or replacement of flood ways.
- Investment ID: 2340086 Pending Funding
- Investment ID: 2340473 Pavement widening and strengthening along Richmond Winton Road Project currently under construction.
- Investment ID: 1459426 Project Completed
- Investment ID: 2340058 Pending Funding
- Investment ID: 2340056 Pending Funding
- Should anything change regarding the above projects, we will provide a further update do you.

5. OSOM Deliveries (Information Considered to Date Re. Windfarm & Hydro Projects)

Structural Considerations

- TMR has recently considered Wind Farm and Pumped Hydro projects which relied/will rely upon haulage of OSOM components between Townsville Charters Towers, then North along the Gregory Developmental Road.
- Based on these recent assessments, we have identified two primary structural constraints between Townsville and Charters Towers along the Flinders Highway, being:
 - o Reid River Bridge Structure ID: 7533; and
 - o Macrossan Bridge Structure ID: 7571.
- These bridges have not been able to accommodate the high masses associated with both Hydro and Windfarm projects (i.e. transformer, substation, tower bases, generator components), and an alternate route has been required (described below).
- Our structures team has also had a preliminary review for the remainder of the route between Townsville and Mount Isa based on a hypothetical configuration of a HLP with 10 axles at 15t/axle.
- ERB (Equivalence Ratio Bridge) is one of the outputs from a bridge capacity assessment based on a "Reference Vehicle" Essentially it is a ratio of the bridge's capability to carry a given load. Anything above 1.00 is ideal. Below 1.00, not so good and the lower the score the worse the outcome. In the example below, we picked a 150t heavy load platform with 10x15t axles, so the values themselves are only a "ballpark" figure until we have a more representative vehicle to test.
- This initial review has resulted in the following bridges being flagged as potential issues (reflected in image below):
 - 7533-Reid River (ERB=0.72)
 - o 7534-Seven Mile Creek (ERB=0.88)
 - o 7571-Macrossan Bridge (ERB=0.62) has long spans and low assessment ratios. Problems with shear in girders and also cantilevered headstock bending.
 - o 7545- Campaspe River (ERB=0.95)
 - o 7722- Leichhardt River (ERB=0.78)



- Based on the above and our previous experience, Macrossan Bridge would be NO GO for any permitted vehicle at present, so this would rule
 out an indivisible heavy load beyond a certain limit. Options may be available for a special design crossing, temporary propping and
 strengthening might be an option if you can design a suitable solution.
- In addition to the list of structures above, TMR is currently investigating the Warrigal Creek Bridge which may also have structural restrictions. Further advice can be provided on this once TMR's investigations are concluded.
- As identified above, to avoid the constraint of the Reid River and Macrossan Bridges, other proponents have chosen to use an alternate haulage route for their heavier componentry. This route included:
 - o Townsville Port Access Road Bruce Highway/Townsville Ring Road Hervey Range Road Gregory Developmental Road.
- As previously advised, these proponents were all traveling north of Charters Towers, and as such this route avoided the town centre. However, the CopperString alignment will require vehicles to traverse the Charters Towers township which will need to be discussed with the local council.

Clearance / Geometry Considerations

- In addition to the above structural constraints, the following clearance considerations should also be investigated and addressed:
 - Several signalised intersections will require clearance checks to determine whether modifications to mast arms / lighting positions are required.
 - Flinders Highway
 - A railway underpass along Flinders Highway (14A) at a chainage of ~124.13km is restrictive and has a vertical clearance of 5.5m (see below). To avoid this, local roads may be required which will need further consultation with Council.



The vertical/horizontal geometry of the Flinders Highway (14B) at an approximate chainage of 0km (around the Rainbow Road / Armstrong Road Flinders Highway intersection) has a rollover risk for over height and over mass vehicles. This should be taken into consideration.



o Bruce Highway / Townsville Ring Road -

■ There is an existing overhead directional gantry sign over the Bruce Highway (10M) at an approximate chainage of 8.38km. This has an approximate vertical clearance restriction of 5.5m.



■ The Riverside Boulevard overpass over the Bruce Highway (10M) at an approximate chainage of 11.44km has a vertical clearance restriction of 5.4 – 5.5m. This restriction cannot practicably be designed around. Other proponents are investigating constructing a bypass track for over height vehicles from the Townsville Ring Road onto Angus Smith Drive (locally controlled) to avoid this overpass. This solution requires consent and approval from Townsville City Council and is not resolved to date.



Townsville Ring Road / Hervey Range Road off-ramp intersection –

- The intersection is difficult for design vehicles of wind farms (i.e. vehicles carrying tower base sections, not blades) to traverse.
- This may require the construction of a side track to avoid impacts upon the intersection.



- Further to the above known constraints, it is expected that between Charters Towers and Mount Isa, several of the narrow bridges will need to be considered to ensure sufficient clearance exists for the vehicles to manoeuvre.
- Similarly, pull over bays and passing opportunities must be considered to ensure that general motorists and road users are able to utilise the road without resulting in safety or operational impacts.

6. Requirements for Heavy Vehicle Management Plan / OSOM Movement Plan

- The intent of this report is to provide TMR with comfort that the OSOM components can access the site(s) without impacting upon the safety, structural condition, or operating conditions/functional intent of the State transport network.
- As such, the report is required to address, at a minimum:
 - o Identify the proposed haulage route(s), including any backup routes that may be required.

- o Identify the expected mass/dimensions of the OSOM components being hauled (i.e. in tonnes and a height/width transport envelope).
- o Anticipated vehicle combinations/configurations required to haul the OSOM components.
- o Identify the structures (bridges, major/minor culverts) along the haulage route(s) that may be impacted by the OSOM movements. Note: TMR can provide data to assist with this review, including structure IDs and inspection statuses.
- Identify any constraints that may restrict OSOM movements to the site (i.e. overhead powerlines, physical clearance restrictions such as the gantry sign/underpasses referenced above, etc.).
- Identify proposed layover areas, stopping bays, and passing opportunities to be relied upon by the project. The intent of this is to
 ensure that sufficient passing opportunities exist for general motorists along the network to avoid impacts to the functional
 operation/safety of the State-controlled road network.
- I have attached some examples documents from relatively recent projects in North Queensland Region for your consideration. These documents are available online for public scrutiny.

7. Drainage / Hydraulic Assessment Information

• Confirmation regarding hydraulic queries is pending. Expected to have feedback by next meeting.

8. Requirement for Bonds / Contributions

- As discussed in the previous meeting, it is understood that Bonds may not be required due to the nature of the works and potentially the contractors undertaking the works. However, this is being confirmed.
- Monetary contributions (should they be identified as necessary in your pavement impact assessment) will likely be required as they relate to the bringing forward of maintenance works and costs to TMR that are associated with the project and would otherwise not be applicable.

9. Update on Meeting Coordination with Brisbane TMR team / State MID team / Powerlink

- Have requested State MID Team availability for a meeting at the end of this week / next week, and have recommended TMR's availability.
- Once I have received confirmation from the MID Team, I will send option to Powerlink for consideration, then will coordinate meeting time/date.

Kind regards,

Peter Tarlinton

A/Manager (Project Planning & Corridor Management) | North West District | North Queensland Region **Program Delivery and Operations Branch** | Infrastructure Management and Delivery Division | Department of Transport and Main Roads

Cloncurry District Office | 16-22 Ramsay Street | Cloncurry Qld 4824 PO Box 338 | Cloncurry Qld 4824 (07) 4421 8702

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The Department of Transport and Main Roads acknowledges the Traditional Owners and Custodians of this land and waterways.

We also acknowledge their ancestors and Elders both past and present.

The Department of Transport and Main Roads is committed to reconciliation among all Australians.

Discover the story on the 'Travelling'by Gilimbaa artwork included in our Acknowledgment statement above.



Appendix C

State code responses



State code 1: Development in a state-controlled road environment

State Development Assessment Provisions guideline - State Code 1: Development in a state-controlled road environment. This guideline provides direction on how to address State Code 1.

Table 1.1 Development in general

| Buildings, structures, infrastructure, services and utilities PO1 The location of the development does not create a safety hazard for users of the state-controlled road. AND AO1.2 Development can be maintained without requiring access to a state-controlled road. AO1.2 Development can be maintained without requiring access to a state-controlled road. Complies with AO1.1 and AO1.2 The proposed Flinders substation development Road the proposed development will be confrom the Kennedy Development Road the substation itself will be located approximately access to a state-controlled road. Traffic impact assessment (TIAs) for Cartivities within Flinders Shire Council state-controlled roads, were complete | |
|--|---|
| create a safety hazard for users of the state-controlled road . AND AO1.2 Development can be maintained without requiring access to a state-controlled road . The proposed Flinders substation devolocated on a parcel adjacent to the state-controlled Kennedy Development Road the proposed development will be confrom the Kennedy Development Road the substation itself will be located approximately 750m from the nearest point on Kenned Development Road. Traffic impact assessment (TIAs) for Cactivities within Flinders Shire Council | |
| Traffic volumes will be higher during c | state- Road. Access to constructed bad, however, approximately nnedy or CopperString ncil and on eted by an isk during development is umes. |

State Development Assessment Provisions v3.2

| Performance outcomes | Acceptable outcomes | Response |
|--|--------------------------------------|--|
| | | construction activities. A full list of state-controlled roads, potential impacts, and proposed mitigation during construction is presented in the TIAs, which follows the hierarchy of avoid, minimise, manage, and offset, to manage construction phase impacts to roads and road users. |
| PO2 The design and construction of the development does not adversely impact the structural integrity or physical condition of the state-controlled road or road transport infrastructure. | No acceptable outcome is prescribed. | Complies with PO2 A high-level baseline assessment of road conditions is presented in the TIAs, and a full pavement impact assessment, including detailed baseline road standard, will be completed specific to the proposed substation development. Mitigation measures are detailed in the TIAs and include periodic road condition inspections and road repairs as needed. |
| PO3 The location of the development does not obstruct road transport infrastructure or adversely impact the operating performance of the state-controlled road. | No acceptable outcome is prescribed. | Complies with PO3 The proposed Flinders substation development is located on a parcel adjacent to the state-controlled Kennedy Development Road. Access to the proposed development will be constructed from the Kennedy Development Road, however, the substation itself will be located approximately 750m from the nearest point on Kennedy Development Road. Design and construction of the substation access will ensure operating performance of the state-controlled road is not affected, and the development does not obstruct road transport infrastructure. |

| Performance outcomes | Acceptable outcomes | Response |
|---|--|--|
| | | The TIAs assessed traffic volume increases in the transport network associated with construction and conclude that the increase in traffic volumes would not reduce the road network operation to unacceptable levels. However, there are some roads where the traffic volumes are above the practical capacity based on the road width. Mitigation has been proposed for these roads where appropriate. |
| PO4 The location, placement, design and operation of advertising devices, visible from the state-controlled road, do not create a safety hazard for users of the state-controlled road. | No acceptable outcome is prescribed. | Not applicable The proposed substation development does not include any advertising devices. |
| PO5 The design and construction of buildings and structures does not create a safety hazard by distracting users of the state-controlled road. | AO5.1 Facades of buildings and structures fronting the state-controlled road are made of non-reflective materials. AND AO5.2 Facades of buildings and structures do not direct or reflect point light sources into the face of oncoming traffic on the state-controlled road. AND AO5.3 External lighting of buildings and structures is not directed into the face of oncoming traffic on the state-controlled road. AND AO5.4 External lighting of buildings and structures does not involve flashing or laser | Not applicable The proposed substation development does not include a building or structure near a state-controlled road. The substation will be located approximately 750m from the nearest point on the Kennedy Development road. |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| PO6 Road, pedestrian and bikeway bridges over a state-controlled road are designed and constructed to prevent projectiles from being | AO6.1 Road, pedestrian and bikeway bridges over the state-controlled road include throw protection screens in accordance with section | Not applicable The proposed substation development does not |
| thrown onto the state-controlled road . | 4.11 of the Design Criteria for Bridges and Other Structures Manual, Department of Transport and Main Roads, 2020. | include road, pedestrian or bikeway bridges over a state-controlled road. |
| Landscaping | | |
| PO7 The location of landscaping does not create a safety hazard for users of the state-controlled road . | AO7.1 Landscaping is not located in a state-controlled road. | Not applicable The proposed substation development does not |
| | AND AO7.2 Landscaping can be maintained without | include any landscaping. |
| | requiring access to a state-controlled road. | |
| | AND | |
| | AO7.3 Landscaping does not block or obscure the sight lines for vehicular access to a state-controlled road . | |
| Stormwater and overland flow | | |
| PO8 Stormwater run-off or overland flow from the development site does not create or exacerbate a | No acceptable outcome is prescribed. | Complies with PO8 |
| safety hazard for users of the state-controlled road . | | The proposed substation development is approximately 750m from a state-controlled road and will therefore not create or exacerbate a safety hazard for users of a state-controlled road through changes to stormwater run-off or overland flow. |
| PO9 Stormwater run-off or overland flow from the development site does not result in a material worsening of the operating performance of the state-controlled road or road transport | No acceptable outcome is prescribed. | The proposed substation development is approximately 750m from a state-controlled road |
| infrastructure. | | and will therefore not result in stormwater run-off or overland flow creating a material worsening of |

| Performance outcomes | Acceptable outcomes | Response |
|--|--|---|
| | | the operating performance of the state-controlled |
| | | road or road transport infrastructure. |
| PO10 Stormwater run-off or overland flow from | No acceptable outcome is prescribed. | Complies with PO10 |
| the development site does not adversely impact | | |
| the structural integrity or physical condition of | | The proposed substation development is |
| the state-controlled road or road transport | | approximately 750m from a state-controlled road and will therefore not result in stormwater run-off |
| infrastructure. | | or overland flow adversely impacting the structural |
| | | integrity or physical condition of the state- |
| | | controlled road or road transport infrastructure. |
| PO11 Development ensures that stormwater is | AO11.1 Development does not create any new | Complies with AO11.1, AO11.2, AO11.3, AO11.4 |
| lawfully discharged. | points of discharge to a state-controlled road. | , , , , |
| | | The proposed substation development is |
| | AND | approximately 750m from a state-controlled road. |
| | | Stormwater run-off generated by the substation will |
| | AO11.2 Development does not concentrate flows | be discharge to a lawful point of discharge to be identified during detailed design. |
| | to a state-controlled road. | lucitified duffing detailed design. |
| | AND | |
| | AND | |
| | AO11.3 Stormwater run-off is discharged to a | |
| | lawful point of discharge. | |
| | | |
| | AND | |
| | | |
| | AO11.4 Development does not worsen the | |
| | condition of an existing lawful point of discharge | |
| FI 11 | to the state-controlled road. | |
| Flooding PO12 Development does not result in a material | AO12.1 For all flood events up to 1% annual | Not applicable |
| worsening of flooding impacts within a state - | exceedance probability, development results in | Not applicable |
| controlled road. | negligible impacts (within +/- 10mm) to existing | The proposed substation development is |
| | flood levels within a state-controlled road . | approximately 750m from a state-controlled road |
| | nood lovolo within a state controlled fodd. | and will therefore not result in a material |
| | AND | |
| | I. | 1 |

State Development Assessment Provisions v3.2

| Performance outcomes | Acceptable outcomes | Response |
|--|--|--|
| | AO12.2 For all flood events up to 1% annual exceedance probability, development results in negligible impacts (up to a 10% increase) to existing peak velocities within a state-controlled road. AND | worsening of flooding impacts within a state-controlled road. |
| | AO12.3 For all flood events up to 1% annual exceedance probability, development results in negligible impacts (up to a 10% increase) to existing time of submergence of a statecontrolled road. | |
| Drainage Infrastructure | | |
| PO13 Drainage infrastructure does not create a safety hazard for users in the state-controlled road. | AO13.1 Drainage infrastructure is wholly contained within the development site, except at the lawful point of discharge. AND AO13.2 Drainage infrastructure can be maintained without requiring access to a state-controlled road. | Drainage for the proposed substation development will be wholly contained within the development site except for the lawful point of discharge. Substation infrastructure can be maintained without requiring access to a state-controlled road. The relevant discharge location will be identified during detailed design. |
| PO14 Drainage infrastructure associated with, or within, a state-controlled road is constructed, and designed to ensure the structural integrity and physical condition of existing drainage infrastructure and the surrounding drainage network. | No acceptable outcome is prescribed. | Complies with PO14 The proposed substation development does not include any drainage infrastructure associated with or within a state-controlled road. |

Table 1.2 Vehicular access, road layout and local roads

State Development Assessment Provisions v3.2

| Performance outcomes | Acceptable outcomes | Response |
|---|--|--|
| Vehicular access to a state-controlled road or w | vithin 100 metres of a state-controlled road i | intersection |
| PO15 The location, design and operation of a new or changed access to a state-controlled road does not compromise the safety of users of the state-controlled road. | No acceptable outcome is prescribed. | Complies with PO15 The proposed development includes new access to Kennedy Development road. This access will be designed during the detailed design phase of the project by an RPEQ and in accordance with the relevant DTMR policies and guidelines. Design will ensure safety, function and future intent of the state-controlled road network. Consultation with DTMR for the project is ongoing. |
| PO16 The location, design and operation of a new or changed access does not adversely impact the functional requirements of the state-controlled road. | No acceptable outcome is prescribed. | Complies with PO16 The proposed development includes new access to Kennedy Development road. This access will be designed during the detailed design phase of the project by an RPEQ and in accordance with the relevant DTMR policies and guidelines. Design will ensure safety, function and future intent of the state-controlled road network. Consultation with DTMR for the project is ongoing. |
| PO17 The location, design and operation of a new or changed access is consistent with the future intent of the state-controlled road. | No acceptable outcome is prescribed. | Complies with PO17 The proposed development includes new access to Kennedy Development road. This access will be designed during the detailed design phase of the project by an RPEQ and in accordance with the relevant DTMR policies and guidelines. Design will ensure safety, function and future intent of the state-controlled road network. Consultation with DTMR for the project is ongoing. |

| Performance outcomes | Acceptable outcomes | Response |
|--|--------------------------------------|--|
| PO18 New or changed access is consistent with the access for the relevant limited access road policy: 1. LAR 1 where direct access is prohibited; or 2. LAR 2 where access may be permitted, subject to assessment. | No acceptable outcome is prescribed. | Complies with PO18 The proposed development includes new access to Kennedy Development road. This access will be designed during the detailed design phase of the project by an RPEQ and in accordance with the relevant DTMR policies and guidelines. Design will ensure safety, function and future intent of the state-controlled road network. |
| PO19 New or changed access to a local road within 100 metres of an intersection with a state-controlled road does not compromise the safety of users of the state-controlled road. | No acceptable outcome is prescribed. | Consultation with DTMR for the project is ongoing. Complies with PO19 The proposed development includes new access to Kennedy Development road. This access will be designed during the detailed design phase of the project by an RPEQ and in accordance with the relevant DTMR policies and guidelines. Design will ensure safety, function and future intent of the state-controlled road network. Consultation with DTMR for the project is ongoing. |
| PO20 New or changed access to a local road within 100 metres of an intersection with a state-controlled road does not adversely impact on the operating performance of the intersection. | No acceptable outcome is prescribed. | Complies with PO20 The proposed development includes new access to Kennedy Development road. This access will be designed during the detailed design phase of the project by an RPEQ and in accordance with the relevant DTMR policies and guidelines. Design will ensure safety, function and future intent of the state-controlled road network. Consultation with DTMR for the project is ongoing. |
| Public passenger transport and active transport | | , series and project to originary. |
| PO21 Development does not compromise the safety of users of public passenger transport | No acceptable outcome is prescribed. | Complies with PO21 |

| Performance outcomes | Acceptable outcomes | Response |
|---|--------------------------------------|--|
| infrastructure, public passenger services and active transport infrastructure. | | The proposed substation development is not located near public passenger transport infrastructure, public passenger services, or active transport infrastructure and will have negligible additional impact on users of those infrastructure or services during operation and maintenance activities. |
| | | Construction traffic volume increases in the transport corridor were assessed in the TIAs and concluded that traffic volumes would not reduce the road network operation to unacceptable levels. Mitigation measures are proposed to manage remaining potential impacts and are detailed in the TIAs. |
| PO22 Development maintains the ability for people to access public passenger transport infrastructure, public passenger services and active transport infrastructure. | No acceptable outcome is prescribed. | The proposed substation development is not located near public passenger transport infrastructure, public passenger services, or active transport infrastructure and will have negligible additional impact on users of those infrastructure or services during operation and maintenance activities. |
| | | Construction traffic volume increases in the transport corridor were assessed in the TIAs and concluded that traffic volumes would not reduce the road network operation to unacceptable levels. Mitigation measures are proposed to manage remaining potential impacts and are detailed in Table 46 and Table 54 of the Flinders Shire TIA. |
| PO23 Development does not adversely impact the operating performance of public passenger | No acceptable outcome is prescribed. | Complies with PO21 |

| Performance outcomes | Acceptable outcomes | Response |
|---|--------------------------------------|---|
| transport infrastructure, public passenger services and active transport infrastructure. | | The proposed substation development is not located near public passenger transport infrastructure, public passenger services, or active transport infrastructure and will have negligible additional impact on users of those infrastructure or services during operation and maintenance activities. |
| | | Construction traffic volume increases in the transport corridor were assessed in the TIAs and concluded that traffic volumes would not reduce the road network operation to unacceptable levels. Mitigation measures are proposed to manage remaining potential impacts and are detailed in the TIAs. |
| PO24 Development does not adversely impact the structural integrity or physical condition of public passenger transport infrastructure and active transport infrastructure. | No acceptable outcome is prescribed. | Complies with PO21 The proposed substation development is not located near public passenger transport infrastructure, public passenger services, or active transport infrastructure and will have negligible additional impact on users of those infrastructure or services during operation and maintenance activities. |
| | | Construction traffic volume increases in the transport corridor were assessed in the TIAs and concluded that traffic volumes would not reduce the road network operation to unacceptable levels. Mitigation measures are proposed to manage remaining potential impacts and are detailed in the TIAs. |

Table 1.3 Network impacts

| Performance outcomes | Acceptable outcomes | Response |
|---|--------------------------------------|--|
| PO25 Development does not compromise the safety of users of the state-controlled road | No acceptable outcome is prescribed. | Complies with PO25 |
| network. | | The TIAs found that traffic impact risk during |
| | | operation and maintenance of the development is |
| | | negligible due to very low traffic volumes. |
| | | Traffic volumes will be higher during construction, |
| | | and minor road upgrades to state-controlled roads |
| | | are proposed to mitigate potential impacts from |
| | | construction activities. A full list of state-controlled |
| | | roads, potential impacts, and proposed mitigation during construction is presented in the TIA, which |
| | | follows the hierarchy of avoid, minimise, manage, |
| | | and offset, to manage construction phase impacts |
| | | to roads and road users. |
| PO26 Development ensures no net worsening of | No acceptable outcome is prescribed. | Complies with PO26 |
| the operating performance of the state-controlled | | |
| road network. | | The TIAs found that traffic impact risk during |
| | | operation and maintenance of the development is |
| | | negligible due to very low traffic volumes. |
| | | Traffic volumes will be higher during construction, |
| | | and minor road upgrades to state-controlled roads |
| | | are proposed to mitigate potential impacts from |
| | | construction activities. A full list of state-controlled |
| | | roads, potential impacts, and proposed mitigation |
| | | during construction is presented in the TIAs, which follows the hierarchy of avoid, minimise, |
| | | manage, and offset, to manage construction |
| | | phase impacts to roads and road users. |
| PO27 Traffic movements are not directed onto a | No acceptable outcome is prescribed. | Complies with PO27 |
| state-controlled road where they can be | ' | , |
| accommodated on the local road network. | | An OSOM assessment, including route |
| | | assessment, is attached to this MID application, |
| | | and was prepared in consultation with the |
| | | department. |

| Performance outcomes | Acceptable outcomes | Response |
|--|--------------------------------------|---|
| | | Proposed traffic movements are not directed onto a state-controlled road where they can be accommodated on the local road network. |
| PO28 Development involving haulage exceeding 10,000 tonnes per year does not adversely impact the pavement of a state-controlled road. | No acceptable outcome is prescribed. | Complies with PO28 The proposed development involves construction of the Flinders Substation at Hughenden. Due to the design nature of this type of on-ground infrastructure, earthworks and building pads are typically benched to balance cut/fill. Notwithstanding, raw materials will need to be imported to site The volume of this material and |
| | | the source location will be determined prior to commencement of construction. A detailed pavement impact assessment will be prepared for the development. |
| PO29 Development does not impede delivery of planned upgrades of state-controlled roads. | No acceptable outcome is prescribed. | Complies with PO29 Impacts to the road network will be predominantly temporary impacts during construction. These impacts will not impede delivery of planned upgrades of state-controlled roads. Consultation with DTMR for the project is ongoing. |
| PO30 Development does not impede delivery of corridor improvements located entirely within the state-controlled road corridor. | No acceptable outcome is prescribed. | Complies with PO30 Impacts to the road network will be predominantly temporary impacts during construction. These impacts will not impede delivery of corridor improvements. Consultation with DTMR for the project is ongoing. |

Table 1.4 Filling, excavation, building foundations and retaining structures

| Performance outcomes | Acceptable outcomes | Response |
|---|--------------------------------------|--|
| PO31 Development does not create a safety hazard for users of the state-controlled road or road transport infrastructure. | No acceptable outcome is prescribed. | Complies with PO31 |
| | | The TIAs found that traffic impact risk during operation and maintenance of the development is negligible due to very low traffic volumes. |
| | | Traffic volumes will be higher during construction, and minor road upgrades to state-controlled roads are proposed to mitigate potential impacts from construction activities. A full list of state-controlled roads, potential impacts, and proposed mitigation during construction is presented in the TIAs, which follows the hierarchy of avoid, minimise, manage, and offset, to manage construction phase impacts to roads and road users. |
| PO32 Development does not adversely impact the operating performance of the state-controlled | No acceptable outcome is prescribed. | Complies with PO32 |
| road. | | The TIAs found that traffic impact risk during operation and maintenance of the development is negligible due to very low traffic volumes. |
| | | Traffic volumes will be higher during construction, and minor road upgrades to state-controlled roads are proposed to mitigate potential impacts from construction activities. A full list of state-controlled roads, potential impacts, and proposed mitigation during construction is presented in the TIAs, which follows the hierarchy of avoid, minimise, manage, and offset, to manage construction phase impacts to roads and road users. |
| PO33 Development does not undermine, damage or cause subsidence of a state-controlled road . | No acceptable outcome is prescribed. | Complies with PO33 |
| | | The TIAs found that traffic impact risk during operation and maintenance of the development is negligible due to very low traffic volumes. |

| Performance outcomes | Acceptable outcomes | Response |
|---|--------------------------------------|--|
| | | Traffic volumes will be higher during construction, and minor road upgrades to state-controlled roads are proposed to mitigate potential impacts from construction activities. A full list of state-controlled roads, potential impacts, and proposed mitigation during construction is presented in the TIAs, which follows the hierarchy of avoid, minimise, manage, and offset, to manage construction |
| | | phase impacts to roads and road users. |
| PO34 Development does not cause ground water disturbance in a state-controlled road. | No acceptable outcome is prescribed. | Complies with PO34 |
| | | The TIAs found that traffic impact risk during operation and maintenance of the development is negligible due to very low traffic volumes. |
| | | Traffic volumes will be higher during construction, and minor road upgrades to state-controlled roads are proposed to mitigate potential impacts from construction activities. A full list of state-controlled roads, potential impacts, and proposed mitigation during construction is presented in the TIAs, which follows the hierarchy of avoid, minimise, manage, and offset, to manage construction phase impacts to roads and road users. |
| PO35 Excavation, boring, piling, blasting and fill compaction do not adversely impact the physical condition or structural integrity of a state-controlled road or road transport infrastructure. | No acceptable outcome is prescribed. | Complies with PO35 The TIAs found that traffic impact risk during operation and maintenance of the development is negligible due to very low traffic volumes. |
| | | Traffic volumes will be higher during construction, and minor road upgrades to state-controlled roads are proposed to mitigate potential impacts from construction activities. A full list of state-controlled roads, potential impacts, and proposed mitigation during construction is presented in the TIAs, |

| Performance outcomes | Acceptable outcomes | Response |
|---|--------------------------------------|--|
| | | which follows the hierarchy of avoid, minimise, manage, and offset, to manage construction phase impacts to roads and road users. |
| PO36 Filling and excavation associated with the construction of new or changed access do not compromise the operation or capacity of existing drainage infrastructure for a state-controlled road . | No acceptable outcome is prescribed. | Complies with PO36 The TIAs found that traffic impact risk during operation and maintenance of the development is negligible due to very low traffic volumes. |
| | | Traffic volumes will be higher during construction, and minor road upgrades to state-controlled roads are proposed to mitigate potential impacts from construction activities. A full list of state-controlled roads, potential impacts, and proposed mitigation during construction is presented in the TIAs, which follows the hierarchy of avoid, minimise, manage, and offset, to manage construction phase impacts to roads and road users. |

Table 1.5 Environmental emissions

Statutory note: Where a **state-controlled road** is co-located in the same transport corridor as a railway, the development should instead comply with Environmental emissions in State code 2: Development in a railway environment.

| Performance outcomes | Acceptable outcomes | Response |
|--|--|---|
| Reconfiguring a lot | | |
| Involving the creation of 5 or fewer new residen | itial lots adjacent to a state-controlled road or type | e 1 multi-modal corridor |
| PO37 Development minimises free field noise intrusion from a state-controlled road . | AO37.1 Development provides a noise barrier or earth mound which is designed, sited and | Not applicable |
| | constructed: 1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.1); 2. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: | The proposed substation development does not involve reconfiguring a lot. |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| | Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. | |
| | OR | |
| | AO37.2 Development achieves the maximum free field acoustic levels in reference table 2 (item 2.1) by alternative noise attenuation measures where it is not practical to provide a noise barrier or earth mound. | |
| | OR | |
| | AO37.3 Development provides a solid gap-free fence or other solid gap-free structure along the full extent of the boundary closest to the state-controlled road. | |
| | tial lots adjacent to a state-controlled road or type | 1 multi-modal corridor |
| PO38 Reconfiguring a lot minimises free field noise intrusion from a state-controlled road. | AO38.1 Development provides noise barrier or earth mound which is designed, sited and | Not applicable |
| | constructed: 1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.1); 2. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), | The proposed substation development does not involve reconfiguring a lot. |

| Performance outcomes | Acceptable outcomes | Response |
|--|--|--|
| | Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. | |
| | OR | |
| | AO38.2 Development achieves the maximum free field acoustic levels in reference table 2 (item 2.1) by alternative noise attenuation measures where it is not practical to provide a noise barrier or earth mound. | |
| Material change of use (accommodation activity | | |
| | ate-controlled road or type 1 multi-modal corridor | 1 |
| PO39 Development minimises noise intrusion from a state-controlled road in private open space. | AO39.1 Development provides a noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.2) for private open space at the ground floor level; 2. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; | Not applicable The proposed substation development does not involve material change of use for an accommodation activity. |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|--|
| | c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. | |
| | OR AO39.2 Development achieves the maximum free | |
| | field acoustic level in reference table 2 (item 2.2) for private open space by alternative noise attenuation measures where it is not practical to provide a noise barrier or earth mound. | |
| PO40 Development (excluding a relevant residential building or relocated building) minimises noise intrusion from a state-controlled road in habitable rooms at the facade. | AO40.1 Development (excluding a relevant residential building or relocated building) provides a noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum building façade acoustic level in reference table 1 (item 1.1) | Not applicable The proposed substation development does not involve material change of use for an accommodation facility. |
| | for habitable rooms; 2. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. | |
| | OR AO40.2 Development (excluding a relevant | |
| | residential building or relocated building) | |

| Performance outcomes | Acceptable outcomes | Response |
|---|--|--|
| | achieves the maximum building façade acoustic | |
| | level in reference table 1 (item 1.1) for habitable | |
| | rooms by alternative noise attenuation | |
| | measures where it is not practical to provide a | |
| | noise barrier or earth mound. | |
| PO41 Habitable rooms (excluding a relevant | No acceptable outcome is provided. | Not applicable |
| residential building or relocated building) are | | The man and substantian development does not |
| designed and constructed using materials to | | The proposed substation development does not |
| achieve the maximum internal acoustic level in | | involve material change of use for an |
| reference table 3 (item 3.1). | | accommodation facility. |
| | nodation activity) adjacent to a state-controlled ro | |
| PO42 Balconies, podiums, and roof decks include: | No acceptable outcome is provided. | Not applicable |
| a continuous solid gap-free structure or | | The proposed substation development does not |
| balustrade (excluding gaps required for | | involve material change of use for an |
| drainage purposes to comply with the | | accommodation facility. |
| Building Code of Australia); | | accommodation facility. |
| 2. highly acoustically absorbent material | | |
| treatment for the total area of the soffit | | |
| above balconies, podiums, and roof decks. | | |
| PO43 Habitable rooms (excluding a relevant | No acceptable outcome is provided. | Not applicable |
| residential building or relocated building) are | The desoptable editornic to provided. | not approaute |
| designed and constructed using materials | | The proposed substation development does not |
| to achieve the maximum internal acoustic level in | | involve material change of use for an |
| reference table 3 (item 3.1). | | accommodation facility. |
| Material change of use (other uses) | | , |
| | re, educational establishment, hospital) adjacent | to a state-controlled road or type 1 multi-modal |
| corridor | io, oddodionai ostabiisiinioni, nospitaij adjacent | to a state sentioned road of type i matt-modal |
| PO44 Development: | No acceptable outcome is provided. | Not applicable |
| provides a noise barrier or earth mound that | | |
| is designed, sited and constructed: | | The proposed substation development does not |
| a. to achieve the maximum free field | | involve a material change of use for a childcare |
| acoustic level in reference table 2 (item | | centre, educational establishment, or hospital. |
| 2.3) for all outdoor education areas | | · ' |
| and outdoor play areas; | | |
| b. in accordance with: | | |

| Perf | ormance outcomes | Acceptable outcomes | Response |
|------|--|------------------------------------|--|
| 2. | i. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; ii. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; iii. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020; or achieves the maximum free field acoustic level in reference table 2 (item 2.3) for all outdoor education areas and outdoor play areas by alternative noise attenuation measures where it is not practical to provide a noise barrier or earth mound. | | |
| | Development involving a childcare centre | No acceptable outcome is provided. | Not applicable |
| | rcational establishment: provides a noise barrier or earth mound that | | The proposed substation development does not |
| | is designed, sited and constructed: | | involve a childcare centre or educational |
| | to achieve the maximum building facade acoustic level in reference table 1 (item | | establishment. |
| | 1.2); | | |
| | in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; | | |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020; or 4. achieves the maximum building facade acoustic level in reference table 1 (item 1.2) by alternative noise attenuation measures where it is not practical to | | |
| provide a noise barrier or earth mound. | | |
| PO46 Development involving: indoor education areas and indoor play areas; or sleeping rooms in a childcare centre; or patient care areas in a hospital achieves the maximum internal acoustic level in reference table 3 (items 3.2-3.4). | No acceptable outcome is provided. | Not applicable The proposed substation development does not involve indoor education areas and indoor play areas, sleeping rooms in a childcare centre, or patient care areas in a hospital. |
| Above ground floor level requirements (childo modal corridor | are centre, educational establishment, hospital) ad | jacent to a state-controlled road or type 1 multi- |
| PO47 Development involving a childcare centre or educational establishment which have balconies, podiums or elevated outdoor play areas predicted to exceed the maximum free field acoustic level in reference table 2 (item 2.3) due to noise from a state-controlled road are provided with: 1. a continuous solid gap-free structure or balustrade (excluding gaps required for drainage purposes to comply with the Building Code of Australia); 2. highly acoustically absorbent material treatment for the total area of the soffit above balconies or elevated outdoor play areas. | No acceptable outcome is provided. | Not applicable The proposed substation development does not involve a childcare centre or educational establishment. |

| Performance outcomes | Acceptable outcomes | Response |
|---|--|---|
| 1. indoor education areas and indoor play areas in a childcare centre or educational establishment; or 2. sleeping rooms in a childcare centre; or 3. patient care areas in a hospital located above ground level, is designed and constructed to achieve the maximum internal acoustic level in reference table 3 (items 3.2-3.4). | No acceptable outcome is provided. | Not applicable The proposed substation development does not involve indoor education areas and indoor play areas, sleeping rooms in a childcare centre, or patient care areas in a hospital. |
| Air, light and vibration | | |
| PO49 Private open space, outdoor education areas and outdoor play areas are protected from air quality impacts from a state-controlled road. | AO49.1 Each dwelling or unit has access to a private open space which is shielded from a state-controlled road by a building, solid gapfree fence, or other solid gap-free structure. OR AO49.2 Each outdoor education area and outdoor play area is shielded from a state-controlled road by a building, solid gap-free fence, or other solid gap-free structure. | Not applicable The proposed substation development does not include private open space, outdoor education areas, or outdoor play areas. |
| PO50 Patient care areas within hospitals are protected from vibration impacts from a state-controlled road or type 1 multi-modal corridor. | AO50.1 Hospitals are designed and constructed to ensure vibration in the patient treatment area does not exceed a vibration dose value of 0.1m/s ^{1.75} . AND AO50.2 Hospitals are designed and constructed to ensure vibration in the ward of a patient care area does not exceed a vibration dose value of 0.4m/s ^{1.75} . | Not applicable The proposed substation development is not a hospital and does not include patient care areas. |

| Performance outcomes | Acceptable outcomes | Response |
|--|--|---|
| PO51 Development is designed and sited to ensure light from infrastructure within, and from users of, a state-controlled road or type 1 multimodal corridor, does not: 1. intrude into buildings during night hours (10pm to 6am); 2. create unreasonable disturbance during | No acceptable outcomes are prescribed. | Not applicable The proposed substation development is approximately 750m from the nearest state-controlled road. |
| evening hours (6pm to 10pm). | | |

Table 1.6: Development in a future state-controlled road environment

| Performance outcomes | Acceptable outcomes | Response |
|--|--|---|
| PO52 Development does not impede delivery of a future state-controlled road. | AO52.1 Development is not located in a future state-controlled road. | Complies with AO52.1 |
| | OR ALL OF THE FOLLOWING APPLY: | The proposed substation development is not located in a future state-controlled road. |
| | AO52.2 Development does not involve filling and excavation of, or material changes to, a future state-controlled road. | |
| | AND | |
| | AO52.3 The intensification of lots does not occur within a future state-controlled road. | |
| | AND | |
| | AO52.4 Development does not result in the landlocking of parcels once a future state-controlled road is delivered. | |
| PO53 The location and design of new or | AO53.1 Development does not include new or | Complies with AO53.1 |
| changed access does not create a safety hazard | changed access to a future state-controlled | |
| for users of a future state-controlled road . | road. | The proposed substation development is not near a future state-controlled road and does not include |

| Performance outcomes | Acceptable outcomes | Response |
|--|---|--|
| | | new or changed access to a future state-controlled road. |
| PO54 Filling, excavation, building foundations and retaining structures do not undermine, damage | No acceptable outcome is prescribed. | Complies with PO54 |
| or cause subsidence of a future state-controlled road. | | The proposed substation development is not near a future state-controlled road and will therefore |
| | | not undermine, damage, or cause subsidence of a future state-controlled road. |
| PO55 Development does not result in a material worsening of stormwater, flooding, overland flow | No acceptable outcome is prescribed. | Complies with PO55 |
| or drainage impacts in a future state-controlled road or road transport infrastructure. | | The proposed substation development is not near a future state-controlled road and will therefore result in no material worsening of water related impacts to a future state-controlled road or road transport infrastructure. |
| PO56 Development ensures that stormwater is lawfully discharged. | AO56.1 Development does not create any new points of discharge to a future state-controlled road . | Complies with AO56.1, AO56.2, AO56.3, and AO56.4 |
| | AND AO56.2 Development does not concentrate flows to a future state-controlled road. | The proposed substation development is not near a future state-controlled road and will therefore have no stormwater discharge impacts on a future state-controlled road. |
| | AND | |
| | AO56.3 Stormwater run-off is discharged to a lawful point of discharge. | |
| | AND | |

| Performance outcomes | Acceptable outcomes | Response |
|----------------------|--|----------|
| | AO56.4 Development does not worsen the | |
| | condition of an existing lawful point of discharge | |
| | to the future state-controlled road. | |

State code 2: Development in a railway environment

Guide to Development in a Transport Environment: Rail which provides direction on how to address this code.

Table 2.1 Development in general

| Performance outcomes | Acceptable outcomes | Response | | |
|---|--|--|--|--|
| Building, structures, infrastructure, services and | Building, structures, infrastructure, services and utilities | | | |
| PO1 Development does not create a safety hazard within the railway corridor . | No acceptable outcome is prescribed. | Complies with PO1 | | |
| | | Traffic impact assessments (TIAs) were completed by an RPEQ for the Project. A rail safety risk assessment was undertaken as part of that assessment. The TIAs found that some safety mitigations would be required for rail crossings along the transport route. Work within the railway corridor will be limited to minor works and will include, for example, line marking and safety signage. Proposed minor works at rail crossings will improve user safety and will not create a safety hazard in the railway corridor. | | |
| | | Access from the Kennedy Developmental Road to the proposed substation will necessarily cross a Lands Lease parcel associated with the former Winton Branch Railway. This rail corridor is no longer maintained as an active railway and is identified as 'dismantled' in rail network mapping accessed 25/6/2025. Impact to this corridor will be limited to the construction of an access track between Kennedy Developmental Road and the substation. | | |
| | | As the Winton Branch Railway is considered dismantled, impacts associated with construction of the access track are not specifically addressed in this code response. Responses to this code instead address the safety upgrades to rail crossings on the transport corridor as proposed in the TIAs. | | |

| Performance outcomes | Acceptable outcomes | Response |
|--|--|---|
| PO2 Development does not cause damage to the railway corridor, rail transport infrastructure or | No acceptable outcome is prescribed. | Complies with PO2 |
| other rail infrastructure. | | Proposed works at rail crossings are minor and will |
| | | therefore not cause damage to the railway corridor, |
| | | rail transport infrastructure, or other rail |
| POO Development de la metintante manière la | No constable cutous is unconfibed | infrastructure. |
| PO3 Development does not interfere with, or obstruct, the rail transport infrastructure or other | No acceptable outcome is prescribed. | Complies with PO3 |
| rail infrastructure. | | Proposed works at rail crossings are minor will |
| | | therefore not interfere with or obstruct the rail |
| DO4 Dovelopment document advancely improct the | No constable systems is presented | transport infrastructure or other rail infrastructure. |
| PO4 Development does not adversely impact the structural integrity or physical condition of the | No acceptable outcome is prescribed. | Complies with PO4 |
| railway, other rail infrastructure or the railway | | Proposed minor works at rail crossings will not add |
| corridor by adding or removing loading. | | or remove loading and will therefore not adversely |
| | | impact the structural integrity of the railway, other |
| DOE Development above a railway is designed to | No acceptable outcome is prescribed. | rail infrastructure, or the railway corridor. Not applicable |
| PO5 Development above a railway is designed to enable natural ventilation and smoke dispersion in | No acceptable outcome is prescribed. | |
| the event of a fire emergency. | | The proposed minor works at rail crossings along |
| | | the transport route will not involve development |
| DOO D 1 11 11 11 11 11 | | above a railway. |
| PO6 Development does not adversely impact the operating performance of the railway corridor . | No acceptable outcome is prescribed. | Complies with PO6 |
| | | Proposed minor works at rail crossings will not |
| | | adversely impact the operating performance of the |
| DOT D. II Paragraph of the second sec | No constable outcome to make a second | railway corridor. |
| PO7 Buildings and structures in a railway corridor are designed and constructed to protect persons in | No acceptable outcome is prescribed. | Not applicable |
| the event of a derailed train. | | No buildings and structures are proposed in or |
| | | adjacent to a railway corridor. Works in the corridor |
| | | are limited to minor safety upgrades such as |
| DOOD SHE was an instance to be being the | ACCA Della Francia de La Arractione de la constitución de la Constituc | signage and line marking. |
| PO8 Buildings and structures in high risk locations and where also located within 10 metres | AO8.1 Buildings and structures, in a railway corridor, including foundations, retaining and other | Not applicable |
| of the centreline of the nearest railway track are | support elements, are designed and constructed in | No buildings and structures are proposed in a |
| design and constructed to protect persons in the | accordance with Civil Engineering Technical | railway corridor. Works in the corridor are limited to |
| event of a derailed train. | Requirement CIVIL-SR-012 Collision protection of | minor safety upgrades such as signage and line |
| STORE OF A ADMINISTRATION WITH | supporting elements adjacent to railways , | marking. |
| | 1 | ··· |

| Performance outcomes | Acceptable outcomes | Response |
|---|--|---|
| | Queensland Rail, 2011, AS5100 Bridge design, and AS1170 Structural design actions. | · |
| PO9 Buildings and structures are designed and constructed to protect people from electrocution. | AO9.1 The outermost projection of development is set back horizontally a minimum of 3 metres from the outermost projection of overhead line equipment. | Not applicable No buildings and structures are proposed in or adjacent to a railway corridor. Works in the corridor are limited to minor safety upgrades such as signage and line marking. |
| PO10 Development in the railway corridor is designed and constructed to prevent projectiles being thrown onto the railway. | No acceptable outcome is prescribed. | Complies with P010 Work within the railway corridor will be limited to minor works at rail crossings along the transport route to improve road user safety. Works will include, for example, line marking and safety signage, and will not include any development that would facilitate projectiles being thrown onto the railway. |
| PO11 Buildings, and structures with publicly accessible or communal areas within 20 metres from the centreline of the nearest railway track are designed and constructed to prevent projectiles from being thrown onto a railway. | AO11.1 Publicly accessible areas located within 20 metre from the centreline of the nearest railway do not overlook a railway. OR AO11.2 Buildings and structures are designed to ensure publicly accessible areas located within 20 metres from the centreline of the nearest railway track and that overlook the railway may include throw protection screens in accordance with the relevant provisions of the Civil Engineering Technical Requirement – CIVIL-SR005 Design of buildings over or near railways, Queensland Rail, 2011, and the Civil Engineering Technical Requirement – CIVIL-SR008 Protection screens, Queensland Rail. | No buildings and structures are proposed in or adjacent to a railway corridor. Works in the corridor are limited to minor safety upgrades such as signage and line marking. |
| Stormwater and overland flow | | |
| PO12 Stormwater run-off or overland flow from the development site does not create or exacerbate a safety hazard in a railway corridor . | No acceptable outcome is prescribed. | Complies with PO12 |

| Performance outcomes | Acceptable outcomes | Response |
|---|--|--|
| | | Proposed minor works at rail crossings will have |
| | | negligible impact on stormwater run-off or overland |
| | | flow and will therefore not create or exacerbate a |
| | | safety hazard in a railway corridor. |
| PO13 Stormwater run-off or overland flow from the | No acceptable outcome is prescribed. | Complies with PO13 |
| development site does not result in a material | | |
| worsening of operating performance of the railway | | Proposed minor works at rail crossings will have |
| corridor, rail transport infrastructure or other rail | | negligible impact on stormwater run-off or overland |
| infrastructure. | | flow and will therefore not result in material |
| | | worsening of operating performance of the railway |
| | | corridor, rail transport infrastructure, or other rail infrastructure. |
| PO14 Stormwater run-off or overland flow from the | No acceptable outcome is prescribed | |
| development site does not interfere with the | No acceptable outcome is prescribed. | Complies with PO14 |
| structural integrity or physical condition of the | | Proposed minor works at rail crossings will have |
| railway corridor, rail transport infrastructure or | | negligible impact on stormwater run-off or overland |
| other rail infrastructure. | | flow and will therefore not interfere with the |
| | | structural integrity or physical condition of the |
| | | railway corridor, rail transport infrastructure, or other |
| | | rail infrastructure. |
| Flooding | | |
| PO15 Development does not result in a material worsening of flooding impacts within a railway | No acceptable outcome is prescribed. | Complies with PO15 |
| corridor. | | Proposed minor works at rail crossings will result in |
| Comuon. | | negligible changes to floodwaters and will therefore |
| | | not result in a material worsening of flood impacts |
| | | within a railway corridor. |
| Drainage Infrastructure | | main a rannay comuci. |
| PO16 Drainage infrastructure does not create a | AO16.1 Drainage infrastructure is wholly contained | Complies with AO16.1 |
| safety hazard in a railway corridor. | within the development site. | |
| | | The proposed substation development is not located |
| | AND | near a railway corridor and all drainage |
| | | infrastructure is wholly contained within the |
| | AO16.2 Drainage infrastructure can be maintained | development site. |
| | without requiring access to a railway corridor. | |
| | | Work within the railway corridor will be limited to |
| | | minor works at rail crossings along the transport |
| | | route to improve road user safety and will not |
| | | include drainage infrastructure. |

| Performance outcomes | Acceptable outcomes | Response |
|---|--|---|
| Construction Impacts | | |
| PO17 Construction activities do not cause ground movement or vibration impacts in a railway corridor. | No acceptable outcome is prescribed. | Complies with PO17 The proposed substation construction footprint set back from any railway corridor. Construction activities for the substation development will have no ground movement or vibration impacts in a rail corridor. |
| | | Construction of proposed minor works at rail crossings in the transport corridor will not cause ground movement or vibration impacts in a rail corridor. |
| Access | | |
| PO18 Development prevents unauthorised access to the railway corridor. | AO18.1 Development abutting the railway corridor incorporates fencing along the property boundary with the railway corridor in accordance with the railway manager's standards. AND AO18.2 A road barrier designed in accordance with Queensland Rail Civil Engineering Technical Requirement CIVIL-SR-007 – Design Criteria for Road Rail Barriers. AND AO18.3 Vehicle manoeuvring areas, driveways, loading areas and carparks abutting the railway corridor incorporate rail interface barriers along the boundary to the railway corridor. | Complies with AO18.1, AO18.2, and AO18.3 The proposed substation development does not abut the railway corridor. Work within the railway corridor will be limited to minor works at rail crossings along the transport route to improve road user safety. Works will include, for example, line marking and safety signage. |
| PO19 Development maintains existing maintenance and authorised access to the railway corridor. | AO19.1 Development does not obstruct existing authorised access points and access routes for maintenance and emergency works to the railway corridor at all times. | Complies with AO19.1 Proposed minor works at rail crossings will not obstruct existing access point and access routes to the rail corridor at any time. |

State code 2: Development in a railway environment

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| PO20 Development does not impede the maintenance of a railway bridge or authorised access to a railway bridge. | AO20.1 Buildings and other structures are set back horizontally a minimum of 3 metres from a railway bridge. AND AO20.2 Permanent structures are not located below or abutting a railway bridge. AND AO20.3 Temporary activities below or abutting a railway bridge do not impede access to a railway corridor. | Complies with AO20.1, AO20.2, and AO20.3. Proposed minor works at rail crossings do not include buildings or structures. Temporary activities below or abutting a railway bridge will not impede access to a railway corridor. |
| Public passenger transport and active transport | - Contract. | |
| PO21 Development does not compromise the safety of public passenger transport infrastructure and active transport infrastructure. | No acceptable outcome is prescribed. | Proposed minor works at rail crossings will include safety improvements will therefore not change, or will improve, the safety of public passenger transport infrastructure and active transport infrastructure. |
| PO22 Development maintains pedestrian and cycle access to a railway station or other public passenger transport infrastructure and active transport infrastructure associated with the railway. | No acceptable outcome is prescribed. | Proposed minor works at rail crossings will include safety improvements for all users will therefore not change pedestrian and cycle access to a railway station or other public passenger transport infrastructure or active transport infrastructure associated with a railway. |
| PO23 Development does not adversely impact the structural integrity or physical condition of public passenger transport infrastructure and active transport infrastructure. | No acceptable outcome is prescribed. | Proposed works are minor and will not impact structural integrity or physical condition of public passenger transport infrastructure and active transport infrastructure. |
| PO24 Development does not adversely impact the operating performance of public passenger transport infrastructure, public passenger services and active transport infrastructure. | No acceptable outcome is prescribed. | Complies with PO24 Proposed minor works at rail crossings will include safety improvements for all users will therefore not |

| Performance outcomes | Acceptable outcomes | Response |
|--|---|---|
| | | change, or will improve, the operating performance |
| | | of public passenger transport infrastructure, public passenger services, or active transport |
| | | infrastructure. |
| Planned upgrades | | |
| PO25 Development does not impede delivery of planned upgrades of rail transport infrastructure. | No acceptable outcome is prescribed. | Complies with PO25 |
| | | Proposed works at rail crossings in the transport corridor are limited to minor safety upgrades and will therefore have no impact on delivery of planned upgrades of rail transport infrastructure. |
| Network safety | | |
| PO26 Development involving dangerous goods does not adversely impact on the safety or operations of the railway and rail transport | AO26.1 Development does not involve handling or storage of hazardous chemicals above the threshold quantities listed in table 5.2 of the Model Planning | Complies with AO26.1 The proposed minor works will not involve handling |
| infrastructure. | Scheme Development Code for Hazardous Industries and Chemicals, Office of Industrial Relations, Department of Justice and Attorney-General, 2016. | or storage of hazardous chemicals above the listed threshold. |

Table 2.2 Filling, excavation, building foundations and retaining structures

| Performance outcomes | Acceptable outcomes | Response |
|--|--------------------------------------|---|
| PO27 Development does not create a safety hazard for users of the railway or other rail infrastructure . | No acceptable outcome is prescribed. | Complies with PO27 |
| | | Proposed works in the rail corridor are limited to minor safety upgrades such as signage installation and line marking. Filling, excavation, building foundations and retaining structures are not proposed in, or adjacent to, the railway or other rail infrastructure. |
| PO28 Development does not adversely impact on the operating performance of the railway or other rail infrastructure within the railway corridor. | No acceptable outcome is prescribed. | Complies with PO28 Proposed works in the rail corridor are limited to minor safety upgrades such as signage installation and line marking. Filling, excavation, building foundations and retaining structures are not proposed in, or adjacent to, the railway or other rail infrastructure. |

| PO29 Development does not undermine, damage, or cause subsidence of, the railway corridor . | No acceptable outcome is prescribed. | Complies with PO29 |
|---|--------------------------------------|---|
| | | Proposed works in the rail corridor are limited to minor safety upgrades such as signage installation and line marking. Filling, excavation, building foundations and retaining structures are not proposed in, or adjacent to, the railway or other rail infrastructure. |
| PO30 Development does not adversely impact the structural integrity or physical condition of the railway, other rail infrastructure or the railway corridor by adding or removing loading. | No acceptable outcome is prescribed. | Complies with PO30 Proposed works in the rail corridor are limited to minor safety upgrades such as signage installation and line marking. Filling, excavation, building foundations and retaining structures are not proposed in, or adjacent to, the railway or other rail infrastructure. |
| PO31 Development does not cause ground water disturbance in the railway corridor. | No acceptable outcome is prescribed. | Proposed works in the rail corridor are limited to minor safety upgrades such as signage installation and line marking. Filling, excavation, building foundations and retaining structures are not proposed in, or adjacent to, the railway or other rail infrastructure. |
| PO32 Development does not adversely impact the railway or other rail infrastructure within the railway corridor. | No acceptable outcome is prescribed. | Proposed works in the rail corridor are limited to minor safety upgrades such as signage installation and line marking. Filling, excavation, building foundations and retaining structures are not proposed in, or adjacent to, the railway or other rail infrastructure. |
| PO33 Excavation, boring, piling, blasting, drilling, fill compaction or similar activities does not adversely impact the operating performance of the railway or other rail infrastructure within the railway corridor. | No acceptable outcome is prescribed. | Proposed works in the rail corridor are limited to minor safety upgrades such as signage installation and line marking. Filling, excavation, building foundations and retaining structures are not proposed in, or adjacent to, the railway or other rail infrastructure. |

| PO34 Filling and excavation material does not cause | | Complies with PO34 |
|---|---|--|
| an obstruction or nuisance in the railway corridor . | in, or adjacent to, the railway corridor . | |
| | | Proposed works in the rail corridor are limited to |
| | | minor safety upgrades such as signage installation |
| | | and line marking. Filling, excavation, building |
| | | foundations and retaining structures are not |
| | | proposed in, or adjacent to, the railway or other rail |
| | | infrastructure. |

Table 2.3 Railway crossings

| Performance outcomes | Acceptable outcomes | Response |
|--|--------------------------------------|--|
| PO35 Development does not require a new level railway crossing. | No acceptable outcome is prescribed. | Complies with PO35 |
| | | Proposed substation development and proposed |
| | | minor safety upgrades to railway crossings do not |
| | | require a new level railway crossing. |
| PO36 Development does not adversely impact on the operating performance of an existing railway | No acceptable outcome is prescribed. | Complies with PO36 |
| crossing. | | Proposed minor safety upgrades will improve safety |
| | | for users of the relevant existing railway crossings |
| | | on the transport route. |
| PO37 Development does not adversely impact on the safety of an existing railway crossing . | No acceptable outcome is prescribed. | Complies with PO37 |
| , , , , | | Proposed minor safety upgrades will improve safety |
| | | for users of the relevant existing railway crossings |
| | | on the transport route. |
| PO38 Development is designed and constructed to allow for on-site circulation to ensure vehicles do not | No acceptable outcome is prescribed. | Complies with PO38 |
| queue in a railway crossing. | | Proposed minor safety upgrades will improve safety |
| | | for users of the relevant existing railway crossings |
| | | on the transport route and will not change queueing |
| | | in a railway crossing. |

Table 2.4 Environmental emissions

Statutory note: Where development is adjacent to a **railway** with 15 or fewer passing trains per day, compliance with table 2.4 is not required.

| Performance outcomes | Acceptable outcomes | Response |
|---|--|---|
| Reconfiguring a Lot | | |
| Involving the creation of 5 or fewer new residential | lots adjacent to a railway or type 2 multi-modal cor | ridor |
| PO39 Development minimises free field noise intrusion from a railway. | AO39.1 Development provides a noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.1); 2. in accordance with: a. Civil Engineering Standard Specification QR-CTS-Part 41 – Part 41, Design and Construction of Noise Fences/Barriers, Queensland Rail, 2018; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. OR AO39.2 Development achieves the maximum free field acoustic levels in reference table 2 (item 2.1) by alternative noise attenuation measures where it | Not applicable The proposed substation development does not involve reconfiguring a lot. |
| | is not practical to provide a noise barrier or earth mound. OR AO39.3 Development provides a solid gap-free fence or other solid gap-free structure along the full extent of the boundary closest to a railway. | |
| Involving the creation of 6 or more new residential | lots adjacent to a railway or type 2 multi-modal cor | ridor |
| PO40 Reconfiguring a lot minimises free field noise intrusion from a railway. | AO40.1 Development provides a noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.1); 2. in accordance with: | Not applicable The proposed substation development does not involve reconfiguring a lot. |

a. Civil Engineering Standard Specification QR-CTS-Part 41 - Part 41, Design and Construction of Noise Fences/Barriers: b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019: c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. OR **AO40.2** Development achieves the maximum free field acoustic levels in reference table 2 (item 2.1) by alternative noise attenuation measures where it is not practical to provide a noise barrier or earth mound. Material change of use (accommodation activity) Ground floor level requirements adjacent to a railway or type 2 multi-modal corridor PO41 Development minimises noise intrusion from a **AO41.1** Development provides a noise barrier or Not applicable railway in private open space at the ground floor. earth mound which is designed, sited and The proposed substation development does not constructed: 1. to achieve the maximum free field acoustic involve an accommodation activity. levels in reference table 2 (item 2.2) for private open space at the ground floor level: 2. in accordance with: a. Civil Engineering Standard Specification QR-CTS-Part 41 - Part 41, Design and Construction of Noise Fences/Barriers. Queensland Rail, 2018; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. OR

| PO42 Development (excluding a relevant residential building or relocated building) minimises noise intrusion from the railway in habitable rooms at the facade of the ground floor level. | AO41.2 Development achieves the maximum free field acoustic level in reference table 2 (item 2.2) for private open space at the ground floor level by alternative noise attenuation measures where it is not practical to provide a noise barrier or earth mound. AO42.1 Development (excluding a relevant residential building or relocated building) provides a noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum building facade acoustic level in reference table 1 (item 1.1) | Not applicable The proposed substation development does not involve an accommodation activity. |
|---|---|---|
| | for habitable rooms at the ground floor | |
| | level; | |
| | in accordance with: a. Civil Engineering Standard Specification QR-CTS-Part 41 – Part 41, Design and Construction of Noise Fences/Barriers, Queensland Rail, 2018; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019;. c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. | |
| | OR | |
| | AO42.2 Development (excluding a relevant residential building or relocated building) achieves the maximum building facade acoustic level in reference table 1 (item 1.1) for habitable rooms at the ground floor level by alternative noise attenuation measures where it is not practical to provide a noise barrier or earth mound. | |
| PO43 Habitable rooms (excluding a relevant | No acceptable outcome is prescribed. | Not applicable |
| residential building or relocated building) are designed and constructed using materials to achieve | | The proposed substation development does not |
| the maximum internal acoustic level in Table 3 (item 3.1). | | involve accommodation activity. |
| Above ground floor level requirements (accommodation activity) adjacent to a railway or type 2 multi-modal corridor | | |

| PO44 Balconies, podiums and roof decks include: 1. a continuous solid gap-free structure or balustrade (excluding gaps required for drainage purposes to comply with the Building Code of Australia); 2. highly acoustically absorbent material treatment for the total area of the soffit above balconies, podiums and roof decks PO45 Habitable rooms (excluding a relevant) | No acceptable outcome is prescribed. No acceptable outcome is prescribed. | Not applicable The proposed substation development does not involve an accommodation activity. Not applicable |
|--|--|--|
| residential building or relocated building) are designed and constructed using materials to achieve the maximum internal acoustic level in reference table 3 (item 3.1). | The described edition to procention. | The proposed substation development does not involve an accommodation activity. |
| Material change of use (other uses) Ground floor level requirements (childcare centre) | educational establishment, hospital) adjacent to a i | ailway or type 2 multi-modal corridor |
| PO46 Development: 1. provides a noise barrier or earth mound that is | No acceptable outcome is prescribed. | Not applicable |
| designed, sited and constructed: a. to achieve the maximum free field acoustic level in reference table 2 (item 2.3) for all outdoor education areas and outdoor play areas; b. in accordance with: i. Civil Engineering Standard Specification QR-CTS-Part 41 – Part 41, Design and Construction of Noise Fences/Barriers, Queensland Rail, 2018; ii. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; iii. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020; or 2. achieves the maximum free field acoustic level in reference table (item 2.3) for all outdoor | | The proposed substation development does not involve a childcare centre, educational establishment, or hospital. |
| education areas and outdoor play areas by alternative noise attenuation measures where it is not practical to provide a noise barrier or earth mound. | | |

| DA (D.D. 1 | | N 4 H 11 |
|---|--|--|
| PO47 Development involving a childcare | No acceptable outcome is prescribed. | Not applicable |
| centre or educational establishment: | | The second of the factor of the second of the second |
| 1. provides a noise barrier or earth mound that is | | The proposed substation development does not involve a childcare centre or educational |
| designed, sited and constructed: | | |
| a. to achieve the maximum building facade | | establishment. |
| acoustic level in reference table 1 (item | | |
| 1.2); | | |
| b. in accordance with: | | |
| i. Civil Engineering Standard | | |
| Specification QR-CTS-Part 41 – Part | | |
| 41, Design and Construction of | | |
| Noise Fences/Barriers, Queensland | | |
| Rail, 2018; or | | |
| 2 achieves the maximum building feeds assurable | | |
| 2. achieves the maximum building facade acoustic level in reference table 1 (item 1.2) by | | |
| alternative noise attenuation measures | | |
| | | |
| where it is not practical to provide a noise barrier or earth mound. | | |
| PO48 Development involving: | No acceptable outcome is prescribed. | Not applicable |
| indoor education areas and indoor play | No acceptable outcome is prescribed. | Not applicable |
| areas: or | | The proposed substation development does not |
| 2. sleeping rooms in a childcare centre ; or | | involve a childcare centre, educational |
| 3. patient care areas in a hospital; | | establishment, or hospital. |
| achieves the maximum internal acoustic level in | | Cotabilorimont, or noopital. |
| reference table 3 (items 3.2, 3.3 and 3.4). | | |
| | centre, educational establishment, hospital) adjacen | t to a railway or type 2 multi-modal corridor |
| PO49 Development involving a childcare centre; | No acceptable outcome is prescribed. | Not applicable |
| or educational establishment which have | The description of the processing an | |
| balconies, podiums or elevated outdoor play areas | | The proposed substation development does not |
| predicted to exceed the maximum free field acoustic | | involve a childcare centre or educational |
| level in reference table 2 (item 2.3) due to noise | | establishment. |
| from the railway are provided with: | | |
| 1. a continuous solid gap-free structure or | | |
| balustrade (excluding gaps required for | | |
| drainage purposes to comply with the Building | | |
| Code of Australia); and | | |
| highly acoustically absorbent material | | |
| treatment for the total area of the soffit above | | |

| | T | |
|---|---|---|
| balconies, podiums and elevated outdoor play areas. | | |
| PO50 Development including: indoor education areas and indoor play areas in a childcare centre or educational establishment; or sleeping rooms in a childcare centre; or patient care areas in a hospital located above ground level, is designed and constructed to achieve the maximum internal acoustic level in reference table 3 (items 3.2-3.4). | No acceptable outcome is prescribed. | Not applicable The proposed substation development does not involve a childcare centre, educational establishment, or hospital. |
| Air, light and vibration | | |
| PO51 Private open space, outdoor education areas and outdoor play areas are protected from air quality impacts from a railway. | AO51.1 Each dwelling or unit has access to a private open space which is shielded from a railway by a building, noise barrier, solid gap-free fence, or other solid gap-free structure. OR AO51.2 Each outdoor education area and outdoor play area is shielded from a railway by a building, noise barrier, solid gap-free fence, or | Not applicable The proposed substation development is not near a railway and does not include private open space, outdoor education areas or outdoor play areas. |
| PO52 Patient care areas within hospitals are | other solid gap-free structure. AO52.1 Hospitals are designed and constructed to | Not applicable |
| protected from vibration impacts from a railway . | ensure vibration in the patient treatment area does not exceed a vibration dose value of 0.1m/s ^{1.75} . AND AO52.2 Hospitals are designed and constructed to ensure vibration in the ward of a patient care area does not exceed a vibration dose value of 0.4m/s ^{1.75} . | The proposed substation development is not a hospital and does not include patient care areas. |
| PO53 Development is designed and sited to ensure light from infrastructure within, and use of, a railway does not: 1. intrude into buildings during night hours (10pm to 6am); and 2. create unreasonable disturbance during evening hours (6pm to 10pm). | No acceptable outcomes are prescribed. | Not applicable The proposed substation development is not near a railway. |

Table 2.5 Development in a future railway corridor

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| PO54 Development does not impede the planning, design and delivery of rail transport infrastructure | AO54.1 Development is not located in a future railway corridor. | Complies with AO54.1 |
| in a future railway corridor. | OR both of the following acceptable outcomes apply: | The proposed substation development is not located in a future railway corridor. |
| | AO54.2 The intensification of lots does not occur within a future railway corridor. | |
| | AND | |
| | AO54.3 Development does not result in the landlocking of parcels once a future railway corridor is delivered. | |
| PO55 Development, including filling, excavation, building foundations and retaining structures do | No acceptable outcome is prescribed. | Complies with PO55 |
| not undermine or cause subsidence of a future | | The proposed substation development is not located |
| railway corridor. | | near a future railway corridor and will therefore not undermine or cause subsidence of a future railway corridor. |
| PO56 Development does not result in a material worsening of stormwater, flooding, overland flow or drainage impacts in a future railway corridor. | No acceptable outcome is prescribed. | Complies with PO56 |
| | | The proposed substation development is not located |
| | | in or near a future railway corridor and will therefore |
| | | not result in a material worsening of stormwater, flooding, overland flow, or drainage impacts in a |
| | | future railway corridor. |

State code 6: Protection of state transport networks

Table 6.2 Development in general

| Performance outcomes | Acceptable outcomes | Response |
|---|--------------------------------------|--|
| Network impacts | | |
| PO1 Development does not compromise the safety of users of the state-controlled road | No acceptable outcome is prescribed. | Complies with PO1 |
| network. | | The proposed Flinders substation development is located on a parcel adjacent to the state-controlled Kennedy Development Road. Access to the proposed development will be constructed from the Kennedy Development Road, however, the substation itself will be located approximately 750m from the nearest point on Kennedy Development Road. Traffic impact assessments (TIAs) for |
| | | Traffic impact assessments (TIAs) for CopperString activities within Flinders Shire Council and on state-controlled roads, was completed by an RPEQ. |
| | | The TIAs found that traffic impact risk during operation and maintenance of the development is negligible due to very low traffic volumes. |
| | | Traffic volumes will be higher during construction, and minor road upgrades to state-controlled roads are proposed to mitigate potential impacts from construction activities. A full list of state-controlled roads, potential impacts, and proposed mitigation during construction is presented in the TIAs, which follows the hierarchy of avoid, minimise, manage, and offset, to manage construction phase impacts to roads and road users. |
| PO2 Development does not adversely impact the structural integrity or physical condition of a state-controlled road or road transport infrastructure. | No acceptable outcome is prescribed. | Complies with PO2 A high-level baseline assessment of road conditions is presented in the TIAs, and a full |

| Performance outcomes | Acceptable outcomes | Response |
|---|--------------------------------------|--|
| | | pavement impact assessment, including detailed baseline road standard, will be completed |
| | | specific to the proposed substation development. |
| | | Mitigation measures are detailed in the TIAs and |
| | | include periodic road condition inspections and |
| PO3 Development ensures no net worsening of | No acceptable outcome is prescribed. | road repairs as needed. Complies with PO3 |
| the operating performance the state-controlled | The acceptable eatesme to proceed a | · |
| road network. | | The TIAs found that traffic impact risk during |
| | | operation and maintenance of the development is negligible due to very low traffic volumes. |
| | | Traffic volumes will be higher during |
| | | construction, and minor road upgrades to state- |
| | | controlled roads are proposed to mitigate potential impacts from construction activities. A |
| | | full list of state-controlled roads, potential |
| | | impacts, and proposed mitigation during |
| | | construction is presented in the TIAs, which follows the hierarchy of avoid, minimise, manage, |
| | | and offset, to manage construction phase |
| | | impacts to roads and road users. |
| PO4 Traffic movements are not directed onto a state-controlled road where they can be | No acceptable outcome is prescribed. | Complies with PO4 |
| accommodated on the local road network. | | An OSOM assessment, including route |
| | | assessment, is attached to this MID application. |
| | | Proposed traffic movements are not directed |
| | | onto a state-controlled road where they can be |
| | No secontable cuterane is prescribed | accommodated on the local road network. |
| PO5 Development involving haulage exceeding 10,000 tonnes per year does not damage the | No acceptable outcome is prescribed. | Complies with PO5 |
| pavement of a state-controlled road . | | The proposed development involves construction of the Flinders Substation at Hughenden. Due to |
| | | the design nature of this type of on-ground |
| | | infrastructure, earthworks and building pads are |
| | | typically benched to balance cut/fill. |
| | | Notwithstanding, raw materials will need to be |

| Performance outcomes | Acceptable outcomes | Response |
|--|--------------------------------------|---|
| | | imported to site The volume of this material and the source location will be determined prior to commencement of construction. |
| | | A detailed pavement impact assessment will be prepared for the development. |
| PO6 Development does not require a new railway level crossing. | No acceptable outcome is prescribed. | Complies with PO6 |
| | | The proposed development does not require a new railway level crossing. |
| PO7 Development does not adversely impact the operating performance of an existing railway | No acceptable outcome is prescribed. | Complies with PO7 |
| crossing. | | Work within the railway corridor will be limited to minor safety improvements that will not impact the operating performance of an existing railway crossing. |
| PO8 Development does not adversely impact on the safety of an existing railway crossing . | No acceptable outcome is prescribed. | Complies with PO8 |
| 3 | | Work within the railway corridor will be limited to minor safety improvements that will improve, or otherwise not impact, the safety of existing railway crossings. |
| PO9 Development is designed and constructed to allow for on-site circulation to ensure vehicles | No acceptable outcome is prescribed. | Complies with PO9 |
| do not queue in a railway crossing . | | Proposed minor safety upgrades will improve safety for users of the relevant existing railway crossings on the transport route and will not change queueing in a railway crossing. |
| PO10 Development does not create a safety hazard within the railway corridor . | No acceptable outcome is prescribed. | Complies with P10 |
| | | The proposed substation development is not located near a railway corridor and will have no direct construction or operation phase impacts on a railway, rail corridor, rail infrastructure or rail users, including active transport users. The TIAs found that some safety mitigations would be required for rail crossings along the transport route. |

| Performance outcomes | Acceptable outcomes | Response |
|---|--------------------------------------|---|
| | | Work within the railway corridor will be limited to minor works and will include, for example, line marking and safety signage. |
| | | marking and salety signage. |
| PO11 Development does not adversely impact the operating performance of the railway | No acceptable outcome is prescribed. | Complies with P11 |
| corridor. | | Proposed minor safety works at rail crossings will not adversely impact the operating performance of the railway corridor. |
| PO12 Development does not interfere with or obstruct the railway transport infrastructure or | No acceptable outcome is prescribed. | Complies with P12 |
| other rail infrastructure. | | Proposed works at rail crossings are minor and will therefore not interfere with or obstruct the rail transport infrastructure or other rail infrastructure. |
| PO13 Development does not adversely impact the structural integrity or physical condition of a | No acceptable outcome is prescribed. | Complies with P13 |
| railway corridor or rail transport infrastructure. | | Proposed works in, or adjacent to, the rail corridor is limited to minor safety upgrades such as signage installation and line marking and will |
| | | therefore not adversely impact the structural integrity or physical condition of a railway corridor or rail transport infrastructure. |
| Stormwater and overland flow | | |
| PO14 Stormwater run-off or overland flow from the development site does not create or | No acceptable outcome is prescribed. | Complies with PO14 |
| exacerbate a safety hazard for users of a state transport corridor or state transport infrastructure. | | Development will not create a new point of discharge to a state transport corridor. Stormwater run-off generated at the substation will discharge to a lawful point of discharge that will be identified during detailed design. |
| PO15 Stormwater run-off or overland flow from the development site does not result in a | No acceptable outcome is prescribed. | Complies with PO15 |
| material worsening of operating performance of a state transport corridor or state transport infrastructure. | | Development will not create a new point of discharge to a state transport corridor. Stormwater run-off generated at the substation will discharge to a lawful point of discharge that will be identified during detailed design. |
| PO16 Stormwater run-off or overland flow from the development site does not interfere with the structural integrity or physical condition of the | No acceptable outcome is prescribed. | Complies with PO16 |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| state transport corridor or state transport infrastructure. | | Development will not create a new point of discharge to a state transport corridor. |
| imasiructure. | | Stormwater run-off generated at the substation |
| | | will discharge to a lawful point of discharge that |
| | | will be identified during detailed design. |
| PO17 Development associated with a state- | AO17.1 Development does not create any new | Complies with AO17.1, AO17.2, AO17.3 and |
| controlled road or road transport infrastructure ensures that stormwater is | points of discharge to a state transport corridor or state transport infrastructure. | AO17.4 |
| lawfully discharged. | of state transport infrastructure. | Development will not create a new point of |
| lamany alconargea. | AND | discharge to a state transport corridor. |
| | | Stormwater run-off generated at the substation |
| | AO17.2 Development does not concentrate | will discharge to a lawful point of discharge that |
| | flows to a state transport corridor. | will be identified during detailed design. |
| | AND | |
| | | |
| | AO17.3 Stormwater run-off is discharged to a | |
| | lawful point of discharge. | |
| | AND | |
| | AO17.4 Development does not worsen the | |
| | condition of an existing lawful point of | |
| | discharge to a state transport corridor or | |
| | state transport infrastructure. | |
| Flooding | For a state as attralled us ad an use of transport | O - marting with A O 40 4 A O 40 0 and A O 40 0 |
| PO18 Development does not result in a material worsening of flooding impacts within a state | For a state-controlled road or road transport infrastructure, all of the following apply: | Complies with AO18.1, AO18.2 and AO18.3 |
| transport corridor or state transport | innustructure, an or the following appry. | Proposed substation footprint is over 700metres |
| infrastructure | AO18.1 For all flood events up to 1% annual | from the state-controlled road and will therefore |
| | exceedance probability, development ensures | not result in a material worsening of flooding |
| | there are negligible impacts (within +/- 10mm) to | impacts in a state transport corridor or to state |
| | existing flood levels within a state transport corridor. | transport infrastructure. |
| | Corridor. | Proposed upgrades to the transport network are |
| | AND | minor and will not result in material worsening of |
| | | flooding impacts in a state transport corridor or to |
| | AO18.2 For all flood events up to 1% annual | state transport infrastructure. |
| | exceedance probability , development ensures there are negligible impacts (up to a 10% | |
| | inere are negligible impacts (up to a 10% | |

| Performance outcomes | Acceptable outcomes | Response |
|--|--|---|
| | increase) to existing peak velocities within a state transport corridor. | |
| | AND | |
| | AO18.3 For all flood events up to 1% annual exceedance probability, development ensures there are negligible impacts (up to a 10% increase) to existing time of submergence of a state transport corridor. | |
| | No acceptable outcome is prescribed for a railway corridor or rail transport infrastructure. | |
| Drainage infrastructure | | |
| PO19 Drainage infrastructure does not create a safety hazard in a state transport corridor . | For a state-controlled road environment, both of the following apply: | Complies with AO19.1, AO19.2, AO19.3 and AO19.4 |
| | AO19.1 Drainage infrastructure associated with, or in a state-controlled road is wholly contained within the development site, except at the lawful point of discharge. AND | Drainage for the proposed substation development will be wholly contained within the development site except for the lawful point of discharge. Substation infrastructure can be maintained without requiring access to a state transport corridor. |
| | AO19.2 Drainage infrastructure can be maintained without requiring access to a state transport corridor. | The relevant discharge location will be identified during detailed design. |
| | For a railway environment both of the following apply: | |
| | AO19.3 Drainage infrastructure associated with a railway corridor or rail transport infrastructure is wholly contained within the development site. | |
| | AND | |

| Performance outcomes | Acceptable outcomes | Response |
|--|--|---|
| | AO19.4 Drainage infrastructure can be maintained without requiring access to a state transport corridor. | |
| PO20 Drainage infrastructure associated with, or in a state-controlled road or road transport infrastructure is constructed and designed to ensure the structural integrity and physical condition of existing drainage infrastructure and the surrounding drainage network is maintained. | No acceptable outcome is prescribed. | Complies with PO21 Development will not create a new point of discharge to a state transport corridor. Stormwater run-off generated at the substation will discharge to a lawful point of discharge that will be identified during detailed design. |
| Planned upgrades | | |
| PO21 Development does not impede delivery of planned upgrades of state transport infrastructure. | No acceptable outcome is prescribed. | Complies with PO21 Impacts to the road network will be predominantly temporary impacts during construction. These impacts will not impede delivery of planned upgrades of state-controlled roads. Consultation with DTMR for the project is ongoing. |

Table 6.3 Public passenger transport infrastructure and active transport

| Performance outcomes | Acceptable outcomes | Response |
|---|--------------------------------------|---|
| PO22 Development does not damage or interfere with public passenger transport | No acceptable outcome is prescribed. | Complies with PO22 |
| infrastructure, active transport infrastructure or public passenger services. | | The proposed substation development is not located near public passenger transport infrastructure, public passenger services, or active transport infrastructure and will have negligible additional impact on users of those infrastructure or services during operation and maintenance activities. |
| | | Construction traffic volume increases in the transport corridor were assessed in the TIAs and concluded that traffic volumes would not reduce |

| Performance outcomes | Acceptable outcomes | Response |
|---|--------------------------------------|--|
| | | the road network operation to unacceptable levels. Mitigation measures are proposed to manage remaining potential impacts and are detailed in the TIAs. |
| PO23 Development does not compromise the safety of public passenger transport infrastructure, public passenger services and active transport infrastructure. | No acceptable outcome is prescribed. | Complies with PO23 The proposed substation development is not located near public passenger transport infrastructure, public passenger services, or active transport infrastructure and will have negligible additional impact on users of those infrastructure or services during operation and maintenance activities. Construction traffic volume increases in the transport corridor were assessed in the TIAs and concluded that traffic volumes would not reduce the road network operation to unacceptable levels. Mitigation measures are proposed to manage remaining potential impacts and are detailed in the TIAs. |
| PO24 Development does not adversely impact the operating performance of public passenger transport infrastructure, public passenger services and active transport infrastructure. | No acceptable outcome is prescribed. | Complies with PO24 The proposed substation development is not located near public passenger transport infrastructure, public passenger services, or active transport infrastructure and will have negligible additional impact on users of those infrastructure or services during operation and maintenance activities. Construction traffic volume increases in the transport corridor were assessed in the TIAs and concluded that traffic volumes would not reduce the road network operation to unacceptable levels. Mitigation measures are proposed to manage remaining potential impacts and are detailed in the TIAs. |
| PO25 Development does not adversely impact the structural integrity or physical condition of | No acceptable outcome is prescribed. | Complies with PO25 |

| Performance outcomes | Acceptable outcomes | Response |
|--|--------------------------------------|---|
| public passenger transport infrastructure and active transport infrastructure. | | The proposed substation development is not located near public passenger transport infrastructure, public passenger services, or active transport infrastructure and will have negligible additional impact on users of those infrastructure or services during operation and maintenance activities. |
| | | Construction traffic volume increases in the transport corridor were assessed in the TIAs and concluded that traffic volumes would not reduce the road network operation to unacceptable levels. Mitigation measures are proposed to manage remaining potential impacts and are detailed in the TIAs. |
| PO26 Upgraded or new public passenger transport infrastructure and active transport infrastructure is provided to accommodate the demand for public passenger transport and active transport generated by the development. | No acceptable outcome is prescribed. | Complies with PO26 The proposed substation development will not result in increased demand for public passenger transport and active transport and therefore no upgrades or new public passenger transport infrastructure or active transport infrastructure is proposed as part of the development. |
| PO27 Development is designed to ensure the location of public passenger transport infrastructure prioritises and enables efficient public passenger services. | No acceptable outcome is prescribed. | Not applicable No public passenger transport infrastructure is proposed as part of this Project |
| PO28 Development enables the provision or extension of public passenger services, public passenger transport infrastructure and active transport infrastructure to the development and avoids creating indirect or inefficient routes for public passenger services. | No acceptable outcome is prescribed. | Complies with PO28 The proposed substation development will not result in increased demand for public passenger transport and active transport and therefore no upgrades or new public passenger transport infrastructure or active transport infrastructure is proposed as part of the development. |

| Performance outcomes | Acceptable outcomes | Response |
|--|---|---|
| PO29 New or modified road networks are designed to enable development to be serviced by public passenger services. | AO29.1 Roads catering for buses are arterial or sub-arterial roads, collector or their equivalent. AND AO29.2 Roads intended to accommodate buses are designed and constructed in accordance with: 1. Road Planning and Design Manual, 2nd Edition, Volume 3 – Guide to Road Design; Department of Transport and Main Roads; 2. Supplement to Austroads Guide to Road Design (Parts 3, 4-4C and 6), Department of Transport and Main Roads; 3. Austroads Guide to Road Design (Parts 3, 4-4C and 6); 4. Austroads Design Vehicles and Turning Path Templates; 5. Queensland Manual of Uniform Traffic Control Devices, Part 13: Local Area Traffic Management and AS 1742.13-2009 Manual of Uniform Traffic Control Devices – Local Area Traffic Management; AND AO29.3 Traffic calming devices are not installed on roads used for buses in accordance with section 2.3.2 Bus Route Infrastructure, Public Transport Infrastructure Manual, Department of Transport and Main Roads, 2015. | No new roads are proposed as part of this development. Proposed minor road upgrades are to improve safety and facilitate construction traffic movements to the site. The proposed substation development will not result in increased demand for public passenger transport and active transport and therefore no upgrades or new public passenger transport infrastructure or active transport infrastructure is proposed as part of the development. |
| PO30 Development provides safe, direct and convenient access to existing and future public passenger transport infrastructure and active transport infrastructure. | No acceptable outcome is prescribed. | Response - Complies with PO30 The proposed substation development will not result in increased demand for public passenger transport and active transport and therefore no upgrades or new public passenger transport infrastructure or active transport infrastructure is proposed as part of the development. |

| Performance outcomes | Acceptable outcomes | Response |
|--|--|--|
| PO31 On-site vehicular circulation ensures the safety of both public passenger transport | No acceptable outcome is prescribed. | Response - Complies with PO31 |
| services and pedestrians. | | The proposed substation development will not result in increased demand for public passenger transport and active transport and therefore no upgrades or new public passenger transport infrastructure or active transport infrastructure is |
| | | proposed as part of the development. |
| | | Onsite vehicular circulation will not change the safety of public passenger transport services and pedestrians. |
| PO32 Taxi facilities are provided to accommodate the demand generated by the | No acceptable outcome is prescribed. | Not applicable |
| development. | | The proposed substation development will not result in increased demand for taxi services and therefore no taxi facilities are proposed as part of the development. |
| PO33 Facilities are provided to accommodate the demand generated by the development for | No acceptable outcome is prescribed. | Not applicable |
| community transport services, courtesy transport services, and booked hire services other than taxis. | | The proposed substation development will not result in increased demand for community transport services, courtesy transport services, and booked hire services, therefore no facilities are proposed as part of the development. |
| PO34 Taxi facilities are located and designed to provide convenient, safe and equitable access | AO34.1 A taxi facility is provided parallel to the kerb and adjacent to the main entrance. | Not applicable |
| for passengers. | AND | The proposed development does not involve taxi facilities. |
| | AO34.2 Taxi facilities are designed in accordance with: 1. AS2890.5–1993 Parking facilities – on-street parking and AS1428.1–2009 Design for access and mobility – general requirements for access – new building work; 2. AS1742.11–1999 Parking controls – manual of uniform traffic control devices 3. AS/NZS 2890.6–2009 Parking facilities –off street parking for people with disabilities; | |

| Performance outcomes | Acceptable outcomes | Response |
|--|--|---|
| | Disability standards for accessible public transport 2002 made under section 31(1) of the Disability Discrimination Act 1992; AS/NZS 1158.3.1 – Lighting for roads and public spaces, Part 3.1: Pedestrian area (category P) lighting – Performance and design requirements; Chapter 7 Taxi Facilities, Public Transport Infrastructure Manual, Department of Transport and Main Roads, 2015. | |
| PO35 Educational establishments are designed to ensure the safe and efficient operation of public passenger services, pedestrian and cyclist access and active transport infrastructure. | AO35.1 Educational establishments are designed in accordance with the provisions of the Planning for Safe Transport Infrastructure at Schools, Department of Transport and Main Roads, 2011. | Not applicable The proposed development does not involve an educational establishment. |

State code 10: Taking or interfering with water

State Development Assessment Provisions Guidance Material: State code 10: Taking or interfering with water which provides direction on how to address this code.

Table 10.1: Development and relevant provisions of the code

| Development | Relevant provisions of the code |
|--|---|
| For works that take or interfere with water in a watercourse , lake or spring | Table 10.2 – General: PO1 – PO4 |
| For works that take or interfere with underground water | Table 10.2 – General: PO1 – PO4 |
| _ | Table 10.2 – Underground water: PO5 – PO6 |
| For works that take overland flow water , where prescribed by | Table 10.2 – General: PO1 – PO4 |
| regulation under the Water Act 2000 | Table 10.2 – Overland flow water: PO7 – PO8 |
| For works that take overland flow water , where the works are | Table 10.2 – General: PO1 – PO4 |
| reconfiguring existing works | Table 10.2 – Overland flow water: PO7 – PO8 |
| | Table 10.2 – Reconfiguring existing works : PO9 – PO12 |
| For works that take overland flow water in a limited catchment area | Table 10.2 – General: PO1 – PO4 |
| identified in a water plan | Table 10.2 – Overland flow water: PO7 – PO8 |
| Note: Limited catchment areas are listed in table 10.3. | Table 10.2 – Limited catchment area: PO13 |
| For works that take overland flow water which is contaminated | Table 10.2 – General: PO1 – PO4 |
| agricultural run-off water | Table 10.2 – Overland flow water: PO7 – PO8 |
| | Table 10.2 – Contaminated agricultural run-off water: PO14 – PO15 |
| Contaminated agricultural run-off water in a Queensland Murray | Table 10.2 – General: PO1 – PO4 |
| Darling Basin catchment | Table 10.2 – Overland flow water: PO7 – PO8 |
| | Table 10.2 – Contaminated agricultural run-off water: PO14– PO16 |
| For works that take overland flow water as part of an | Table 10.2 – General: PO1 – PO4 |
| environmentally relevant activity or under an environmental | Table 10.2 – Overland flow water : PO7 – PO9 |
| authority | Table 10.2 – Environmentally relevant activity: PO17 |
| For works that take overland flow water , incidental to capturing coal | Table 10.2 – General: PO1 – PO4 |
| seam gas water | Table 10.2– Overland flow water: PO7 – PO8 |
| | Table 10.2 – Coal seam gas water: PO18 |
| For works that take overland flow water , under a water entitlement | Table 10.2– General: PO1 – PO4 |
| | Table 10.2– Overland flow water: PO7 – PO8 |
| For works that take overland flow water for the purpose of water | Table 10.2– General: PO1 – PO4 |
| sensitive urban design, for developments in urban areas | Table 10.2– Overland flow water: PO7 – PO8 |

Table 10.2: All development

| Performance outcomes | Acceptable outcomes | Response |
|--|--------------------------------------|--|
| General | | |
| PO1 Works do not cause an unacceptable impact on natural ecosystems. | No acceptable outcome is prescribed. | Complies with PO1 Proposed new water bore will be legally |
| | | constructed within a footprint that has been subject to ecological assessment, and within the Gulf Water Plan Area and the Great Artesian Basin and other regional aquifers (GABORA) plan area. The proposed new bore is not near a mapped aquatic GDE. |
| | | This, and all other responses to this State Code 10, are based on the following proposed details of the new bore: |
| | | Latitude: -20.893554 Longitude:144.155987 Depth: 380m (estimated). Volume Estimate: 157ML (estimated for construction, minimal or no take required for operations). Distance to nearest registered water |
| | | bore: Approximately 2.3km (Nocoleche Bore (11243)) Distance to Flinders River: Approximately 7km. Surface geology: Allaru Mudstone |
| | | Further information on water at the development site is in section 7.4 of this application. |
| PO2 Works do not cause an unacceptable impact on other users' ability to access the resource. | No acceptable outcome is prescribed. | Complies with PO2 |
| | | Proposed new water bore will be legally constructed on land owned and managed by |
| | | Powerlink and will not impact other user's ability to access the resource. Setback distances will be consistent with the relevant policy. |

| Performance outcomes | Acceptable outcomes | Response |
|---|--------------------------------------|---|
| PO3 Works do not cause an unacceptable impact on the physical integrity of the watercourse, lake | No acceptable outcome is prescribed. | Complies with PO3 |
| or spring. | | Proposed new water bore will be in a construction |
| . • | | footprint that does not impact on any |
| | | watercourse, lake or spring. |
| | | Further information on water at the development |
| | | site, including all water features, is in section 7.4 |
| | | of this application. |
| PO4 Works are consistent with any of the following, to the extent they are relevant to the | No acceptable outcome is prescribed. | Complies with PO4 |
| proposed development: | | The proposed bore is within the plan area for the |
| 1. a water plan; | | Gulf Water Plan and the GABORA water plan. |
| 2. a water management protocol; | | The proposed bore will be constructed consistent |
| 3. a moratorium notice issued under the <i>Water</i> | | with the requirements of the relevant plan. |
| Act 2000. | | Powerlink is a constructing authority under the |
| Hadayayayad watay | | Acquisition of Land Act 1967. |
| Underground water PO5 Works maintain the natural ecosystem | No acceptable outcome is prescribed. | Complies with PO5 |
| processes of the underground water system. | No acceptable outcome is prescribed. | Compiles with PO5 |
| | | Proposed new water bore will be legally |
| | | constructed within an approved footprint that has |
| | | been subject to ecological assessment. The |
| | | proposed bore will not cause an unacceptable |
| | | impact on natural ecosystems. |
| PO6 Works do not unacceptably impact on connectivity between underground water and | No acceptable outcome is prescribed. | Complies with PO5 |
| water in a watercourse, lake or spring. | | Proposed new water bore will be legally |
| | | constructed within an approved footprint that has |
| | | been subject to ecological assessment. The |
| | | proposed bore will not cause an unacceptable |
| | | impact on natural ecosystems. |
| Overland flow water | | |
| PO7 Works to take overland flow water are for one of the following: | No acceptable outcome is prescribed. | Not applicable |
| 1. for an activity prescribed by regulation under | | Proposed development does not involve take of |
| the Water Act 2000; or | | overland flow. |
| 2. for reconfiguring existing works ; or | | |

| Performance outcomes | Accentable outcomes | Response |
|---|---|---|
| Performance outcomes 3. in a limited catchment area identified in a water plan; or 4. for contaminated agricultural run-off water; or 5. part of an environmentally relevant activity or under an environmental authority; or 6. incidental to capturing coal seam gas water; or 7. consistent with a water entitlement; or 8. for the purpose of water sensitive urban design; for developments in urban areas. PO8 Works are located, constructed and operated in a way that do not adversely impact on neighbouring properties. | ACCEPTABLE outcomes AO8.1 Works are contained within the property boundaries. AND AO8.2 At full supply level, the area inundated is contained within the property boundaries. AND | Not applicable Proposed development does not involve take of overland flow. |
| | AO8.3 Bywash resulting from the works and any water diverted away from contaminated areas exits the property as close as practicable to the same location at which it exited the property boundary | |
| Reconfiguring Existing works | prior to construction of the works. | |
| PO9 Development altering existing works do not increase the overall take of overland flow water. | AO9.1 Development altering existing works must not result in an increase to any of the following: 1. the capacity of the works to store water; or 2. the rate at which the works take water; or 3. the average volume of water taken by the works. | Not applicable Proposed development does not involve reconfiguring existing works. |
| PO10 Works do not involve reconfiguration of natural water bodies or bunded areas. | No acceptable outcome is prescribed. | Not applicable Proposed development does not involve reconfiguring existing works. |
| PO11 Works do not involve reconfiguration of the storage capacity of any of the following: | No acceptable outcome is prescribed. | Not applicable |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|--|
| a lake that was not used for irrigation or other intensive stocking or production; or land being used for irrigated or dryland agriculture or areas surrounded by levees designed to prevent the land becoming inundated; or | | Proposed development does not involve reconfiguring existing works. |
| 3. naturally occurring infield storages. PO12 New works are located within the same premises as the existing works. | No acceptable outcome is prescribed. | Not applicable |
| | | Proposed development does not involve reconfiguring existing works. |
| Limited catchment area | | |
| PO13 In the limited catchment areas, any works for storing water are: 1. not larger than necessary for storing water other than overland flow water; or 2. designed to take floodwater overflowing from any adjacent watercourse. | AO13.1 In the limited catchment areas, the incidental take of overland flow water: 1. is located within the subcatchment/management area listed in table 10.3, column 2 for the relevant limited catchment area; and 2. is stored in a local catchment area that is less than or equal to the area of the limited catchment area specified in table 10.3, column 3. | Not applicable Proposed development is not in a limited catchment area. |
| Contaminated agricultural run-off water | | |
| PO14 Contaminated agricultural run-off water is captured and stored using existing works unless additional storage is required. | No acceptable outcome is prescribed. | Not applicable Proposed development does not involve contaminated agricultural run-off water. |
| PO15 Works to take contaminated agricultural run-off water: 1. are not be larger than required to contain contaminated agricultural run-off water; and 2. allow for water that is not contaminated agricultural run-off water to be passed through the works. | No acceptable outcome is prescribed. | Not applicable Proposed development does not involve contaminated agricultural run-off water. |
| Contaminated agricultural run-off water in a Que | ensland Murray Darling Basin catchment | <u> </u> |
| PO16 Works to contain contaminated agricultural run-off water in a Queensland Murray Darling Basin catchment: | No acceptable outcome is prescribed. | Not applicable |

| Performance outcomes | Acceptable outcomes | Response |
|--|--------------------------------------|--|
| 1. do not increase the volume of overland flow | | Proposed development does not involve |
| water taken in a water year; and | | contaminated agricultural run-off water. |
| 2. allow for the release of water when an acceptable quality of water is achieved. | | |
| Environmentally relevant activity | | |
| PO17 Works only capture the volume of overland | No acceptable outcome is prescribed. | Not applicable |
| flow water necessary for the operation of the | | Book and the state of the state |
| environmentally relevant activity or | | Proposed development does not involve an |
| environmental authority under the Environmental Protection Act 1994. | | environmentally relevant activity or environmental authority under the <i>Environmental Protection Act</i> |
| Trotection Act 1994. | | 1994. |
| Coal seam gas water | | |
| PO18 Works for coal seam gas water: | No acceptable outcome is prescribed. | Not applicable |
| 1. are not larger than required to store coal seam | | |
| gas water for the beneficial use of the | | Proposed development does not involve coal |
| resource under chapter 8 of the <i>Waste</i> | | seam gas water. |
| Reduction and Recycling Act 2011; 2. are designed to take floodwater from any | | |
| adjacent watercourse; | | |
| 3. are designed to contain coal seam gas water | | |
| that could be stored in an existing alternative | | |
| storage. | | |

Reference tables

Table 10.3: Limited catchment area parameters

| Column 1: Water plan area | Column 2: Sub-catchment/ management area | Column 3: Area of local catchment |
|---------------------------|--|-----------------------------------|
| Fitzroy Basin | Fitzroy, Lower Mackenzie, Upper Mackenzie, Lower Dawson, Upper Dawson, Isaac Connors, Nogoa and Comet | 250 hectares |
| Burnett Basin | Coastal Burnett Overland Flow Area | 25 hectares |

State code 16: Native vegetation clearing

State Development Assessment Provisions guideline - State Code 16: Clearing native vegetation. This guideline provides direction on how to address State Code 16 below.

Please note: It is only necessary to provide a response to the performance outcomes relevant to the clearing purpose(s). Table 16.1 below specifies which tables of performance outcomes are relevant for each clearing purpose. Tables that are not relevant to your clearing purpose can be left blank or deleted.

As an example, only Table 16.2 and Table 16.15 are relevant for a development application for operational works that involves managing thickened vegetation. The remaining tables may be deleted.

Table 16.1: Relevant code provisions for each type of development

| Clearing purpose | Relevant provisions | |
|--|----------------------------|--|
| Material change of use and / or reconfiguring a lot and / or operational work | | |
| Public safety, relevant infrastructure activities and / or consequential | Table 16.2 and Table 16.3 | |
| development of IPA approval | | |
| Extractive industry | Table 16.2 and Table 16.4 | |
| Coordinated project (agriculture) | Table 16.2 and Table 16.5 | |
| Coordinated project (extractive industry) | Table 16.2 and Table 16.6 | |
| Coordinated project (all other purposes) | Table 16.2 and Table 16.7 | |
| Material change of use and / or reconfiguring a lot for all other purposes | Table 16.2 and Table 16.8 | |
| Material change of use and / or reconfiguring a lot for which there will be no | Table 16.9 | |
| clearing as a result of the material change of use or reconfiguring a lot | | |
| Material change of use and / or reconfiguring a lot for which clearing is | Table 16.2 and Table 16.10 | |
| limited to clearing that could be done as exempt clearing work for the | | |
| purpose of the development prior to the material change of use or | | |
| reconfiguring a lot application being approved | | |
| Operational work | | |
| Necessary environmental clearing | Table 16.2 and Table 16.11 | |
| Control non-native plants or declared pests | Table 16.2 and Table 16.12 | |
| Encroachment | Table 16.2 and Table 16.13 | |
| Fodder harvesting | Table 16.2 and Table 16.14 | |
| Managing thickened vegetation | Table 16.2 and Table 16.15 | |

Table 16.2: General

| Performance outcomes | Acceptable outcomes | Response |
|--|--------------------------------------|---|
| PO1 Clearing of vegetation is consistent with any notice requiring compliance on the land subject to | No acceptable outcome is prescribed. | Not applicable |
| the development application, unless a better environmental outcome can be achieved. | | The development is not subject to any notices requiring compliance. |
| | | An Environmental Assessment Report (EAR) showing development footprint, vegetation extents, and all areas of clearing, is provided as an attachment to the application. |
| PO2 Clearing of vegetation is consistent with | No acceptable outcome is prescribed. | Not applicable |
| vegetation management requirements for | | |
| particular regulated areas unless a better | | No regulated areas apply to the proposed |
| environmental outcome can be achieved. | | development. |
| PO3 Clearing of vegetation in a legally secured | No acceptable outcome is prescribed. | Not applicable |
| offset area: | | |
| 1. is consistent with the offset delivery plan; or | | No legally secured offset area applies to the |
| is consistent with an agreement for the offset area on the land subject to the development application; or | | proposed development. |
| 3. only occurs if an additional offset is provided. | | |

Table 16.7: Coordinated project (all other purposes)

| Performance outcomes | Acceptable outcomes | Response |
|--|--------------------------------------|---|
| Clearing avoids and minimises impacts | | |
| PO64 Clearing of vegetation and adverse impacts of clearing vegetation do not occur unless the | No acceptable outcome is prescribed. | Complies with PO64 |
| application has demonstrated that the clearing and the adverse impacts of clearing have been: 1. reasonably avoided; or 2. reasonably minimised where it cannot be reasonably avoided. | | The proposed development is generally in accordance with the Project approved under the EIS process. The Approved Project applied the principles of 'avoid, minimise and mitigate' to the Project. Powerlink have endorsed this approach which is evident through: • Avoidance and minimisation of impacts to environmental values as identified in a corridor selection report. |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|--|
| Clearing associated with wetlands | Acceptable outcomes | Mitigation of impacts through implementation of management measures, primarily identified in management plans available in Volume 2 of this report. The Coordinator-Generals Evaluation Report on the Project Environment Impact Statement found that: "There is considerable overlap between the MNES and MSES relevant to the project". "The Project has been determined to be a controlled action under the EPBC Act." "Accordingly, an offset would be provided for significant residual impacts on MNES." "This negates the need for the Queensland Government to also require offsets on MSES values where they overlap with MNES". |
| PO65 Clearing of vegetation within a natural wetland and/or within 100 metres of the defining bank of a natural wetland maintains the composition, structure and function of any regional ecosystem associated with any natural wetland to protect all of the following: 1. bank stability by protecting against bank erosion; | AO65.1 Clearing does not occur in a natural wetland or within 100 metres of the defining bank of any natural wetland. OR AO65.2 Clearing within 100 metres of the defining bank of any natural wetland: | Complies with AO65.1 There is no proposed clearing of vegetation within a natural wetland and/or within 100 metres of the defining bank of a natural wetland. |
| water quality by filtering sediments, nutrients and other pollutants; aquatic habitat; terrestrial habitat. | does not occur within 10 metres of the defining bank of any natural wetland; and does not exceed widths in table reference table 1 in this code. | |
| PO66 Where clearing of vegetation in a regional ecosystem associated with a natural wetland does not maintain the composition, structure and function of the regional ecosystem, and cannot be avoided and has been mitigated, an offset is provided for any acceptable significant residual impact. Clearing associated with watercourses and drainal | No acceptable outcome is prescribed. | Not Applicable There is no proposed clearing associated with a natural wetland. |

| Performance outcomes | Acceptable outcomes | Response |
|--|---|--|
| Poformance outcomes Pofor Clearing of vegetation within a watercourse and/or drainage feature and/or within the relevant distance (listed in reference table 2) of a watercourse and/or drainage feature, maintains the composition, structure and function of the regional ecosystem associated with the watercourse and/or drainage feature to protect all of the following: 1. bank stability by protecting against bank erosion; 2. water quality by filtering sediments, nutrients and other pollutants; 3. aquatic habitat; 4. terrestrial habitat. | AO67.1 Clearing does not occur in any of the following areas: 1. inside the defining bank of a watercourse or drainage feature; and 2. within the relevant distance of the defining bank of any watercourse or drainage feature in reference table 2 of this code. OR AO67.2 Clearing within any watercourse or drainage feature, or within the relevant distance of the defining bank of any watercourse or drainage feature in reference table 2 of this code: 1. does not exceed the widths in table reference table 1 of this code; and 2. does not occur within 10 metres of the defining bank, unless clearing is required into or across the watercourse or drainage | Response Complies with AO67.2 The proposed development does not include clearing within the defining bank of a watercourse or drainage feature. |
| PO68 Where clearing of vegetation in a regional ecosystem associated with a watercourse and/or drainage feature does not maintain the composition, structure and function of the regional ecosystem, and cannot be avoided and has been mitigated, an offset is provided for any acceptable significant residual impact. | feature. No acceptable outcome is prescribed. | Not applicable The proposed development does not involve clearing within a regional ecosystem associated with a watercourse and/or drainage feature. |
| Connectivity | | |
| PO69 Regional ecosystems on the subject land and any adjacent land retain sufficient vegetation to: 1. maintain ecological processes; and 2. ensure the regional ecosystem remains in the landscape despite threatening processes. | AO69.1 Clearing occurs in accordance with reference table 3 of this code. | Complies with AO69.1 The EIS assessment of impacts on vegetation connectivity confirmed that the project will not change the number of core remnant areas on site and the impact on core remnant vegetation would be minimal. The Coordinator-General's Report on the Project Environmental Impact Statement noted that no offset would be required for this MSES value due to the minimal impacts. |

| Performance outcomes | Acceptable outcomes | Response |
|--|---|---|
| PO70 Where: | No acceptable outcome is prescribed. | Not applicable |
| 1. clearing of vegetation in a regional | , | |
| ecosystem does not maintain ecological | | The EIS assessment of impacts on vegetation |
| processes; and | | connectivity confirmed that the project will not |
| 2. the regional ecosystem ; and | | change the number of core remnant areas on site |
| 3. the clearing cannot be avoided; and | | and the impact on core remnant vegetation would |
| 4. the clearing has been mitigated | | be minimal. The Coordinator-General's Report on |
| an offset is provided for any acceptable significant | | the Project Environmental Impact Statement noted |
| residual impact. | | that no offset would be required for this MSES |
| | | value due to the minimal impacts. |
| | essment manager for the development application | |
| PO71 Clearing does not result in accelerated soil | AO71.1 Clearing only occurs if an erosion and | Complies with AO71.1 |
| erosion within or outside the land the subject of the | sediment control plan is developed and | An arasian and as diment central plan will be |
| development application. | implemented to prevent soil erosion and instability resulting from the clearing. | An erosion and sediment control plan will be developed for the Project. This plan will be |
| | instability resulting from the clearing. | implemented during clearing works. |
| Salinity | | Implemented during cleaning works. |
| PO72 Clearing within 100 metres of a salinity | A072.1 Clearing does not occur within 100 | Complies with AO72.1 |
| expression area does not contribute to or | metres of a salinity expression area. | Compiles with AO72.1 |
| accelerate land degradation through either of the | metres of a summey expression area. | The Project construction environmental |
| following: | | management plan will make provision for the |
| 1. waterlogging; | | development of progressive erosion and sediment |
| the salinisation of groundwater, surface water | | control plans that will include measures to avoid, |
| or soil. | | manage or mitigate potential risk to soils, including |
| | | specific reference to management/mitigation of |
| | | risks associated with salinity, specifically providing |
| | | evidence of no clearing in salinity expression |
| | | areas. |
| | Minimising clearing of areas temporarily required t | |
| PO73 Clearing of vegetation for temporary use | AO73.1 Clearing for temporary use areas to | Complies with AO73.3 |
| areas to construct necessary infrastructure, such as | construct necessary infrastructure does not occur | |
| temporary use roads or access tracks, maintains the | in a least concern regional ecosystem. | Where clearing is to be conducted within a |
| composition, structure and function of least concern | | grassland regional ecosystem identified in the VM |
| regional ecosystems. | OR | REDD as having a grassland structure, such |
| | A O 70 O Tatal ala asign of a standard and a | clearing is considered exempt. This exemption |
| | AO73.2 Total clearing for temporary use areas to | arises because the vegetation within a Grassland |
| | construct necessary infrastructure in any regional | Regional Ecosystem is not deemed to be Native |
| | ecosystem combined does not exceed the widths prescribed in table reference table 1 of this code. | Vegetation under the Vegetation Management Act, |
| | prescribed in table reference table 1 of this code. | 1999 (VMA). |

State Development Assessment Provisions v3.2

| Performance outcomes | Acceptable outcomes | Response |
|----------------------|--|---|
| | AO73.3 Total clearing for temporary use areas to construct necessary infrastructure in any regional ecosystem combined does not exceed areas prescribed in table reference table 1 of this code. | Native Vegetation is defined within the Planning Regulations as Vegetation under the VMA. Vegetation is a native tree or plant other than the following— 1. grass or non-woody herbage; 2. a plant within a grassland regional ecosystem identified in the VM REDD as having a grassland structure; 3. a mangrove. Therefore, Grassland REs are considered exempt clearing and do not trigger further assessment. Clearing for temporary use areas will occur within a grassland regional ecosystem. As such, temporary use area clearing will not exceed areas prescribed in reference table 1 of this code. In accordance with condition 19, Appendix B of the Coordinator General's evaluation report on the EIS for the Project, an overarching rehabilitation management and monitoring Plan (RMMP) will be developed prior to commencement of construction. This Plan must address: • All areas of temporary disturbance • Rehabilitation strategy (seeding, natural regeneration and weeds) • using endemic native species (where feasible) • Procedures for revegetation species selection, ground preparation • and sowing/planting • Reuse of hollow bearing stags, woody debris, logs and rocks • Measures to restore and reconnect habitats • Measures to ensure bank stability and water quality |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|--|
| | | Monitoring, auditing and reporting objectives for the first 5 years. A copy of this RMMP must be submitted to DSDIP in advance of works. |
| PO74 Where clearing of vegetation in a regional ecosystem for temporary use areas to construct necessary infrastructure does not maintain the composition, structure and function of the regional ecosystem, and cannot be avoided and has been mitigated, the cleared area is rehabilitated. | No acceptable outcome is prescribed. | An overarching rehabilitation management and monitoring plan (RMMP) will be developed prior to commencement of construction. This plan will address: • All areas of temporary disturbance • Rehabilitation strategy (seeding, natural regeneration and weeds) using endemic native species (where feasible) • Procedures for revegetation species selection, ground preparation and sowing/planting • Reuse of hollow bearing stags, woody debris, logs and rocks • Measures to restore and reconnect habitats • Measures to ensure bank stability and water quality • Monitoring, auditing and reporting objectives for the first 5 years. A copy of this RMMP must be submitted to DSDIP in advance of works. |
| Conserving endangered and of concern regional e | | |
| PO75 Clearing of vegetation maintains the composition, structure and function of endangered regional ecosystems and/or of concern regional ecosystems. | AO75.1 Clearing does not occur in an endangered regional ecosystem or an of concern regional ecosystem. OR AO75.2 Total clearing of endangered regional ecosystems and of concern regional ecosystems combined does not exceed the widths prescribed in table reference table 1 of this code. | Complies with AO75.1 The proposed development does not involve clearing of endangered and of concern regional ecosystems. |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|--|
| | OR | |
| | AO75.3 Total clearing of endangered regional ecosystems and of concern regional ecosystems combined does not exceed areas prescribed in reference table 1 of this code. | |
| PO76 Where clearing of vegetation in an endangered regional ecosystem or an of concern regional ecosystems does not maintain the composition, structure and function of the regional ecosystem, and cannot be avoided and has been mitigated, the cleared area: 1. is rehabilitated; or 2. where the cleared area cannot be rehabilitated, an offset is provided for any acceptable significant residual impact. | No acceptable outcome is prescribed. | Not applicable The proposed development does not involve clearing of endangered and of concern regional ecosystems. |
| Essential habitat excluding essential habitat for <i>P</i> Planning Regulation 2017 | hascolarctos cinereus (koalas) if development is a | ssessable under Schedule 10, Part 10 of the |
| PO77 Clearing of vegetation in a regional ecosystem that is an area of essential habitat maintains the composition, structure and function of the regional ecosystem for each protected | AO77.1 Clearing does not occur in essential habitat. OR | Complies with PO77 The proposed development does not involve clearing of essential habitat for Koala. |
| wildlife species individually. | AO77.2 Clearing in essential habitat does not exceed the widths prescribed in reference table 1 of this code. | |
| | OR | |
| | AO77.3 Clearing in essential habitat does not exceed the areas prescribed in reference table 1 of this code. | |
| PO78 Where clearing of vegetation in a regional ecosystem that is an area of essential habitat does not maintain the composition, structure and function of the regional ecosystem, and cannot be avoided and has been mitigated, an offset is provided for any acceptable significant residual | No acceptable outcome is prescribed. | Not applicable The proposed development does not involve clearing of essential habitat for Koala. |

State Development Assessment Provisions v3.2

| Performance outcomes | Acceptable outcomes | Response |
|---|---|--|
| impact for each protected wildlife species | | |
| individually. | | |
| Acid sulfate soils if the local government is not the | e assessment manager for the development applic | ation |
| PO79 Clearing does not result in, or accelerate, | AO79.1 Clearing does not occur in land zone 1, | Complies with PO79.2 |
| disturbance of acid sulfate soils or changes to the | land zone 2 or land zone 3. | |
| hydrology of the location that will result in either of | | The proposed development does not involve |
| the following: | OR | clearing within land zone 1, land zone 2 or land |
| aeration of horizons containing iron sulphides | | zone 3. |
| mobilisation of acid or metals. | AO79.2 Clearing in land zone 1, land zone 2 or | |
| | land zone 3 in areas below the five metre | |
| | Australian Height Datum only occurs where: | |
| | 1. mechanical clearing does not disturb the soil | |
| | to a depth greater than 30 centimetres; and | |
| | 2. acid sulfate soils are managed consistent with | |
| | the soil management guidelines in the | |
| | Queensland Acid Sulfate Soil Technical | |
| | Manual. | |



Appendix D

Environmental Management Register and Contaminated Land Register





Department of Environment, Science and Innovation (DESI) ABN 46 640 294 485 GPO Box 2454, Brisbane QLD 4001, AUSTRALIA www.des.qld.gov.au

SEARCH RESPONSE

ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

Jack Johnston 44 Browne Street New Farm QLD 4005

Transaction ID: 51016091 EMR Site Id: 10 June 2025

Cheque Number: Client Reference:

This response relates to a search request received for the site:

Lot: 1 Plan: DG35

Hughenden

EMR RESULT

The above site is NOT included on the Environmental Management Register.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated. The EMR/CLR does NOT include:-

- 1. land which is contaminated land (or a complete list of contamination) if DESI has not been notified
- 2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DESI has not been notified

If you have any queries in relation to this search please email emr.clr.registry@des.qld.gov.au

Administering Authority



Department of Environment, Science and Innovation (DESI) ABN 46 640 294 485 GPO Box 2454, Brisbane QLD 4001, AUSTRALIA www.des.qld.gov.au

SEARCH RESPONSE

ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

Base Consulting Group 44 Browne Street New Farm QLD 4000

Transaction ID: 51016840 EMR Site Id: 12 June 2025

Cheque Number: Client Reference:

This response relates to a search request received for the site:

Lot: 1 Plan: PER201059

WINTON RD HUGHENDEN

EMR RESULT

The above site is NOT included on the Environmental Management Register.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated. The EMR/CLR does NOT include:-

- 1. land which is contaminated land (or a complete list of contamination) if DESI has not been notified
- 2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DESI has not been notified

If you have any queries in relation to this search please email emr.clr.registry@des.qld.gov.au

Administering Authority



Department of Environment, Science and Innovation (DESI) ABN 46 640 294 485 GPO Box 2454, Brisbane QLD 4001, AUSTRALIA www.des.qld.gov.au

SEARCH RESPONSE

ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

Base Consulting Group 44 Browne Street New Farm QLD 4000

Transaction ID: 51016839 EMR Site Id: 12 June 2025

Cheque Number: Client Reference:

This response relates to a search request received for the site:

Lot: 232 Plan: SP249226

Hughenden

EMR RESULT

The above site is NOT included on the Environmental Management Register.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated. The EMR/CLR does NOT include:-

- 1. land which is contaminated land (or a complete list of contamination) if DESI has not been notified
- 2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DESI has not been notified

If you have any queries in relation to this search please email emr.clr.registry@des.qld.gov.au

Administering Authority



Appendix E

Consultation Department of Local Government Water and Volunteers



| COMMUNICATIO | COMMUNICATION DETAILS | | |
|---|---|-------|---------|
| Meeting Title: CopperString 2032 Project – Request for water approval advice Date: 10 th November 2023 | | | |
| Location: | Email Correspondence | Time: | 10:12am |
| Sender: | Veronica Cavanough | | |
| Recipients: | Sasha Smith (SS), Christa Placzek (CP), | | |

| Item | Comment | s/ Actions | Who | D |
|------|--|---|-----|---|
| 1. | Introduction - Purpose of the Email | | | |
| | Request for DRDMW advice on the requ | iired water approvals | | |
| 2. | Key take ways and actions | | | |
| | fully understand from the Department's persp - When water licensing may be required Authority attached and | al consultation we (JV) seek to ensure we (JV) bective: d that is not covered by the Exemption uired for new bore infrastructure/interfering plan. ing from existing landholder dams) is //quarrying activities may be investigated for ling options are being investigated | | |
| 3. | Area | Options | | |
| | Burdekin Basin Water Plan (Charters Towers and Pentland town camps) *no underground water management areas | Installation of a groundwater bore - Monitoring and - Production | | |
| | identified. Gulf Water Plan (Richmond, Hughenden and Julia Creek town camp) and Great Artesian Basin and Other Regional Aquifers Water Plan | Use of existing registered/authorised bores. Installation of a groundwater bore - GAB - Other surface/groundwater not connected to GAB Use of existing registered/authorised bores | | |
| 4. | Gulf Water Plan (Richmond, Hughenden and Julia Creek town camp) and Great Artesian Basin and Other Regional | Installation of a groundwater bore - GAB - Other surface/groundwater not connected to GAB | | |





| Date: | 16 [™] November 2023 | |
|--------------|-------------------------------|--|
| NEXT COMMU | NICATION DETAILS | |
| Date: | | |
| Location: | | |
| Attachments: | | |



| MEETING DETAI | MEETING DETAILS | | |
|----------------|--|-------|-------------------------------|
| Meeting Title: | DRDMW Meeting Minutes – Construction Water | Date: | 7 th November 2023 |
| Location: | ZOOM Meeting | Time: | 1:25pm |
| Chair: | Chair: Veronica Cavanough | | |
| Attendees: | Sasha Smith (SS), Evan Broughton (EB), Mike Mitchell (MM), Christa Placzek (CP), Tom Graham (TG) | | |
| Apologies: | | | |

| Item | Comments/ Actions | Who | |
|------|---|--------------------|--|
| 1. | Introduction - Purpose of the Meeting | | |
| | Status update on the project Construction Water Planning PowerPoint presentation | | |
| 2. | Key take ways and actions | | |
| | Introduction - Purpose of the Meeting • Status update on the project • Construction Water Planning PowerPoint presentation Key take ways and actions 1. Water source hierarchy (detailed at various locations if required) will be developed over time and informed by groundwater investigations, Stakeholder consultation and access/regulatory/commercial/other constraints. The decision process will consider all inputs and determine a best for project outcome that will be documented as part of the Construction Water Plan. - ACTION: (continue to) Progress groundwater and surface water options investigations for camps and transmission line and provide monthly updates to the DRDMW. (construction staging to be shared next meeting to identify priority areas) - ACTION: Confirm the groundwater drilling program proposed to address any decision uncertainties and seek detailed advice from DRDMW on any specific approvals. Focus areas are Charters Towers, Pentland, Cloncurry and Mt Isa. 2. To inform the decision-making process (and meet current conditions requirements), Council consultation on the approach is required. - ACTION: Consult Council on the construction water approach planned and verify available supply. (include water trading options) 3. To inform the decision-making process, legislative requirements must be known for all water source options and locations. - ACTION: (JV to request) DRDMW to provide overview of legislative requirements/approvals for all water source options and locations being considered. DRDMW to clearly identify where the constructing authority exemptions do not apply. 4. To consider all Stakeholders, Aboriginal Parties consultation on construction water source options to be undertaken. | | |
| | water source options and locations ACTION: (JV to request) DRDMW to provide overview of legislative requirements/approvals for all water source options and locations being considered. | DRDMW | |
| | | Powerlink | |
| | To inform the decision-making process, investigate water trading options with Sunwater. ACTION: Consult with Sunwater on water trading potential at Lake Julius. | JV Construction | |





| NEXT MEETING DE | TAILS |
|-----------------|---|
| Date: | 5 December 2023 |
| Location: | |
| Attachments: | DRDMW – CUS Project Introduction Water 071123 |





| COMMUNICATION | COMMUNICATION DETAILS | | |
|----------------|---|-------|--------------------------------|
| Meeting Title: | CopperString 2032 Project – Request for water approval advice | Date: | 16 th November 2023 |
| Location: | Email Correspondence | Time: | 5:22pm |
| Sender: | Sasha Smith (SS) | | |
| Recipients: | Veronica Cavanough (VC), Christa Placzek (CP), Erin Lee (EL) | | |

| Item | Comments/ Actions | | | |
|------|--|--|----|---|
| 1. | Introduction - Purpose of the Email | | | |
| | Response to request to DRDMW to 2023) | for advice on the required approvals (10 November | | |
| 2. | Key take ways and actions | | | |
| | (DRDMW) are happy to discuss individual proposing bores within the area where | JV) have any questions about this, and we dual options in more detail, particularly if you are declared to be water in a watercourse. We will send nond, Julia Creek and Hughenden next week once | SS | |
| 3. | Area | Options | | |
| | Burdekin Basin Water Plan (Charters Towers and Pentland town camps) *no underground water management areas identified. | Installation of a groundwater bore - Monitoring and - Production Use of existing registered/authorised bores. | VC | |
| | Response/ Advice | | SS | |
| | area, or an underground water manage | an does state: <i>"Water is declared to be water in a</i> F or G if the water is— ; and | | |
| | subcatchment G. Therefore, water cou limits/outer bank of a watercourse as the | nt F, and Charters Towers is located within old not be taken from a bore within the lateral his water would be considered surface water, and an ld need to be used/traded for the use of the | | |
| | watercourse, underground water may l water entitlement. Similarly the constru | es are not installed within the high banks of a be taken for any purpose without the need for a action of water bores within the area do not require are however required to be drilled by an appropriately | | |
| | Area | Options | VC | _ |





| Gulf Water Plan (Richmond, Hughenden and Julia Creek town camp) and Great Artesian Basin and Other Regional Aquifers Water Plan | Installation of a groundwater bore - GAB - Other surface/groundwater not connected to GAB Use of existing registered/authorised bores | | |
|---|---|----|--|
| Response/ Advice | | | |
| TBA | | | |
| Area | Options | VC | |
| Gulf Water Plan (Cloncurry camp) *no underground water management areas identified | Installation of a groundwater bore - Monitoring - Production Use of existing registered/authorised bores | | |
| Response/ Advice | | | |
| Cloncurry is not located within a declared underground water area, or an underground water management area. However, section 8 of the Gulf Water Plan does state: "Groundwater in an aquifer under a | | | |
| to be water in the watercourse". The C Therefore water could not be taken fro | within 1km of a prescribed watercourse, is declared loncurry River is a prescribed watercourse. m a bore within 1km of the Cloncurry River as this tax, and an existing our face water entitlement would | | |
| need to be used/traded for the use of t | ter, and an existing surface water entitlement would he proposed camp. | | |
| River, underground water may be take | es are not installed within 1 kilometre of the Cloncurry in for any purpose without the need for a water o be drilled by an appropriately licenced water bore | | |
| approval. | the Gulf Water Plan may require development | | |
| | n a bore for a purpose <u>other than</u> stock, domestic, t bore is proposed to be constructed within 200m of a 400m of another water bore. | | |
| (a) a water bore used for monitoring—(i) the physical characteristics of an aq(ii) the physical, chemical or biological | 2016 under "exempt bore" defines monitoring as uifer: or characteristics of water in an aquifer; or f water— standing water level, water discharge rate, | | |
| water pressure | , in the state of | | |
| Testing is defined as: (i) a water bore for testing the water pr hydraulic properties of an aquifer | oduction capacity, water production quality or | | |
| Email / Information forwarded | | | |
| Mike Mitchell (MM), Evan Broughton (E Ton Graham (TG), Gerry van der Wal (| EB), Emma Mccaughey (EM), Roy Williams (RW), GW), Bradley Harbort (BH) | | |



4.

Recipients:



| Date: | 20 th November 2023 | | | | |
|----------------------------|--------------------------------|--|--|--|--|
| | | | | | |
| NEXT COMMUNICATION DETAILS | | | | | |
| Date: | | | | | |
| Location: | | | | | |
| Attachments: | | | | | |



Contact us

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Social in **f** ⊙ X □