APPENDIX

E

Proponent Commitments

CALVERT TO KAGARU ENVIRONMENTAL IMPACT STATEMENT

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.

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Appendices

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1. Introduction

This appendix sets out the Proponent commitments for the design, construction, commissioning, and operation of the Calvert to Kagaru Project (the Project), as per the Terms of Reference (ToR) in Table 1.1.

TABLE 1.1: RELEVANT TERMS OF REFERENCE

Proponent commitments	
7.4	Include a consolidated description of all the Proponent's commitments to implement management measures (including monitoring programs).

The Proponent commitments described in this appendix have been categorised into as:

- Project-wide, relevant to all or multiple phases of the Project
- Detailed design, including ongoing activities prior to the commencement of Project works
- Project works, including pre-construction and early works, construction, commissioning and rehabilitation activities
- Operation of the rail corridor, including maintenance.

2. Project-wide commitments

The commitments in Table 2.1 will apply across the Project, or to multiple delivery phases.

TABLE 2.1: PROJECT-WIDE COMMITMENTS

Matter	ID	Commitments
General	P1	Design allows for interoperability between the ARTC and Queensland Rail (QR) networks, including ensuring the existing rail traffic can operate on the new alignment with access into and out of Rosewood/existing QR network.
Acquisition	P2	The Proponent will continue to engage with the State of Queensland to protect and acquire the rail corridor and land required to facilitate the Project works and operations, including maintenance.
	P3	Where practicable and feasible, the Project will use existing government-owned land, and minimise acquisition of private land.
	P4	The Proponent will not seek to register new vacant residential lots as part of the Project.
Environmental offsets	P5	Environmental offsets will be provided where Project works have a quantified significant residual impact on Matters of National Environmental Significance (MNES) and/or State environmental significance.
	P6	A Project-specific Environmental Offset Proposal will be developed for ecological receptors prior to commencement of Project works. The Environmental Offset Proposal will be consistent with Australian Government and State Government environmental offset regulation, policy and guidelines and will detail those offset matters at an Australian Government and State Government level (as a result of quantified significant residual impacts), upper disturbance limits, outlining the preferred offset approach/mechanism including legal instrument, identifying offset site availability and timing (milestones) for offset delivery.
Flora and fauna	P7	Flora and fauna surveys will be undertaken, where they are required, to verify previous surveys and assessments, confirm habitat, refine potential offsets, inform micro-siting of infrastructure, support secondary approvals and establish baseline conditions against which relevant outcomes of the Reinstatement and Rehabilitation Plan and monitoring activities can be compared.
	P8	Clearing for laydown areas will, where practical, avoid clearing of MNES or habitat for MNES.
	P9	Restrict clearing of vegetation to the minimum level required to enable the safe construction, operation and maintenance of the railway line and supporting infrastructure.
	P10	A Fauna Crossing Strategy will be developed to guide the design, construction and monitoring of fauna crossing infrastructure.

Matter	ID	Commitments
Cultural Heritage	P11	The Project will be delivered in accordance with the approved Cultural Heritage Management Plans (CHMPs) with the Jagera Daran and the Yuggera Ugarapul People (CLH017009).
	P12	Archaeological investigations will be undertaken by personnel who are qualified and experienced in Aboriginal heritage, in consultation with the registered Aboriginal stakeholders, in accordance with the approved CHMPs with the Jagera Daran and the Yuggera Ugarapul People (CLH017009).
Operational noise and vibration	P13	The operational railway noise and vibration levels will be verified through a program of noise and vibration monitoring when the Project is operational. The monitoring program would be undertaken within the initial six months post-commencement of railway operations (Inland Rail freight train movements) on the Project.
Environmental Monitor	P14	The Proponent will engage an Environmental Monitor for the duration of Project works.
	P15	The Environmental Monitor will be: ▸ An independent, appropriately skilled and experienced entity ▸ The same entity engaged for the Helidon to Calvert Project and the Gowrie to Helidon Project unless otherwise agreed ▸ Be a separate entity to the Community Relations Monitor.
	P16	The Proponent will ensure that the Environmental Monitor has reasonable site access and access to all relevant information required to perform its functions, including, without limitation: ▸ All approvals ▸ Relevant plans and procedures ▸ The Construction Environmental Management Plan (CEMP) and relevant sub-plans ▸ Results of monitoring required under the imposed conditions, including monitoring required by the CEMP ▸ Relevant information relating to complaints, including access to the complaints register.
	P17	The Proponent will engage the Environmental Monitor to: ▸ Monitor and independently assure compliance with the imposed conditions during Project works ▸ Monitor and independently assure compliance with the CEMP ▸ Review the Monthly Reports and the Annual Reports and provide advice to the State Regulator and the Proponent on the contents and adequacy of those reports ▸ Review the results of monitoring, which may be verified by the Environmental Monitor, including by independent monitoring ▸ Provide advice to the Proponent about compliance with the Imposed Conditions, including by providing the results of independent monitoring where required ▸ Provide advice to the Proponent about issues raised in complaints and the response to complaints, incorporating advice from the Community Relations Monitor where appropriate ▸ Endorse the CEMP.
Community Relations Monitor	P18	A Community Relations Monitor will be engaged for the duration of Project works.
	P19	The Community Relations Monitor will be: ▸ An independent, appropriately skilled and experienced entity ▸ The same entity engaged for the Helidon to Calvert Project, and Gowrie to Helidon Project (unless otherwise agreed) ▸ Be a separate entity to the Environmental Monitor.
	P20	The Proponent will engage the Community Relations Monitor to: ▸ Review and provide advice to the Environmental Monitor on the Community and Stakeholder Engagement Plan ▸ Review the Monthly Report with respect to complaints and provide independent and timely advice to the State Regulator and the Proponent on the content and adequacy of those reports ▸ Provide advice to the Environmental Monitor in relation to complaints, community engagement and consultation on management measures ▸ Be available to members of the community in accordance with the Community and Stakeholder Engagement Plan.

Matter	ID	Commitments
Social Impact Management Plan	P21	The following action plans within the Social Impact Management Plan (SIMP) will be implemented during detailed design and Project works: ▸ Community and Stakeholder Engagement Action Plan ▸ Workforce Management Action Plan ▸ Housing and Accommodation Action Plan ▸ Health and Community Wellbeing Action Plan ▸ Local Business and Industry Action Plan. The SIMP action plan commitments will be implemented and monitored consistent with the SIMP monitoring framework during the relevant delivery phase.
	P22	Review of the SIMP will be undertaken by an independent third party at the end of Year 1 of Project works, prior to commissioning the Project, and during Year 3 of operation.

Community and stakeholder engagement	P23	The Community and Stakeholder Engagement Plan will be developed to guide and monitor engagement activities, in accordance with the Community and Stakeholder Engagement Action Plan within the SIMP. The Community and Stakeholder Engagement Plan will:
		▸ Establish and maintain engagement mechanisms that build relationships between the Proponent and its stakeholders, and enable adaptive management of impacts on amenity, connectivity and community values during construction
		▸ Support adaptive management of impacts on amenity, connectivity and values during construction
		▸ Support mitigation of impacts on amenity, community cohesion and local character through stakeholder engagement and in partnership with community and government stakeholders
		▸ Enable implementation of the measures identified in the SIMP to address:
		  ▸ cultural landscapes, land acquisition, amenity and lifestyle, disadvantage and community cohesion, connectivity and pedestrian safety during detailed design
		  ▸ amenity and lifestyle, connectivity and sense of place during pre-construction
		  ▸ residential amenity, cultural landscapes, connectivity and pedestrian traffic safety, sense of place/local character during construction.

Sustainability	P24	A Sustainability Management Plan will be prepared and implemented for the Project.
	P25	The future sustainability opportunities identified in Chapter 7: Sustainability will be investigated and implemented as appropriate. This will enable the key deliverables identified in the Inland Rail Sustainability Strategy to be achieved.
Cumulative impacts	P26	The proposed delivery approach for the Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru projects provides opportunities to coordinate the management of cumulative impacts generated as a result of construction traffic movements, workforce requirements (including accommodation requirements), spoil management and reuse, and strategic identification and provision of environmental offsets (for ecological receptors). These aspects will be considered collectively across these three projects in future delivery stages.
	P27	An Accommodation Management Plan (AMP) will be prepared, subject to cumulative labour force demands resulting from the construction of the Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru projects being constructed in the region.
	P28	To support consistency across project delivery, the: ▸ Environmental Monitor will be the same entity engaged for the Helidon to Calvert project, and Gowrie to Helidon project (unless otherwise agreed) ▸ Community Relations Monitor will be the same entity engaged for the Helidon to Calvert project, and Gowrie to Helidon project (unless otherwise agreed).

3. Detailed design commitments

The commitments described in Table 3.1 will apply to the design processes undertaken during the detailed design phase.

The commitments described in Table 3.2 relate to investigations, surveys, development of the Draft Outline CEMP, and other plans identified for preparation during the detailed design phase.

TABLE 3.1: COMMITMENTS—DESIGN ACTIONS

Matter	ID	Commitment
General	D1	The Project will be designed to meet the environmental outcomes identified in the Draft Outline Environmental Management Plan (Draft Outline EMP) through achievement of the performance criteria, by implementation of the proposed design mitigation and management measures, or alternate mitigation measures that achieve comparable outcomes.
	D2	The implementation of proposed or alternate mitigation measures relevant to design will be documented to demonstrate the Project's design compliance with the relevant environmental outcomes in the Draft Outline EMP.
Land use and tenure	D3	Continue to work with services and utility providers to confirm requirements for treatment of clashes and asset protection measures and, where required, the timing of any enabling works (independent of, and separate to, the Environmental Impact Statement (EIS) (i.e. works that are not Project works).
	D4	Undertake an assessment of native title to identify land where native title interests and rights still exist. Engage with the registered native title parties and relevant government agencies to obtain the relevant authorisations under the *Native Title Act 1993* (Cth).
Landscape and visual amenity	D5	The design of rail infrastructure and associated landscape treatments (including slope and stabilisation measures) will respond to the natural and rural landscape, topography and landform, to the greatest extent possible, while complying with engineering design standards and legislative requirements.
	D6	The Project landscape design will develop appropriate treatments, landscaping and stabilisation at: ▸ Waterway crossings ▸ Key viewpoints identified in the EIS ▸ Embankments ▸ Cuttings and tunnel approaches ▸ Ecologically sensitive areas identified in the EIS.
Flora and fauna	D7	The location and design of fauna movement structures across the Project alignment will be finalised, targeting key locations identified in this EIS and in accordance with a Fauna Crossing Strategy. ARTC will work with the relevant stakeholders including the Department of Transport and Main Roads (DTMR), local councils, the Department of Environment and Science and, where applicable, local environmental groups to finalise the location and design of any crossing structures. This will focus on, but not be limited to, areas of future development or complementary to any ecological corridor strategies within the study area, including those associated with the Queensland Government's South East Queensland Koala Conservation Strategy (2020-2025) (Queensland Government, 2020e).
Surface water	D8	Project works will be designed to minimise the use of water resources and maximise the opportunities for re-use of suitable water captured from construction sites.
Flooding	D9	The Project design will continue to be refined in response to hydraulic modelling outcomes and respond to the Project hydraulic design criteria in Table A.1. The hydrologic and hydraulic modelling for Western Creek, Bremer River, Warrill Creek and Purga Creek will be reviewed and updated to consider the current Ipswich City Council hydrologic and hydraulic modelling completed in early 2020. When finalised positions of infrastructure elements (e.g. abutments/piers etc.) are confirmed and detailed soil studies are complete, a geomorphological assessment of identified risk locations will be undertaken to determine appropriate design treatments.
	D10	Outcomes from further consultation with stakeholders including landholders, and State Government departments will inform and refine the Project design.

Matter	ID	Commitment
Flooding (continued)	D11	The impact of the Project on the existing flood regime will be compared against the flood impact objectives in Table A.2. Acceptable localised impacts with respect to flood-sensitive receptors and land uses will ultimately be determined on a case-by-case basis via interaction with stakeholders and landholders through the community engagement process, using the objectives as guidance.
Groundwater	D12	Ground truthing of registered and unregistered groundwater bores will be conducted during the detailed design phase of the Project.
	D13	Landowners in areas potentially impacted by the Project works (for example near deep cuttings and the Teviot Range tunnel) will continue to be consulted with to identify the location, source and use of licensed groundwater aquifer extraction.
	D14	Groundwater inflow to Project works, including the Teviot Range tunnel, cuttings and excavations will be minimised through design.
	D15	Further groundwater assessment will be undertaken to inform the design and management plans for the Teviot Range Tunnel dewatering treatment facility, relating to anticipated volumes and treatment and release regime for both the construction and operation phases.
Operational noise and vibration	D16	The operational noise and vibration assessment will be reviewed and, if necessary, updated to reflect and inform the detailed design.
	D17	The operational road traffic noise assessment will be reviewed and, if necessary, updated to reflect and inform the detailed design.
	D18	The Project will aim to minimise potential operational noise and vibration impacts.
	D19	Where reasonable and practicable (or feasible), the Project operational noise design goals will be applied at existing sensitive receptors (at the time of EIS public notification) as shown in Table A.3 and Table A.4.
	D20	Further investigations of operational noise will be undertaken to determine what reasonable and practicable (or feasible) mitigation measures are required.
	D21	Prior to finalising any operational noise mitigation measures, the Proponent will consult with the relevant owners/occupiers at sensitive receptors where potential triggers of the Project's operational noise design goals in Table A.3 and Table A.4 may occur.
Construction noise and vibration	D22	The construction noise and vibration assessment will be reviewed prior to commencement of construction to reflect and inform the final location of construction sites, construction activities and construction scheduling for the Noise and Vibration Management Sub-plan in the CEMP.
	D23	The assessment will also identify requirements for building condition surveys and confirm if there are any heritage structures assessed as being subjected to potential vibration impacts.
	D24	Owners of buried pipework predicted to be affected by likely vibration impacts will be consulted as part of design development and construction planning.
Heritage	D25	Project works will be designed, located and managed to avoid or minimise impacts or disturbance of Aboriginal, historic and natural heritage items.
Traffic and the road network	D26	The EIS traffic impact assessment will be reviewed and updated, where necessary, to reflect the detailed design, construction methodology (including material handling) and final haul routes.
	D27	A safety assessment will be undertaken in accordance with the Guide to Traffic Impact Assessment (DTMR, 2018). The safety assessment will determine where road safety audits are required.
	D28	Road safety audits will be undertaken for all road designs by an accredited road safety auditor in accordance with Austroads requirements.
	D29	Level-crossing treatments and suitability will be determined through the *Australian Level Crossing Assessment Model (ALCAM) risk tool* to confirm: ▸ The level of protection continues to be appropriate ▸ The infrastructure is appropriate for the traffic conditions. All public level crossings will be designed to provide for safe stacking, sight distances, lane marking, and signage.

Matter	ID	Commitment
Traffic and the road network (continued)	D30	Continue to work with DTMR, Ipswich City Council, Scenic Rim Regional Council and emergency services (Queensland Fire and Emergency Service, Queensland Ambulance Service, Queensland Police Service) in relation to the proposed road network changes associated with the Project works.
	D31	A travel demand management awareness campaign will be developed and implemented to inform the community and create public awareness of the Project works and potential impacts on the local road network.
Hazard and risk	D32	The ARTC *Safety Policy* and the ARTC *Fatal & Severe Risk Program* will be fully implemented.
	D33	Continue to work with DTMR and QR in relation to the proposed connections and interfaces between the ARTC and QR networks.
	D34	Tunnel design will incorporate fire and life-safety mitigation measures including limiting the amount of combustible materials used in construction, providing fire detection systems, preventing derailed trains from entering the tunnel and preventing trains that are on fire from stopping in the tunnel.
Waste and resource management	D35	Cut-and-fill balance and minimisation of spoil transport will be further refined during detailed design.
	D36	Opportunities for beneficial reuse of spoil and other materials will be identified during detailed design and construction.
	D37	Further liaison with operators of landfill and waste management facilities will be undertaken during detailed design to inform the construction methodology and construction traffic management planning, including staging of works and the assignment of waste disposal destinations from construction work fronts.

TABLE 3.2: COMMITMENTS—OTHER DETAILED DESIGN PHASE ACTIONS

Matter	ID	Commitment
Environmental management	D38	At least two months prior to the commencement of Project Work, the Proponent will submit an Outline CEMP to the State Regulator.

	D39	The Outline CEMP will further develop the construction-related elements of the Draft Outline Environmental Management Plan (Outline EMP) and include:
		▸ An overview of the following CEMP sub-plans:
		  ▸ Land use and tenure
		  ▸ Land resources including erosion and sediment control, soil management, contaminated and hazardous materials management
		  ▸ Landscape and visual amenity, with reference to the Reinstatement and Rehabilitation Plan and the Landscape and Rehabilitation Management Plan
		  ▸ Flora and fauna, including MNES
		  ▸ Air quality, including construction goals
		  ▸ Surface water, including water quality objectives for receiving waters
		  ▸ Groundwater, with reference to the Groundwater Monitoring and Management Plan (GMMP)
		  ▸ Noise and vibration, including construction goals
		  ▸ Cultural heritage
		  ▸ Traffic, transport and access, including a Road Use Management Plan in accordance with DTMR's *Guide to Traffic Impact Assessment* (GTIA) (DTMR, 2018)
		  ▸ Hazard and risk
		  ▸ Waste and resource management, including construction spoil management and waste reduction targets
		  ▸ Community engagement, including complaints management.
		▸ The environmental outcomes and performance criteria for each CEMP sub-plan
		▸ Proposed mitigation measures for CEMP sub-plans to achieve the environmental outcomes
		▸ Incidents, notifications and emergencies
		▸ Monitoring requirements
		▸ Auditing and reporting requirements.
		The Outline CEMP will identify the relationship/interface with other plans or strategies developed in response to measures identified in the Draft Outline EMP

Matter	ID	Commitment
Environmental management (continued)	D40	The MNES components of the Outline CEMP will be developed in consultation with the Commonwealth Regulator.
Flora and fauna	D41	Flora, fauna and habitat condition surveys will be undertaken to: ▸ Verify prior surveys and assessments ▸ Refine offset calculations ▸ Inform micro-siting of infrastructure ▸ Inform development of the Post-construction Matters of National Environmental Significance (MNES) Monitoring Plan ▸ Inform criteria against which relevant outcomes of the Reinstatement and Rehabilitation Plan can be evaluated.
	D42	A Post-construction MNES Monitoring Plan will be developed and implemented. The Post-construction MNES Monitoring Plan will define the location, reference condition, assessment framework, and completion criteria.
Flora and fauna, landscape and visual amenity	D43	A Reinstatement and Rehabilitation Plan will be developed and implemented for areas within the disturbance footprint that do not form part of the Project landscape design/permanent works.
	D44	A Landscape and Rehabilitation Management Plan will be developed to define progressive establishment, maintenance and monitoring requirements, and completion criteria for areas defined in the landscape design and/or identified in the Reinstatement and Rehabilitation Plan.
Surface water quality	D45	A Pre-construction Surface Water Quality Monitoring Program will establish baseline water quality conditions and provide a suitable dataset to establish water quality goals and inform the development of the Outline CEMP and the Landscape and Rehabilitation Management Plan.
	D46	A treatment and discharge plan will be developed for implementation at the tunnel dewatering facility. The treatment and discharge plan will identify the approach for scheduling release periods to minimise changes in hydrological regime, physical and chemical characteristics and ecological processes so far as is reasonable and practical.
Groundwater	D47	Baseline groundwater monitoring data (levels and quality) will be collected to inform detailed design, the Outline CEMP and the development of a construction phase GMMP.
	D48	The GMMP will define criteria for post-construction groundwater monitoring. Should this be required, post-construction monitoring requirements will be incorporated into corridor operating procedures.
Land resources	D49	Where practicable, problematic soils associated with the proposed Project works will be avoided, modified, treated or appropriately managed.
	D50	Soil conditions across the disturbance footprint will continue to be characterised (at a suitable scale) with identification of potential/actual problematic soils including: acid sulfate, reactive, erosive, dispersive, saline, acidic, alkaline and liberation of contaminants. The characterisation is to be used within the Erosion and Sediment Control Plan (ESCP) to identify problematic soils.
	D51	An Erosion and Sediment Control Plan (ESCP) will be prepared by a Certified Professional in Erosion and Sediment Control (CPESC) and be in accordance with the International Erosion Control Association *Best Practice Erosion and Sediment Control* (IECA, 2008).
	D52	A Contaminated Land Management Strategy will be developed and implemented by a suitably qualified professional, incorporating relevant outcomes from consultation with landholders and stakeholders. The Contaminated Land Management Strategy will determine the need for the development of subsequent Contaminated Site Management Plan/s.
	D53	If the risk of encountering known or possible unexploded ordnance (UXO) is identified during the development of the Contaminated Land Management Strategy, assessment and identification of management options will be carried out by a suitably qualified person.
Construction water	D54	Requirements for construction water (volumes, quality, demand curves, access, location (relative to need), approvals requirements and lead times) will be defined in a Construction Water Strategy. This will include identification of opportunities to use artificial impoundments along the alignment for construction water purposes.

Matter	ID	Commitment
Construction water (continued)	D55	The selection and potential use of construction water sources will adopt the following hierarchy, subject to demand and quality requirements: public surface water storages; recycled water; permanently flowing watercourses; privately held storage; under private agreement; existing registered and licensed bores; and mains water. The approach will confirm the suitability of water sources, with a focus on using existing sustainable allocated water entitlements in the first instance.
	D56	Licences, approvals, agreements, entitlements and/or allocations to access water from sources identified in the Construction Water Strategy will be obtained. These may include temporary water permits under the *Water Act 2000* (Qld) or access agreements with bulk water suppliers or private landholders.
Social Impact Management Plan	D57	The Proponent will engage with the delivery organisation and stakeholders, as identified in the SIMP action plans, to review the measures outlined in the SIMP. This will inform the implementation of the SIMP and ARTC's Social Performance Program including: ▸ Partnerships and projects to support mitigation and enhancement of benefits ▸ Respective responsibilities of the Proponent and other stakeholders ▸ Program for implementation ▸ SIMP monitoring.
Hazard and risk	D58	Engage with the Abandoned Mines Program in the Department of Natural Resources, Mines and Energy to identify potential risk and management actions if the Project disturbance footprint interacts with abandoned or disused mines or underground collieries.

4. Project works commitments

The commitments described in Table 4.1 will apply to Project works, including pre-construction, construction and commissioning.

TABLE 4.1: COMMITMENTS—PROJECT WORKS

Matter	ID	Commitment
Environmental Management	W1	Prior to commencement of Relevant Project works, the Proponent will prepare a CEMP. The CEMP will be developed to include sub-plans in accordance with the Outline CEMP as submitted to the State Regulator.
	W2	The CEMP must be submitted to the Environmental Monitor to be endorsed.
	W3	The Environmental Monitor must endorse the CEMP if it: ▸ Describes the Relevant Project works ▸ Is based on predictive studies and assessments of construction impacts that have regard to the scale, intensity, location and duration of construction works, and the location of sensitive receptors ▸ Is generally consistent with the Outline CEMP as submitted to the State Regulator and incorporates the environmental outcomes and performance criteria identified in the Outline CEMP ▸ Incorporates and responds to relevant Imposed Conditions, EPBC Act approval conditions and relevant secondary approval conditions ▸ Describes how the relevant Imposed Conditions will be complied with ▸ Incorporates any detailed plans required by the Imposed Conditions, EPBC Act approval conditions, secondary approval conditions and/or identified in the Outline CEMP ▸ Details mitigation measures to achieve the environmental outcomes, where predictive studies indicate impacts beyond those provided for in the performance criteria ▸ Contains a program and procedures for ongoing monitoring to identify the effectiveness of mitigation measures to achieve the environmental outcomes ▸ Includes a process for regular review, and updating of the CEMP if required, including a process to review, endorse and implement additional or different mitigation measures in response to monitoring results.

Matter	ID	Commitment
Environmental Management (continued)	W4	The Endorsed CEMP will be provided to the State Regulator at least 10 business days prior to the commencement of Relevant Project works.
	W5	Project works will be managed in accordance with the Endorsed CEMP and ESCP.
	W6	The current version of the Endorsed CEMP will be available on the Project website for the duration of the construction and commissioning phase.
	W7	The CEMP will also describe requirements for air quality monitoring and reporting, including: ▸ Dust deposition monitoring at sensitive receptor locations near the Boral Purga Quarry. Locations for the installation of dust deposition gauges will be defined by a suitably qualified air quality professional. ▸ Visual monitoring of dust generation (visible plumes) ▸ Monitoring of weather conditions during construction ▸ Investigation and appropriate response to air quality complaints.
	W8	The CEMP will specify performance criteria for water use in construction to minimise the risk of adverse water quality, environmental or health impacts, and avoid the use of potable water where non-potable sources can be applied.
	W9	The environmental outcomes in the CEMP will be met through achievement of the performance criteria or the implementation of proposed mitigation and management measures relevant to pre-construction, construction and commissioning, or via alternate mitigation measures, which target comparable outcomes.
Adaptive management	W10	Where the effectiveness of proposed mitigation measures are unknown, and compliance with the performance criteria identified in the Outline CEMP cannot be demonstrated, additional monitoring will be investigated and implemented.
	W11	Where it is found that the proposed mitigation measures are not sufficient to achieve the performance criteria identified in the Outline CEMP at sensitive receptors, additional mitigation measures will be investigated and implemented.
Erosion and sediment control	W12	Appropriate erosion and sediment control measures are to be implemented and the ESCPs will be continuously reviewed and updated for effectiveness and to reflect changing site conditions as construction progresses.
Reporting	W13	During construction, a Monthly Construction Compliance Report will be prepared. This will include: ▸ A summary of relevant monitoring data and interpretation of the results ▸ Details of any verified Non-Compliance Event, including a description of the incident, resulting effects, corrective actions, revised practices to prevent a recurrence, responsibility and timing ▸ Reporting of formal complaints, including the number of complaints, description of issues, responses and corrective actions.
	W14	For the duration of construction, an Annual Construction Report will be prepared that includes: ▸ A compliance evaluation table detailing the relevant Imposed Condition, whether compliance with the Imposed Condition was achieved and how compliance was evaluated ▸ An evaluation of compliance with the CEMP ▸ A summary of any verified Non-Compliance Events during the reporting period ▸ A summary of any non-compliance events during the previous reporting period, with details of site Construction Works; remediation of relevant local activities, corrective actions taken, or to be taken; and revised practices implemented or to be implemented. Trends and interpretation of trends related to environmental outcomes and performance criteria for each environmental element (all periods to date).
Community engagement	W15	A Community Engagement Sub-plan will be prepared as part of the CEMP. The Community Engagement Sub-plan will be developed and implemented in accordance with the Community and Stakeholder Engagement Plan and the Outline CEMP.
	W16	The Community Engagement Sub-plan will be provided to the Community Relations Monitor for advice at least 10 business days prior to the CEMP being provided to the Environmental Monitor for endorsement.

Matter	ID	Commitment
Community engagement (continued)	W17	The Community Engagement Sub-plan will provide for: ▸ Sensitive receptors to be consulted prior to commencement of Relevant Project works and then during Relevant Project works about predicted impacts and mitigation measures ▸ Sensitive receptors to be consulted about possible mitigation measures ▸ Local communities near construction works to be informed about the nature of construction, including the timing, duration and predicted impacts of the works in advance of their commencement ▸ Information to be provided to stakeholders about the predicted effects of construction works on road, rail and pedestrian and cycle network operations, in advance of their commencement ▸ Specific community consultation plans for identified key stakeholders ▸ A process for advance notification to local communities about Project works, including the timing, duration, predicted impacts and mitigation measures, which is available on the Project website and through other media.
	W18	▸ The Community Engagement Sub-plan will incorporate a complaints management system, which is established prior to the commencement of Relevant Project works and maintained for the duration of construction.
	W19	▸ The complaints management system will provide a process that ensures prompt responses to community concerns, ensure relevant information is shared, actions are implemented (where required), and incidents are reported. ▸ The complaints management system will include: ▸ A procedure for receiving complaints on a 24-hour, seven-day a week basis, during construction ▸ A mechanism for notifying the community of the complaints procedure and how it may be accessed ▸ A tool for registering and handling complaints received, including a database for tracking complaints and actions taken in response (Complaints Database) ▸ A procedure for complaints to be notified to the Community Relations Monitor, including information about the complaint and its resolution ▸ Access by the community to the Community Relations Monitor ▸ Regular reporting via the monthly report to the community about complaints and corrective actions, maintaining appropriate confidentiality.
	W20	The Complaints Database will be made available to the Community Relations Monitor.
	W21	A Community Reference Group (CRG) will be established for the duration of construction. Project representatives will meet regularly with the purpose of providing timely, open advice, representation of community issues and concerns arising from the works.
SIMP	W22	SIMP implementation progress will be monitored and reported to the CRG at each CRG meeting.
	W23	A report against performance measures will be presented to the CRG, Ipswich City Council and the Scenic Rim Regional Council annually during construction.
	W24	The Proponent will review the SIMP not less than annually during construction and, where necessary, update it based on monitoring results and stakeholder feedback. Reports on the annual SIMP review will be submitted to the State Regulator and CRG.
	W25	Prior to commissioning, a SIMP for the operational phase will be developed in accordance with ARTC's established management frameworks for rail operation, including rail noise management, safety management, workforce development and stakeholder engagement. This will be informed by the monitoring undertaken during the construction phase, which includes stakeholder engagement in monitoring impacts and the effectiveness of mitigation measures.
Project works hours	W26	Project works will be undertaken within the hours set out in Table A.5.

Matter	ID	Commitment
Flora and fauna	W27	Fauna fencing, and fauna passage structures will be installed in accordance with the detailed design.
	W28	Following determination of clearing requirements, undertake pre-clearance surveys in accordance with the relevant guidelines and standards.
	W29	Clearing activities including extents and types (i.e. MNES, MSES, or habitat for MNES or MSES) will be monitored and reported with reference to the results of pre-clearing surveys.
	W30	Prepare and implement relevant management plans (e.g. Species Management Plan and Biosecurity Management Plan) as required for the management of ecological values.
Groundwater	W31	Discharge waters from the deep cuts intersecting groundwater will be sampled to assess the potential for acid rock drainage processes taking place, and inform the implementation of appropriate management measures.
	W32	Opportunities to re-use or recycle groundwater drawn from the tunnel and cuttings, where encountered, will be identified and implemented, where feasible during construction.
	W33	Any groundwater supply and/or monitoring bores that are decommissioned will be undertaken in accordance with the *Minimum Construction Requirements for Water Bores in Australia—Edition 3* (National Water Commission, 2012).
Heritage	W34	Project works that involve excavation, construction or other activities that may cause harm to Aboriginal cultural heritage will be undertaken in line with the approved CHMPs with the Jagera Daran and the Yuggera Ugarapul People (CLH017009) in accordance with the *Aboriginal Cultural Heritage Act 2003* (Qld).
	W35	Building condition/dilapidation surveys will be undertaken at all heritage structures identified during detailed design investigations as being subject to potential vibration impacts. Surveys will occur before and after undertaking intensive vibration-generating works (e.g. pile-driving), with the potential for monitoring during the construction activities as per the CEMP.
Vibration	W36	Vibration monitoring will be undertaken at locations where the potential for building/structural damage risk is identified in the EIS reporting, further surveys during the detailed design phase, or as part of pre-construction dilapidation surveys. Vibration monitoring will be undertaken by a suitably qualified person, in accordance with relevant standards and guidelines. Where monitoring is required to occur at a listed heritage structure, placement of equipment will be carried out on advice from a suitably qualified person (heritage practitioner).
Traffic	W37	Project construction traffic will be managed to avoid or minimise and mitigate adverse impacts on road safety and traffic flow, public transport, school bus routes, property access and existing road pavements.
	W38	Workforce parking will be provided within the disturbance footprint and managed to avoid or minimise and mitigate adverse impacts to the local community.
	W39	Traffic access for emergency services to construction worksites and adjoining properties and wider road networks is maintained throughout the construction phase.
	W40	Reasonable access will be maintained to properties throughout Project works.
	W41	A Construction Traffic Management Plan will be developed, implemented and reviewed periodically for effectiveness by relevant stakeholders including local governments, DTMR, police and emergency services.
Waste and resource management	W42	All wastes generated during Project works will be stored, handled, treated, reused, recycled and/or disposed of lawfully and to avoid environmental harm.

5. Operational commitments

Once operational, the Project will become part of the existing ARTC national rail network, and will be subject to the laws, policies and procedures that already apply to that network. Internal ARTC policies and procedures will be reviewed to include operational environmental management requirements for the Project. The following specific commitments will be addressed during the operational phase.

TABLE 5.1: COMMITMENTS—OPERATIONS

Matter	ID	Commitments
Groundwater	O1	Should requirements for ongoing groundwater monitoring be identified under the GMMP, requirements for groundwater level monitoring during operation will be incorporated into corridor management procedures.
Operational noise and vibration	O2	The Proponent will investigate reasonable and practicable (or feasible) mitigation measures where monitored noise and or vibration levels at sensitive receptors are confirmed to be above the adopted Project operational noise design goals.
Tunnel	O3	Subsidence (settlement and/or cracking) and vibration emissions to be monitored and, where required, appropriately managed, including matters related to existing: ▸ Ancillary structures/utilities/services (in active use) ▸ Landowner property (freehold) ▸ Ecological receptors (MNES). These works are to be undertaken for locations directly above the final volumetric take for the as-built tunnel within the initial 12 months post-commencement of railway operations (Inland Rail freight train movements) on the Project.
SIMP	O4	The SIMP for operations will be implemented and reviewed during the first three years of operation. Any need for a SIMP following Year 3 of operations will be identified in consultation with the State Regulator.
	O5	The SIMP for operations will include a Community and Stakeholder Engagement Plan for the operational phases.
Air quality	O6	Prior to commencement of operational activities involving coal transport, engagement will be undertaken with existing stakeholders and members of the South West Supply Chain with regard to coal dust management and monitoring practices.

APPENDIX E

Proponent Commitments

Appendix A

CALVERT TO KAGARU ENVIRONMENTAL IMPACT STATEMENT

IR_1381

A.1 Project design goals

TABLE A.1: PROJECT HYDRAULIC DESIGN CRITERIA

Performance criteria	Requirement
Flood immunity	Rail line: 1% Annual Exceedance Probability (AEP) flood immunity (without climate change) allowing for up to 300 mm freeboard to formation level. Tunnel portals: 1 in 10,000 AEP event flood immunity in the portal catchments. Run off from the portal and approach cuttings is not to be directed through tunnels.
Hydraulic analysis and design	Hydrologic and hydraulic analysis and design to be undertaken based on Australian Rainfall and Runoff (ARR, 2016).
Scour protection of structures	All bridges and culverts should be designed to reduce the risk of scour with events up to 1% AEP (without climate change). Mitigation to be achieved through providing appropriate scour protection or energy dissipation or by changing the drainage structure design.
Structural design	1 in 2,000 AEP event to be modelled for bridge design purposes.
Extreme events	Damage resulting from overtopping to be minimised.
Flood flow distribution	Locate structures to maintain efficient conveyance and spread of floodwaters.
Sensitivity testing	Consider climate change and blockage in accordance with ARR, 2016. Understand risks posed and Project design sensitivity to climate change and blockage of structures.

TABLE A.2: FLOOD IMPACT OBJECTIVES

Parameter	Objectives				
Change in peak water levels[1]	Existing habitable and/or publicly used commercial structures, buildings/ premises	Existing habitable residential or publicly used commercial properties/lots where flooding does not impact dwellings/ buildings	Existing non-habitable structures or industrial building/ premises	Existing roadways (currently in use)	Existing agricultural and grazing land
	⩽ 10 mm	⩽ 50 mm	⩽ 100 mm	⩽ 100 mm	⩽ 200 mm with localised areas up to 400 mm
	Changes in peak water levels are to be assessed against the above proposed limits. It is noted that changes in peak water levels can have varying impacts on different infrastructure/land and flood impact objectives were developed to consider the flood sensitive receptors in the vicinity of the Project. For peak water levels assessed at any structure, the change in peak water level is also measured with reference to the top of the existing floor level.				
Change in duration of inundation[1]	Identify changes to time of inundation through determination of time of submergence (ToS). For roads, determine the Annual Average Time of Submergence (AATOS) and consider accessibility during flood events.				
Flood flow distribution[1]	Aim to minimise changes in natural flow patterns and minimise changes to flood flow distribution across floodplain areas. Identify any changes through assessment of risk with a focus on land-use and flood sensitive receptors.				
Velocities[1]	Maintain existing velocities where practical. Identify changes to velocities and impacts on external properties. Determine appropriate scour protection or energy dissipation considering existing soil conditions.				

Table note:
1. These flood impact objectives apply for events up to and including the 1% AEP event

TABLE A.3: AIRBORNE NOISE ASSESSMENT LEVELS FOR RESIDENTIAL RECEPTORS

Type of development	Noise management levels (most exposed external façade, habitable room)	
New rail line development[1]	Day (7.00 am –10.00 pm)	Night-time (10.00 pm–7.00 am)
	Predicted Project rail noise levels exceed:	
	$L_{Aeq(15hour)}$ 60 dBA	$L_{Aeq(9\ hour)}$ 55 dBA
	L_{AFmax} 80 dBA	L_{AFmax} 80 dBA
Redevelopment of existing rail line[2]	**Project increases existing L_{Aeq} (period) rail noise levels by 2 dB or more, or existing L_{AFmax} rail noise levels by 3 dB or more, and predicted rail noise levels exceed**	
	$L_{Aeq(15\ hour)}$ 65 dBA	$L_{Aeq\ (9\ hour)}$ 60 dBA
	L_{AFmax} 85 dBA	L_{AFmax} 85 dBA

Table notes:
Airborne noise management levels applied the most exposed external façade of an existing habitable room at an existing Sensitive Place.
1. A new rail line development is a rail infrastructure project on land that is not currently an operational rail corridor.
2. A redeveloped line is a development on land that is within an existing operational rail corridor, where a line is or has been operational or is immediately adjacent to an existing operational rail line which may result in the widening of an existing rail corridor.

TABLE A.4: AIRBORNE NOISE MANAGEMENT LEVELS FOR OTHER SENSITIVE RECEPTORS

Type of development	Noise management levels (when receptor premises are in use)	
	New rail line development[1]	Redevelopment of existing rail line[2]
	Resulting rail noise levels exceed:	Development increases existing rail noise levels by 2 dBA or more in L_{Aeq} for that period, and resulting rail noise levels exceed:
Schools, educational institutions and childcare centres	$L_{Aeq,(1\ hour)}$ 40 dBA (internal)	$L_{Aeq,(1\ hour)}$ 45 dBA (internal)
Places of worship	$L_{Aeq,(1\ hour)}$ 40 dBA (internal)	$L_{Aeq,(1\ hour)}$ 45 dBA (internal)
Hospital wards	$L_{Aeq,(1\ hour)}$ 35 dBA (internal)	$L_{Aeq,(1\ hour)}$ 40 dBA (internal)
Hospital other uses	$L_{Aeq,(1\ hour)}$ 60 dBA (external)	$L_{Aeq,(1\ hour)}$ 65 dBA (external)
Open space—passive use (e.g. parkland, bush reserves)	$L_{Aeq(15hour)}$ 60 dBA (external)	$L_{Aeq(15hour)}$ 65 dBA (external)
Open space—active use (e.g. sports field, golf course)	$L_{Aeq(15hour)}$ 65 dBA (external)	$L_{Aeq(15hour)}$ 65 dBA (external)

Table notes:
Internal noise management levels applied during loudest period, at the centre of exposed internal habitable room (where applicable and relevant, and facades open sufficiently to allow for natural ventilation).
1. A new rail line development is a rail infrastructure project on land that is not currently an operational rail corridor.
2. A redeveloped line is a development on land that is within an existing operational rail corridor, where a line is or has been operational or is immediately adjacent to an existing operational rail line, which may result in the widening of an existing rail corridor.

A.2 Construction hours

TABLE A.5: CONSTRUCTION HOURS

Description of works	Hours of work
Surface works (other than works set out below)	Standard hours Monday–Friday 6.30 am–6.00 pm Saturday 6.30 am–1.00 pm No work on Sundays or public holidays If the Project works comply with established Performance Criteria ▸ Monday–Friday 6.00 pm–10.00 pm ▸ Saturday 1.00 pm–5.00 pm
Tunnelling activities	24-hours a day, 7 days a week[1]
Spoil haulage	24-hours a day, 7 days a week[1]
Transport, assembly or decommissioning of oversized plant, equipment, components or structures	24-hours a day, 7 days a week[1]
Delivery of 'in time' materials such as concrete, hazardous materials, large components and machinery	24-hours a day, 7 days a week[1]
Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	24-hours a day, 7 days a week[1]
Materials and equipment delivery	24-hours a day, 7 days a week[1]
Works in a rail corridor (track possessions)	24-hours a day, 7 days a week[1] and in accordance with the hours of work prescribed by the rail infrastructure manager.
Works in a road	In accordance with the hours of work prescribed by the road authority, in any permit under a local law (for a local government) or a permission under s.33 of the *Transport Infrastructure Act 1994* (Qld), or if no hours of work are prescribed, then works may be undertaken Monday–Saturday (not public holidays) 6.00 am–6.00 pm.
Works carried out in an emergency to avoid the loss of life, damage to property or to prevent environmental harm	At any time
Blasting	Monday–Friday 7.30 am–4.30 pm Saturday 7.30 am–1.00 pm No blasting on Sundays or public holidays

1. Works outside of standard hours will only proceed where:
   - consultation with the local community has been undertaken
   - a site-specific noise risk assessment has been undertaken to identify the environmental risks associated with the works and action required to mitigate these risks
   - justification as to why the works are required outside of the hours nominated for surface works above is provided.