Council Infrastructure Projects

ENVIRONMENTAL MANAGEMENT PLAN

Injune Road Upgrade

Project Manager	Satyaman Khadka / Gehan De Silva
Project Coordinator	James Flynn
Project Supervisor	Murray Dingwall
Construction Crew	Taroom Construction
Location	Injune Road, Baroondah CH 49680 to 67100
Project Job Number	W8649
Description of Works	Widen existing road formation, improve road geometry, reinstate and improve drainage, and seal gravel road.

Ready for Issuing (sign):_____ **Position:** Acting Manager Infrastructure Works Manager (or representative)

Issue Date: ……../ ……../ ……..

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1 Introduction

This Environmental Management Plan (EMP) has been prepared to address environmental management requirements for the Injune Road Upgrade Project.

The EMP should be read in conjunction with all associated project management plans. Adherence to these plans is mandatory for all project staff and contractors working on the project.

Where statutory requirements demand a higher standard of environmental management than specified in the Plans, the higher standard will be adopted.

1.1 Purpose

The EMP provides appropriate environmental protection to achieve ecologically sustainable development within the framework of existing legislation and environmental management policies.

The EMP is the overarching reference for environmental management throughout the project. It describes how Banana Shire Council (BSC) proposes to manage and control environmental aspects and potential impacts of the project, through project-wide and element-specific approaches.

1.2 Policy

The Environmental Sustainability Policy (EXEC-PP-POL-45) applies to the operation of all Council activities including all employees, councillors, contractors and volunteers.

A copy of the policy can be found in Appendix 1.

2 Terms and abbreviations

2.1 Definitions

The terms in this EMP are defined in Clause 2 of the Department of Transport and Main Roads MRTS01 *Introduction to Technical Specifications* and Clause 2 of MRTS51 *Environmental Management* to ensure consistency and ease of understanding between this EMP and other infrastructure or project works undertaken.

2.2 Abbreviations

The abbreviations in this EMP are described in Table 1.

Table 1 - Abbreviations

Abbreviation	Description
BSC	Banana Shire Council
EMP	Environmental Management Plan (construction)
ESCP	Erosion and Sediment Control Plan
SMP	Species Management Program

3 Referenced documents

Table 2 lists documents referenced in this EMP.

Table 2 - Referenced documents

Reference	Title
AS 1940	*AS 1940:2017 – The storage and handling of flammable and combustible liquids*
AS 3833	*AS 3833:2007 – The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers*
MRTS01	Introduction to Technical Specifications
MRTS04	General Earthworks
MRTS16	Landscape and Revegetation Works
MRTS51	Environmental Management
SMP-low risk	*Banana Shire Council Species Management Program for tampering with animal breeding places – low risk of impacts – least concern animals (excluding special least concern or colonial breeders)*, issued by the Department of Environment, Science and Innovation, January 2021 (MagiQ Doc 1614178)
	Accepted development requirements for operational work that is constructing or raising waterway barrier works, Department of Agriculture and Fisheries, Queensland
	End of Waste Code Recycled Aggregates (ENEW07604819), Department of Environment, Science and Innovation, Queensland
	Exemption Requirements for constructing authorities for the taking of water without a water entitlement (OSW/2020/5467), Department of Regional Development, Manufacturing and Water
	IECA Best Practice Erosion and Sediment Control Appendix B – Sediment Basin Design and Operation, 2018
	Road Traffic Air Quality Management Manual, Queensland Department of Transport and Main Roads, June 2014
	Transport Noise Management Code of Practice, Volume 2 – Construction Noise and Vibration, Queensland Department of Transport and Main Roads, Queensland
	Vehicle and machinery cleandown procedures, Department of Agriculture and Fisheries, Queensland

4 Environmental management

4.1 Environmental Management Plan

Reasonable and practicable Management Measures will be undertaken to avoid causing Environmental Harm and comply with legislative requirements. The EMP will be always accessible on site.

4.2 Environmental Management Plan updates

Where operational changes have occurred on site during the project, or after a non-conformance/incident occurring, this EMP will be updated (as required).

5 Administrative requirements

5.1 Weekly site inspections

The Project Supervisor will undertake and document weekly site inspections to:

- verify management measures prescribed in this EMP are present, functional and adequate
- observe the site for actual or potential environmental harm or environmental nuisance
- identify maintenance requirements for implemented Management Measures
- verify preparedness for adverse weather conditions where forecast.

The Environmental Inspection Checklist (weekly) (DES-EM-40-002) is provided in Appendix 2 for this purpose.

Corrective actions will be undertaken to rectify issues identified during site inspections. Where a site inspection identifies a legislative or non-conforming result, it will be discussed with the Project Support Officers and Site Supervisors and reported via the Monthly Environmental Report.

5.2 Notification of visits by Administering Authorities

The Site Supervisor will notify the Manager of Environment and Waste of correspondence, meetings or visits from representatives of any Administering Authority (e.g., the Department of Environment, Science and Innovation) within 24 hours, or as soon as practicable, of becoming aware of the event.

5.3 Complaint management

Environmental and cultural heritage-related complaints will be handled in accordance with procedures listed in Section 5.4.1, and BSC's Customer Service Charter.

Noise complaints

For projects assessed as medium or high noise or vibration risk, complaints will be managed in accordance with the *Transport Noise Code of Practice*: Volume 2 including undertaking complaint assessment where required.

5.4 Complaint Register

All incidents and complaints reported will be recorded in the Complaint Register (INF-WK-02-061) (Appendix 3). The Project Supervisor will review the Register after receipt of a complaint or following an incident to ensure appropriate corrective actions have been taken and that the issues have been, or are being, resolved.

5.4.1 Complaints and incidents procedure

The Project Coordinator, or authorised delegate, will liaise with the complainant to discuss the nature of the complaint, identify the possible cause(s), assess for legislative triggers, and detail any required action(s) to prevent or minimise potential for recurrence. All employees will show respect and understanding to complainants. All complaints received will be reported to the Project Coordinator as soon as possible and recorded appropriately.

The following details shall be recorded in written form in the Complaint Register (INF-WK-02-061) (Appendix 3) at the receipt of a complaint.

1. Complaint ID number (or date and time)
2. Name and contact details of the complainant when provided and authorised by the complainant
3. Location and nature of the complaint
4. Immediate response
5. Status of the complaint.

Complaints will be responded to within the following timeframes following receipt.

1. Two working days – appropriate action undertaken to determine the source of the complaint.
2. Five working days – full written response, which confirms details of the complaint and indicates what action has been taken or is proposed to be taken.
3. It will be made clear that if the complainant is not satisfied; they can contact Banana Shire Council on (07) 4992 9500.

5.5 Weekly environmental monitoring

Environmental monitoring will be conducted via a weekly inspection of relevant environmental aspects and elements and recorded in the Environmental Inspection Checklist (Weekly) DES-EM-40-002 (Appendix 2). Inspection and monitoring requirements are detailed within each of the EMP specific element requirements in Section 6.

Where monitoring identifies a non-conforming result with legislative criteria or objective, the non-conformance will be reported via internal monthly environmental reporting.

5.6 Monthly environmental reporting

The Project Support Officer will complete and submit a Monthly Environmental Report to the Environmental Sustainability Advisors within five business days of the end of each month. The TMR template (Form A) for the Monthly Environmental Report will be used for this purpose and has been included as Appendix 4 of this document.

5.7 Notification and management of environmental incidents

5.7.1 Notification

The Administering Authority will be reported to in accordance with any Approval conditions and relevant legislation where a breach of Approval condition(s), reportable legislative breach, or actual or potential material or serious Environmental Harm (as defined in the *Environmental Protection Act 1994*) is identified. These may include, but are not limited to:

a) Actual or potential material or serious Environmental Harm as defined in the *Environmental Protection Act 1994*.
b) Reportable breach of legislation.
c) Breach of an Approval condition(s).
d) Non-conformances from Water Quality Investigation Criteria recorded during Monitoring.
e) Injury or death of native fauna other than least concern species, potentially caused by Works, including the occurrence of a fish kill on Site or in Waterways receiving Discharge from Site.
f) Tampering with a native animal breeding place(s) other than in accordance with an applicable Species Management Program.
g) Ground disturbance or vegetation clearing beyond the Limits of Clearing.
h) Damage to known or potential Cultural Heritage.
i) Ground disturbance or vegetation clearing beyond the boundary of the Cultural Heritage Management Agreement or Plan.
j) Movement or relocation of Cultural Heritage without approval of the Indigenous Party(ies).
k) Clearing of a protected plant under State or Commonwealth legislation other than authorised under an Environmental Approval.
l) Identification of a new Biosecurity prohibited matter or restricted matter (Category 1 or 2) on Site or breach of a condition of a biosecurity zone.
m) Discovery of a Contaminated Site (including unexploded ordinance) or land contamination having occurred on the Site during the Work.

The above events will be reported and managed as Environmental Incidents.

5.7.2 **Management**

Immediate remedial actions will be undertaken to mitigate Environmental Harm or further impacts.

Once the immediate risk from the Environmental and Cultural Heritage Incident is alleviated, the cause of the breach will be investigated and/or potential Environmental Harm and implement corrective actions. An Environmental Incident Report (DES-EM-40-071) included in Appendix 5 of this document will be completed detailing:

a) the nature of the incident
b) the incident type and classification
c) what immediate actions/control measures were taken
d) corrective actions that have been undertaken to prevent a similar incident reoccurring.

5.8 **Records and registers**

The following records are to be maintained for the Project and saved in Magiq as required.

Table 3 - Environmental record requirements

Record requirement
Environment and Cultural Heritage induction attendance registers
Environmental and Cultural Heritage Incident reports, non-conformances and complaints register and associated corrective actions taken
Weekly Site Inspection checklists and diary entries
Monitoring results

Record requirement
Environment audit reports and subsequent corrective actions taken
Meeting minutes with Administering Authorities and interested parties relating to the Management Measures
Formal letters from Administering Authorities
Biosecurity Matter certificates, Biosecurity Instrument Permits and Biosecurity management documentation
Complete registers kept under Species Management Program of animal breeding place(s) tampered with and injury(s) or death(s) to native fauna
Records to demonstrate and document compliance with Environmental Approvals
As constructed drawings and maintenance plans for any permanent environmental management infrastructure constructed (i.e., sediment basins, fauna management infrastructure)
Details regarding ongoing management, monitoring or reporting requirements related to Environmental Approvals
Quantities of water and quarry materials extracted from non-commercial sources by source site
Cultural Heritage personnel daily timesheets
Any other record identified within EMP

5.9 Environmental roles and responsibilities of personnel

Responsibility for environmental management and continuous improvement in performance is the duty of all personnel. All personnel will comply with the requirements of all relevant environmental legislation, regulations, codes of practice, project standards, procedures and work instructions.

The environmental responsibilities of key personnel are outlined in Roles and Responsibilities INF-WK-09-020 (Appendix 6).

5.9.1 Environmental Representatives

Supervisors (including Team Leaders) serve as the appointed Environmental Representatives within the framework of this EMP.

Environmental Sustainability Advisors are to be consulted for environmental assessments, complex environmental issues and investigations as needed.

Table 4 - Contact details for environmental roles

Responsibility	Name	Phone	Email
Project Manager	Satyaman Khadka	4992 9583	Satyaman.khadka@banana.qld.gov.au

Responsibility	Name	Phone	Email
Project Coordinator	Richard Watkins	0427 726 909	Richard.watkins@banana.qld.gov.au
Supervisor / Team Leader (Environmental Representative)	Murray Dingwall	0409 824 274	Murray.dingwall@banana.qld.gov.au
Environmental Sustainability Advisor	Jason Turner	4992 9595 0499 879 535	Jason.turner@banana.qld.gov.au
Project Support Officer	Elena Hayward	0477 312 622	Elena.hayward@banana.qld.gov.au

5.10 Selection and management of sub-contractors

BSC will include a requirement to comply with this EMP in all Contractual arrangements with sub-contractors.

5.11 Approvals

All necessary Approvals to comply with statutory requirements where Approvals are required will be obtained.

For all Approvals:

- comply with the relevant conditions of Approvals obtained
- retain records required to demonstrate compliance with all Approvals.

5.11.1 Project specific Approvals

Details of Approvals obtained are detailed in Table 5.

Table 5 - Project specific Approvals

Name, type and reference number of the Approval	Administering Authority	Commencement and expiry date	Conditions of Approval and records to be retained or supplied
Protected Pants Permit WA0067246 Included in Appendix 13	Department of Environment and Science	Granted: 17/03/2025 Expires: 16/03/2027	Shown below:
Conditions to the Permit:			

Name, type and reference number of the Approval	Administering Authority	Commencement and expiry date	Conditions of Approval and records to be retained or supplied
PPCM01 Activities relating to the impact of threatened or near threatened plant species under this permit must be in accordance with the procedures and actions outlined in the following documents, except where conditions below indicate otherwise: Protected Plants Flora Survey Report – "Dynamic Banana Shire Council Injune Rd Upgrade Protected Plants Report v2 20250228.pdf" and Associated appendices Flora Trigger Map and supporting documentation "Dynamic Banana Shire Council Injune Rd Impact Management Plan v3 20250304.pdf". PPCM04 Should the project not proceed, in addition to the requirement to rehabilitate the area/s once cleared, the site/s must not be further disturbed and must be maintained to ensure erosion and weed control. PPCC001 This permit approves the clearing impact area of 74.2 Ha with nil take of Eucalyptus beaniana (Bean's Ironbark) and authorises the clearing of protected plants in the clearing area that were not specified in the Flora Survey Report. PPCC002 ADVISORY INFORMATION NOTICE: Clearing is to be conducted in a sequential manner and must be conducted in a way that directs escaping wildlife away from the area and into adjacent natural areas. A licensed spotter/catcher must be employed where there is a risk to native fauna present within the clearing site. The permit holder must ensure any injured animals are referred to an appropriate wildlife carer group or veterinarian. PPCC003 Within 10 business days after expiry of the permit a report must be emailed to wildlife.operations@detsi.qld.gov.au to advise the success with avoiding and mitigating impacts on all species listed in PPCC001 associated with Banana Shire council proposed project for road work.			
Impact Management Requirements: In order to ensure not more than 10% incursion into the Tree Protection Zone (TPZ) of the closest tree will occur, clearing cannot be undertaken within 10m of the tree. Measures to be Implemented: To ensure the threat abatement actions listed in the Approved Conservation Advice for E. beaniana (DEWHA, 2008) are adopted, the Project Manager will ensure the following – • Clearing activities associated with the upgrade of Injune Road will be kept to as minimal as possible; • All personnel undertaking clearing activities are made aware of the nearby E. beaniana and the conservation significance of the species; • Flagging and signage is installed between the closest E. beaniana and the road to demarcate an extent of clearing area as per Figure 4 in Appendix 13, and is to remain in place until works are complete; • All personnel undertaking clearing activities are aware that there must be no works beyond the flagging and signage installed; • Activities will be kept to a minimum to avoid root compaction where incursion into the TPZ is necessary; • Vehicle hygiene protocols are implemented during construction to ensure they and their contractors meet their General Biosecurity Obligations in accordance with the Biosecurity Act, 2014 and relevant Local Laws;			

Name, type and reference number of the Approval	Administering Authority	Commencement and expiry date	Conditions of Approval and records to be retained or supplied
• Where required during construction activities, dust management will be undertaken to prevent impacts from dust; • Erosion and sediment controls will be installed for the duration of construction activities as required; • Any new weed incursions identified during construction activities will be managed appropriately; • Rehabilitation of the roadside will be undertaken where necessary following completion of the works; • The two E. beaniana trees will be monitored through weekly inspection during construction to ensure flagging and signage remains in place, and monthly for three months following completion of the works to ensure that the trees are not exhibiting any signs of decline in health such as peripheral dieback; • If the trees begin to show any signs of decline in health during construction activities an investigation will be undertaken by an Arborist to determine the cause and implement revised impact management measures; and • If tree mortality occurs as a result of the works the Department of Environment, Tourism, Science and Innovation will be notified within 24 hours.			

5.12 Site inductions

5.12.1 Environmental Site-specific Induction

All staff will attend the Environmental Site-specific Induction DES-EM-35-001 (Appendix 7) in conjunction with Safety and Communication Inductions.

An Induction Register INF-WK-02-080 (Appendix 78) will be maintained on site, signed by all site employees, personnel, subcontractors and visitors.

5.13 Environmental training

Environmental Awareness Training is undertaken by all staff and contractors working for BSC. This includes:

- BSC's Environmental Sustainability Policy
- General Environmental Duty
- Duty to notify of environmental harm – internal procedures and reporting to administering authorities
- Cultural heritage internal procedures
- General Biosecurity Obligation.

Environmental Representatives are trained in the requirements of this Environmental Management Plan.

Additional training or competencies for staff are identified and carried out as per the Competency Matrix within the BSC Environmental Management System.

5.14 Selection and management of sub-contractors

A requirement to comply with this EMP will be included in all Contractual arrangements with sub-contractors.

6 EMP specific element requirements

6.1 General

Environmental Management of the Works includes Temporary Works and ancillary activities including sourcing water, gravel, side tracks, stockpile sites, Site facilities and camps, and turnaround points.

6.2 Water

6.2.1 General

Construction activities disturb vegetation and expose soils to erosion by wind and rain. Runoff may increase the turbidity and other characteristics of the receiving waters. Deposition of sediment in natural watercourses may impact on in-stream native flora and fauna and may cause potential flooding issues.

6.2.2 Performance requirements

- Ensure prescribed water contaminants under Section 440ZG of the *Environmental Protection Act 1994* are not allowed to leave site and/or be deposited in watercourse, roadside gutter or stormwater drainage.

6.2.3 Waterbodies and Waterways

Table 6 - Waterbodies and Waterways within 50m of the site boundaries that the site discharges to:

Waterbodies and waterways	Distance from Site boundary
Unnamed watercourse	Crosses the road at Chainage 57405
Pine Creek	Crosses the road at Chainage 58650

6.2.4 Flocculation

Where flocculation is undertaken on Site, the selection, storage, application and monitoring of the use of flocculants will be in accordance with *IECA Best Practice Erosion and Sediment Control Appendix B – Sediment Basin Design and Operation*, Step 17 to ensure that the flocculent does not cause Environmental Harm on the surrounding land and water. Sediment basin sludge shall be in managed in accordance with the chemical supplier's advice.

6.2.5 Stormwater reuse

Stormwater (including stormwater captured in sediment basins) will be reused for dust suppression, roadworks or landscaping where practicable. Where water is to be reused for landscaping, it shall be compliant with Clause 7.9 of MRTS16 *Landscape and Revegetation Works* quality requirements.

Where captured stormwater is to be reused on roadworks the requirements in MRTS04 *General Earthworks* will be adhered to.

6.2.6 Management and mitigation

Table 7 - Water management

Construction activity & potential impact	Potential water contaminants	Mitigation and management measure
Earthworks	Soil	Minimise disturbed areas. Appropriate sediment controls are to be implemented prior to the commencement of construction works. Where exposed soils cannot be stabilised, water tankers should be deployed to suppress dust. Water quality monitoring will be undertaken to ensure excess sediment laden runoff is not released off site.
Concreting	Muddied waters, alkalinity	Bund concrete area and divert clean water around the site. Wash concrete equipment in designated areas only, away from watercourses. Keep water off curing concrete for 48-72 hours. Plan works to ensure concrete is not being poured prior to forecast rain.
Revegetation	Fertiliser, nutrients and vegetative material (tannins, acetic acid)	Do not hydromulch within a watercourse. Do not spray during rain event or if rain is forecast. Where a large amount of vegetative material is to be stockpiled, an earthen bund should be constructed around the stockpile to capture tannins and acetic acid.
Surface coating treatments	Petrochemicals	*Refer to Chemical and Fuels Management and Mitigation Section 6.14.5.*
Refuelling and plant servicing	Oil, Fuel, Coolant, Heavy Metals	
Herbicides/Pesticides	Herbicide	
Vehicle Washdown	Weed seed, grease, soil	*Refer to Biosecurity Management and Mitigation Section 6.12.6.*

6.2.7 Inspection and monitoring

Visual monitoring will be undertaken weekly and after rain events (15mm Rainfall in 2 hours) to ensure discharge from Site to complies with the Water Quality Investigation Criteria (Discharge) outlined in

Table 8.

Table 8 - Water quality investigation criteria

Parameter	Discharge	Dewatering to land	Waterway
Turbidity	No visual evidence of sediment accumulating at point of Discharge	N/A	No visible change from upstream
Waste	No waste or litter visible	No waste or litter	No waste or litter
Hydrocarbons, tannins, paint	No visible trace	No visible trace	No visible change from upstream

Table 9 - Water inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
Inspect water quality upstream and downstream of the Site on Waterways within the Site and where Discharges enter from the Site. Inspection where concentrated flows of stormwater Discharges from Site.	Weekly and 15 mm Rainfall in 2 hours	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor
Inspection where concentrated flows runoff area	Weekly	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor
Water Quality (Discharge and Waterway) results outside criteria	Monthly	Form A – Contractor's Monthly Environmental Reporting **Submit to ESA**	Project Support Officer

6.2.8 **Contingency plan for Environmental Harm to water quality**

Where Monitoring observes Discharges or Waterways to be:

a) visually contaminated
b) there is a visible accumulation of sediment or other contaminant within a Waterway at the point of Discharge, or
c) a complaint is received.

The Site Supervisor or Environmental Representative will undertake an investigation to assess whether reasonable and practicable measures are implemented, and whether corrective actions and/or reporting are required.

6.3 Erosion and sedimentation

6.3.1 General

Erosion and sediment control measures are documented in the project Erosion and Sediment Control Plan, refer to drawing numbers 1600-1633 of IFC Plans (not included in this Environmental Management Plan).

6.3.2 Basic soil protection principles

Basic soil protection principles apply where disturbance occurs:

a) Minimised clearing reduces erosion risk.

b) Disturbance and construction activities should be timed to minimise duration of risk and include consideration of weather conditions.

c) Diversion of upstream "clean" waters around the site is desirable in minimising the quantity of water that requires management.

d) It is preferable (where practical) to control erosion rather than having to capture the resultant sediment.

e) Sediment must not be released to waters or adjoining properties.

f) Location of ancillary activities (camps, stockpiles, parking, turn around, etc) should be selected to minimise disturbance and erosion and sediment potential.

g) Finishing work areas (lots) progressively will minimise erosion potential – final protective measures ((e.g., rock protection, revegetation) should be completed as early as possible).

h) Where possible, utilise permanent control measures as temporary controls.

6.3.3 Inspection and monitoring

Table 10 - Erosion and sedimentation inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
ESC structures installed as per ESC Plan, in good condition / effective (sediment fences, diversion drains, check dams) Exposed surfaces minimised and managed (no erosion, appropriate slope lengths, geotextile linings, revegetation) Stormwater diverted around disturbed areas	Weekly	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor

Task	Monitoring frequency	Reporting mechanism	Responsibility
Appropriate siting of stockpiles (>50m away from watercourses)			
Erosion and sediment control reporting	Monthly	Form A – Contractor's Monthly Environmental Reporting **Submit to ESAs**	Project Support Officer

6.4 Cultural Heritage

6.4.1 General

BSC are responsible for the management of Indigenous and non-Indigenous Cultural Heritage within and adjacent to the Site.

6.4.2 Performance requirement

- Minimise risk of disturbance and/or damage to known and unknown sites of Aboriginal and historic heritage.
- Undertake Work in compliance with the *Aboriginal Cultural Heritage Act 2003*, *Torres Strait Islander Cultural Heritage Act 2003, Queensland Heritage Act 1992* and the *Environmental Protection and Biodiversity Conservation Act 1999*.
- Where a Cultural Heritage Management Plan (CHMP) or Cultural Heritage Management Agreement (CHMA) is in place, operations will occur in accordance with the conditions.

6.4.3 Cultural Heritage Officer(s)

Table 11 - Project Cultural Heritage Officers

Organisation and title	Name	Telephone
Director Council Services	Chris Welch	07 4992 9500

6.4.4 Location of Known Areas of Cultural Heritage

Table 12 - Known Areas of Cultural Heritage

Item description	Location	Method of exclusion
Artefacts found on site	Various locations	Recorded artefacts were relocated to the mitigation site.

6.4.5 Management and mitigation

Table 13 - Aboriginal and historic heritage management

Construction activity & potential impact	Mitigation and management measure
Disturbance from vehicles and machinery	Vehicles and machinery to be restricted to Project footprint, where practicable. Where works extend outside of the approved disturbance footprint, the incident will be recorded, and an investigation undertaken as to why works extended outside of the approved footprint. Buffer zones of highly visible fencing or mesh around any known or discovered historic heritage sites are to be implemented during construction to minimise the potential for accidental damage to sites.
Disturbance or clearing is required outside the area covered by the CHMA or CHMP	Notify Council's Cultural Heritage Officer, works will not commence beyond the area covered by CHMA or CHMP, until deemed suitable.
Disturbance to non-indigenous heritage	Notify Council's Cultural Heritage Officer, works will not commence until deemed suitable.
Unexpected finds of cultural heritage material or sites, both non-indigenous and indigenous	A cultural heritage induction will be delivered to all site personnel before entering the site. The unexpected find/discovery procedure will be discussed as part of the induction. Unexpected find/discovery procedure, Section 6.4.6.

6.4.6 Unexpected find/discovery procedure

Where items of potential Cultural Heritage significance (Indigenous or Non-Indigenous) are discovered (and when no Cultural Heritage Personnel are present for Indigenous heritage), the Find – Stop – Notify – Manage procedure will be followed:

a) **FIND**: An item of potential Cultural Heritage is found.
b) **STOP**: All work at the Find location shall cease. The item shall not be removed or disturbed.
c) **NOTIFY**: The Site Supervisor will immediately notify Council's Cultural Heritage Officer.
d) **MANAGE**: The Cultural Heritage Officer will arrange for the potential Cultural Heritage to be inspected and assessed for significance. The Cultural Heritage Officer will provide temporary management recommendations. This may include securing the find by erecting an exclusion zone for a period of time and precluding access to that area. All site personnel will be notified of the object and / or area and proposed treatment of the object and / or area as soon as possible, but prior to commencing work on the next working day.

Should any skeletal remains be found on the Site, immediately stop work, notify the Site Supervisor and erect exclusion fencing. The Supervisor will call **000** and await instruction.

6.4.7 Inspection and monitoring

Table 14 - Aboriginal and historic heritage inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
Construction works do not extend outside of approved disturbance footprint Inspection of exclusion fencing and mesh around sites, protected areas is intact, adequately signposted Cultural Heritage values protected and undisturbed	Weekly	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor
Cultural Heritage Monitoring (Indigenous or Non-Indigenous)	Monthly	Form A – Contractor's Monthly Environmental Reporting Submit to ESAs	Project Support Officer

6.5 Noise

6.5.1 General

Noise is generated by a number of different activities carried out as part of the Works. If noise is not controlled, there is the potential for noise to cause an environmental nuisance. Sensitive Receptors and Critical Facilities, Infrastructure and Utilities likely to be affected by construction noise will be identified.

6.5.2 Performance requirement

- Implement reasonable and practicable Management Measures to avoid and mitigate Environmental Harm or Environmental Nuisance from noise associated with Work.
- Address documentation, assessment and mitigation requirements according to noise risk level.
- Review the Noise Management Plan or EMP, update and implement additional Management Measures:
    - in response to a justifiable complaint caused by the Work
    - when changes in the equipment / work method, intensity, location, duration or timing of impacts that are expected to increase noise impacts are foreseen.
- Ensure compliance with Environmental Protection (Noise) Policy 2019*,* and *Work Health and Safety Act 2011*.
- For Works identified as medium or high risk for noise, the *Transport Noise Code of Practice*: Volume 2 will be complied with, and a stand-alone Noise Management Plan will be prepared.

6.5.3 Noise Sensitive Receptors and Critical Facilities, Infrastructure and Utilities

Table 15 - Location of any Noise Sensitive Receptors and Critical Facilities, Infrastructure and Utilities

Noise Sensitive Receptors and Critical Facilities, Infrastructure and Utilities	Location/distance from Works	Likely be impacted by construction noise (Y/N)?
Travelling Public	Through work site	N
Residences	Not in proximity to work site	N

6.5.4 Management and mitigation

Table 16 - Noise management

Construction activity & potential impact	Mitigation and management measure
General site activities, including vehicle and equipment operation and movement, earthworks, truck movement, etc.	Ensure all construction equipment is in good working order, is well-maintained and has up to date service records. Vehicles and machinery to be switched off when not in use. Materials dropped from heights and into or out of trucks will be minimised. Prior to works commencing noise sensitive receptors and commercial places within 600m of the worksite will be notified of the type and expected duration of the works. Restrictions to hours of operations: a) on a business day or Saturday, before 6am or after 7pm b) on any other day, before 8am or after 7pm. Construction to be in accordance with the noise requirements of the Queensland Environmental Protection (Noise) Policy 2019.

6.5.5 Inspection and monitoring

Table 17 - Noise inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
Inspection of construction equipment is in good working order and has up to date service records	Prior to deployment/ Ongoing	Workshop Records Daily Inspection Checklist (vehicle)	Principal Fleet and Workshop Advisor Vehicle operator
Ensure no new noise risks introduced and	Weekly	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor

Task	Monitoring frequency	Reporting mechanism	Responsibility
noise controls are implemented			
Construction noise monitoring (*For medium and high noise risk projects only)*	Monthly	Form A – Contractor's Monthly Environmental Reporting **Submit to ESAs**	Project Support Officer

6.5.6 Contingency plan for Environmental Harm associated with noise impacts

Management of Environmental Harm associated with noise impacts will be undertaken are per section 7.7.2 of this document or as detailed in the Noise Management Plan where developed.

6.6 Vibration

6.6.1 General

Vibration is generated by a number of different activities carried out as part of the Works. If vibration is not controlled, there is the potential for vibration to cause human discomfort or structural damage to infrastructure.

6.6.2 Performance requirement

- Implement reasonable and practicable Management Measures to ensure vibration impacts associated with Work so as not to cause Environmental Harm and Environmental Nuisance in accordance with *Environmental Protection Act 1994* (Human comfort Vibration).
- Implement reasonable and practicable Management Measures to avoid Environmental Harm to structures, premises, services and buildings within or beyond the boundary of the Site as a result of Work (Building / Structural Vibration).
- Implement additional Management Measures where:
    - in response to a justifiable complaint caused by the Work
    - in the event of structural / building damage caused by the Work
    - when changes in the equipment/work method, intensity, location, duration or timing of impacts that are expected to increase vibration impacts are foreseen.
- For Works identified as medium or high risk for vibration, the *Transport Noise Code of Practice*: Volume 2 will be complied with, and a stand-alone Noise Management Plan will be prepared.

6.6.3 Vibration Sensitive Receptors and Critical Facilities, Infrastructure and Utilities

Table 18 - Location of any Vibration Sensitive Receptors and Critical Facilities, Infrastructure and Utilities in proximity to the project

Vibration Sensitive Receptors and Critical Facilities, Infrastructure and Utilities	Location/distance from Works	Likely be impacted by construction vibration (Y/N)?
Travelling Public	Through work site	N

Vibration Sensitive Receptors and Critical Facilities, Infrastructure and Utilities	Location/distance from Works	Likely be impacted by construction vibration (Y/N)?
Residences	Not in proximity to work site	N

6.6.4 Management and mitigation

Table 19 - Vibration management

Construction activity & potential impact	Mitigation and management measure
General site activities, including vehicle and equipment operation and movement, earthworks, truck movement, etc.	Vehicles and machinery to be switched off when not in use. Prior to works commencing vibration sensitive receptors and commercial places within 600m of the worksite will be notified of the type and expected duration of the works. Care with vibrations over culverts (both existing and new) for damage. Gas pipeline exclusion area 10m either side of pipelines. Restrictions to hours of operations: a) on a business day or Saturday, before 6am or after 7pm b) on any other day, before 8am or after 7pm.

6.6.5 Inspection and monitoring

Table 20 - Vibration inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
Ensure no new vibration risks introduced and vibration controls are implemented	Weekly	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor
Construction vibration monitoring	Monthly	Form A – Contractor's Monthly Environmental Reporting **Submit to ESAs**	Project Support Officer

6.6.6 Contingency plan for Environmental Harm associated with vibration impacts

Management of Environmental Harm associated with vibration impacts will be undertaken are per section 7.7.2 of this document or as detailed in the Vibration Management Plan where developed.

6.7 Air

6.7.1 General

Construction activities and equipment have the capacity to generate dust, smoke and offensive odours and other air pollutants that if inadequately controlled have the potential to cause nuisance to sensitive receptors/places and impact on vegetation.

6.7.2 Performance requirements

- At all times, reasonable and practicable Management Measures will be taken to avoid causing Environmental Harm and Environmental Nuisance.
- Minimise air and dust impacts to sensitive receptors.
- Minimise the generation of greenhouse gases.
- Compliance with the Environmental Protection (Air) Policy 2019.
- Construction related air quality complaints shall be managed in accordance with Chapter 7 of the *Road Traffic Air Quality Management Manual*.

6.7.3 Air Quality Sensitive Receptors

Table 21 - Location of any Air Quality Sensitive Receptors in proximity to the project

Air quality Sensitive Receptors	Location/distance from Works	Likely experience Environmental Nuisance or Environmental Harm in relation to air quality (Y/N)?
Travelling Public	Through work site	N
Residences	Not in proximity to work site	N

6.7.4 Management and mitigation

Table 22 - Air quality management

Construction activity & potential impact	Mitigation and management measure
General site activities, including vehicle and equipment operation and movement, earthworks, truck movement, etc.	Notify residents and businesses likely to be affected by air quality, advising them of the duration and purpose of the works. Dust suppression (i.e., watering truck) is to be carried out regularly on internal unsealed access roads during drier months to limit generation of dust as required. A maximum speed limit of 40 km/hr for all vehicles should apply to access roads and tracks to minimise the potential for dust generation. All temporary soil stockpiles will be covered, stabilised and/or moistened as required to prevent generation of dust particles. Stockpiles that are anticipated to be present in the medium and long term are to be covered to minimise dust emissions.

Construction activity & potential impact	Mitigation and management measure
	All vehicles carrying loads with the potential to create dust should cover their loads. Minimal ground disturbance during construction to reduce dust emissions.
Generation of greenhouse gas emissions	Vehicles, plant and equipment will be regularly serviced and comply with Australian Design Standards. All machinery and equipment are to have proprietary emission control equipment fitted and in working order. When not in use, vehicles and machinery should be turned off.
Burning of material	Not permitted.

6.7.5 Inspection and monitoring

Table 23 - Air quality inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
Monitor of condition of stockpiles and access tracks, dust controls implemented and working effectively Check for visible dust leaving the Site Ensure plant is in good working order to reduce particulate emissions	Weekly	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor
Air quality monitoring	Monthly	Form A – Contractor's Monthly Environmental Reporting **Submit to ESAs**	Project Support Officer

6.7.6 Contingency plan for Environmental Harm associated with air quality impacts

Management of Environmental Harm associated with air quality impacts will be undertaken are per section 7.7.2 of this document or as detailed in the Air Quality Management Plan where developed.

6.8 Acid sulphate soils

Actual or potential acid sulphate soils within the Site will be managed, if required. An assessment has been undertaken and risk of interacting with acid sulphate soils or potential acid sulphate soils has been deemed minor for Works within the Banana Shire as presented in DES-EM-30-070.

6.9 Contaminated sites

6.9.1 General

Environmental Harm from Contaminated Sites within the Site (for example, contaminated soil, waste dumps, unexploded ordnances) will be managed, where required.

6.9.2 Performance requirements

- Management of Contaminated Site in accordance with statutory requirements under the *Environmental Protection Act 1994.*
- Comply with the requirements of MRTS04 *General Earthworks* Clause 11 in relation to use or disposal of surplus and unsuitable material.
- Comply with the requirements of MRTS96 *Management and Removal of Asbestos*.
- Site management in accordance with the Administrating Authority-approved Site Management Plan where it exists.

6.9.3 Contaminated Sites and known in-situ contaminants

Table 24 - Location of known Contaminated Sites and known in-situ contaminants

Location of known Contaminated Sites	Known in-situ contaminants
N/A	

6.9.4 Management and mitigation

Table 25 - Contaminated Sites management

Construction activity & potential impact	Mitigation and management measure
Disturbance of known Contaminated Sites	Identification and implementation of additional management measures extend to the active containment. Manage the Contaminated Site in accordance with statutory requirements under the *Environmental Protection Act 1994.* Where disposal is required, a DES disposal permit shall be obtained.
Contaminated Site is identified during Work	Notify the Administrating Authority in accordance with the requirements of the *Environment Protection Act 1994* (for unexploded ordnances (UXO) notify Department of Defence). Prevent spread of contamination. Manage the Contaminated Site in accordance with statutory requirements. Develop a Site Management Plan in accordance with statutory requirements, submit to Administrating Authority for acceptance, and carry out remediation of Contaminated Site in accordance with the Site Management Plan.

6.9.5 Inspection and monitoring

Table 26 - Contaminated site inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
Observations for evidence of contaminates or contaminated material (actual or potential)	Weekly	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor

6.9.6 Contingency plan for the event of contaminants leaving Site or being discovered on Site

Where required, a Contaminated Site Management Plan will be developed and implemented. The Plan will include methods of assessment, remediation, testing and contingency plan for the event of contaminants leaving Site.

6.10 Native fauna

6.10.1 General

Construction works, by their very nature cause land disturbance and modification of the landscape. The modification of the biological environment has the potential to alter existing biodiversity. Works therefore have the potential to impact on fauna both within the site and the surrounding environment.

6.10.2 Performance requirements

- Comply with the provisions of both State and Commonwealth legislation pertaining to native fauna.
- Compliance with BSC's Environmental Approval for *Tampering with Animal Breeding Places of Least Concern Species* (SMP-low risk).
- Compliance with *Accepted development requirements for operational work that is constructing or raising waterway barrier works* (Acceptable Development Requirements).
- Obtain Development Approval for Waterways for Waterway Barrier Works where works are not accepted development and development approval.

6.10.3 Location of known native fauna habitat and breeding places

Table 27 - Location of known native fauna habitat and breeding places

Location of known native fauna habitat and breeding places	Native fauna habitat and breeding place	Size/number	Breeding place to be destroyed or tampered with*? (Y/N)
N/A			

* The destruction of animal habitats and breeding is prohibited unless a Suitably Qualified and Experienced Person (licensed spotter/catcher) has provided approval and is onsite to direct and supervise the activities.

6.10.4 Location of Queensland waterways for waterway barrier works

Table 28 - Location of Queensland waterways for waterway barrier works

Location (chainage)	Name	Category (Major, High, Moderate, Low)	Action Required
CH 57405	Unnamed watercourse	Moderate (Orange)	Activities don't involve waterway barrier works
CH 58650	Pine Creek	Major (Purple)	Activities don't involve waterway barrier works

6.10.5 Management and mitigation

Table 29 - Native fauna management

Construction activity & potential impact	Mitigation and management measure
General site activities	All site personnel shall attend environmental training as part of the site induction process prior to entering the work site. As part of this training, all personnel will be instructed on their obligations with respect to fauna management protocols. Areas identified as known animal habitat or animal breeding places will be discussed in site inductions. Utilise existing tracks and previously disturbed areas where practicable to minimise interactions with potential of actual animal breeding places. Locate temporary infrastructure to minimise impacts to vegetation, threatened ecological communities, threatened flora and riparian vegetation.
Tampering with Animal Breeding Places	For *construction* projects, prior to commencement of works an assessment will be undertaken to determine the presence or absence of animal breeding places. The assessment will include desktop analysis and a field survey. Where new or likely animal breeding places are identified, a Suitably Qualified and Experienced Person (licensed spotter/catcher) will be engaged to attend the site to perform an inspection. For *maintenance* activities, an assessment for animal breeding places is not required. However, where new or likely animal breeding places are identified, a Suitably Qualified and Experienced Person (licensed spotter/catcher) will be engaged to attend the site to perform an inspection. The Suitably Qualified and Experienced Person (licensed spotter/catcher) will: a) advise BSC of the outcomes of the inspections b) verify the absence or presence of native fauna and breeding places and, where active breeding places exist, the absence or presence of eggs or young

Construction activity & potential impact	Mitigation and management measure
	c) monitor for native fauna and breeding places when undertaking Works that are known or likely to impact animal breeding places or native fauna d) relocate fauna captured during clearing to an appropriate nearby habitat area. Based on the advice of the Suitably Qualified and Experienced Person (licensed spotter/catcher), the following will occur: a) implement measures to avoid tampering with breeding places, death or injury to animals b) where avoidance is not possible, undertake Management Measures to relocate and preserve breeding places and animals if appropriate c) where avoidance and relocation are not practicable, engage the Suitably Qualified and Experienced Person (fauna) to destroy breeding places and remove eggs and young for rehabilitation d) as a last resort, engage the Suitably Qualified and Experienced Person (fauna) to destroy eggs, young under an appropriate Damage Mitigation Permit. Project Support Officer to complete the 'Register' (Appendix 9) of Tampering with an Animal Breeding Place Report. The final completed Register will be submitted to the Department of Environment and Science **annually** from the date of commencement of the SMP (20 January 2021), and within 10 business days after the expiry of the SMP (30 September 2025).
Unauthorised death of fauna or tampering with a breeding place not in accordance with an Approval	Undertake an investigation into the Environmental Incident and implement corrective actions. Environmental Incident information will be submitted with Monthly Environmental Report to the ESAs.
Native fauna species is injured or killed on Site	Undertake an investigation into the Environmental Incident and determine whether the injury / death was related to Works. Implement identified corrective actions. Environmental Incident information will be submitted with Monthly Environmental Report to the ESAs.
Waterway barrier works	Compliance with all requirements of *Accepted development requirements for operational work that is constructing or raising waterway barrier works* code (where applicable). Obtain Development Approval for waterway barrier works (where required). Compliance with Development Approval conditions for waterway barrier works (where applicable).

6.10.6 Inspection and monitoring

Table 30 - Fauna inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
Pre-clearing inspection by a suitably qualified fauna spotter/catcher	Identification of new or potential animal breeding places	Fauna spotter/catcher report	Supervisor/ Project Support Officer
Suitably qualified fauna spotter/catcher to monitor for native fauna and breeding places	While undertaking Works that are known or likely to impact animal breeding places or native fauna.	Fauna spotter/catcher report	Supervisor/ Project Support Officer
Inspect habitat preservation measures (e.g., clearing limit markers) to ensure the controls are intact	Weekly	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor
Complete the 'Register' of Tampering with an Animal Breeding Place Report	As required	Animal Breeding Place Register (Submit with the Monthly Environmental Report)	Project Support Officer

6.10.7 Contingency plan for Environmental Harm associated with native fauna impacts

- Should an injured animal be found on the job site the Supervisor shall be notified so as they can contact the relevant wildlife personnel or organisation.
- If it is safe to do so the animal shall be approached and covered with a blanket (or similar). The animal will then be relocated to a safe area or vehicle and placed in a quiet dark, well-ventilated location (e.g., box) to await a medical assessment by authorised personnel or taken to a vet.

6.10.8 Contact details for emergency wildlife care

Table 31 - Emergency wildlife care contacts

Emergency wildlife care	Contact details
RSPCA wildlife hotline	1300 ANIMAL (1300 264 625)

6.11 Vegetation

6.11.1 General

Construction works, by their very nature cause land disturbance and modification of the landscape. The modification of the biological environment has the potential to alter existing biodiversity. Works therefore have the potential to impact on vegetation both within the site and the surrounding environment.

6.11.2 Performance requirements

- Adhere to the project's Limits of Clearing.
- Take reasonable and practicable Management Measures to avoid disturbance to vegetation or ground surface outside of the Limits of Clearing and to minimise disturbance areas within the Limits of Clearing where practicable.
- Install identification markers along the Limits of Clearing boundary prior to commencing vegetation clearing and ground disturbance. Identification markers shall be maintained for the duration of the project or at least until Works are complete in the adjacent area.
- Comply with all conditions of obtained Approvals.

6.11.3 Location of Significant Vegetation

A desktop assessment to identify Significant Vegetation has been undertaken and consists of:

- Regional ecosystems, vegetation management category
- Protected plants flora survey trigger map.

The results of the desktop assessment are included as Significant Vegetation in Appendix 10.

Locations of Significant Vegetation and any specific trees identified from the environmental desktop and site assessment are detailed in Table 32 and Table 33.

Table 32 - Location of significant regional ecosystem

Regional ecosystem ID	Short description	BD status	Location (chainage)	Management strategies (how will it be protected?)
11.3.2	Eucalyptus populnea woodland on alluvial plains	Of concern	Ch. 59750 - 60300	Minimise disturbance areas to within the Limits of Clearing where practicable.

Table 33 - Location of Protected Plants

Location (chainage)	Management strategies (how will it be protected?)
Trigger area CH 52730-57680	Flora survey was completed by a suitably qualified person on 21-23/01/2025. **Beans Ironbark (E. beaniana) found:** • **21m west from road edge at approximate Chainage 54940. Coordinates: -25.63361111, 149.32194444** • **84m west from road edge at approximate Chainage 54940. Coordinates: -25.63361111, 149.3211111**

Location (chainage)	Management strategies (how will it be protected?)
	Barricades will be erected to ensure clearing and excavating does not disturb either tree. Monitoring to be conducted. See section 5.11.1 for conditions of Protected Plants Permit and monitoring requirements. A copy of the Permit and Consultants report are attached to this report in Appendix 13.

6.11.4 **Management and mitigation**

Table 34 - Vegetation management

Construction activity & potential impact	Mitigation and management measure
General site activities	All site personnel shall attend environmental training as part of the site induction process prior to entering the work site. As part of this training, all personnel will be instructed on their obligations with respect to vegetation clearing protocols. Areas identified for vegetation clearance are to be clearly defined and detailed in site inductions. Utilise existing tracks and previously disturbed areas where practicable to minimise clearing required.
Vegetation clearing for temporary and final construction	Clearing and grubbing operations shall be limited to those areas required to construct the Works and/or meet specified visibility requirements. Any trees, shrubs and overhanging branches to be left undisturbed shall be clearly marked prior to clearing operations reaching the areas concerned. Clearing operations within streams and waterways shall not include removal of stumps and roots below ground surface to aid in stabilisation. If it is necessary to remove vegetation, aim to cut vegetation no lower than ground level and leave the root in the ground to aid in stabilisation. If deep excavation is required during construction the roots should only be removed within the construction footprint area. The extent of vegetation clearing will be clearly identified on construction plans and in the field using high visibility fencing or flagging. Stockpiles shall not be located, and plant and equipment shall not be parked, under trees (drip line) that are to be retained. Where infrastructure must cross waterways, areas of existing disturbance (i.e., existing tracks) have been selected. Where this is not practicable, the Project footprint will be minimised, and large habitat trees preferentially retained. No clearing of protected plants listed under the NC Act without appropriate permits in place for their removal.

Construction activity & potential impact	Mitigation and management measure
	The Suitably Qualified and Experienced Person (licensed spotter/catcher) will monitor for native fauna and breeding places when undertaking Works (clearing) that are known or likely to impact animal breeding places or native fauna. Cleared vegetation or soil is not to be pushed up against trees, stored against fence lines or within 100m of waterways. Cleared vegetation is to be reused on site wherever possible (e.g., salvaged, mulched for revegetation areas, hollow logs left for habitat), otherwise removed from the Site and disposed of in accordance with all relevant statutory requirements.
Fauna habitat logs	Hollow timber which is identified as being suitable for fauna habitat logs shall be relocated to areas clear of construction activities as follows: a) behind batters b) behind proposed safety barriers but not within any hazard-free zone, and c) areas at least 9 m clear of carriageways. Fauna habitat log density shall not exceed 20m length per 100m² area. Logs shall not be placed in waterways or in any area where they are likely to be struck by errant vehicles.
Vegetation clearing outside of the approved disturbance footprint	Undertake an investigation into the Environmental Incident and implement corrective actions. Environmental Incident will be submitted with Monthly Environmental Report.
Clearing and construction causing temporary and long-term habitat fragmentation and reduced connectivity	Where practicable, construction laydown areas and stockpiles limited to areas that have previously been cleared to minimise unnecessary clearing.
Habitat degradation by increased dust, run-off and sedimentation	Implementation of ESCP. Undertake routine dust suppression and monitoring. All vehicles to stay on designated tracks. Duration of in-stream works will be minimised wherever practicable to reduce the potential for sedimentation.

6.11.5 Inspection and monitoring

Table 35 - Vegetation inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
Ensure clearing limits are defined and adhered to (e.g., clearing limit markers, exclusion fencing in place) Ensure stockpiles and parked vehicles are outside of tree drip lines	Weekly	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor

6.12 Biosecurity

6.12.1 General

BSC is responsible for managing Works to mitigate the spread of Biosecurity Matters.

6.12.2 Performance requirements

- Comply with the *Biosecurity Act 2014.*
- Fulfil General Biosecurity Obligation (GBO) to mitigate Biosecurity risk from prohibited and restricted Biosecurity Matters within the Site.
- Obtain biosecurity certificates certifying that all imported topsoils and mulches are free of prohibited or restricted biosecurity matters.
- Ensure construction plant and vehicles undergo a documented clean-down prior to entry to Site.
- Ensure construction plant and vehicles operating in biosecurity-contaminated areas undergo a clean down in accordance with *QDAF Vehicle and machinery cleandown procedures* prior to movement out of the biosecurity-contaminated area.
- Obtain and comply with a Biosecurity Instrument Permit for applicable Work.
- Ensure use of pesticides is undertaken by appropriately licenced contractors and in accordance with the label.

6.12.3 Details of the Biosecurity Matter

Department of Agriculture and Fisheries invasive species fact sheets for the biosecurity matters listed in Table 36 are presented in Appendix 11.

Table 36 - Details of Biosecurity Matters

Name	Location	Category
Various	Various	*Vehicle washdowns required before entering site.*

6.12.4 Biosecurity Officer

BSC's Biosecurity Officer is:

Gordon Twiner (Coordinator – Rural Services)

Contact phone number - 0427 148 783
Biosecurity Matter Commercial Operator's Licence: G7095

6.12.5 Locations of washdown facilities

Table 37 - Locations of washdown facilities

Population Centre	Location
Baralaba	Rannes Road, Baralaba (opposite the showgrounds)
Biloela	Quarrie Road, Biloela (next to the Wastewater Treatment Facility)
Moura	Dawson Highway, Moura (next to the Water Treatment Facility)
Theodore	Leichhardt Hwy, Theodore (near the Wastewater Treatment Facility)
Taroom	Taroom-Roma Road, Taroom (near the dip yards)

6.12.6 Management and mitigation

Table 38 - Biosecurity management

Construction activity & potential impact	Mitigation and management measure
Introduction and spread of invasive fauna species	All putrescible waste to be stored in secure temporary holding containers and transported off site. Where increased densities of pest animals are observed, or new pest animals are identified, humane pest controls will be implemented to manage numbers. Construction staff will not bring domestic animals to the Project area.
Introduction and spread of invasive flora species	A weed survey will be undertaken to confirm the initial extent of weeds on site. Declared weeds occurring within the construction footprint will be treated or removed prior to the commencement of construction. New weed infestations should be treated at the earliest stage while small and manageable. If chemical treatment is required, chemicals may be used only in accordance with manufacturer's specifications. All vehicles and equipment initially entering the site must possess a current weed hygiene inspection certificate from an accredited inspection station. Vehicles / equipment travelling from declared weed areas will be required to wash down and possess a current weed hygiene inspection certificate before moving to a declared weed free area. Vehicle access will be restricted to existing roads and tracks where practicable. Areas of exposed earth will be minimised and rehabilitated with appropriate non-invasive species.

Construction activity & potential impact	Mitigation and management measure
	Materials sought from outside the Project area, other than those obtained from a quarry, (e.g., fill for access tracks) will be required to hold weed free declarations. A record of all material imported on site is to be maintained.

6.12.7 Inspection and monitoring

Table 39 - Biosecurity inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
Record increase in weeds during construction	Sightings based	Update EMP	Project Support Officer /Supervisor
Identify and manage declared plants Ensure weed hygiene controls implemented, with no new weed infestations present	Weekly	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor

6.13 Waste

6.13.1 General

Wastes generated from Works will be managed in accordance with the *Environmental Protection Act 1994* and *Waste Reduction and Recycling Act 2011*. This will include Wastes generated at Site Camp and facilities.

6.13.2 Performance requirements

- Minimise the potential for environmental harm due to improper storage and handling of waste.
- Comply with the *Environmental Protection Act 1994* and *Waste Reduction and Recycling Act 2011.*
- Adopt the Waste management hierarchy of avoid, reduce, re-use, recycle, recover energy, treat and only dispose where there is no viable alternative.

6.13.3 Mulch stockpiles

Vegetation waste from clearing and grubbing, that is free from Biosecurity Matter, may be used in conjunction with soil erosion and sediment measures such as brush matting or mulch or for appropriate fauna logs.

The strategies employed will include:

- Mulch stockpiles will be separated from drainage lines and Waterways by distance or Management Measure to inhibit Discharge.
- Mulch stockpiles shall be a maximum of 2.5 m in height where air temperature is <30°C and humidity <70%. Where Site climate conditions exceed this, mulch stockpiles should be reduced to a maximum height of 1.5 m and monitored regularly for excess leachate and heat.
- Where the volume of mulch generated by the Works exceeds the volume of mulch required for the Works, it will be removed from Site and reuse the mulch.

6.13.3.1 Locations of mulch stockpiles

Table 40 - Locations of mulch stockpiles

Road name	Chainage or GPS
NA	

6.13.4 Surplus or unsuitable material

The identification and use of unsuitable material will be followed as detailed in Clause 9 and 11 of *MRTS04 General Earthworks*, and may include clean earth, vegetative matter, a resource or waste material.

The *Waste Reduction and Recycling Act 2011* (Waste Act) states clean earth as 'earth that is not contaminated with waste or otherwise contaminated with a hazardous contaminant' (not including untreated acid sulphate soils), and '*earth* means natural materials such as clay, gravel, sand, soil, and rock'.

The Waste Act specifies that a waste is any thing that is left over, or is an unwanted by-product, from an industrial, commercial, domestic or other activity or is surplus to such. This could include earth and other materials, whether or not they are of value.

Refer to the Waste Act for more detail and full definitions.

A waste material (e.g., hardened concrete and recovered pavement material) stops being a waste and becomes a resource only through the process of an end of waste code or approval (e.g., End of Waste Code Recycled Aggregates (ENEW07604819)). Approval will be sought from the Department of Environment, Science and Innovation as a registered resource producer if required, where recycled aggregates as defined in the code, are not reused at the Site or on the project from which they were sourced.

Where surplus or unsuitable material (not including waste) will be used or disposed of off-site in accordance with Clause 11 of *MRTS04 General Earthworks*, the following details will be recorded as part of the EMP or EMP updates, prior to commencing the spoil activity off-site:

a) GPS coordinates of the boundary corners of the spoil location
b) Cultural heritage requirements are considered
c) Evidence of an agreement with the landowner for receiving the spoil, the location of the spoil and the condition of the spoil
d) Details of the materials to be spoiled off-site
e) Deed of indemnity from the landowner for the long-term management of the spoil
f) Details as to the measures to be undertaken to ensure the spoil is stable and not posing any cultural heritage, environmental or safety concerns in future.

Beneficial alternative use of surplus or unsuitable material will be sought wherever possible.

6.13.4.1 Surplus or unsuitable material management – off-site

Table 41 - Surplus or unsuitable materials spoiled off-site

Material type	Details of spoil/reuse location
Clean earth with grass	Stockpile locations along Injune Road

6.13.5 Management and mitigation

Table 42 - Waste management

Construction activity & potential impact	Mitigation and management measure
Generation, storage and handling of construction waste	All Project personnel will be instructed in applicable waste management practices as a part of the environmental induction process. Ensure that adequate waste (rubbish and recycling) receptacles are provided at site facilities. All general refuse and food wastes to be collected and transported to an approved disposal site and suitable bins and skips will be provided for waste streams (general, recyclable, metal, and regulated). All construction waste left on site will be kept in an appropriately secured, stacked area. Regulated waste will be stored and appropriately marked, identifying their contents and collected by a licensed waste contractor. No Waste, including vegetative Waste, or litter shall be burnt on Site. No Waste shall be buried on Site. Minimise waste by maintaining separation of clean earth, material that has become a resource, and waste. Excavated soils will be reused on site where practicable. Bins shall be fitted with lids and serviced prior to being filled to capacity. Upon completion of Works, all Wastes will be removed from Site and lawfully disposed of.
Vegetation waste	Vegetation Waste from clearing and grubbing, that is free from Biosecurity Matter, may be used in conjunction with soil erosion and sediment measures such as brush matting or mulch, or for appropriate fauna logs. Mulch stockpiles shall be separated from drainage lines and Waterways by distance or Management Measure to inhibit Discharge.
Illegally dumped waste and litter	Report to Waste Services, await instructions to undertake appropriate management, removal and disposal of waste and litter.

6.13.6 Inspection and monitoring

Table 43 - Waste inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
Inspection of waste storage areas to observe waste separation, disposed correctly and adequate storage Check waste minimisation strategies applied	Weekly	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor

6.14 Chemicals and fuels

6.14.1 General

All chemicals and fuels within the Site are to be managed responsibly so as not to cause Environmental Nuisance or Environmental Harm.

6.14.2 Performance requirements

- Comply with the requirements of Environmental Protection (Water and Wetland Biodiversity) Policy 2019.
- Comply with AS 1940 *The storage and handling of flammable and combustible liquids* and AS 3833 *The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers*, including minor storages in accordance with Section 2 of the Standards.
- Ensure spill response equipment is available on the Site for use in an emergency.
- Staff on Site shall be trained in the use of spill response equipment.
- Remediate any contamination resulting from spills, leaks and discharges to a condition similar to that existing before the contamination.

6.14.3 List of chemical and fuels stored on Site

The maximum quantity chemical and fuels stored on Site in volumes greater than 250 L, at any one time, along with their storage location are detailed in the following table.

Table 44 - List chemical and fuels stored on Site in volumes greater than 250 L

Material	Maximum Qty on Site	Storage Location
NA		

6.14.4 Spill kit guide

Table 45 - Spill Kit material type and locations

Spill Kit Material Type	Quantity	Location
General	1	Job Truck

Spill kits will be replenished by the Supervisor after each use.

6.14.5 Management and mitigation

Table 46 - Chemical and fuels management measures

Construction activity & potential impact	Mitigation and management measure
Handling and storage of dangerous chemicals and fuels	Dangerous goods will be stored in a designated, secure, bunded area away from watercourses to minimise the potential for spill. Site health and safety officer to manage and store the relevant safety data sheets (SDS) for hazardous and dangerous materials and goods in appropriate locations (such as storage area and usage area) readily accessible to all workers. Chemicals and fuels must be stored and handled as per the requirements of the SDS. Refuelling and transfer operations must be done on a hardstand area with adequate containment systems. Safe handling techniques will be employed during refuelling, such as using pumps, funnels or syphons to prevent spillage. Spill kits are to be located on site and positioned close to locations containing dangerous goods. Spill kits shall be readily available when all refuelling occurs. Spill kits are to contain cleaning materials and absorbents. Spills are to be isolated, stopped and contained and will be cleaned up utilising onsite spill kits. Waste to be placed in a sealed container, suitable to hold such materials and waste to be consigned to a contractor licensed to receive such wastes for disposal, in accordance with a site spill management procedure. Spill kits will be replenished by the Supervisor after each use.
Refuelling of machinery	Occur away from Waterways. Fuelling activity to be supervised at all times. Hoses to be fitted with a stop valve at the nozzle end.
Servicing of machinery and equipment	To be undertaken at Council depots where possible. Machinery shall be maintained to minimise the leakage of oil, fuel, hydraulic and other fluids.

Construction activity & potential impact	Mitigation and management measure
Surface coating treatments	Do not spray during rain event or if rain is forecast. No pre-coating of aggregates shall be conducted on Site.

6.14.6 Inspection and monitoring

Table 47 - Chemical and fuels inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
Ensure • SDS register readily accessible • Adequate fuels and chemical storage measures • Bulk fuels/hazardous chemicals stored in sufficient bunded area (containers greater than 20L) • Spills contained and removed • Spill kits readily available and in good order	Weekly	Environmental Inspection Checklist (Weekly) DES-EM-40-002	Supervisor

6.14.7 Contingency plan in the event of a contamination or discharge

BSC's Hydrocarbon and Chemical Spill Response (EXEC-PP-PRO-119) procedure provides details in relation to Management Measures, including containment, for avoiding contamination or discharge to land or water from fuels and chemicals (Appendix 12).

6.15 Sourcing of construction materials (non-commercial sources)

6.15.1 General

The sourcing of construction materials from non-commercial sources will be planned and managed to ensure operations comply with legislation and avoid causing Environmental Harm.

6.15.2 Performance requirements

- Identifying, assessing, obtaining Environmental Approvals for relevant material sources including construction water and gravel resources or sourcing from suitably licensed Suppliers.
- Ensure compliance with relevant environmental legislation.
- Ensure compliance with Environmental Approval conditions including pre-works notifications, record keeping and reporting.
- Maintain volumetric records of material sourced and supplied under for the project.

6.15.3 Key water consumption activities

Table 48 - Key water consumption activities

Activity	Estimated Volume of Water	Construction water source (Chainage or GPS)	Proposed volume of take	Legislative Requirements
Road Construction and dust suppression	30,000L/km	Roadside Pit approx chainage 51000 -25.663882, 149.350999	400,000L	NA
Road Construction and dust suppression		Dawson River Approx chainage 75980 -25.692283, 149.214798		Exemption Requirements for constructing authorities for the taking of water without entitlement (OSW/2020/5467)

6.15.4 Construction material sources

Table 49 - Construction material sources

Identified gravel, fill or sand sources	Distance to Site	Access track requirements	Stockpile areas	Approvals & conditions	Proposed volume of take
Borrow Pit (Council Road Reserve)	0 km – within site boundary	Existing	50200	<10,000m^2 extraction area	20,000T
Borrow Pit (Council Road Reserve)	0 km – within site boundary	Existing	55100	<10,000m^2 extraction area	
Borrow Pit (Council Road Reserve)	0 km – within site boundary	Existing	68670	<10,000m^2 extraction area	

Supply maps are attached in Appendix 14.

6.15.5 Management and mitigation

Table 50 - Sourcing of construction materials (non-commercial sources) management measures

Construction activity & potential impact	Mitigation and management measure
Water sourcing	Water sourcing will be conducted in accordance with the Department of Regional Development, Manufacturing and Water's (DRDMW) Exemption requirements for constructing authorities for the take of water without a water entitlement (OSW/2020/5467). Limit access and disturbance to the waterway and riparian zone. Select appropriate area for extraction away from sensitive vegetation. Ensure the viability of the watercourse by observing according to DRDMW requirements. Maintain pump in good working order. Refuel away from the watercourse or have appropriate controls in place to capture any spills and ensure such spills are removed and recorded. Install a turtle and fish excluding device on the extraction pipe to limit injury to wildlife. Maintain Water Extraction Log for all water extraction activities.
Construction material	Maintain volumetric records of material sourced and supplied for the project from each source as well as other records required for compliance with Approvals. Progressive rehabilitation of source Sites and access tracks as sources are exhausted or supply requirements are fulfilled.

6.15.6 Inspection and monitoring

Table 51 - Sourcing of construction materials (non-commercial sources) inspection and monitoring

Task	Monitoring frequency	Reporting mechanism	Responsibility
Maintain water take records	All water extraction activities	Water Extraction Log (DES-EM-40-044)	Operator (water truck)
Maintain volumetric records for Construction material	All gravel extraction activities	Quarry Material Extraction Register (DES-EM-40-004)	Operator (gravel truck)

Task	Monitoring frequency	Reporting mechanism	Responsibility
Details of sourced Non-Potable Water	Monthly	Form A – Contractor's Monthly Environmental Reporting **Submit to ESAs**	Project Support Officer
Quarry extraction volumes from TMR EA quarries	Monthly	Form A – Contractor's Monthly Environmental Reporting **Submit to ESAs**	Project Support Officer

Appendices

Appendix 1 Environmental Sustainability Policy

Policy Number: 45

Banana Shire Council
Adopted: 28 August 2024

ENVIRONMENT AND SUSTAINABILITY POLICY

SCOPE

This Policy applies to all Banana Shire Council (Council) operations, employees, councillors, contractors, and volunteers, and in all decisions and activities undertaken.

LEGISLATION

Environmental Protection Act 1994
Environmental Protection and Biodiversity Conservation Act 1999 (Cth)
Fisheries Act 1994
Forestry Act 1959
Local Government Act 2009
Nature Conservation Act 1992
Planning Act 2016
Vegetation Management Act 1999
Waste Reduction and Recycling Act 2011
Water Act 2000

OBJECTIVE

Banana Shire Council is committed to sound environmental practice and the integration of ecologically sustainable development principles into Council activities.

Council seeks opportunities to achieve positive environmental outcomes and the continuous improvement of the environmental management system. Environmental controls and values will be integrated into Council general business to drive innovation and encourage collaboration between staff and departments.

Council aspires to minimise its environmental impact and maximise the effective use of resources. This will be achieved by fostering environmentally responsible behaviour among staff, community members and business partners.

DEFINITIONS

Best practice environmental management	The management of the activity to achieve ongoing minimisation of the activity's environmental harm through cost-effective measures assessed against the measures currently used nationally and internationally for the activity (*Environmental Protection Act 1994*, s210).
Council	Banana Shire Council

Environmental management system	A management system framework based on ISO 14001 used to enhance an organisation's environmental performance, meet compliance obligations, and achieve environmental objectives
General environmental duty	A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonably practicable measures to prevent or minimise the harm (*Environmental Protection Act 1994*, s319(1)).
Principles of ecologically sustainable development	• Inter and intra-generational equity • Sustainable and wise use of natural resources • Precautionary approach • Conservation of biodiversity and ecological integrity • Integration of long and short-term environmental, social, and economic considerations in decision-making

POLICY

To protect, maintain and enhance the quality of the natural environment, Banana Shire Council will:

- Fulfill legal and regulatory environmental compliance obligations and strive for best practice environmental management.
- Meet the general environmental duty by carrying out activities in an environmentally responsible manner to prevent pollution and minimise harm to the environment.
- Implement, maintain and continually improve an environmental management system that aligns with international standards to enhance environmental performance.
- Ensure decision-making for all Council operations and approvals takes into consideration the principles of ecologically sustainable development.
- Implement strategies to minimise waste to landfill, enhance recycling opportunities and improve resource efficiency.
- Preserve natural habitats and ecological corridors through land use planning and regulation to positively support biodiversity and healthy waterways.
- Incorporate climate change implications, resilience, and adaptation into decision-making processes as appropriate.
- Promote sustainability through community engagement and targeted internal training programs.

PROCEDURE

Procedures as approved and issued by the Chief Executive Officer, and subject to further revision, amendment and issue under the authority of the Chief Executive Officer.

CERTIFICATION

.....
CHIEF EXECUTIVE OFFICER
BANANA SHIRE COUNCIL

6/9/24
.....
DATE

Appendix 2 Environmental Inspection Checklist (Weekly)

Banana Shire Council
62 Valentine Plains Road, Biloela
PO Box 412 Biloela QLD 4715
PH 07 4992 9500 • Fax 07 4992 3493
Email enquiries@banana.qld.gov.au • Website www.banana.qld.gov.au

ENVIRONMENTAL INSPECTION CHECKLIST (WEEKLY)

Project title / No.			
Project location			
Inspector name		**Date**	
Sign off name		**Date**	

(Sign off by coordinator or project manager)

Observation	✓, ✗ or **NA**	**Action taken to correct** *(note if environmental incident has occurred, complete incident form)*
Water quality – includes water on site, and water entering or exiting site		
No sediment build-up at site boundary or leaving site		
No litter, oil, paint or chemicals present in waterways or flow paths		
Water not muddied, or change in water colour from upstream		
Erosion and sediment control (ESC)		
ESC structures follow Plan, and in good condition (sediment fences, diversion drains, check dams etc.)		
Site prepared for adverse weather conditions		
Exposed soil minimised and managed (stabilised, seeded, etc.)		
Stockpiles > 50m from watercourse		
Cultural heritage		
Works do not extend outside of approved disturbance area		
Cultural heritage exclusion fencing intact and signposted		
Noise and vibration		
No new noise or vibration risks introduced		
Noise and vibration controls implemented		
Air quality		
No visible dust leaving the site		
Dust controls working effectively e.g. water cart		
Plant is in good working order / no excessive visible pollution		

Observation	✓, ✗ or **NA**	**Action taken to correct** *(note if environmental incident has occurred, complete incident form)*
Contamination		
No evidence of contaminated soil or materials e.g. asbestos, fuel		
Plants and animals		
Disturbance and clearing limits defined, fenced where needed		
Habitat protection in place or spotter catcher contractor on site		
Stockpiles and parked vehicles outside of tree drip lines		
Biosecurity		
Declared / restricted invasive weeds identified and managed		
Vehicle wash down being undertaken and certificates kept		
Waste		
Compound tidy, waste stored and disposed correctly, no pests		
Waste being avoided, reduced, reused, recycled and/or treated		
Spoil stored in approved area		
Concrete washouts set up		
Chemicals and fuels		
Fuel/chemicals containers > 20L stored in clean bunded area		
No oil leaks or spills visible. Spills contained and removed		
SDS register and spill kits checked, available in designated areas		
Sourcing of construction materials		
Records for gravel and water take up to date		
General		
Complaints and incidents recorded and reported		
All personnel completed site environmental induction		
Additional comments, improvement opportunities		

Appendix 3 Complaint Register

Banana Shire Council
62 Valentine Plains Road, Biloela
PO Box 412 Biloela QLD 4715
PH 07 4992 9500 • Fax 07 4992 3493
Email enquiries@banana.qld.gov.au • Website www.banana.qld.gov.au

Complaint Register

Each Complaint received for a project shall be recorded on this register and shall be forwarded to the Project Site Officer or Supervisor to be actioned.
Once each entry has been actioned by Project Site Officer or Supervisor,
this document **MUST** be forwarded to the Project and Quality Advisor for entry into the Complaints and Compliments Register BSC-QM-07-001
Quality@banana.qld.gov.au

Location:				**Job Number:**	
Complaint ID Number	**Name of the person who received the complaint**	**Complainant's Name**	**Location (If applicable)**	**Immediate Response**	**Status**

Appendix 4 TMR MRTS51 Contractor's Monthly Environmental Reporting (Form A)

Form A – Contractor's Monthly Environmental Reporting

Reporting of Contractor's environmental and cultural heritage management by exception.

Reporting Requirement (clause reference)	Month (total)	Notes from Contractor
General		
Any revisions to EMP(C) this month? (Clause 6.1)		*Submitted to Administrator for suitability?*
Have there been updates to ESCP this month? (MRTS52 *Erosion and Sediment Control*)		*Submitted to Administrator for suitability?*
Any Independent audit of ESC completed this month? (MRTS52 *Erosion and Sediment Control*, Clause 9.1)		*Any non-conformances identified?*
Non-Conformances, Incidents, Complaints		
Environment and Cultural Heritage-related complaints received? (Clause 7.3) Status of complaints	Month, (Total)	*Attach insert of Complaint register (GCC Clause 15.6.2)*
Number of environment and cultural heritage-related non-conformances raised? (Clause 7.6) Status of non-conformances?	Month, (Total)	*Attach insert of non-conformance register*
Number of Environmental and Cultural Heritage Incidents that have occurred or been identified this month?	Month, (Total)	*Provide summary of incidents identified this month:*

Incident No.	Incident Description	Reportable incident: Y / N	Reported to Admin Authority? Y / N	Incident report submitted to Administrator?

Weekly Site Inspections		
Weekly Site Inspections have been completed? (Clause 7.1)	Number	*List issues identified and corrective actions undertaken?*
Monitoring		
Water quality monitoring for Discharge and Waterways undertaken: 1. Weekly where potential impact to water? 2. During / after rainfall event? (Clause 8.2.3)		
Number of Water Quality (Discharge) results outside criteria?	Month, (Total)	Where exceedance occurs, provide spreadsheet showing exceedances, rainfall event, cause, corrective action
Number of Water Quality (Waterway) results outside criteria?	Month, (Total)	*Where exceedance occurs, provide spreadsheet showing exceedances, rainfall event, cause, corrective action*
Where required, Cultural Heritage Monitoring (Indigenous or Non-Indigenous) has been undertaken?		*As specified in Annexure.*
Where required, construction noise monitoring undertaken? (Clause 8.5.3) Number of exceedances of criteria?	Month, (Total)	*Where exceedance occurs, provide spreadsheet showing exceedances, location, cause, corrective action*

Where required, construction vibration monitoring undertaken? (Clause 8.6.3) Number of exceedances of criteria?	Month, (Total)	*Where exceedance occurs, provide spreadsheet showing exceedances, location, cause, corrective action*
Air quality monitoring undertaken? (Clause 8.7.3) Number of exceedances of criteria?	Month, (Total)	*Where exceedance occurs, provide spreadsheet showing exceedances, location, cause, corrective action*
Number of animal breeding places identified and avoided during Work under the Contract (Clause 8.10.3)	Month, (Total)	
Number of animal breeding places tampered with under a SMP? (Clause 8.10.3)	Month, (Total)	*Where SMP held by Principal, provide register monthly.*
Number of animals / eggs destroyed under a Damage Mitigation Permit	Month, (Total)	
Number of injuries or death to native fauna within the Site (Clause 8.10.3)	Month, (Total)	*Provide details*
Where required, Waste Register is being recorded (Clause 8.13.2)		
Where sourcing Non-Potable Water (Section 8.15.2): 1. Water extraction logs recorded? 2. For non-flowing sources, what % of full capacity is the source at the end of the month? 3. For flowing source, is the source maintaining flow?	% of full	
Transport and Main Roads Quarry Protocol and Environmental Authority - Quarry extraction volume(s) (8.15.2)	Month, (Total)	*Provide volume per extraction Site.*
Compliance Testing (where applicable provide details)		
Comments to Administrator regarding Environment and Cultural Heritage:		

Positive Environmental and Cultural Heritage Outcomes

[Positive environmental outcome is an improvement to the existing environmental values on site or a reduction in the environmental impact to that allowed in the EMP(C). Examples, water quality of Discharge better than 50 mg / or minimise vegetation clearing to less than the Contractual maximum Limits of Clearing]

Achieved:

Future Opportunities:

Report Completed by:	**Signature:**	**Date:**
Name:		

Appendix 5 Environmental Incident Report Form

ENVIRONMENTAL INCIDENT REPORT

Project Name			
Team or Contractor Name			
Project Location			
Date / Time			
Incident details	People affected by the incident: ☐ Banana Shire Council employees ☐ General public ☐ Subcontractors ☐ Adjacent property owners ☐ Others _____		
	Description (where, what occurred, potential ongoing impacts)		
	Exact location of incident: (include chainage and any landmarks)		
	What was impacted / area affected:		
	Volume of material:		
	Who identified the incident:		
	Incident relates to a complaint?		
	Confidential? ☐ Yes ☐ No	Involves Health and Safety? ☐ Yes ☐ No	Involves Waste Services? ☐ Yes ☐ No
Type of incident / impact	☐ Fuel / chemical spill ☐ Fire or explosion ☐ Animal injury/death ☐ Management of wastes ☐ Protected vegetation damage	☐ Releases to water (muddy water / contaminated) ☐ Vegetation clearance or damage beyond defined limits ☐ Damage / disturbance to cultural heritage items / area ☐ Breach of licence / approval conditions / exemption requirements ☐ Uncontrolled or excessive air / noise emission, vibration ☐ Near miss / threatening of environmental harm	
Cost of impact / production losses	☐ Total cost ($) _____ ☐ Time loss _____ (fines, remedial action, lost productivity impact, legal costs, liabilities etc.)		
Rectification	What immediate actions/control measures were taken to rectify or contain the incident?		

	What corrective actions will be taken to prevent a similar incident recurring?

Internal / external communication *(if applicable)*

(Method – email, onsite telephone or other)

Please call veterinary clinic to advise you are bringing in an injured animal

Contact	Who (name) notes, date, time	Method	Notified by
BSC Environmental Sustainability Team			
DTMR Principal			
Wildlife rescue / care, RSPCA			
DETSI Pollution Hotline (24 hours)			
Police, fire, ambulance			
Regulated waste disposal contractor			
Veterinary Clinic			
Other			

Note – material or serious environmental harm must be reported to senior management immediately

Emergency Services / State authority	Provide details (in addition to above information, include report numbers)
Completed by	Name
	Position
	Signature
	Date
Incident Report Completion	1. Forward completed Report and photographs of incident/rectification to department/team Administration Officer for record keeping, or where confidential, provide to WHS or department director. 2. Details are to be entered into a Myosh incident form, in discussion with Supervisor. Add further information as required, scan and attach Report, photographs, correspondence. 3. The Environmental Sustainability Team will review all incidents, recommend rectification actions to restore the environment where required, and discuss with management if notification to state authorities is required. 4. Where an incident investigation finds further action or rectification is to be undertaken (training, rehabilitation, procedure improvement), complete an Improvement Corrective Action Form (BSC-QM-05-002). 5. For an incident relating to a Department of Transport and Main Roads project, also complete MRTS51 Environmental Management specification Appendix, Form B.

Appendix 6 Environmental Roles and Responsibilities

INFRASTRUCTURE WORKS ROLES AND RESPONSIBILITIES FOR ENVIRONMENT AND QUALITY

CHIEF EXECUTIVE OFFICER (CEO)

- Ensure Banana Shire Council (Council) undertakes its business in a manner that minimises its impact on the environment and improves environmental performance, in accordance with Council environmental objectives.
- Support the implementation of the Quality Management System and undertake business to support the implementation of the quality objectives.
- Contribute to the development of Councils Environmental and Sustainability Policy.
- Contribute to the development of Councils Quality Policy
- Ensure the Environmental Management System and Quality Management System objectives are established and compatible with the strategic direction and context of the organisation.
- Contribute to identification of environmental aspects and impacts at Council.
- Monitor and review performance and effectiveness of each department.
- Ensure accountability of Directors
- Communicate the importance of effective quality and environmental management and of conforming to the quality and environmental management systems.
- Communicate environmental and quality policies, objectives and targets to Council employees and stakeholders
- Ensure that resources needed for the Environment and Quality Management System are available
- Promote continual improvement

DIRECTORS

- Implement environmental and quality policies and achieve environmental and quality objectives and targets
- Provide adequate resources and training for all employees
- Monitor and review environmental and quality performance of operations
- Implement continuous improvement program
- Ensure accountability of Managers
- Communicate environmental and quality objectives and targets to Business Managers and Stakeholders
- Ensure environmental issues are considered in all business activities

MANAGERS

- Ensure environmental and quality performance within area of responsibility
- Ensure employees have the necessary skills and receive both environmental and quality training to perform tasks
- Ensure all projects and sites have an Environmental Management Plan (EMP), Quality Management Plan, reviewed and approved project plans and any other relevant plans
- Communicate environmental and quality policy, objectives and targets to project managers and stakeholders
- Support project specific internal audits to check compliance with environmental and quality management plans
- Participate in (as required) the monitoring and review of environmental and quality issues, performance and ensure implementation of corrective action(s)
- Coordinate project specific internal audits to check compliance with environmental management plans
- Report on environmental issues (including incidents, non-conformances and learning)
- Report on quality non-conformances
- Ensure necessary environmental licences, permits and/or agreements are obtained prior to commencement of works
- Ensure development of Environmental Management Plan
- Ensure the development of Erosion and Sediment Control Plan
- Ensure accountability of project managers, support officers and coordinators, sales consultants, product

managers, functional managers, senior advisors and nominated officers.

PROJECT MANAGERS/ WORKS COORDINATORS

- Ensure environmental and quality performance on projects
- Identify environmental and quality skill sets and training needs
- Ensure the development and implementation of project site specific Environmental and Quality Management Plans (including responsibilities and risk management) and any the relevant plans required.
- Ensure contractors have submitted the suitable environmental Management Plan and Quality Management Plan necessary environmental licences, permits and/or agreements are obtained prior to commencement of works where required
- Communicate the environmental plan to the work team (including subcontractors) and ensure Council Mission Statement, Environmental and Quality Policy and ISO14001 and ISO 9001 certification certificates are communicated and available on site.
- Ensure implementation of environmental controls as per Environmental Management Plan
- Participate and (where required) monitor and review environmental issues and performance of projects and implement corrective action
- Report and communicate environmental and quality issues/incidents for a project or site in accordance with legislative and organisational requirements
- Ensure accountability of supervisors
- Provide necessary resources to nominated officers to ensure that both environmental and quality requirements are met.
- Allocate appropriately skilled workers, resources and equipment.
- Complete monthly environmental reporting.

SUPERVISORS (INCLUDING TEAM LEADERS)

- Plan and implement work activities to minimise environmental harm and align with council's Quality and Environmental Management Systems.
- Serve as the appointed Environmental Representative with the Environmental Management Plan framework for project and maintenance works.
- Allocate appropriately skilled workers, resources and equipment
- Act to rectify if a control measure fails or is ineffective
- Ensure workers complete scheduled quality and environmental training
- Communicate any environmental issues and controls as identified
- Report and communicate any quality issues and non-conformances related to work activities
- Report on environmental issues/incidents/hazards related to work activities
- Investigate environmental issues/incidents/hazards
- Deliver site specific inductions
- Complete weekly environmental site inspections and monthly environmental reporting
- Ensure accountability of workers

EMPLOYEES

- Undertake work in a manner that minimises impact upon the environment and aligns with council's Environmental and Quality Management Systems.
- Participate in planning, potential impact identification and risk assessment of work activities
- Report any environmental impact or potential impacts, to Supervisor and completed relevant documentation.
- Take action to minimise your impact on the environment
- Report any non-conformances to Supervisor or Project Manager
- Follow documented work instructions, control measures and procedures
- Actively participate in all training provided
- Undertake work only for which you are competent and skilled

ENVIRONMENTAL SUSTAINABILITY ADVISOR (ESA)

- Develop, maintain and continually improve Council's Environmental Management System and provide expert advice on environmental issues.
- Ensure Environmental System is compliant with compliance obligations, government and industry standards and undertake periodic reviews to maintain accreditation
- Liaise with the project staff on environmental related matters and provide information to the Project Manager or the nominated officer
- Provide advice and information when required to nominated officers, project staff, managers, directors and CEO
- Promote continuous system improvement and best practice Environmental Management
- Develop and implement Environmental programs including training
- Conduct audits as required by contractual agreements or to assess effectiveness and compliance with system standards and analyse data to identify trends.
- Review and provide feedback on Environmental Desktop and site Assessment, Erosion and Sediment Control Plan, and Environmental Management Plan provided by nominated officers.
- Conduct the environmental 'site assessment' component of the Environmental Desktop and Site Assessment process
- Conduct ad hoc site inspections to assist with environmental issues, incident or hazards
- Liaise on environmental issues with other government agencies, business sector and other interested parties within the sill set
- Review and provide feedback on suitability of contractor Environmental Management Plans

PROJECT SUPPORT OFFICER (PSO) OR NOMINATED OFFICER

- Assist the Project Manager and other persons responsible for Project Specific Environmental and Quality Management Plans and relevant requirements
- Conduct 'desktop assessment' component of the Environmental Desktop and Site Assessment process
- Assist the Environmental Sustainability Advisors with the 'site assessment' component of the Environmental Desktop and Site Assessment process.
- Develop the site-specific Environmental Management Plan (EMP) and Quality Management Plan
- Prepare and participate in site specific inductions and assist with keeping all necessary records
- Conduct any monitoring within skill set associated with the EMP
- Liaise with Environmental sustainability Advisors on environmental related matters and provide information to the Project Manager
- Assist in the Completion and maintain project specific environmental records as per EMP including the weekly environmental inspection checklist
- Assist and where necessary undertake environmental auditing with either the Environmental Advisor or Project Manager
- Provide administration support for the recording and investigation of incidents and reports
- Assist Quality Advisor to assist with the implementation of the Quality Management Plan to assess effectiveness and compliance with the system standards, assist in the assessment of contractor Quality Management Plans and analyse data to identify trends.
- Undertake other relevant duties as directed, consistent with skills, competence and training.

PROJECT AND QUALITY ADVISOR

- Maintain Quality Management System and provision of expert advice on issues. Develop, monitor and improve the management system to compliance standards
- Ensure Management system is compliant with industry standards including periodic reviews to maintain certification
- Liaise with the Project Support Officer or Nominated Officers on quality, environmental and related matters and provide information to the Project Manager.
- Promote continuous system improvement and best practice Management

- Provide timely and professional advice and assistance on issues
- Develop and implement Quality training programs
- Conduct audits to assess effectiveness and compliance with system standards and analyse data to identify trends

Appendix 7 Environmental Site-specific Induction

Banana Shire Council
62 Valentine Plains Road, Biloela
PO Box 412 Biloela QLD 4715
PH 07 4992 9500 • Fax 07 4992 3493
Email enquiries@banana.qld.gov.au • Website www.banana.qld.gov.au

ENVIRONMENTAL SITE-SPECIFIC INDUCTION

The Site Supervisor must ensure that every employee or contractor involved in project activities has:

- Undertaken Banana Shire Council's *Environmental Awareness – Introduction to environmental obligations* training
- Attended TMR's Cultural Heritage Induction or an alternative Cultural Heritage Induction.

Project Name: *Injune Road Upgrade W8649* CH 49680-67100	
Environmental and cultural heritage contacts	
Site Supervisor: *Murray Dingwall 0409 824 274*	☐
Project Support Officer: *Elena Hayward 0477 312 622 and Annie Nguyen 0475 598 226*	
Environmental Sustainability Team: *Jason Turner 0499 879 535*	
Cultural Heritage Officer: *Chris Welch, Director Council Services 4992 7328*	
Environmental obligations and duties	
You have a **general environmental duty**: A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonably practicable measures to prevent or minimise the harm. This is law under the *Environmental Protection Act 1994*	☐
You have a **duty to notify** of environmental harm to your supervisor immediately. This includes **environmental incidents** that may result in or threaten environmental impact, e.g., oil or chemical spill, vegetation clearing past approved limits, water pollution or sedimentation, unexpected contamination or cultural heritage find. You have a **duty to restore the environment** to the condition before the environmental harm	☐
Direct **environmental complaints** to the Site Supervisor immediately	☐
Environmental management and protection measures are contained in the **Environmental Management Plan** (EMP). Staff roles and responsibilities are in an EMP appendix	☐
Water quality	
Potentially affected watercourses/bodies or drains on or near the site include: CH57405 – unnamed watercourse – Orange (Moderate) CH58650 – Pine Creek – Purple (Major)	☐
No sediment-laden water is allowed to run from site. Divert clean stormwater around site	☐
Erosion and sediment	
Minimise ground disturbance wherever possible. Use erosion and sediment controls Refer to the *Erosion and Sediment Control Plan* included in IFC plans	☐
Check control measures prior to heavy rainfall or severe weather	☐
Cultural heritage	
Cultural heritage and items of significance may be present.	☐

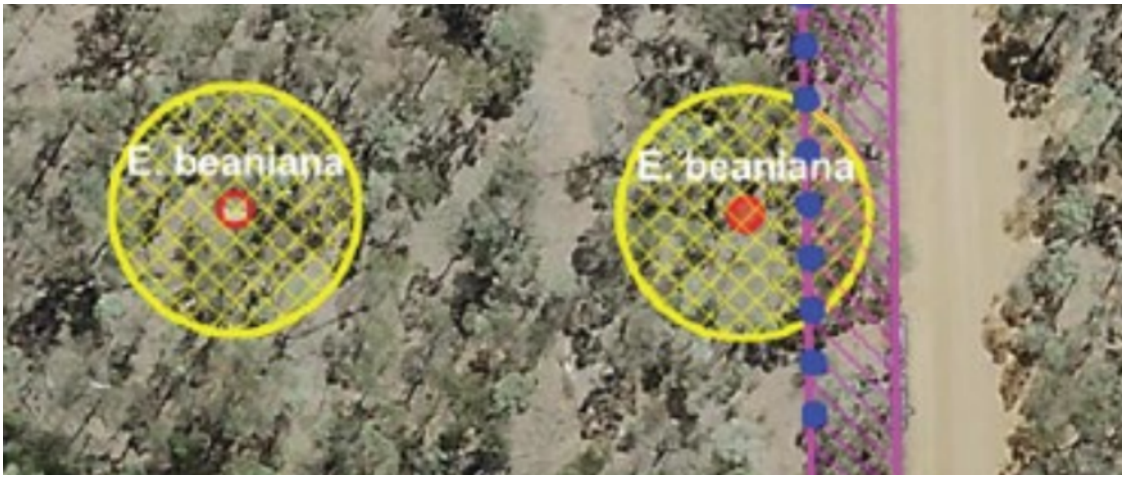
Use the **Find – Stop – Notify – Manage** procedure outlined in the EMP if objects are found which may have cultural significance	
Cultural Heritage Monitoring is required during works.	☐
If skeletal remains are found, stop work immediately, notify the Site Supervisor who will call **000** and await instruction. Exclusion fencing will be erected around the site	☐
Noise, vibration, and air quality	
Sensitive receptors to noise, vibration and air quality include residences, hospitals, schools, parks, businesses, and the natural environment in some cases. Consider the work site surroundings.	☐

Sensitive Receptor	Management Strategies	
Travelling public	Water carts are used to suppress dust – avoid generating dust	☐
	All plant is to be maintained to reduce emissions and noise	

Contaminated sites	
Notify the Site Supervisor if any contamination is found.	☐
Fauna	
Native wildlife and animal breeding places (including nests, hollows, caves or burrows or a structure these have been made in/on) are legally protected and must not be damaged, destroyed, moved or dug up. Notify the Site Supervisor if an animal breeding place is identified and will be impacted by works. Do not continue work in the location unless authorised. Refer to the EMP if interacting with animals or their breeding places for required protection measures	☐
To report sick, injured or orphaned wildlife, call the RSPCA hotline – 1300 ANIMAL (264 625)	☐
Vegetation and limits of clearing	
Significant vegetation or habitat trees are to be retained where possible. Threatened species**, Eucalyptus beaniana,** must remain undisturbed. No construction works are to occur within 11m of the tree located at -25.63368,149.32202 (approx chainage 54945) **Observe and abide by tree protection zones around trees identified in the Protected Plant Survey. Barricades have been erected in this area.**	☐
Minimise clearing where possible. Of concern vegetation exists from Chainage 59750 to 60300 – minimise disturbance in this area. Clearing limits **must not** to be passed without Site Supervisor approval, and in consultation with the Environmental Sustainability Team and/or Cultural Heritage Officer	☐
Any vegetation removal must be undertaken as per the EMP management measures	☐
To protect tree health, do not park vehicles or stockpile soil or mulch under tree drip lines	☐
Weed and pest management	
Restricted or invasive weeds and other pests may be present. Mitigation measures for weed management are contained in the EMP	☐
A *Weed Hygiene Declaration Form* is required for all plant and materials entering the site Notify the Site Supervisor or PSO when plant or material arrive on site for inspection of the declaration and plant/material	☐

Weed seed washdown facilities are available at: *Taroom Washbay – Taroom-Roma Road*	☐
Waste management	
Waste and surplus materials may be generated which include: general spoil. Avoid, reduce, re-use and recycle waste wherever possible – reuse spoil or spread on stockpile.	☐
All rubbish generated is to be contained in lidded bins, located: *on the job truck*	☐
Waste or vegetation must not be burnt or buried	☐
Chemicals and fuels	
Familiarise yourself with the various chemicals, fuels and propellants that are to be kept on site, the associated storage requirements, and in the case of a spill, be aware of the safety and environmental requirements as per the SDS	☐
Manage spills as per the *Hydrocarbon and Chemical Spill Response Procedure* (EXEC-PP-PRO-119) contained within the EMP: **ASSESS > SECURE > CONTROL > ABSORB > DISPOSE > REPORT**	☐
Spill kits are available *on the job truck.*	☐
Refuelling is not to be undertaken within 50 m of a watercourse. Refuelling locations: on site with pod trailer each day Vehicle/plant servicing locations: *Taroom*	☐
Rehabilitation and revegetation	
Stabilise disturbed areas as soon as possible	☐
Progressively rehabilitate.	☐
Sourcing of construction materials	
Operators extracting water and gravel from natural sources must refer to the conditions of extraction in the EMP – legal requirements apply	☐
Water extraction may only occur from: *Borrow Pit at CH 51000 and Dawson River CH 75980* The *Water Extraction Log* (DES-EM-40-044) must be maintained for all water take	☐
Gravel will be sourced from: *roadside pit and gravel cut from existing road.* *Chainage 50200, 55100, 68670 – refer to EMP Appendix 14 for site maps.* The *Quarry Material Extraction Register* (DES-EM-40-004) must be maintained for quarry materials	☐
Other	
Stockpile Pads located at CH55070, CH74220	☐
Protected Plants Permit Requirements: *Works will be impacting on a mapped protected plants area. Council has obtained a clearing permit authorising these activities.* ***Relevant conditions of the Permit for Works project staff include:*** ***Full conditions and copy of the permit are included in the EMP.*** 1. *The permit allows for clearing within the protected plants area up to a maximum of 10 meters in the road reserve.* 2. *Clearing activities related to the upgrade of Injune Road will be minimised as much as possible.* 3. *Clearing is prohibited within 10 meters of the two E. beaniana trees.*	☐

4. *All personnel must be aware of the nearby E. beaniana and the conservation significance of the species.*
5. *Flagging and signage must be installed between the closest E. beaniana and the road to demarcate the area and must remain in place until the works are complete.*
   Barricading installed approx. CH54970



6. *No work is to be conducted beyond the flagging and signage.*
7. *Dust management will be undertaken to prevent impacts from dust i.e. water carts*
8. *The two E. beaniana trees will be monitored through weekly inspections during construction to ensure flagging and signage remain in place,*
9. *If the trees show any signs of decline in health, Councils Environmental Sustainability Team must be notified immediately.*

Questions?

Appendix 8 Safety/Environmental Induction and Licences Record

SAFETY INDUCTION, LICENCE/S & COMPETENCY RECORD

The Supervisor is to ensure that every person entering the construction workplace has relevant induction, competency including VOC or licence for the mobile plant they operate. N.B use more than one line for each person if necessary.

NOTE: RETAIN THIS RECORD ON THE SITE FILE

DATE	NAME	COMPANY	CONSTRUCTION INDUCTION CARD NUMBER	MOBILE PLANT COMPETENCIES	HIGH RISK WORK LICENCE/S	SIGNATURE

Comments:

Appendix 9 Animal Breeding Place Register

Animal breeding place register

Wildlife management

Authority holder's name: include Person in Charge where relevant	
Authority number or description: e.g. SMP project title etc	
Approval date/s: e.g. valid from *x* -to *x* / approved on *x* for *x* years	

ACTIONS Codes (mark column with 'X') - **Legend:**			
R1 = release, no further action	**R2** = Release with first aid - Note **V** or **C** in column (V = Vet / C = Carer)	**D** = Death	**I =** Investigation

EHP contacts - Wildlife Assessment Team
wildlife@des.qld.gov.au

Low Risk SMP Email protocol: annually from the registered date and upon expiry of the SMP.

High Risk SMP Email protocol: within 6 months of interaction with high risk of impact SMP species and upon expiry of the SMP.

Running report to be completed for all animal breeding places tampered with - all columns must be completed, with form emailed to the department upon expiry of approval and, for high risk SMP within 6 months of each interaction.

DATE (dd/mm/yyyy)	**TIME** (24 hrs)	**SPECIES** (Scientific name)	**SPECIES** (Common name)	**LOCATION of animal breeding place**				**Relocated animal breeding place location details (if applicable)**					**ACTIONS**				**COMMENTS / OUTCOME/AUTHORITY HOLDER** (e.g. of investigation - further management practices put in place etc. Permit references for DMP - removal and relocation or rehabilitation permit).
				Location Description	Lot on Plan	**Latitude** - Decimal Degrees	**Longitude** - Decimal Degrees	**Date** (dd/mm/yyyy)	**Location Description / Lot Plan**	**Latitude** - Decimal Degrees	**Longitude** - Decimal Degrees	**Count**	**R1**	**R2**	**D**	**I**	

Note: To insert extra lines in Windows 7 select 'Home' tab then click the 'Cells' tab and select 'insert sheet rows' otherwise go to the ' Insert' menu and click 'Rows'.

Appendix 10 Significant Vegetation

Regulated Vegetation Map

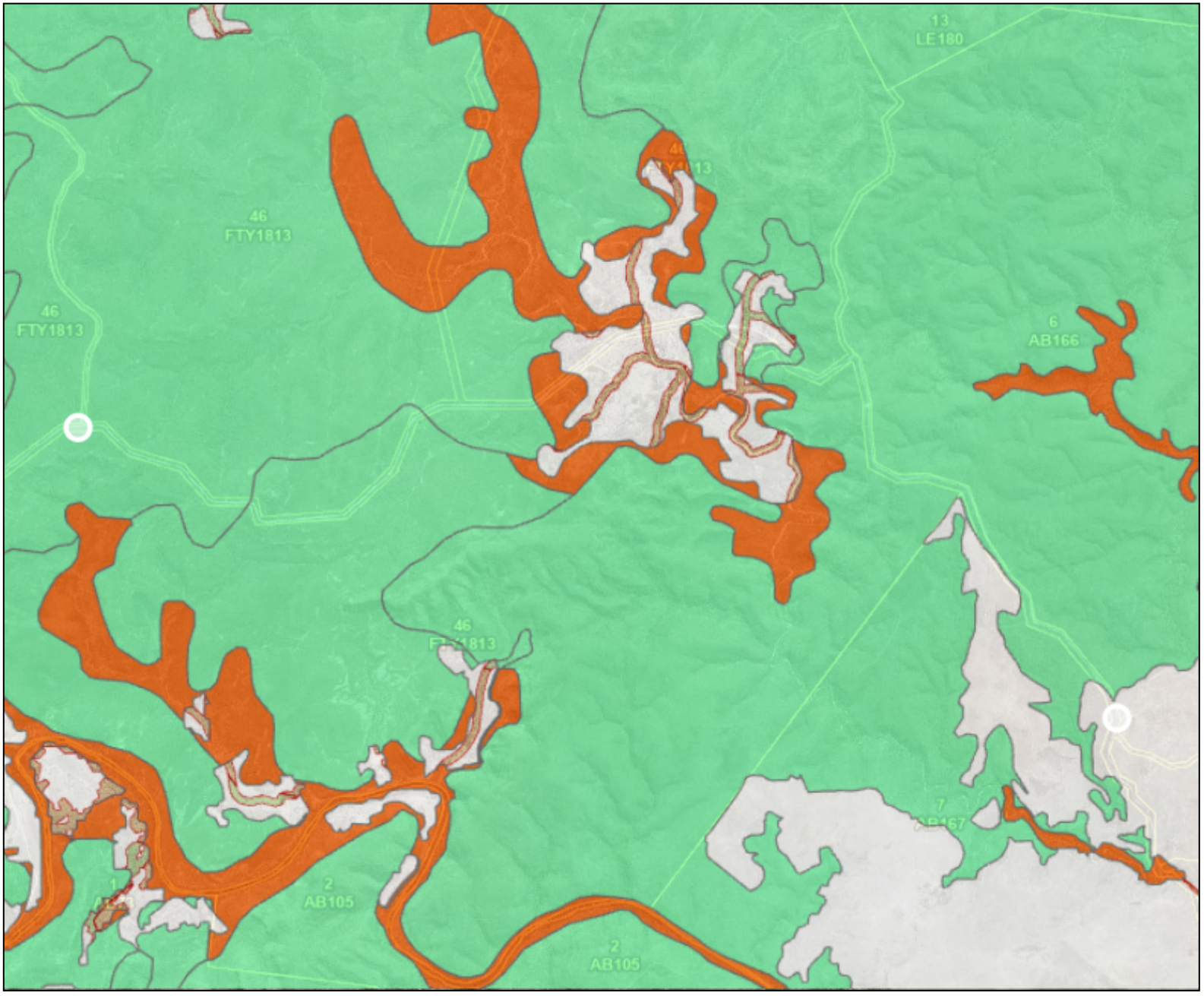
Protected Plants High-risk Trigger Map

Injune Road Upgrade

CH 49680-76350

25°35'19"S 149°13'1"E

25°35'19"S 149°21'44"E



25°41'48"S 149°13'1"E

25°41'48"S 149°21'44"E

A product of

Queensland Globe

Legend located on next page

N

0 1 km

Scale: 1:77698

Printed at: A4

Print date: 29/1/2025

Not suitable for accurate measurement.

Projection: Web Mercator EPSG 102100 (3857)

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Queensland Government

Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development

Injune Road Upgrade

CH 49680-76350

Legend

Category A or B area containing endangered

Category A or B area containing of concern

Category A or B area that is least concern

Water

Non-remnant

Land parcel - gt 1000 ha

Parcel

Land parcel label

Land parcel label - gt 1 ha

Land parcel label - gt 10 ha

Land parcel label - gt 1000 ha

Green bridges

Bridges

Tunnels

Railway stations

Railways

Vegetation management regional ecosystem - all

- Category A or B area containing endangered
- Category A or B area containing of concern
- Category A or B area that is least concern
- Category C or R area containing endangered
- Category C or R area containing of concern

Places: My Places(1)

- My Place 1
- My Place 2

Roads and tracks

- Motorway
- Highway
- Secondary
- Connector
- Local
- Restricted Access Road

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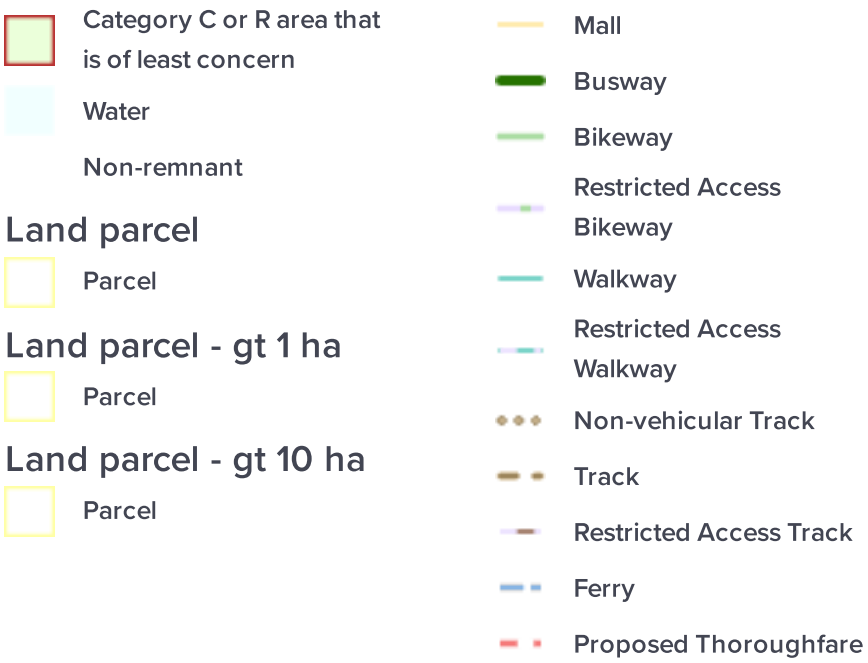
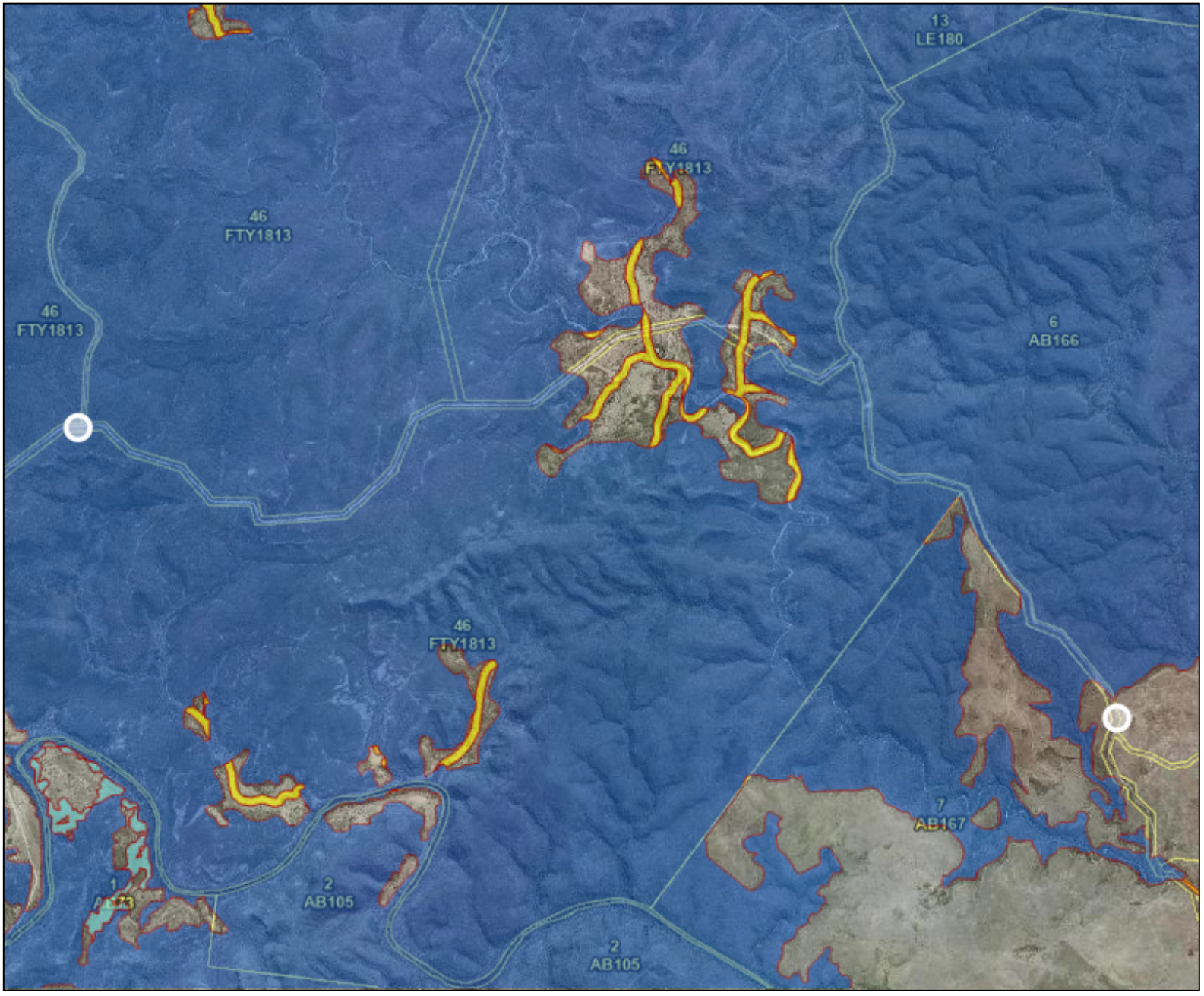

Category C or R area that is of least concern
Water
Non-remnant
Land parcel
Parcel
Land parcel - gt 1 ha
Parcel
Land parcel - gt 10 ha
Parcel
Mall
Busway
Bikeway
Restricted Access Bikeway
Walkway
Restricted Access Walkway
Non-vehicular Track
Track
Restricted Access Track
Ferry
Proposed Thoroughfare

Injune Road Project

CH 49680-76350

25°35'19"S 149°13'1"E

25°35'19"S 149°21'44"E



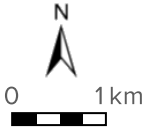
25°41'48"S 149°13'1"E

25°41'48"S 149°21'44"E

A product of

Queensland Globe

Legend located on next page



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Not suitable for accurate measurement.
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Queensland Government

Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development

Injune Road Project

CH 49680-76350

Legend

RVM category A - vegetation offsets; compliance notices; VDecs

RVM category B - remnant vegetation

RVM category C - high-value regrowth vegetation

RVM category R - reef-regrowth watercourse vegetation

Land parcel

Parcel

Land parcel - gt 1 ha

Parcel

Land parcel - gt 10 ha

Parcel

Land parcel - gt 1000 ha

Parcel

Railway stations

Railways

Roads and tracks

- Motorway
- Highway
- Secondary
- Connector
- Local
- Restricted Access Road
- Mall
- Busway
- Bikeway
- Restricted Access Bikeway
- Walkway
- Restricted Access Walkway
- Non-vehicular Track
- Track
- Restricted Access Track
- Ferry

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Land parcel label

Land parcel label - gt 1 ha

Land parcel label - gt 10 ha

Land parcel label - gt 1000 ha

Places: My Places(1)

- My Place 1
- My Place 2

Proposed Thoroughfare

Green bridges

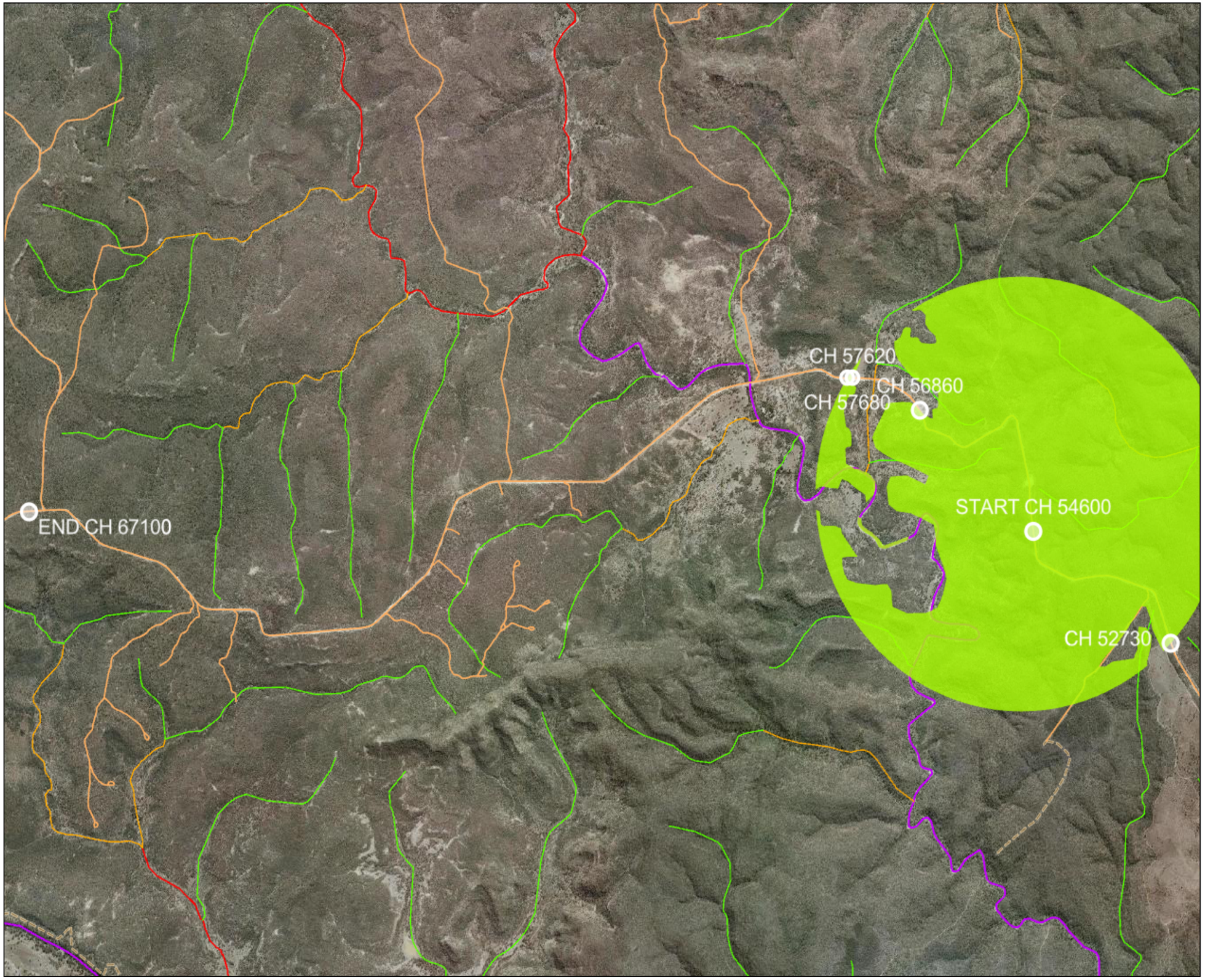
Bridges

Tunnels

Injune Road Segment 1

25°35'35"S 149°13'22"E

25°35'35"S 149°20'19"E



25°40'25"S 149°13'22"E

25°40'25"S 149°20'19"E

A product of Queensland Globe

Legend located on next page

N

0 1 km

Scale: 1:38580

Printed at: A3

Print date: 20/9/2024

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Projection: Web Mercator EPSG 102100 (3857)

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Queensland Government

Department of Resources

Injune Road Segment 1

Legend

Queensland waterways for waterway barrier works

- Major (Tidal)
- Major
- High
- Moderate
- Low

Protected plants trigger map

Places: Search Results

START CH 54600

END CH 67100

Places: My Places(1)

CH 56860

CH 52730

CH 57620

CH 57680

Railway stations

Railways

Green bridges

Bridges

Tunnels

Roads and tracks

- Motorway
- Highway
- Secondary
- Connector
- Local
- Restricted Access Road
- Mall
- Busway
- Bikeway
- Restricted Access Bikeway
- Walkway
- Restricted Access Walkway
- Non-vehicular Track
- Track
- Restricted Access Track
- Ferry
- Proposed Thoroughfare

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Appendix 11 Department of Agriculture and Fisheries Invasive Species Fact Sheets

Appendix 12 Hydrocarbon and Chemical Spill Response Procedure

Banana Shire Council
Adopted: 13 March 2023

HYDROCARBON AND CHEMICAL SPILL RESPONSE PROCEDURE

OBJECTIVE

This procedure describes actions to be taken in response to spills involving solid and liquid hydrocarbon and chemical contaminants. This procedure applies to all Banana Shire Council (Council) activities.

DEFINITIONS

Supervisor	Refers to your direct Supervisor. If you are required to immediately notify of an incident and are unable to contact your Supervisor, the event shall be escalated in the following order: Supervisor > Coordinator > Works Manager > Director > CEO
Hydrocarbon	All fossil fuel derived substances e.g. fuel, oil, grease, some emulsifiers and degreasers.
Chemical	Chemicals with hazardous qualities or classified as regulated wastes e.g. solvents-acid or alkali, flammable or non-flammable coolants and herbicides.

ROLES AND RESPONSIBILITIES

Role	Responsibility
Senior Management (Coordinators, Works Manager, Directors, CEO)	• Ensure that hydrocarbon and chemical spills are responded to in accordance with this procedure. • Ensure Safety Data Sheets (SDSs) are available for all hydrocarbons and chemicals supplied in the workplace. • Ensure spill kits are available for common types of spills in the workplace.
Supervisor	• Notification of spill to Environmental Sustainability Advisor and Principal Work Health and Safety Business Partner (refer Table 1 – Notifiable Volumes and Incident Reporting). • Ensure that hydrocarbon and chemical spills are responded to in accordance with this procedure. • Investigate (where necessary) hydrocarbon and chemical spills and ensure that corrective and preventative actions are put in place. • Establishment of job code (where required) and monitoring of clean up expenses. • Incident Reporting for hydrocarbon and chemical spills where required (refer Table 1 – Notifiable Volumes and Incident Reporting). • Arrange for the replacement of any used spill kit contents to ensure all equipment is readily available.

Principal Work Health and Safety Business Partner	• Primary safety contact for all spills. • Provide advice for spill clean-up and correct disposal options. • Investigate (where necessary) hydrocarbon and chemical spills and ensure that corrective and preventative actions are put in place. • Incident monitoring using the cloud based system, currently Myosh. • Notification to WHSQ where required.
Environmental Sustainability Advisor or Manager Environment and Waste	• Primary environmental contact for all spills. • Provide advice for spill clean-up and correct disposal options. • Investigate (where necessary) hydrocarbon and chemical spills and ensure that corrective and preventative actions are put in place. • Report in relation to Duty to Notify for certain events i.e. those that may cause serious and material environmental harm, under ss 320 to 320G of the *Environmental Protection Act 1994.* • Ensure reported incidents are closed out.
All Council personnel	• Promote correct hydrocarbon and chemical spill response procedures. • Adhere to the procedure for Hydrocarbon and Chemical Spill Response. • Participate in spill response training as required. • Notification of hydrocarbon and chemical spills where required (refer Table 1 – Notifiable Volumes and Incident Reporting).

PROCEDURE

ASSESS > SECURE > CONTROL > ABSORB > DISPOSE > REPORT

ASSESS	• Determine the type of spill i.e. hydrocarbon or chemical. • Locate and read SDS for the product – determine handling requirements. • Assess ability of personnel to control the spill. • Determine Safety and PPE requirements (refer to SDS).
SECURE	• Notify personnel working in or near the area of the spill occurrence. • Move people away from the area. • Secure the area by means of posting a guard, and/or erecting barricading or signage around the spill area to prevent personnel from accessing the area unnecessarily. • Notify Supervisor who will notify Principal Work Health and Safety Business Partner and Environmental Sustainability Advisor. • Supervisor to notify emergency services where indicated in Table 1 or otherwise deemed appropriate (refer Table 1 – Notifiable Volumes and Incident Reporting). ⓘ *Note: Spills with the potential to enter watercourses and stormwater drains have a high environmental risk and will need to be escalated to the Environmental Sustainability Advisor immediately.*
CONTROL	• Shut off all sources of ignition e.g. motors, electrical equipment. • Isolate the source of the spill to prevent it from becoming larger (if safe to do so). • Contain the spill by appropriate means which may include constructing an earthen bund or surrounding the spill with absorbent booms. • As a priority and where practical, divert or prevent runoff from entering stormwater drains or waterways by banking with sand or earth.

ABSORB	• Use PPE. • For small to medium spills, absorb the spill using a general purpose/hazardous substance spill kit contents such as absorbent booms and pads, granular absorbents, disposable bags and ties. • For spills on unsealed surfaces, excavate area and backfill with appropriate material. ⓘ *Soil, sand or mineral absorbent may also be used where general purpose/hazardous substance spill kits are not available or practicable. Converting a liquid spill into a solid will assist with removal.*
DISPOSE	ⓘ *Do not combine differing chemicals or hydrocarbons within the same container or bag. Regulated waste transporters and landfills require chemicals to be identified for disposal through their SDS. Fees associated with the disposal of mixed or unidentified wastes can be significant, hence all waste must be correctly identified and stored to minimise disposal expenses.* • Sweep up contaminated absorbent and place into disposable bags/old drums/IBCs. Label bag/container and attach the SDS for the material. • For hardstand areas, scrub contaminated areas with detergent and water using a stiff broom. Soak up with additional absorbent and place in labelled containers. ⓘ *Detergents and absorbents should not be washed into stormwater drains.* • For contained large liquid spills or spills within a bund, a regulated waste contractor can be contacted to pump out the contained spill. The solid waste from clean up can be handled as above. ⓘ *Used spill kit contents, soil, sand or mineral absorbent used in spill cleanups and any excavated material is considered regulated waste.* • Small hydrocarbon spills – wastes and can be disposed of in the designated areas at Council Depots. Ensure bags/containers are labelled. Labelled bags may be placed within an IBC, however, do not place incompatible dangerous goods in the same location. • Large hydrocarbon spills – seek advice on appropriate temporary storage/disposal site • Chemical spills – all hazardous chemicals must be disposed appropriately based on instructions provided in the Safety Data Sheet (SDS). Seek advice on appropriate temporary storage/disposal site. ⓘ *Consult the Principal Work Health and Safety Business Partner and Environmental Sustainability Advisor if unsure about appropriate disposal/storage requirements.*
REPORT	• Supervisor to log/report incident where required (refer Table 1 – Notifiable Volumes and Incident Reporting). • Supervisor to arrange for the replacement of used spill kit contents to ensure all equipment is readily available. ⓘ *Incident reports will be used to review the circumstances of the spill and implement or modify controls to reduce repetition of the event.*

NOTIFIABLE VOLUMES AND INCIDENT REPORTING

Table 1 – Notifiable Volumes and Incident Reporting

Location of spill	
Sealed and unsealed surfaces	**Water (i.e. watercourses or stormwater drains)**
Less than 20L - Spill to be reported to Supervisor. **WHS** Logged on the cloud based system as incident and notification to WHS team for clarity on further regulatory notifications **Environmental** Incident Report not required	
Greater than 20L - Spill to be reported to Supervisor. **WHS** Logged on the cloud based system as incident and notification to WHS team for clarity on further regulatory notifications **Environmental** Incident Report to be completed and forwarded to Environmental Sustainability Advisor within 24 hours	**All** - Spill to be reported to Supervisor and Environmental Sustainability Advisor immediately. Supervisor will determine if Emergency Services are to be notified. **WHS** Logged on the cloud based system as incident and notification to WHS team for clarity on further regulatory notifications. **Environmental** Incident Report to be completed and forwarded to Environmental Sustainability Advisor within 24 hours.
Greater than 100L - Spill to be reported to Supervisor and Environmental Sustainability Advisor. Supervisor will determine if Emergency Services are to be notified. **WHS** Logged on the cloud based system as incident and notification to WHS team for clarity on further regulatory notifications. **Environmental** Incident Report to be completed and forwarded to Environmental Sustainability Advisor within 24 hours.	

CERTIFICATION

.....
CHIEF EXECUTIVE OFFICER
BANANA SHIRE COUNCIL

18/9/24
.....
DATE

Appendix 13 Protected Plants Permit

Permit

Section 86 of Nature Conservation (Plants) Regulation 2020

Protected Plant Clearing Permit

This wildlife authority is issued under the following legislation: Nature Conservation (Plants) Regulation 2020.

Permit number: WA0067246 **Valid from:** 17 March 2025 to 16 March 2027

Activity: Clearing endangered, vulnerable or near threatened plants

Role	Name	Registered address	
Principal Holder:	BANANA SHIRE COUNCIL	62 Valentine Plains Road BILOELA QLD 4715	
Person In Charge:	Leesa Millar		
Business name:		**ABN/ACN**	N/A
Activity location/licensed premises	GPS: -25.624266,149.303345 to -25.646524,149.336293 (Injune Road - Banana Shire, QLD, 4420)		

Schedule

Family or Species or Schedule	Details	Category	Quantity	Unit
Species	Eucalyptus beaniana	Live	74.2	Hectares

Rhianna Steindl
Department of Environment and Science
Delegate of the administering authority
Nature Conservation Act 1992

Date issued: 17 March 2025

Enquiries:
Wildlife Assessment Team
Email: wildlife@des.qld.gov.au
Postal Address: PO Box 2454, Brisbane, Qld, 4001

ABN 46 640 294 485

Queensland Government

Protected Plant Clearing

Nature Conservation Legislative Requirements and Conditions

Legislative Requirements

PPCLR01 This permit does not exempt the permit holder from obtaining other approvals relevant to the harvest of whole protected plants at the site.

PPCLR02 Activities carried out under this authority apply to non-protected areas only.

PPCLR03 This permit includes the clearing of least concern protected plants within the clearing area.

Conditions

PPCM01 Activities relating to the impact of threatened or near threatened plant species under this permit must be in accordance with the procedures and actions outlined in the following documents, except where conditions below indicate otherwise:
Protected Plants Flora Survey Report – "Dynamic Banana Shire Council Injune Rd Upgrade Protected Plants Report v2 20250228.pdf" and
Associated appendices Flora Trigger Map and supporting documentation "Dynamic Banana Shire Council Injune Rd Impact Management Plan v3 20250304.pdf".

PPCM04 Should the project not proceed, in addition to the requirement to rehabilitate the area/s once cleared, the site/s must not be further disturbed and must be maintained to ensure erosion and weed control.

PPCC001 This permit approves the clearing impact area of 74.2 Ha with nil take of *Eucalyptus beaniana* (Bean's Ironbark) and authorises the clearing of protected plants in the clearing area that were not specified in the Flora Survey Report.

PPCC002 ADVISORY INFORMATION NOTICE: Clearing is to be conducted in a sequential manner and must be conducted in a way that directs escaping wildlife away from the area and into adjacent natural areas. A licensed spotter/catcher must be employed where there is a risk to native fauna present within the clearing site. The permit holder must ensure any injured animals are referred to an appropriate wildlife carer group or veterinarian.

PPCC003 Within 10 business days after expiry of the permit a report must be emailed to wildlife.operations@detsi.qld.gov.au to advise the success with avoiding and mitigating impacts on all species listed in PPCC001 associated with Banana Shire council proposed project for road work.

Department of the Environment, Tourism, Science and Innovation
www.detsi.qld.gov.au ABN 46 640 294 485

Queensland Government

Banana Shire Council

Impact Management Plan – *Eucalyptus beaniana* Injune Road Upgrade Works

Status	Version	Author	Reviewer	Date	Changes
Final	V1	Leanne Stevens*	Lisel Dingley	05/02/2025	For Issue
Final	V2	Leanne Stevens*	Lisel Dingley	28/02/2025	Updated to address feedback from PALM
Final	V3	Leanne Stevens*	Lisel Dingley	28/02/2025	Updated to address feedback from PALM

* Prepared by Leanne Stevens of Dynamic Environmental Services in consultation with, and based on the field survey conducted by Suitably Qualified Person, Steve Cupitt

CHINCHILLA QLD 4413 M 0428 623 723 E enviro@deservices.com.au DESERVICES.COM.AU / FIND US AT

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Contents

1 Background

Banana Shire Council plan to undertake road upgrade works along a section of Injune Road between Taroom and Injune, from point GDA 2024, Zone 55 -25.66692S, 149.35239E to -25.69278S, 149.21047E as shown in Figure 1. The proposed works include widening the existing road from 5m wide gravel road to 6m wide bitumen road, and re-establishing and improving table drains. This will require clearing up to 10m of vegetation on each side of the road.

As the Protected Plants Survey undertaken on the 21st, 22nd and 23rd of January 2025 identified one existing and one not previously identified *Eucalyptus beaniana* trees within the 100m buffer of the area to be cleared, this Impact Management Plan has been prepared.

2 Attempts to Avoid and Minimise Impact

No *E. beaniana* individuals will be directly impacted by the clearing activities. While two individual trees do occur within the clearing impact area and are considered to be potentially indirectly impacted by the activities, all reasonable attempts have been made to avoid and minimise impacts -

- An alternative development site or location is not an option as the works are specifically to widen the section of Injune Road and reinstate drain;
- The size and layout of the proposed development cannot be reasonably modified as the road is required to meet Council and Transport and Main Roads design specifications and has been designed as such;
- The area where the works are being undertaken is solely within the road easement; and
- All reasonable and practical measures have been implemented to reduce clearing required for the road upgrade works.

3 Nature of Impact

Eucalyptus beaniana is known to occur in Isla Gorge, north-east of Baroondah station and approximately 50 km southwest of Mundubbera, Queensland, although total number of plants is unknown (DETSI, 2024). *Approved Conservation Advice for Eucalyptus beaniana* (DEWHA, 2008) describes *E. beaniana* as growing on quartzose sandstone ridges, in shallow sandy soils forming a woodland with numerous other eucalypt species. This was confirmed during field surveys, where numerous other eucalypt species were observed around the two individuals found. The species can also overlap with threatened ecological communities Semi-evergreen vine thickets of the Brigalow Belt, Brigalow and White Box-Yellow Box-Blakey's Red Gum Grassy Woodland, none of which were mapped or observed in or near the project area.

The habitat quality observed during the survey was on average good, with fire scars suggesting that fire had moved through the area less than five years prior to the survey being undertaken. The topography was noted as flat to undulating with occasional jump-ups, gently undulating and hilly in places. *Acacia shirleyii* and *callitris glaucophylla* species were noted as dominant throughout, with eucalypts favouring on sandstone ridges. Only parts of the area would be suitable habitat for *E. beaniana* as it tends to occur only on the tops of ridgelines with other eucalypts.

3.1 Threatening Processes

The *Approved Conservation Advice for Eucalyptus beaniana* (DEWHA, 2008) identifies the following threatening processes for the species –

- Tree clearing for commercial timber, particularly as the Baroondah population lies within a State Forest; and
- Road widening and maintenance activities that may affect roadside populations.

The Species Profile and Threats Database (SPRAT) (DSEWPC, 2012) advises that there is currently no Recovery Plan or Threat Abatement Plan in place for the species.

The existing record is indeed located within the State Forest, however the additional individual located during the surveys is within the road reserve. While the two individuals located in field surveys are within the 100m buffer of the proposed works, neither will be cleared to facilitate the road widening.

3.2 Impacts to Supporting Habitat

Impacts to supporting habitat will be minimal as –

- The works are unlikely to impact habitat connectivity as neither tree will be isolated as a result of the works;
- Clearing will be limited to a maximum of 10m each side to accommodate the widening of the road by 1m and installation and repair of drains only;
- While clearing will encroach into the TPZ of the closest tree on one side, it will not exceed 10% incursion of the TPZ, it will not encroach into the supporting root zone (SRZ), and so structural integrity and health of the tree is unlikely to be impacted.

The area to be cleared is shown in Figure 1, with the area to be cleared close to the *E. beaniana* individuals shown in Figure 2.

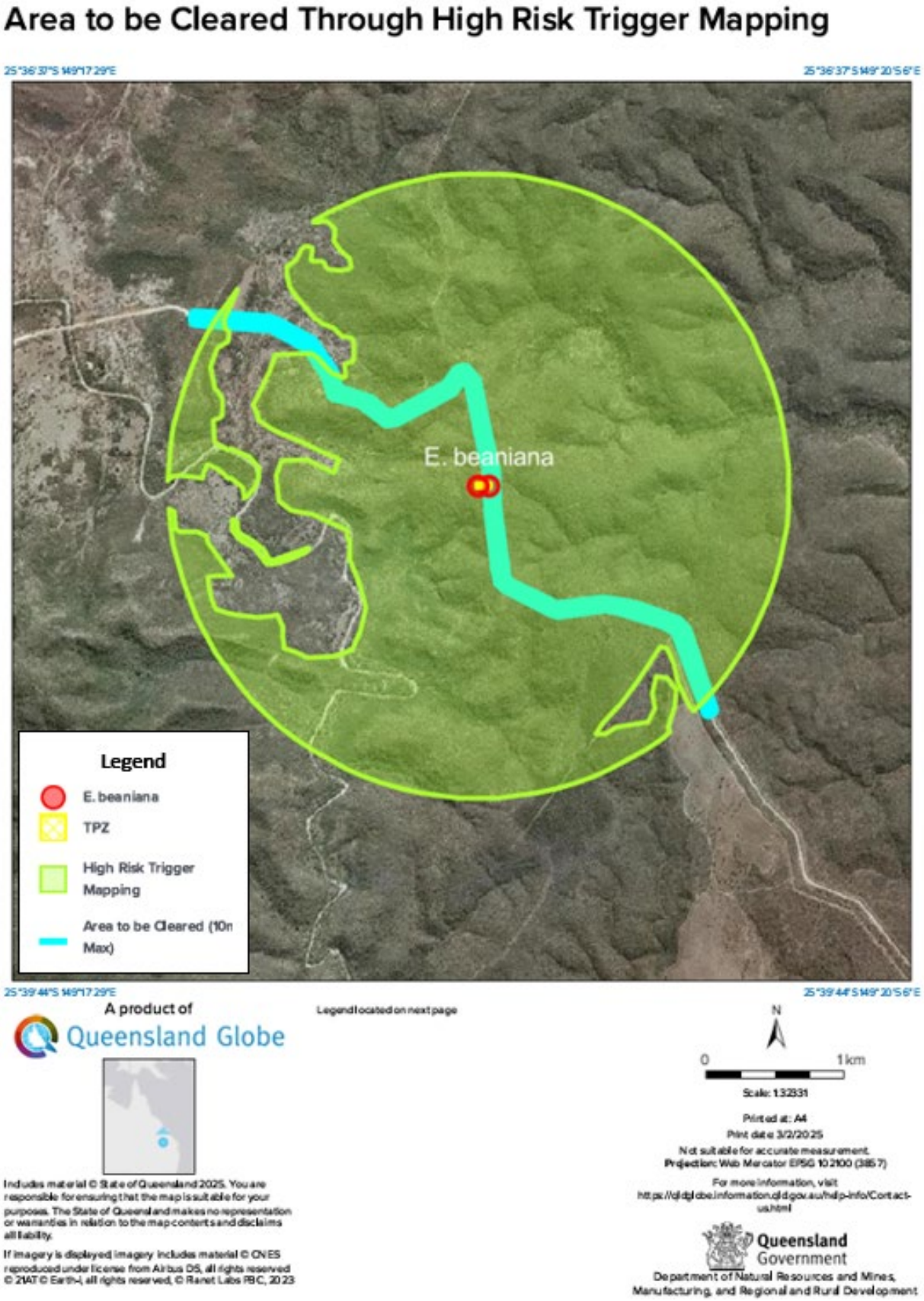

Figure 1: Area to be Cleared (QLD Globe)

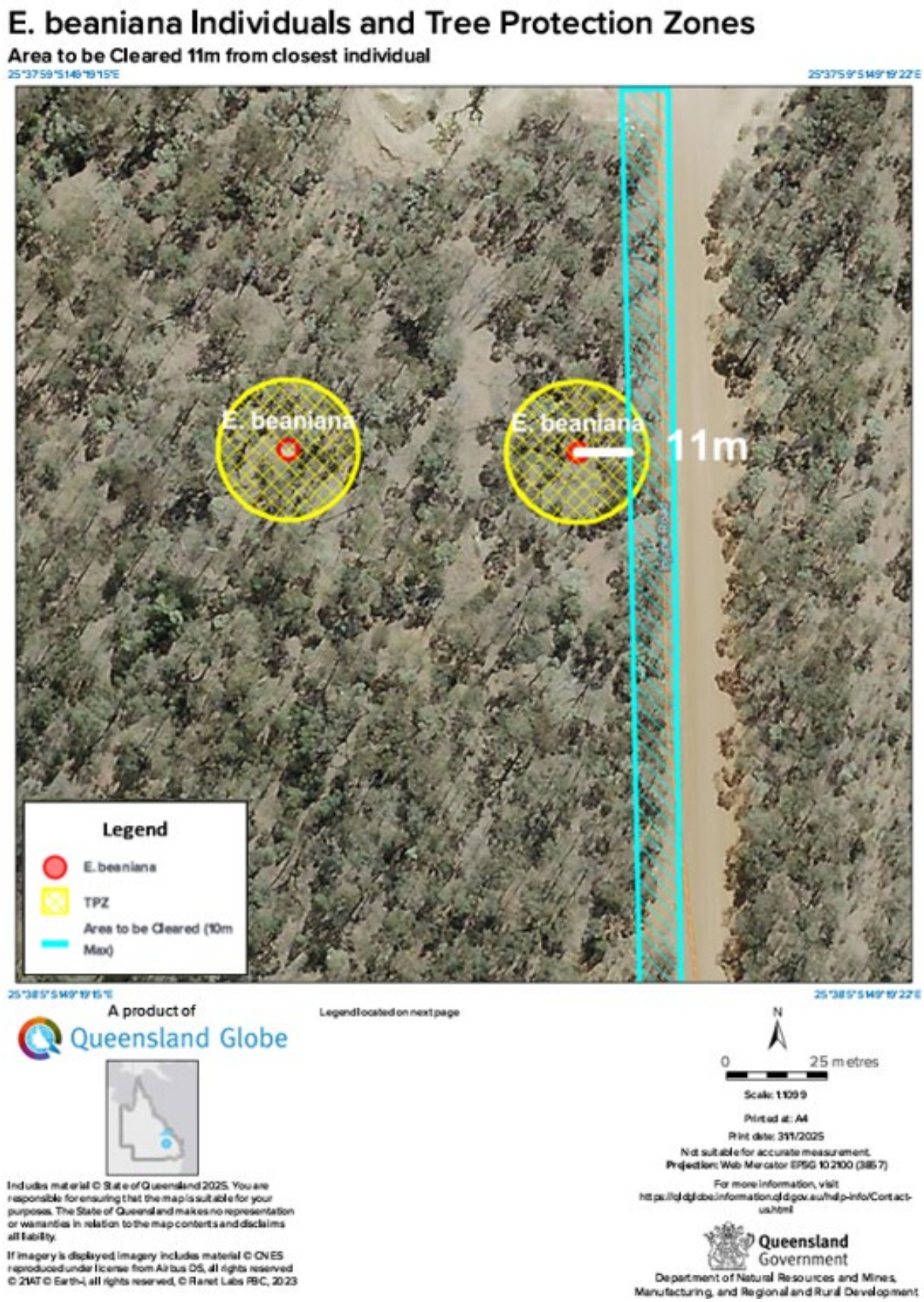

Figure 2: Area to be cleared adjacent to E. beaniana (QLD Globe)

The total area to be cleared within the high risk area is up to 10 ha (up to 10m widening each side of the 5km stretch of road). The two *E. beaniana* individuals located during the survey are 21m and 84m away from the existing road edge respectively. The proposed works are to result in vegetation clearing up to 10m each side of the road. Therefore, the proposed works will not directly impact either individual and will be at least 11m from the closest individual resulting in very minimal to no impact to the trees themselves or supporting habitat around and between the individuals.

4 Management of Impact

In accordance with the *Approved Conservation Advice for E. beaniana* (DEWHA, 2008), the following priority threat abatement actions can be taken to support the species –

- Identify populations of high conservation priority;
- Ensure road widening and maintenance activities and forestry activities (or other infrastructure or development activities) involving substrate or vegetation disturbance in areas where *E. beaniana* occurs do not adversely impact on known populations;
- Minimise adverse impacts from land use at known sites; and
- Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary.

The two individuals that were located during the Flora Survey were recorded using a GPS and their Diameter at breast height (DBH) measured to determine the appropriate Tree Protection Zone (TPZ) to establish to maintain tree health.

The TPZ for each tree was calculated using the Queensland Arboricultural Association Inc. DBH is used to calculate TPZ radius, Supporting Root Zone (SRZ) radius and area calculator (QAA, 2025) -

E. beaniana (existing record) –

DBH = 312cm

TPZ (radius) = 15m

A TPZ of 15m should be observed, with site work incursion no more than 10%.

E. beaniana (new record, closest to the road) –

DBH = 295cm

TPZ (radius) = 15m

A TPZ of 15m should be observed, with site work incursion no more than 10%.

In order to ensure not more than 10% incursion into the TPZ of the closest tree will occur, clearing cannot be undertaken within 10m of the tree. The proposed works will require clearing up to within 11m of the tree closest to the road. This will result in an incursion into the TPZ of 7.9%, as shown in Figure 3.

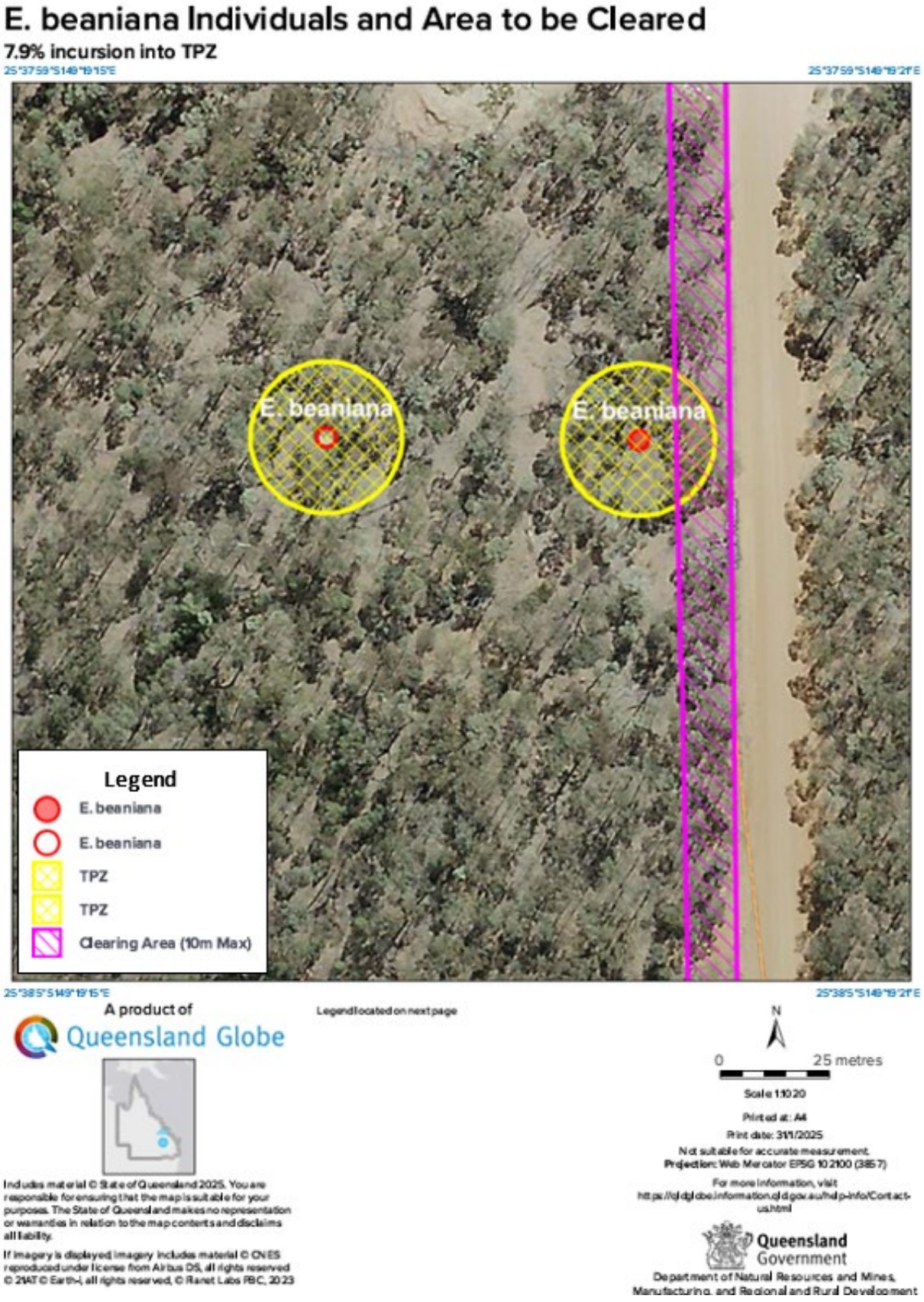

Figure 3: E. beaniana individuals with 15m TPZ applied, works area encroaches into the TPZ but no clearing (QLD Globe)

4.1 Impact Management Measures to be Implemented

To ensure the threat abatement actions listed in the *Approved Conservation Advice for E. beaniana* (DEWHA, 2008) are adopted, the Project Manager will ensure the following –

- Clearing activities associated with the upgrade of Injune Road will be kept to as minimal as possible;
- All personnel undertaking clearing activities are made aware of the nearby *E. beaniana* and the conservation significance of the species*;*
- Flagging and signage is installed between the closest *E. beaniana* and the road to demarcate an extent of clearing area as per Figure 4, and is to remain in place until works are complete;

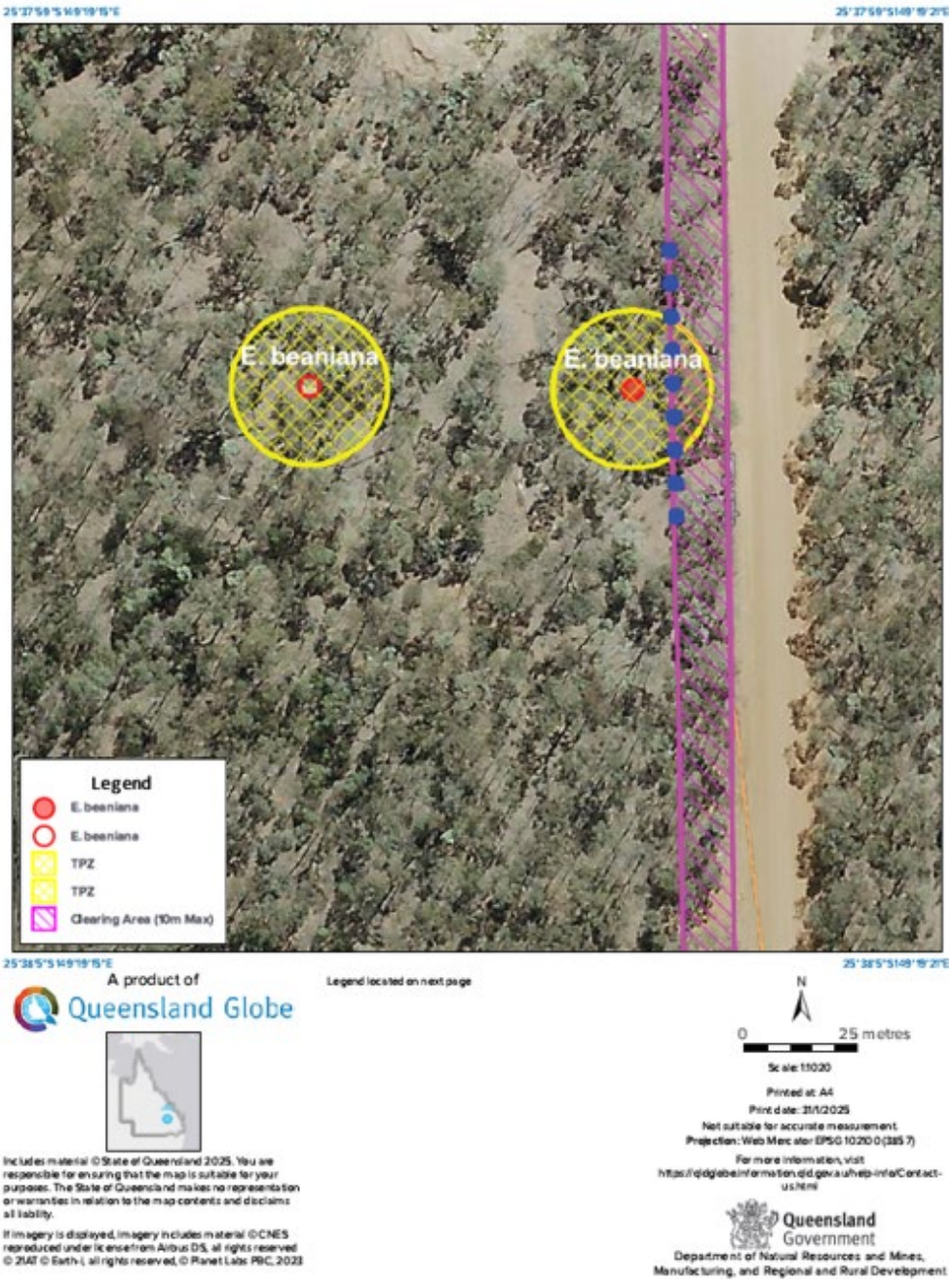

Figure 4: Indicative placement of flagging and signage to demarcate No-go Area for E. beaniana

- All personnel undertaking clearing activities are aware that there must be no works beyond the flagging and signage installed;
- Activities will be kept to a minimum to avoid root compaction where incursion into the TPZ is necessary;
- Vehicle hygiene protocols are implemented during construction to ensure they and their contractors meet their General Biosecurity Obligations in accordance with the *Biosecurity Act, 2014* and relevant Local Laws;
- Where required during construction activities, dust management will be undertaken to prevent impacts from dust;
- Erosion and sediment controls will be installed for the duration of construction activities as required;
- Any new weed incursions identified during construction activities will be managed appropriately;
- Rehabilitation of the roadside will be undertaken where necessary following completion of the works;
- The two *E. beaniana* trees will be monitored through weekly inspection during construction to ensure flagging and signage remains in place, and monthly for three months following completion of the works to ensure that the trees are not exhibiting any signs of decline in health such as peripheral dieback;
- If the trees begin to show any signs of decline in health during construction activities an investigation will be undertaken by an Arborist to determine the cause and implement revised impact management measures; and
- If tree mortality occurs as a result of the works the Department of Environment, Tourism, Science and Innovation will be notified within 24 hours.

5 Justification of Impact Management

The proposed impact management measures have been developed based on advice obtained from Suitably Qualified Person, Steve Cupitt. These measures are expected to be highly successful, as the individual trees will not be directly impacted by clearing, and there will be no more than 10% incursion into the TPZ by the activities proposed.

5.1 Limitations or Potential Threats

Potential limitations and threats to the success of the impact management measures include –

- Significant changes to scope not properly considering potential impacts to the trees;
- Human error resulting in impacts to the trees;
- Unapproved activities being undertaken resulting in impacts to the trees; and
- Activities unrelated to the project or unexpected events such as bushfire impacting the trees.

5.2 Expected Success of Impact Management Measures

The limitations and potential threats to the success of impact management measures are unlikely to be realised as -

- Personnel undertaking the works are highly experienced in executing road upgrade works to scope;
- Any significant changes to scope that may lead to an increase in clearing area would be subject to change management processes within Council, including consideration of any potential impacts to protected plants or deviations from existing permits and approvals; and
- Any unapproved activities or activities unrelated to the project being undertaken will be quickly identified and ceased, with investigations undertaken as necessary to ensure there is no recurrence;

5.3 Contingency

If any threatened plants die due to the construction activities, replacement plants will be propagated and replanted at a ratio of 4:1. Little is known about the life history of the species (DETSI, 2024), however Eucalypt species can generally be propagated from seed or cuttings (Narkowicz, 1997).

5.3.1 Propagation from Seed

E. beaniana flower in September, with fruits recorded in April, June, September to November (Hill and Johnson, 1991; Queensland Herbarium, 2012). As a preference, seed should be harvested from the individuals in the immediate area to retain endemicity. There were fruits observed on the ground beneath both E. beaniana individuals during the field survey, which can be collected by a Suitably Qualified Person should propagation be required. However, if seed is not able to be collected from the immediate area, seed can be collected from the other two known populations of E. beaniana at Isla Gorge, or about 50 km southwest of Mundubbera, Queensland.

Once seed is collected, plants will be propagated and grown to a suitable size and age for replanting into the wild by a Suitably Qualified Person with experience in propagating Eucalyptus species from seed. Planting will be undertaken by a Suitably Qualified Person, and a care and maintenance plan will be developed and implemented to maximise survival rate of planted individuals.

5.3.2 Propagation from Cuttings

Cuttings taken from epicormic shoots can be taken as an alternative to seed propagation (SGAP, 1985). Stem cuttings from the epicormic growth near the base of the individuals in the immediate area, or from those individuals at the other two known locations, can be harvested by a Suitable Qualified Person.

Once vegetative material is collected, plants will be propagated and grown to a suitable size and age for replanting into the wild by a Suitably Qualified Person with experience in propagating Eucalyptus species from cuttings. Planting will be undertaken by a Suitably Qualified Person, and a care and maintenance plan will be developed and implemented to maximise survival rate of planted individuals.

5.3.3 Propagation using Alternative Methods

Where propagating from seed or cuttings from epicormic growth is not suitable or successful, propagation can be undertaken using tissue culture, lignotubers, layering or grafting (SGAP, 1985). These methods are much more

labour intensive and may not be as successful as propagating from seed or cuttings and therefore would be a last resort. If these methods of propagation are deemed necessary, a Suitably Qualified Person would be engaged to undertake the collection of material, propagation and planting.

Once viable seedlings have been propagated, they will be planted out at a 4:1 ratio within the Suitable Replanting Area along the same ridgeline that the existing mapped individuals are located, as shown in Figure 5. This Road Parcel is Banana Shire Council land, therefore no landholder consent is required.

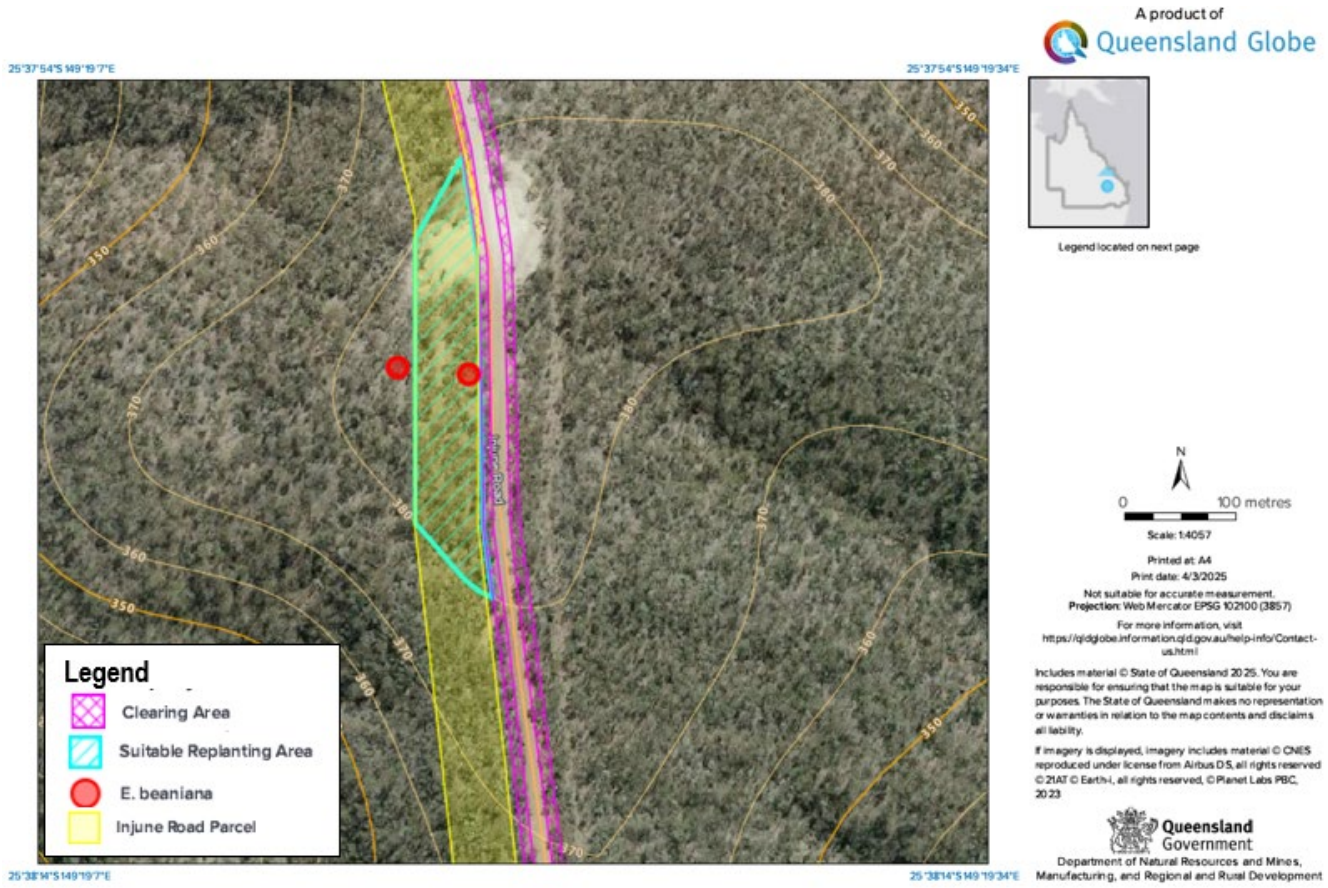

Figure 5: Suitable Replanting Area within Council Road Parcel

The land will continue to be owned and managed by Banana Shire Council beyond the life of the road upgrade works and into the foreseeable future, which will ensure the long-term security for future plant survival.

6 Survival of Plant in the Wild

No clearing of threatened plants is proposed to be undertaken, as individuals identified during the survey were found outside the area to be cleared.

As noted in the field observations and Protected Plants Survey Report, an abundance of reproductive material (nuts) was found around the bases of all eucalypt species surveyed, including around the *E. beaniana* individuals. This reproductive material will not be removed, covered (eg. by mulch or spoil), damaged or destroyed as a result of these works being undertaken.

As such, the survival of the plant in the wild is unlikely to be impacted by the works.

7 Offsets

As no plants will be cleared as part of this activity, no offsets are required.

8 Salvage of Plants

No plants will be salvaged as part of this activity.

9 References

Biosecurity Act, 2014 (QLD)

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Narkowicz, C. 1997, 'Eucalypts by Cuttings', from *Eucryphia*, *the newsletter of the Australian Plants Society* (Tasmania), September 1997, published online by Australian Plants online - 2007 Association of Societies for Growing Australian Plants, https://anpsa.org.au/APOL2007/sep07-s1.html ,accessed 4 March 2025.

Queensland Arboricultural Association Inc. (QAA) 2025, *Calculator for TPZ Radius and Area*, Calculator for TPZ Radius and Area, accessed 29 Jan 2025.

SGAP, 1985, 'Vegetative Propagation of Eucalyptus'. from *the newsletter of SGAP's Eucalyptus Study Group*, July 1985, published online by Australian Plants online - 2007 Association of Societies for Growing Australian Plants https://anpsa.org.au/APOL6/jun97-14.html#veget, accessed 4 March 2025.

Appendix 14 Gravel Supply Maps

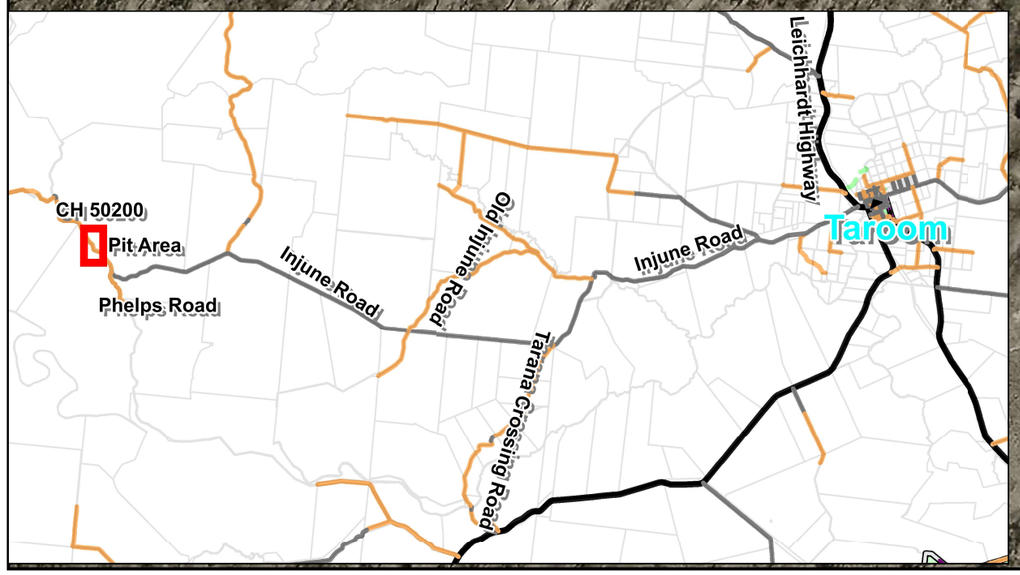
-25.6626483
149.3501051

-25.66297744
149.3495788

Injune Road

-25.66375698
149.3511499

-25.66415005
149.3506287



LEGEND
- Watercourse
- TMR Road
- Sealed Road
- Unsealed Road
- Region

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0 10 20 30 40 50 60 70 80 90
metres
Scale 1 : 1,600 (A3 Original Size)
Transverse Mercator projection, GDA94, MGA Zone 56

N

Supply Map
CH 50200

Banana SHIRE
SHIRE OF OPPORTUNITY
Printed: 14 Apr 2025

Coordinates:

A. -25.63225273, 149.3222889
B. -25.63225768, 149.3226354
C. -25.63294503, 149.3222635
D. -25.63294630, 149.3226143
E. -25.63238517, 149.3248017
F. -25.63238289, 149.3220009
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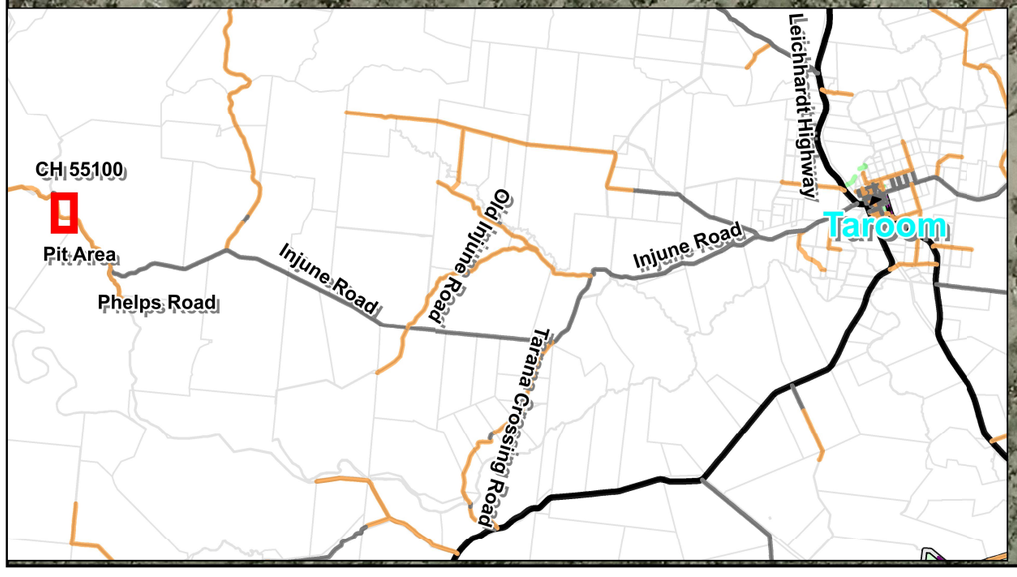
L. -25.63315765, 149.3221885



LEGEND
Watercourse
TMR Road
Sealed Road
Unsealed Road
Region

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metres
Scale 1 : 1,600 (A3 Original Size)
Transverse Mercator projection, GDA94, MGA Zone 56

Supply Map
CH 55100

Banana SHIRE
SHIRE OF OPPORTUNITY
Printed: 14 Apr 2025

Coordinates:

A. -25.64509157, 149.2151030
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D. -25.64560952, 149.2153107

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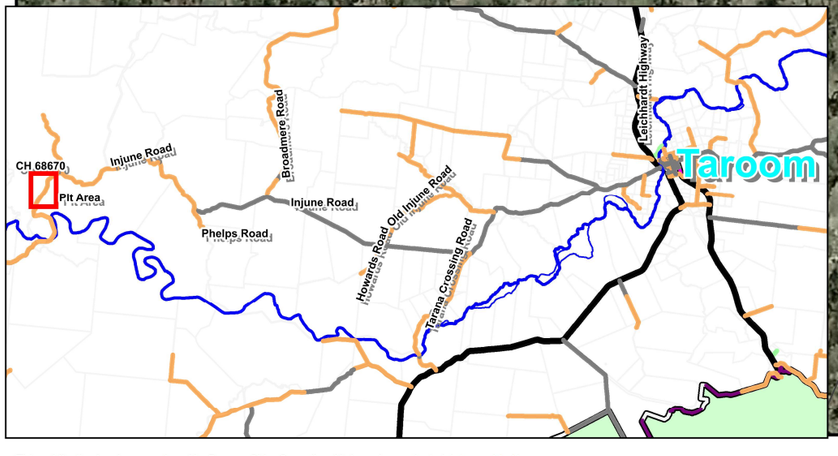

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0 10 20 30 40 50 60 70 80
metres
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Transverse Mercator projection, GDA94, MGA Zone 56

Supply Map
CH 68670

Banana SHIRE
SHIRE OF OPPORTUNITY
Printed: 14 Apr 2025