

DA Form 1 – Development application details

Approved form (version 1.6 effective 2 August 2024) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving only building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot)**, use this form (*DA Form 1*) and parts 4 to 6 of *DA Form 2 – Building work details*.

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*. For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

Note: All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).

PART 1 – APPLICANT DETAILS

1) Applicant details	
Applicant name(s) (individual or company full name)	Pioneer North Queensland Limited
Contact name (only applicable for companies)	Stacey Devaney – RPS AAP Consulting Pty Ltd
Postal address (P.O. Box or street address)	PO Box 1949
Suburb	Cairns
State	QLD
Postcode	4870
Country	Australia
Contact number	(07) 4276 1033
Email address (non-mandatory)	
Mobile number (non-mandatory)	
Fax number (non-mandatory)	
Applicant's reference number(s) (if applicable)	406005

1.1) Home-based business

☐ Personal details to remain private in accordance with section 264(6) of *Planning Act 2016*

2) Owner's consent

2.1) Is written consent of the owner required for this development application?

- ☒ Yes – the written consent of the owner(s) is attached to this development application
☐ No – proceed to 3)

PART 2 – LOCATION DETAILS

3) Location of the premises (complete 3.1) or 3.2), and 3.3) as applicable)

Note: Provide details below and attach a site plan for any or all premises part of the development application. For further information, see [DA Forms Guide: Relevant plans](#).

3.1) Street address and lot on plan

- ☒ Street address **AND** lot on plan (all lots must be listed), **or**
☐ Street address **AND** lot on plan for an adjoining or adjacent property of the premises (appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon. All lots must be listed).

a)	Unit No.	Street No.	Street Name and Type	Suburb
			Bullaburrah Creek Road	Dimbulah
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	4872	99	HG91	Mareeba Shire Council
b)	Unit No.	Street No.	Street Name and Type	Suburb
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)

3.2) Coordinates of premises (appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay)

Note: Place each set of coordinates in a separate row.

- ☐ Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) (if applicable)
		☐ WGS84 ☐ GDA94 ☐ Other:	

- ☐ Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) (if applicable)
		☐ 54 ☐ 55 ☐ 56	☐ WGS84 ☐ GDA94 ☐ Other:	

3.3) Additional premises

- ☐ Additional premises are relevant to this development application and the details of these premises have been attached in a schedule to this development application
☒ Not required

4) Identify any of the following that apply to the premises and provide any relevant details

- ☐ In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer:

- ☐ On strategic port land under the *Transport Infrastructure Act 1994*

Lot on plan description of strategic port land:

Name of port authority for the lot:

- ☐ In a tidal area

Name of local government for the tidal area (if applicable):

Name of port authority for tidal area (if applicable)

☐ On airport land under the <i>Airport Assets (Restructuring and Disposal) Act 2008</i>
Name of airport:
☐ Listed on the Environmental Management Register (EMR) under the <i>Environmental Protection Act 1994</i>
EMR site identification:
☐ Listed on the Contaminated Land Register (CLR) under the <i>Environmental Protection Act 1994</i>
CLR site identification:

5) Are there any existing easements over the premises?

Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see [DA Forms Guide](#).

- ☒ Yes – All easement locations, types and dimensions are included in plans submitted with this development application
- ☐ No

PART 3 – DEVELOPMENT DETAILS

Section 1 – Aspects of development

6.1) Provide details about the first development aspect

a) What is the type of development? *(tick only one box)*

- ☒ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

- ☒ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

- ☐ Code assessment ☒ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal (e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):

Material Change of Use (Extractive Industry)

e) Relevant plans

Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms guide: Relevant plans](#).

- ☒ Relevant plans of the proposed development are attached to the development application

6.2) Provide details about the second development aspect

a) What is the type of development? *(tick only one box)*

- ☒ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

- ☒ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

- ☒ Code assessment ☐ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal (e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):

Environmentally Relevant Activity (ERA 16)

e) Relevant plans

Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms Guide: Relevant plans](#).

- ☒ Relevant plans of the proposed development are attached to the development application

6.3) Additional aspects of development

- ☐ Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application
- ☒ Not required

6.4) Is the application for State facilitated development?

- ☐ Yes - Has a notice of declaration been given by the Minister?
- ☒ No

Section 2 – Further development details**7) Does the proposed development application involve any of the following?**

Material change of use	☒ Yes – complete division 1 if assessable against a local planning instrument
Reconfiguring a lot	☐ Yes – complete division 2
Operational work	☐ Yes – complete division 3
Building work	☐ Yes – complete <i>DA Form 2 – Building work details</i>

Division 1 – Material change of use

Note: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.

8.1) Describe the proposed material change of use

Provide a general description of the proposed use	Provide the planning scheme definition (include each definition in a new row)	Number of dwelling units (if applicable)	Gross floor area (m ²) (if applicable)
Sand extraction	Extractive Industry	N/A	N/A
Sand extraction & screening	Environmentally Relevant Activity	N/A	N/A

8.2) Does the proposed use involve the use of existing buildings on the premises?

- ☐ Yes
- ☒ No

8.3) Does the proposed development relate to temporary accepted development under the Planning Regulation?

- ☐ Yes – provide details below or include details in a schedule to this development application
- ☒ No

Provide a general description of the temporary accepted development	Specify the stated period dates under the Planning Regulation

Division 2 – Reconfiguring a lot

Note: This division is only required to be completed if any part of the development application involves reconfiguring a lot.

9.1) What is the total number of existing lots making up the premises?

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9.2) What is the nature of the lot reconfiguration? (tick all applicable boxes)

☐ Subdivision (complete 10)	☐ Dividing land into parts by agreement (complete 11)
☐ Boundary realignment (complete 12)	☐ Creating or changing an easement giving access to a lot from a constructed road (complete 13)

10) Subdivision**10.1) For this development, how many lots are being created and what is the intended use of those lots:**

Intended use of lots created	Residential	Commercial	Industrial	Other, please specify:
Number of lots created				

10.2) Will the subdivision be staged?

- ☐ Yes – provide additional details below
☐ No

How many stages will the works include?

What stage(s) will this development application apply to?

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?

Intended use of parts created	Residential	Commercial	Industrial	Other, please specify:
Number of parts created				

12) Boundary realignment**12.1) What are the current and proposed areas for each lot comprising the premises?**

Current lot		Proposed lot	
Lot on plan description	Area (m ²)	Lot on plan description	Area (m ²)

12.2) What is the reason for the boundary realignment?**13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement?**
(attach schedule if there are more than two easements)

Existing or proposed?	Width (m)	Length (m)	Purpose of the easement? (e.g. pedestrian access)	Identify the land/lot(s) benefitted by the easement

Division 3 – Operational work**Note:** This division is only required to be completed if any part of the development application involves operational work.**14.1) What is the nature of the operational work?**

- | | | |
|--|-------------------------------------|--|
| ☐ Road work | ☐ Stormwater | ☐ Water infrastructure |
| ☐ Drainage work | ☐ Earthworks | ☐ Sewage infrastructure |
| ☐ Landscaping | ☐ Signage | ☐ Clearing vegetation |
| ☐ Other – please specify: _____ | | |

14.2) Is the operational work necessary to facilitate the creation of new lots? (e.g. subdivision)☐ Yes – specify number of new lots: _____☐ No

14.3) What is the monetary value of the proposed operational work? (include GST, materials and labour)

\$

PART 4 – ASSESSMENT MANAGER DETAILS

15) Identify the assessment manager(s) who will be assessing this development application

Mareeba Shire Council

16) Has the local government agreed to apply a superseded planning scheme for this development application?

- ☐ Yes – a copy of the decision notice is attached to this development application
- ☐ The local government is taken to have agreed to the superseded planning scheme request – relevant documents attached
- ☒ No

PART 5 – REFERRAL DETAILS

17) Does this development application include any aspects that have any referral requirements?

Note: A development application will require referral if prescribed by the Planning Regulation 2017.

- ☐ No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the **Chief Executive of the Planning Act 2016:**

- ☐ Clearing native vegetation
- ☐ Contaminated land (*unexploded ordnance*)
- ☒ Environmentally relevant activities (ERA) (*only if the ERA has not been devolved to a local government*)
- ☐ Fisheries – aquaculture
- ☐ Fisheries – declared fish habitat area
- ☐ Fisheries – marine plants
- ☐ Fisheries – waterway barrier works
- ☐ Hazardous chemical facilities
- ☐ Heritage places – Queensland heritage place (*on or near a Queensland heritage place*)
- ☐ Infrastructure-related referrals – designated premises
- ☐ Infrastructure-related referrals – state transport infrastructure
- ☐ Infrastructure-related referrals – State transport corridor and future State transport corridor
- ☐ Infrastructure-related referrals – State-controlled transport tunnels and future state-controlled transport tunnels
- ☐ Infrastructure-related referrals – near a state-controlled road intersection
- ☐ Koala habitat in SEQ region – interfering with koala habitat in koala habitat areas outside koala priority areas
- ☐ Koala habitat in SEQ region – key resource areas
- ☐ Ports – Brisbane core port land – near a State transport corridor or future State transport corridor
- ☐ Ports – Brisbane core port land – environmentally relevant activity (ERA)
- ☐ Ports – Brisbane core port land – tidal works or work in a coastal management district
- ☐ Ports – Brisbane core port land – hazardous chemical facility
- ☐ Ports – Brisbane core port land – taking or interfering with water
- ☐ Ports – Brisbane core port land – referable dams
- ☐ Ports – Brisbane core port land – fisheries
- ☐ Ports – Land within Port of Brisbane's port limits (*below high-water mark*)
- ☐ SEQ development area
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – community activity
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – urban activity
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – combined use
- ☐ SEQ northern inter-urban break – tourist activity or sport and recreation activity



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- ☐ SEQ northern inter-urban break – community activity
- ☐ SEQ northern inter-urban break – indoor recreation
- ☐ SEQ northern inter-urban break – urban activity
- ☐ SEQ northern inter-urban break – combined use
- ☐ Tidal works or works in a coastal management district
- ☐ Reconfiguring a lot in a coastal management district or for a canal
- ☐ Erosion prone area in a coastal management district
- ☐ Urban design
- ☐ Water-related development – taking or interfering with water
- ☐ Water-related development – removing quarry material *(from a watercourse or lake)*
- ☐ Water-related development – referable dams
- ☐ Water-related development – levees *(category 3 levees only)*
- ☐ Wetland protection area

Matters requiring referral to the local government:

- ☐ Airport land
- ☐ Environmentally relevant activities (ERA) *(only if the ERA has been devolved to local government)*
- ☐ Heritage places – Local heritage places

Matters requiring referral to the Chief Executive of the distribution entity or transmission entity:

- ☐ Infrastructure-related referrals – Electricity infrastructure

Matters requiring referral to:

- The **Chief Executive of the holder of the licence**, if not an individual
- The **holder of the licence**, if the holder of the licence is an individual
- ☐ Infrastructure-related referrals – Oil and gas infrastructure

Matters requiring referral to the Brisbane City Council:

- ☐ Ports – Brisbane core port land

Matters requiring referral to the Minister responsible for administering the Transport Infrastructure Act 1994:

- ☐ Ports – Brisbane core port land *(where inconsistent with the Brisbane port LUP for transport reasons)*
- ☐ Ports – Strategic port land

Matters requiring referral to the relevant port operator, if applicant is not port operator:

- ☐ Ports – Land within Port of Brisbane's port limits *(below high-water mark)*

Matters requiring referral to the Chief Executive of the relevant port authority:

- ☐ Ports – Land within limits of another port *(below high-water mark)*

Matters requiring referral to the Gold Coast Waterways Authority:

- ☐ Tidal works or work in a coastal management district *(in Gold Coast waters)*

Matters requiring referral to the Queensland Fire and Emergency Service:

- ☐ Tidal works or work in a coastal management district *(involving a marina (more than six vessel berths))*

18) Has any referral agency provided a referral response for this development application?

- ☐ Yes – referral response(s) received and listed below are attached to this development application
- ☒ No

Referral requirement	Referral agency	Date of referral response

Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application, or include details in a schedule to this development application *(if applicable)*.

PART 6 – INFORMATION REQUEST

19) Information request under the DA Rules

☒ I agree to receive an information request if determined necessary for this development application

☐ I do not agree to accept an information request for this development application

Note: By not agreeing to accept an information request I, the applicant, acknowledge:

- that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties
- Part 3 under Chapter 1 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules or
- Part 2 under Chapter 2 of the DA Rules will still apply if the application is for state facilitated development

Further advice about information requests is contained in the [DA Forms Guide](#).

PART 7 – FURTHER DETAILS

20) Are there any associated development applications or current approvals? (e.g. a preliminary approval)

☐ Yes – provide details below or include details in a schedule to this development application

☒ No

List of approval/development application references	Reference number	Date	Assessment manager
☐ Approval			
☐ Development application			
☐ Approval			
☐ Development application			

21) Has the portable long service leave levy been paid? (only applicable to development applications involving building work or operational work)

☐ Yes – a copy of the receipted QLeave form is attached to this development application

☐ No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid

☒ Not applicable (e.g. building and construction work is less than \$150,000 excluding GST)

Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
\$		

22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?

☐ Yes – show cause or enforcement notice is attached

☒ No

23) Further legislative requirements

Environmentally relevant activities

23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act 1994*?

- ☒ Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below
- ☐ No

Note: Application for an environmental authority can be found by searching “ESR/2015/1791” as a search term at www.qld.gov.au. An ERA requires an environmental authority to operate. See www.business.qld.gov.au for further information.

Proposed ERA number:	16	Proposed ERA threshold:	2(a) 5,000 – 100,000t
Proposed ERA name:	Extractive activities		

- ☐ Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.

Hazardous chemical facilities

23.2) Is this development application for a **hazardous chemical facility**?

- ☐ Yes – *Form 536: Notification of a facility exceeding 10% of schedule 15 threshold* is attached to this development application
- ☒ No

Note: See www.business.qld.gov.au for further information about hazardous chemical notifications.

Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation that the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

- ☐ Yes – this development application includes written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)
- ☒ No

Note: 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.
2. See <https://www.qld.gov.au/environment/land/vegetation/applying> for further information on how to obtain a s22A determination.

Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

- ☐ Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter
- ☒ No

Note: The environmental offset section of the Queensland Government's website can be accessed at www.qld.gov.au for further information on environmental offsets.

Koala habitat in SEQ Region

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work which is assessable development under Schedule 10, Part 10 of the Planning Regulation 2017?

- ☐ Yes – the development application involves premises in the koala habitat area in the koala priority area
- ☐ Yes – the development application involves premises in the koala habitat area outside the koala priority area
- ☒ No

Note: If a koala habitat area determination has been obtained for this premises and is current over the land, it should be provided as part of this development application. See koala habitat area guidance materials at www.desi.qld.gov.au for further information.

Water resources

23.6) Does this development application involve **taking or interfering with underground water through an artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the *Water Act 2000***?

- ☐ Yes – the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the *Water Act 2000* may be required prior to commencing development
- ☒ No

Note: Contact the Department of Resources at www.resources.qld.gov.au for further information.

DA templates are available from planning.statedevelopment.qld.gov.au. If the development application involves:

- Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1
- Taking or interfering with water in a watercourse, lake or spring: complete DA Form 1 Template 2
- Taking overland flow water: complete DA Form 1 Template 3.

Waterway barrier works

23.7) Does this application involve **waterway barrier works**?

- ☐ Yes – the relevant template is completed and attached to this development application
- ☒ No

DA templates are available from planning.statedevelopment.qld.gov.au. For a development application involving waterway barrier works, complete DA Form 1 Template 4.

Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants**?

- ☐ Yes – an associated resource allocation authority is attached to this development application, if required under the *Fisheries Act 1994*
- ☒ No

Note: See guidance materials at www.daf.qld.gov.au for further information.

Quarry materials from a watercourse or lake

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake under the *Water Act 2000***?

- ☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development
- ☒ No

Note: Contact the Department of Resources at www.resources.qld.gov.au and www.business.qld.gov.au for further information.

Quarry materials from land under tidal waters

23.10) Does this development application involve the **removal of quarry materials from land under tidal water under the *Coastal Protection and Management Act 1995***?

- ☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development
- ☒ No

Note: Contact the Department of Environment, Science and Innovation at www.desi.qld.gov.au for further information.

Referable dams

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the *Water Supply Act*)?

- ☐ Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the *Water Supply Act* is attached to this development application
- ☒ No

Note: See guidance materials at www.resources.qld.gov.au for further information.

Tidal work or development within a coastal management district

23.12) Does this development application involve **tidal work or development in a coastal management district**?

- ☐ Yes – the following is included with this development application:
- ☐ Evidence the proposal meets the code for assessable development that is prescribed tidal work (*only required if application involves prescribed tidal work*)
 - ☐ A certificate of title

☒ No

Note: See guidance materials at www.desi.qld.gov.au for further information.

Queensland and local heritage places

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

☐ Yes – details of the heritage place are provided in the table below

☒ No

Note: See guidance materials at www.desi.qld.gov.au for information requirements regarding development of Queensland heritage places.

For a heritage place that has cultural heritage significance as a local heritage place and a Queensland heritage place, provisions are in place under the Planning Act 2016 that limit a local categorising instrument from including an assessment benchmark about the effect or impact of, development on the stated cultural heritage significance of that place. See guidance materials at www.planning.statedevelopment.qld.gov.au for information regarding assessment of Queensland heritage places.

Name of the heritage place:

Place ID:

Decision under section 62 of the Transport Infrastructure Act 1994

23.14) Does this development application involve new or changed access to a state-controlled road?

☐ Yes – this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)

☒ No

Walkable neighbourhoods assessment benchmarks under Schedule 12A of the Planning Regulation

23.15) Does this development application involve reconfiguring a lot into 2 or more lots in certain residential zones (except rural residential zones), where at least one road is created or extended?

☐ Yes – Schedule 12A is applicable to the development application and the assessment benchmarks contained in schedule 12A have been considered

☒ No

Note: See guidance materials at www.planning.statedevelopment.qld.gov.au for further information.

PART 8 – CHECKLIST AND APPLICANT DECLARATION

24) Development application checklist

I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17

☒ Yes

Note: See the *Planning Regulation 2017* for referral requirements

If building work is associated with the proposed development, Parts 4 to 6 of [DA Form 2 – Building work details](#) have been completed and attached to this development application

☐ Yes

☒ Not applicable

Supporting information addressing any applicable assessment benchmarks is with the development application

Note: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see [DA Forms Guide: Planning Report Template](#).

☒ Yes

Relevant plans of the development are attached to this development application

Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms Guide: Relevant plans](#).

☒ Yes

The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (see 21)

☐ Yes

☒ Not applicable



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25) Applicant declaration

- ☒ By making this development application, I declare that all information in this development application is true and correct
- ☒ Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001*

Note: It is unlawful to intentionally provide false or misleading information.

Privacy – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website.

Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, Planning Regulation 2017 and the DA Rules except where:

- such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the Planning Regulation 2017, and the access rules made under the *Planning Act 2016* and Planning Regulation 2017; or
- required by other legislation (including the *Right to Information Act 2009*); or
- otherwise required by law.

This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002*.

PART 9 – FOR COMPLETION OF THE ASSESSMENT MANAGER – FOR OFFICE USE ONLY

Date received: Reference number(s):

Notification of engagement of alternative assessment manager

Prescribed assessment manager	
Name of chosen assessment manager	
Date chosen assessment manager engaged	
Contact number of chosen assessment manager	
Relevant licence number(s) of chosen assessment manager	

QLeave notification and payment

Note: For completion by assessment manager if applicable

Description of the work	
QLeave project number	
Amount paid (\$)	Date paid (dd/mm/yy)
Date receipted form sighted by assessment manager	
Name of officer who sighted the form	

BULLABURRAH CREEK ROAD, DIMBULAH

Town Planning Report for Material Change of Use (Extractive Industry)



406005
A
9 June 2026

REPORT

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
A	Planning Report	S. Devaney	P. Clifton	S. Devaney	2/06/2026

Approval for issue

Stacey Devaney



10 June 2026

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Prepared for:

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SUMMARY

Table 1: Summary

Details			
Site Address:	Lot 99 Bullaburrah Creek Road, Dimbulah		
Real Property Description:	Lot 99 on HG91		
Site Area:	59.489 hectares		
Regional Plan Land Use Designation:	Regional Landscape and Rural Production Area		
Zone:	Rural Zone		
Owner(s):	Steven Bilic		
Proposal			
Brief Description/ Purpose of Proposal	Development Permit for Material Change of Use (Extractive Industry) and Development Permit for Environmentally Relevant Activity (ERA 16)		
Application Details			
Aspect of Development	Preliminary approval	Development permit	
Material change of use	☐	☒	
Building Work	☐	☐	
Operational Work	☐	☐	
Reconfiguration of a Lot	☐	☐	
Assessment Category	☐ Code	☒ Impact	
Public Notification	☐ No	☒ Yes 15BD	
Superseded Planning Scheme Application	☐ Yes	☒ No	
Referral Agencies			
Agency	Concurrence	Advice	Pre-lodgement response
SARA	☒	☐	☐ Yes ☒ No
Pre-lodgement / Consultation			
Entity	Date	Contact Name	
Council DA Team	☒ Yes ☐ No	20/02/2026 Carl Ewin	
Other			
Applicant contact person	Stacey Devaney Principal Planner D: +61 7 4276 1033 E: stacey.devaney@rpsconsulting.com		

1 INTRODUCTION

RPS has been engaged by Pioneer North Queensland Limited (PNQ) to prepare a Development Application for Material Change of Use (Extractive Industry) over land located at Lot 99 Bullaburrah Creek Road, Dimbulah, described as Lot 99 on HG91.

The site is comprised of an irregular shaped rural lot containing two parts separated by Bullaburrah Creek Road, and with an area of 59.489 hectares and frontage to Bullaburrah Creek Road and Wolfram Road of approximately 528 metres and 270 metres, respectively. The site is improved by a detached dwelling house and ancillary farm shed, located on the southern part lot fronting Bullaburrah Creek Road. The balance of the land is used in part for horticultural cropping, namely mangoes and contains sparse areas of mapped Category B Regulated Vegetation, located within the north west corner of the site. Unnamed tributaries of the Walsh River traverse both the northern and southern portions of the site.

An easement for water infrastructure traverses the site from north to south.

The area containing the site is characterised by predominately rural development. To the north is Wolfram Road, to the east and west is rural production, namely mangoes or marginal grazing land. To the south the site adjoins the Walsh River.

The proposed development involves the extraction of sand by PNQ for commercial purposes. Screening of material would occur on-site prior to haulage off-site via Wolfram Road. The proposal seeks to extract sand from existing cleared areas. The proposed extraction activity would avoid areas of mapped regulated vegetation Category B (Least Concern).

Under the Mareeba Shire Council Planning Scheme 2026 (v.1/2023), the site is identified within the Rural Zone and is affected by the following overlays:

- Agricultural Land;
- Bushfire Hazard;
- Flood Hazard; and
- Transport Infrastructure.

In accordance with the planning scheme, application for a new extractive industry in the Rural Zone is identified as requiring impact assessment, which means that it is required to be assessed against the whole of the planning scheme, including the Strategic Framework, and it is required to be the subject of public notification. During the public notification period, interested members of the public are able to make representations to the council in respect of the application and proposed development. These properly made representations are required to be considered by council in determining the application.

This report provides greater detail on the nature of the proposal and provides an assessment of the proposal against the intents and code requirements of relevant statutory planning documents.

Based on these assessments the proposal is recommended for approval subject to reasonable and relevant conditions.

2 SITE DETAILS

2.1 Site Particulars

The site of the proposed sand extraction is located approximately 13 km west of the township of Dimbulah, within Lot 99 on HG91. The site adjoins the Walsh River to the south and is traversed by unnamed tributaries of the Walsh River. The proposal area of extraction is located to avoid areas of existing horticultural cropping and water infrastructure that traverses the site from north to south. The site is partially cleared and the balance of the proposed extraction area is sparsely vegetated with Category B (Least Concern) regional ecosystem. The full extent of the proposed extractive industry would be approximately 22.17 hectares.

The area containing the site is characterised by agricultural production, namely horticultural cropping and grazing.

Key details of the subject site are as follows:

Table 2: Site Particulars

Site Particulars	
Site Address	Lot 99 Bullaburrah Creek Road, Dimbulah
Real Property Description	Lot 99 on HG91
Site Area	59.489 hectares
Landowner(s)	Steven Bilic

The site location and its extent are shown in **Figure 1** and **Figure 2** below.

Certificate/s of title confirming site ownership details are included at **Appendix A**.

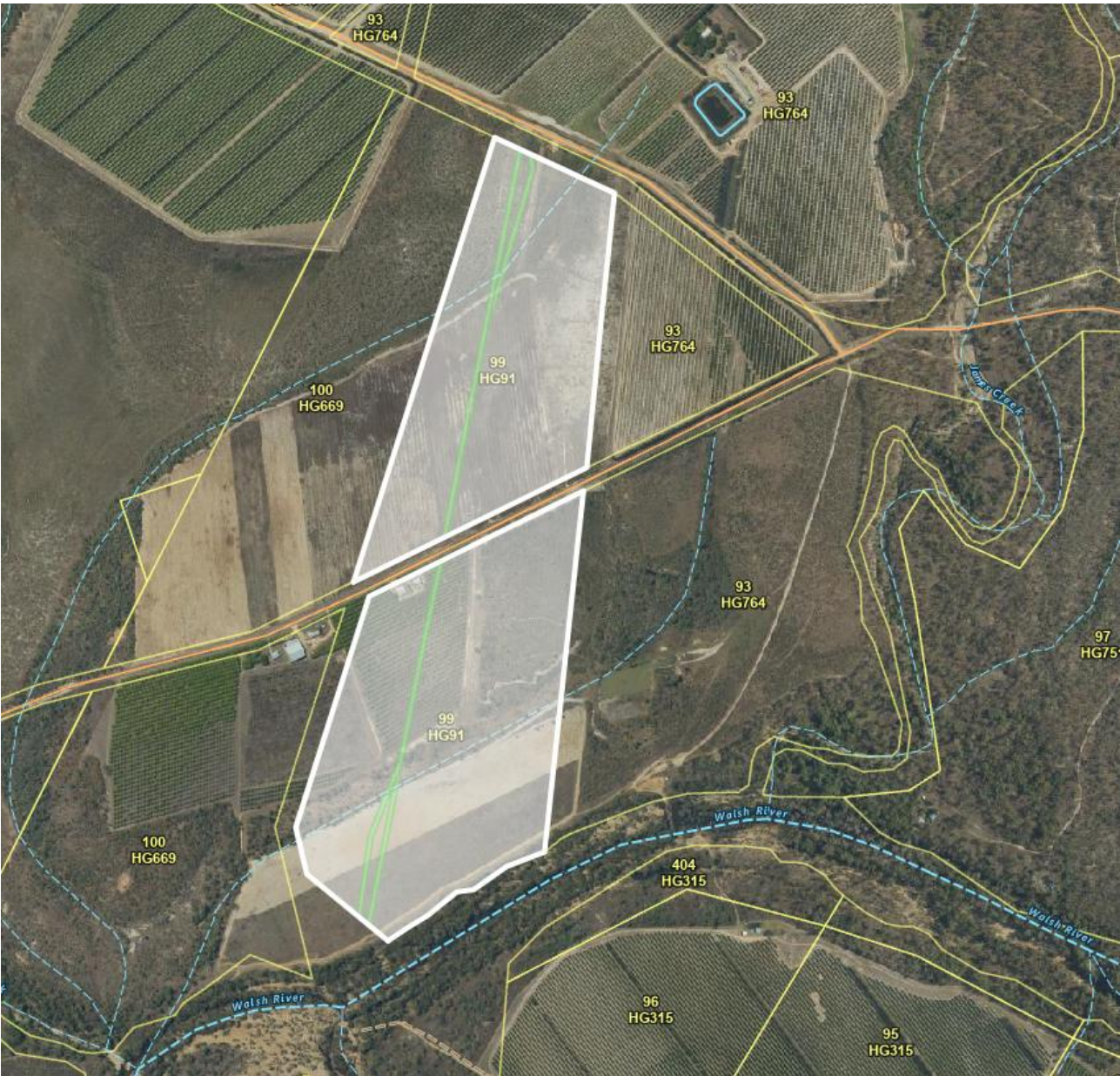


Figure 1: Site Location

Source: Queensland Globe (2025)

2.2 Planning Context

The planning context of the site includes the following:

Table 3: Planning Context

Instrument	Designation
State Planning Policy Mapping (SPP)	
Economic Growth	○ Agriculture - Agricultural land classification – class A and B; - Important agricultural areas
Environment and Heritage	○ Biodiversity - MSES – Regulated vegetation (intersecting a watercourse), in part

Instrument	Designation
Safety & Resilience to Hazards	○ Natural Hazards and Resilience - Flood Hazard Area – Local Government Flood Mapping Area; - Flood Hazard Area – Level 1 Queensland Floodplain Assessment Overlay, in part; and - Bushfire prone area, in part.
Development Assessment Mapping (DAMS)	
SARA DA Mapping	○ Fish Habitat Areas - Queensland Barriers for Waterway Barrier Works, in part. ○ Native Vegetation Clearing - Regulated vegetation management map (Category A and B extract), in part.
Far North Queensland Regional Plan 2026	
Regional Plan Map	○ Regional Landscape and Rural Production Area
Mareeba Shire Council Planning Scheme 2064 (v.2023/01)	
Zoning	○ Community Facilities Zone; and ○ Open Space Zone.
Overlays	○ Agricultural Land (Class A) Overlay; ○ Bushfire Hazard (Medium Potential Bushfire hazard and Potential Impact Buffer), in part; ○ Flood Hazard (Queensland Floodplain Assessment), in part; and ○ Transport Infrastructure (Roads hierarchy).

Zoning of the subject site and surrounding lands is shown on **Figure 3**.

Other relevant mapping, including overlays, regional plan and state interests is provided at **Appendix B**.



Figure 2 Zoning

Source: Mareeba Shire Council Planning Scheme Mapping 2016

3 PROPOSAL

3.1 Overview

This application seeks development approval for extractive industry to facilitate the extraction of sand from Lot 99 Bullaburrah Creek Road, Dimbulah, described as Lot 99 on HG91.

In order to address declining supplies and increasing demand for suitable sand resources, PNQ have undertaken preliminary investigations within the region to locate suitable resource locations. Whilst it is noted the subject site is not located within the State Government's Extractive Industry Key Resource Area (KRA), investigations have indicated that suitable resources have been largely exhausted within the KRA, necessitating extraction outside the defined area. Investigations have indicated that the subject site presents as a source of suitable sand and as such is an important asset to undertake essential infrastructure and construction projects within the region.

It is proposed to extract and screen sand resources for the purpose of servicing regional commercial demand. The total proposed area available for the extraction of material would equate to approximately 22.17 hectares. The proposal would relate to less than 100,000 tonnes of sand per annum and would be operated on an as required basis to service emergent demand for material.

The extraction of material would focus on existing cleared areas and would be adequately setback from mapped regulated vegetation and watercourses traversing the site. Furthermore, the proposed extraction area would be setback from the existing easement for water infrastructure traversing the western portion of the site. No extraction of material would occur within 325 metres of the Walsh River.

The proposal would involve the removal and stockpiling of any topsoil in earthen bunds, extraction of the sand resource, screening of material into stockpiles prior to haulage off-site via Wolfram Road. Unsuitable material would be stockpiled adjacent to the screening areas prior to respreading on the disturbed extraction areas upon completion of the staged extraction operation. Stockpiled material would be adequately setback from the unnamed tributaries of the Walsh River that traverse the site.

Access to the site would be via existing rural crossovers from both Bullaburrah Creek Road and Wolfram Road. Internal haul routes would be contained within each respective part lot.

It is proposed to extract sand from the area depicted in **Figure 3**.

A larger proposal plan is attached at **Appendix C**.

The proposed extraction activity is supported by an Environmental Assessment Report (EAR) and Site Based Management Plan (SBMP) prepared by RPS and provided as **Appendix D** and **Appendix E**, respectively.

The EAR identified environmental values present within the site and assessed the proposed development in relation to the risk of potential environmental impacts upon those environmental values. The assessment determined that the potential impacts associated with the proposed extractive industry may be effectively avoided and/or mitigated through implementation of environmental monitoring and management measures detailed in the SBMP.



Figure 3: Proposed Area of Extraction

Source: RPS

3.2 Environmentally Relevant Activity

Pursuant to the *Planning Regulation 2026* and the *Environmental Protection Regulation 2008*, given that the proposed development seeks to extract up to 100,000 tonnes of material per annum, the proposal requires a Development Permit for Material Change of Use – Environmentally Relevant Activity (ERA). The proposed development constitutes a concurrence ERA for the following:

- ERA16 – 2(2) – Extracting, other than by dredging, in a year, the following quantity of material 5,000t to 100,000t; and
- ERA 16 – 3(a) – Screening, in a year, the following quantity of material 5,000t to 100,000t.

The application for an ERA is taken to also be an application for a site specific Environmental Authority.

The proposed extraction activity is supported by an Environmental Assessment Report (EAR) and Site Based Management Plan (SBMP) prepared by RPS.

The EAR identified environmental values present within the site and assessed the proposed development in relation to the risk of potential environmental impacts upon those environmental values. The assessment determined that the potential impacts associated with the proposed extractive industry may be effectively avoided and/or mitigated through implementation of environmental monitoring and management measures detailed in the SBMP. The proposed extraction of material would be undertaken in accordance with the EAR and would be further undertaken in accordance with the conditions of an Environmental Authority. A copy of the EAR and SBMP are provided at **Appendix D** and **Appendix E**, respectively.

3.3 Agricultural Land Classification

In accordance with Department of Natural Resources Soils mapping, the site is mapped as containing predominately Dimbulah Soils. Dimbulah Soils (Db) and Nicotine (No) are of granite and acid igneous origin and defined as the following:

- **Dimbulah (Db)** – *deep to very deep duplex and occasionally gradational soils with medium to thick fine gravelly grey to brown sandy loams to sandy clay loams overlying fine gravelly red apedal sandy clay loams to sandy clays; neutral to slightly acid.*
- **Nicotine (No)** – *deep to very deep uniform to gradational bleached to pale yellow-brown apedal sands to light sandy clay loams; neutral to slightly acid; occasionally mottled, fine gravelly and nodular.*

Assessment of soils undertaken by agronomists within soils within the Mareeba-Dimbulah Area, indicated that fine and coarse sand fractions of the Dimbulah Sandy Loam and Nicotine are a relatively evenly distributed.



Figure 4: Soils Mapping

Source: Queensland Globe

Whilst the site is mapped as Class A agricultural land, the agricultural viability is marginal, as evident by the predominant use of the land for grazing purposes, with limited cropping. Dimbulah sandy loams and associated Nicotine coarse quartz soils are highly permeable and have low plant available water-holding capacity as a result of high leaching rates. On this basis, these soils require intensive management to ensure viability, including irrigation and fertiliser application.

The 2015 Guideline for Agricultural Land Evaluation dictate that the land evaluation should be based upon the existing condition of the land, including limitations, and not according to its potential condition, if one of those limitations is removed. Historically, accepted standard practices of high rates of fertiliser application was not considered to be a limiting factor, reiterating the ALC Class A over the site. However, perspectives on sustainable agricultural practices has changed immensely within a short period of time and given the potential for adverse environmental outcomes associated with high rates of fertiliser application, previously accepted land management practices are now determined to be unsustainable. This is especially applicable given that the site adjoins the Walsh River to the south.

Based on the current agricultural productivity of the site combined with the soil type, it may be surmised that the site is not considered good quality agricultural land of ALC Class A.

In accordance with the Environmental Assessment Report prepared for the proposed development, the proposal seeks to remove and stockpile topsoil, prior to resspreading on site post extraction of suitable sand resources, with a view of rehabilitating the proposed extraction area for agricultural purposes.

4 LEGISLATIVE REQUIREMENTS

4.1 Assessment Manager

In accordance with Schedule 8 of the *Planning Regulation 2017*, the assessment manager for this application is Mareeba Shire Council.

4.2 Categories of Assessment

The table below summarises the categorising instruments and categories of assessment applicable to this application.

Table 4 Categories of Assessment

Aspect of development	Categorising instrument	Category of assessment
Material Change of Use (Extractive Industry)	Mareeba Shire Council 2016 (v2023/01) Table 5.5.9 – Rural Zone.	Impact Assessment
Development Permit for Material Change of Use for an Environmentally Relevant Activity (ERA 16)	Planning Regulation 2016, Schedule 9, Part 5, Division 4, Table 2 – Environmentally Relevant Activities	Code Assessment

4.3 Referrals

Schedule 10 of the *Planning Regulation 2017* identifies the matters that the assessment manager and/or referral agency must have regard to. In accordance with Schedule 10 of the *Planning Regulation 2017*, the following referrals apply.

Table 5: Schedule 10 Referral Matters

Schedule 10	Referral topic and reason	Referral Agency
10.5.4.2	Material change of use for an environmentally relevant activity (non-devolved)	SARA, DSDMIP

The State Development Assessment Provisions (SDAP) nominate applicable State Codes based on the referral triggers. The current State Codes (Version 3.1) applicable to the proposal are identified in **Appendix F**.

4.4 Public Notification

This application does require public notification as it is subject to Impact Statutory planning assessment. The public notification period is 15 business days. The Public Notification would comprise letters to the adjoining owners, the placement of a sign on the road frontages and a public notice in the local newspaper. During the public notification period, interested member so the public can make properly made submissions regarding the proposed development to the council as the assessment manager. These properly made submissions are required to be considered by Council in determining the application.

5 STATUTORY PLANNING ASSESSMENT

5.1 Overview

This section assesses the application against relevant assessment benchmarks.

As the application is subject to Impact Assessment, the assessment benchmarks, and the matters the assessment manager must have regard to, are those identified in Section 45(3) of the *Planning Act 2016* and Sections 30 and 31 of the *Planning Regulation 2017*.

As Mareeba Shire Council is the assessment the relevant local authority categorising instrument is the Mareeba Shire Council Planning Scheme 2016.

5.2 State and Regional Assessment Benchmarks

5.2.1 State Planning Policy

Section 26(2)(a)(ii) of the *Planning Regulation 2017* requires the assessment manager to assess the application against the assessment benchmarks stated in the State Planning Policy, Part E, to the extent Part E of the State Planning Policy is not identified as being appropriately integrated into planning scheme.

It is understood that the minister has identified that the State Planning Policy has been appropriately integrated into the Mareeba Shire Council Planning Scheme 2016 and consequently no further assessment is required in this instance.

5.2.2 Regional Plan

The *Planning Regulation 2017* at section 26(2)(a)(i) requires the assessment manager to assess the application against the assessment benchmarks stated in the regional plan, to the extent the Regional Plan is not identified as being appropriately integrated into the planning scheme.

The Minister has identified that Mareeba Shire Council 2016, specifically the strategic framework, appropriately advances the Far North Queensland Regional Plan 2026, as it applies in the Mareeba Shire Council area, on that basis, no further assessment is required in this instance.

5.2.3 Development Assessment under Schedules 9 and 10 (SDAP)

Schedule 10 of the *Planning Regulation 2017* identifies the matters that the assessment manager and/or referral agency assessment must have regard to. The State Development Assessment Provisions (SDAP) nominate applicable State Codes based on the referral triggers. The State Codes applicable to the proposal are identified in the table below.

Table 6 Relevant SDAP State Codes

Schedule 10	Referral Topic	State Code
10.5.4.2	Environmentally relevant activities Non-devolved environmentally relevant activities	State code 22 – Environmentally relevant activities

A response to the State Codes is included in **Appendix F**.

5.3 Local Authority Assessment Benchmarks

This application is to be assessed against Mareeba Shire Council Planning Scheme 2016. The assessment benchmarks applicable under the planning scheme are identified below.

5.3.1 Strategic Framework

Relevant to the development of the site for the purpose of an Extractive Industry is section 3.4 Natural Resources and Environment, particularly element 3.4.8 Air and noise quality and 3.6 Transport and Infrastructure, particularly element 3.6.8 stormwater and 3.7 Economic Development, particularly Rural and Agricultural Land.

Specific Outcome 3.4.8.1 (1) states:

The health, well-being, amenity and safety of the community and the environment is protected from the impacts of air emissions, noise and odour through appropriate management and adequate separation distances.

Specific Outcome 3.4.8.1 (3) states:

Land uses which emit high level of noise, including for example motor sports, gun clubs and the like will be appropriately located and managed to mitigate acoustic impacts.

Specific Outcome 3.4.8.1 (4) states:

Sensitive land uses are appropriately separated from areas containing or designated for activities that generate noise and air emissions.

The proposed extraction activity is located with the Rural Zone and adequately separated from the nearest sensitive receptor, which is located approximately 380 metres to the west. The proposal is supported by an Environmental Management Plan and a Site Based management Plan, which would ensure that appropriate measures are implemented to mitigate potential environmental impacts.

Specific Outcome 3.6.8.1 (2) states:

Stormwater is managed and measures are implemented to ensure erosion is prevented or minimised and contaminants are not released into surrounding environs.

The proposed development provides for the three (3) sediment basins, two (2) located within the northern part lot and one (1) located within the southern part lot. The sediment basins would form part of the erosion and sediment control measures to be implemented as part of the proposal to ensure that the sediment laden stormwater is not unlawfully discharged to the surrounding environment.

Specific Outcome 3.7.2.1 (2) states:

Agricultural areas are preserved for the purpose of primary production and are protected from fragmentation, alienation and incompatible development.

Specific Outcome 3.7.2.1 (5) states:

Development ensures rural activities in all rural areas are not compromised by incompatible development and fragmentation.

The proposed development is for extractive industry located within the Rural Zone and outside the existing KRA. The site is currently predominantly used for grazing with the limited horticultural cropping undertaken on the site. Whilst the site is located within the Class A ALC, the land is largely marginal for cropping purposes. The intent of the proposal is to facilitate the extraction of suitable sand resources prior to the progressive rehabilitation of the site and recommencement of agricultural development.

Specific Outcome 3.7.11.1 (2) states:

Extractive industries:

(a) mitigate impacts relating to air, noise, water and waste on local ecological and environmental values and the amenity of residential areas, and surrounding rural dwellings;

(b) avoid areas of ecological significance and values;

(c) progressively rehabilitate disturbed land on site and ensure ecological values are rehabilitated (where relevant).

The proposed extraction activity is located with the Rural Zone and adequately separated from the nearest sensitive receptor, which is located approximately 380 metres to the west. The proposal is supported by an Environmental Management Plan and a Site Based management Plan, which would ensure that appropriate measures are implemented to mitigate potential environmental impacts.

5.3.2 Codes

The planning scheme codes applicable to the proposal, and the location of the relevant appended code response are identified below:

Table 7 Planning Scheme Code Responses

Planning Scheme Codes	Applicability	Comment
Zone code		
Rural Zone Code	Applies	Complies with relevant Assessment Benchmarks
Overlay Codes		
Agricultural Land Code	Applies	Complies with relevant Assessment Benchmarks with the exception of PO3 which is discussed in further detail in section 5.4.1.
Bushfire Hazard Overlay Code	Applies	Complies with relevant Assessment Benchmarks
Flood Hazard Overlay Code	Applies	No applicable Assessment Benchmarks
Transport Infrastructure Overlay Code	Applies	No applicable Assessment Benchmarks
Development Codes		
Industrial Activities Code	Applies	Complies with relevant Assessment Benchmarks with the exception of PO5, which is discussed in further detail in section 5.4.2.
Landscaping Code	Applies	No landscaping is proposed or required as part of this application. Progressive rehabilitation works would be undertaken as part of the proposal.
Parking and Access Code	Applies	Complies with relevant Assessment Benchmarks
Works, Services and Infrastructure Code	Applies	Complies with relevant Assessment Benchmarks

5.4 Statement of Compliance

5.4.1 Agricultural Land Overlay

Performance Outcome PO3 of the Agricultural Land Overlay Code states:

PO3

*Development in the 'Class A' area or 'Class B' area identified on the **Agricultural land overlay maps (OM-001a-n)**:*

- (a) ensures that agricultural land is not permanently alienated;*
- (b) ensures that agricultural land is preserved for agricultural purposes; and*
- (c) does not constrain the viability or use of agricultural land.*

There is no associated Acceptable Outcome.

The proposed development seeks to extract sand from areas of the site that are not currently utilised for agricultural production. The proposal for sand extraction and screening would include removal and stockpiling of topsoil, extraction and screening of the suitable sand resource prior to the rehabilitation of the

site by means of backfilling and resspreading of topsoil. Post completion of the rehabilitation works, agricultural use of the land would recommence.

On this basis, RPS contends that the proposal is consistent with the intent of the code and would not constrain the long-term viability or use of the agricultural land.

5.4.2 Industrial Activities Code

Performance Outcome PO5 of the Industrial Activities Code states:

PO5

Extractive industry is established and operated in a way that does not impact on public safety.

The associated Acceptable Outcome states:

AO5

Safety fencing is provided for the full length of the perimeter of the site and is appropriately signed with warning signs advising of the nature of the use and any danger or hazard.

The development site is located within the Rural Zone and the proposed extraction area equate to approximately 22.17 hectares. The proposed development would be appropriately signed advising of the nature of the use and any potential hazards.

The proposal would be established and operated in a manner consistent with existing extractive industry operations and suitably managed to prevent impacts on public safety.

6 CONCLUSION

RPS has been engaged by Pioneer North Queensland Limited (PNQ) to prepare a Development Application for Material Change of Use (Extractive Industry) over land located at Lot 99 Bullaburrah Creek Road, Dimbulah, described as Lot 99 on HG91.

The site is comprised of an irregular shaped rural lot containing two parts separated by Bullaburrah Creek Road, and has an area of 59.489 hectares and frontage to Bullaburrah Creek Road and Wolfram Road of approximately 528 metres and 270 metres, respectively. The site is improved by a detached dwelling house and ancillary farm shed, located on the southern part lot fronting Bullaburrah Creek Road. The balance of land is used in part for horticultural cropping, namely mangoes and contains sparse areas of mapped Category B Regulated Vegetation, located within the north west corner of the site. Unnamed tributaries of the Walsh River traverse both the northern and southern portions of the site.

An easement for water infrastructure traverses the site from north to south.

The area containing the site is characterised by predominately rural development. To the north is Wolfram Road, to the east and west is rural production, namely mangoes or marginal grazing land. To the south the site adjoins the Walsh River.

The proposed development involves the extraction of sand by PNQ for commercial purposes. Screening of material would occur on-site prior to haulage off-site via Wolfram Road. The proposal seeks to extract sand from existing cleared areas and would be adequately setback from mapped areas of regulated vegetation Category B (Least Concern) and watercourses traversing the site.

In accordance with the planning scheme, application for a new extractive industry in the Rural Zone is identified as requiring impact assessment, which means that it is required to be assessed against the whole of the planning scheme, including the Strategic Framework, and it is required to be the subject of public notification. During the public notification period, interested members of the public are able to make representations to the council in respect of the application and proposed development. These properly made representations are required to be considered by council in determining the application.

The assessment has identified that the proposed development would advance of the intent of the Strategic Frameworks and the rural site, with marginal cropping land with extensive sand resources, is a suitable location for the proposed development. With the exception of the owner's residence, the site is located approximately 380 metres from the nearest sensitive receptor.

An assessment against the relevant Planning Scheme codes similarly indicates that the proposed development is able to satisfy the relevant Assessment Benchmarks and that the site can contain the use without adverse impact on the amenity of the locality. An Environmental Management Plan and Site Based Management Plan have been prepared to demonstrate that potential impacts on the surrounding environment may be adequately mitigated by appropriate measures.

Based on these assessments the proposal is recommended for approval subject to reasonable and relevant conditions.

Appendix A

Certificate(S) of Title and Search Results

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	21352128	Search Date:	27/05/2026 08:41
Date Title Created:	24/12/1987	Request No:	56282612
Creating Dealing:			

ESTATE AND LAND

Estate in Fee Simple

LOT 99 CROWN PLAN HG91

Local Government: MAREEBA

For exclusions / reservations for public purposes refer to Plan CP HG91

REGISTERED OWNER

Dealing No: 718528263 19/01/2018

STEVEN BILIC

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 21352128 (Lot 99 on CP HG91)
2. EASEMENT IN GROSS No 601403596 (T323522G) 06/01/1988
BURDENING THE LAND
TO MOUNT ARTHUR MOLYBDENUM N L
OVER EASEMENT A ON CP HG600
UNDER SECTION 285 OF THE LAND ACT
3. EASEMENT IN GROSS No 601403597 (T323523J) 06/01/1988
BURDENING THE LAND
TO THE FAR NORTH QUEENSLAND ELECTRICITY BOARD
OVER EASEMENTS B AND C ON CP HG617
UNDER SECTION 285 OF THE LAND ACT
4. MORTGAGE No 724060921 16/05/2025 at 14:34
WESTPAC BANKING CORPORATION A.C.N. 007 457 141

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Corrections have occurred - Refer to Historical Search

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **



Pioneer North Queensland Pty Ltd

ABN 80 068 203 734

Lot 5 Maconachie Street, Woree • PO Box 12, Bungalow Qld 4870
Telephone 07 4047 8300 • Facsimile 07 4047 8311

DATE OF AGREEMENT: (15-1-26)

PARTIES:

1. First Party: (Bilic farming - Steven Bilic)
2. Second Party: Pioneer North Queensland Pty Ltd

BACKGROUND:

- A. The landowner is the registered owner of certain land locations at Dimbulah, which is described with the Lot 99 on HG91 Bullaburrah Creek Road, Dimbulah
- B. The operator is the proprietor of a sand, soil and gravel business in the course of which the operator extracts sands, topsoil and gravel, processes it and sells it.
- C. This agreement sets out the terms on which the landowner will allow the operator to extract quarriable material from the property.

AGREEMENT:

1. DEFINITIONS

Some words in this document have special meaning, and are defined in the dictionary which is the last clause of this document.

2. EXTRACTION

- 2.1 The quarriable material may only be extracted from the area of the property identified on the plan contained in the schedule ("the quarry area").
- 2.2 The operator will have the full right and liberty to enter and exit and re-enter and re-exit the property with or without plant and machinery whenever and as often as the operator requires during the term.

3. PERMITS AND APPROVALS

- 3.1 The operator must, at its expense, obtain all necessary permits or approvals required to lawfully carry out quarry activities on the property. The operator acknowledges that such permits and approvals may include local authority extractive industry permits, a developments approval and an environmental licence.
- 3.2 The landowner will consent to any applications required to be made by the operator pursuant to this agreement and will sign such documentation and provide such information as the operator reasonably requires in order to make the necessary applications.
- 3.3 The operator must:-
 - 3.3.1 keep all the permits and approvals current throughout the term of this agreements; and
 - 3.3.2 comply with all of the terms and conditions of the permits and approvals throughout the term of this agreement.

4. TERM





Pioneer North Queensland Pty Ltd

ABN 60 068 203 734

Lot 5 Maconachie Street, Woree • PO Box 12, Bungalow Qld 4870
Telephone 07 4047 8300 • Facsimile 07 4047 8311

Operator includes the operator's servants, agent and contractors;

Quarriable materials means sand, gravel and top soil;

Quarry activities includes opening up, exploding on digging, searching and sinking shafts on the property and working, winning, extracting, gaining and getting to any quarriable material and overburden from any part of an to any depth on the property, and includes the crushing, screening, washing, processing and stockpiling of quarriable material and overburden;

Quarry area means the area identified by the plan in the schedule; appendix 1 quarry map

Rate means the dollar rate per tonne of quarriable sand and quarriable brickies loam material used for the calculation of the licence fee pursuant to this agreement.

Signed on behalf of Bilic Farming PTY LTD

DATE: 15-01-2026 : 

DATE: :

DATE: :

DATE: :

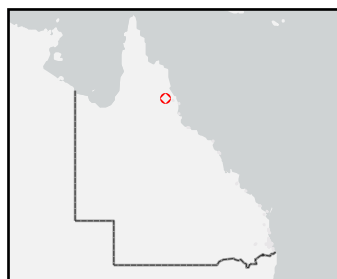
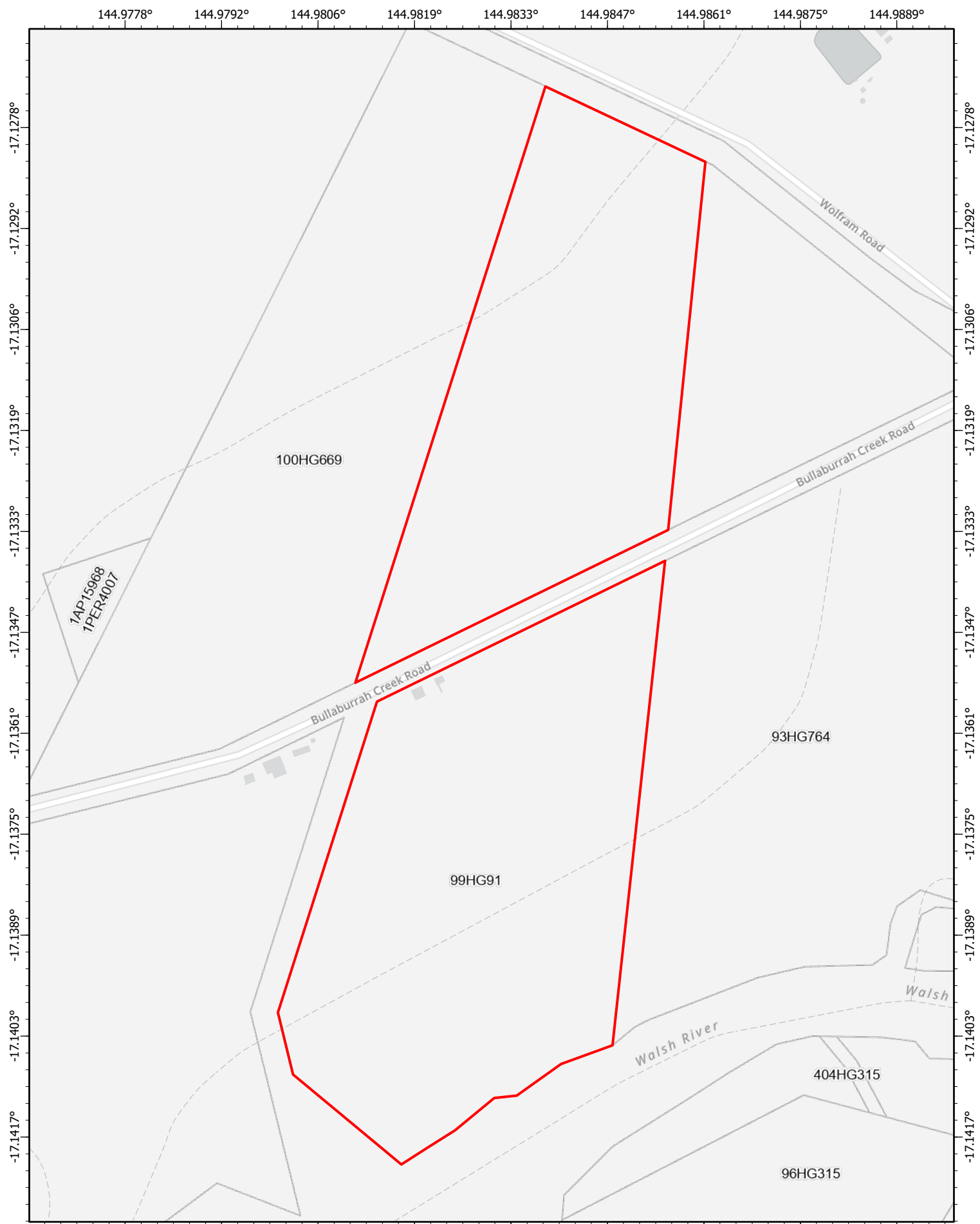
Signed in behalf of Pioneer North Queensland (Operator)

DATE: 23/1/26 Darren Caddy 

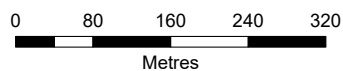


Appendix B

Planning Context Mapping



Scale: 1:7,800



Date: 10/06/2026

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State Planning Policy mapping layers - consolidated list for all selected Lot Plans

State Planning Policy mapping layers - consolidated list for all selected Lot Plans

(Note: Please refer to following pages for State Interests listed for each selected Lot Plan)

BIODIVERSITY

- MSES - Regulated vegetation (intersecting a watercourse)

AGRICULTURE

- Important agricultural areas
- Agricultural land classification - class A and B

NATURAL HAZARDS RISK AND RESILIENCE

- Flood hazard area - local government flood mapping area
- Bushfire prone area

State Planning Policy mapping layers for selected

Lot Plan: 99HG91 (Area: 594890 m²)

AGRICULTURE

- Agricultural land classification - class A and B
- Important agricultural areas

BIODIVERSITY

- MSES - Regulated vegetation (intersecting a watercourse)

NATURAL HAZARDS RISK AND RESILIENCE

- Flood hazard area - local government flood mapping area
- Bushfire prone area

State Planning Policy

**Making or amending a local planning instrument
and designating land for community infrastructure**

Date: 10/06/2026



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State Assessment and Referral Agency - Matters of Interest Report

Matters of Interest for all selected Lot Plans

Queensland waterways for waterway barrier works

Water resource planning area boundaries

Regulated vegetation management map (Category A and B extract)

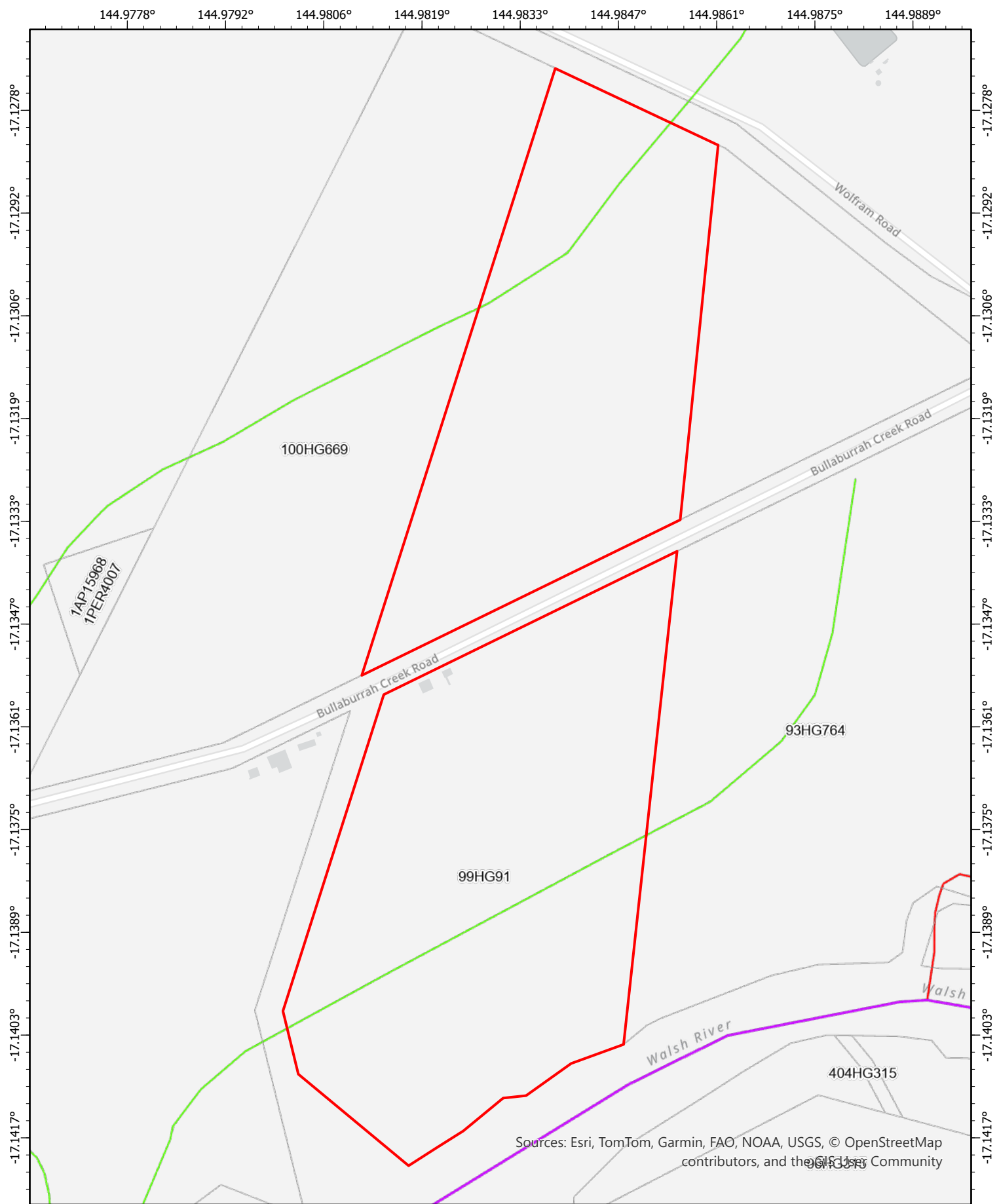
Matters of Interest by Lot Plan

Lot Plan: 99HG91 (Area: 594890 m²)

Queensland waterways for waterway barrier works

Water resource planning area boundaries

Regulated vegetation management map (Category A and B extract)



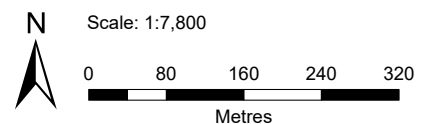
Queensland waterways for waterway barrier works

Risk of impact

- Low
- High
- Major

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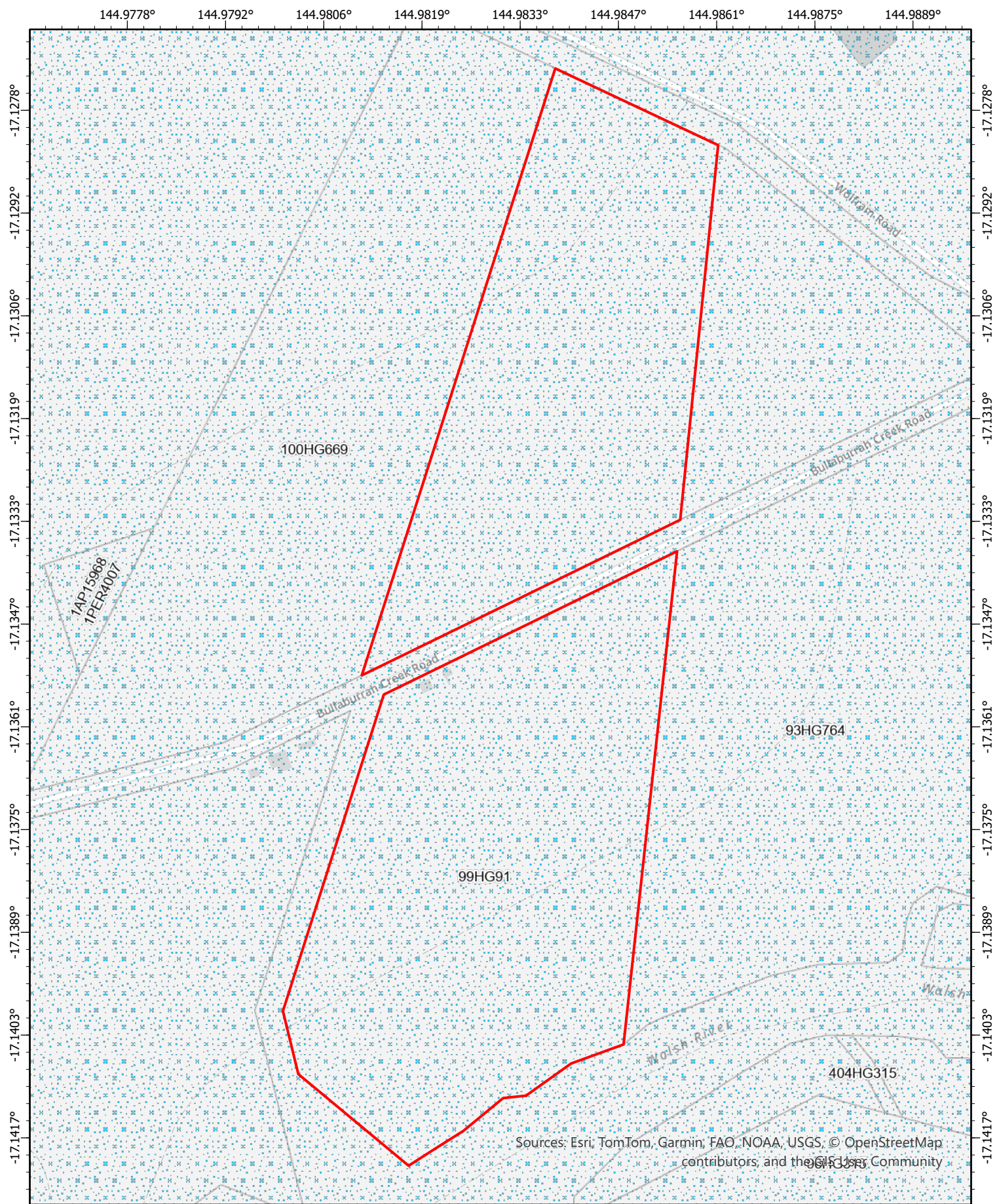
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 Water resource planning area boundaries

Date: 10/06/2026



Scale: 1:7,800

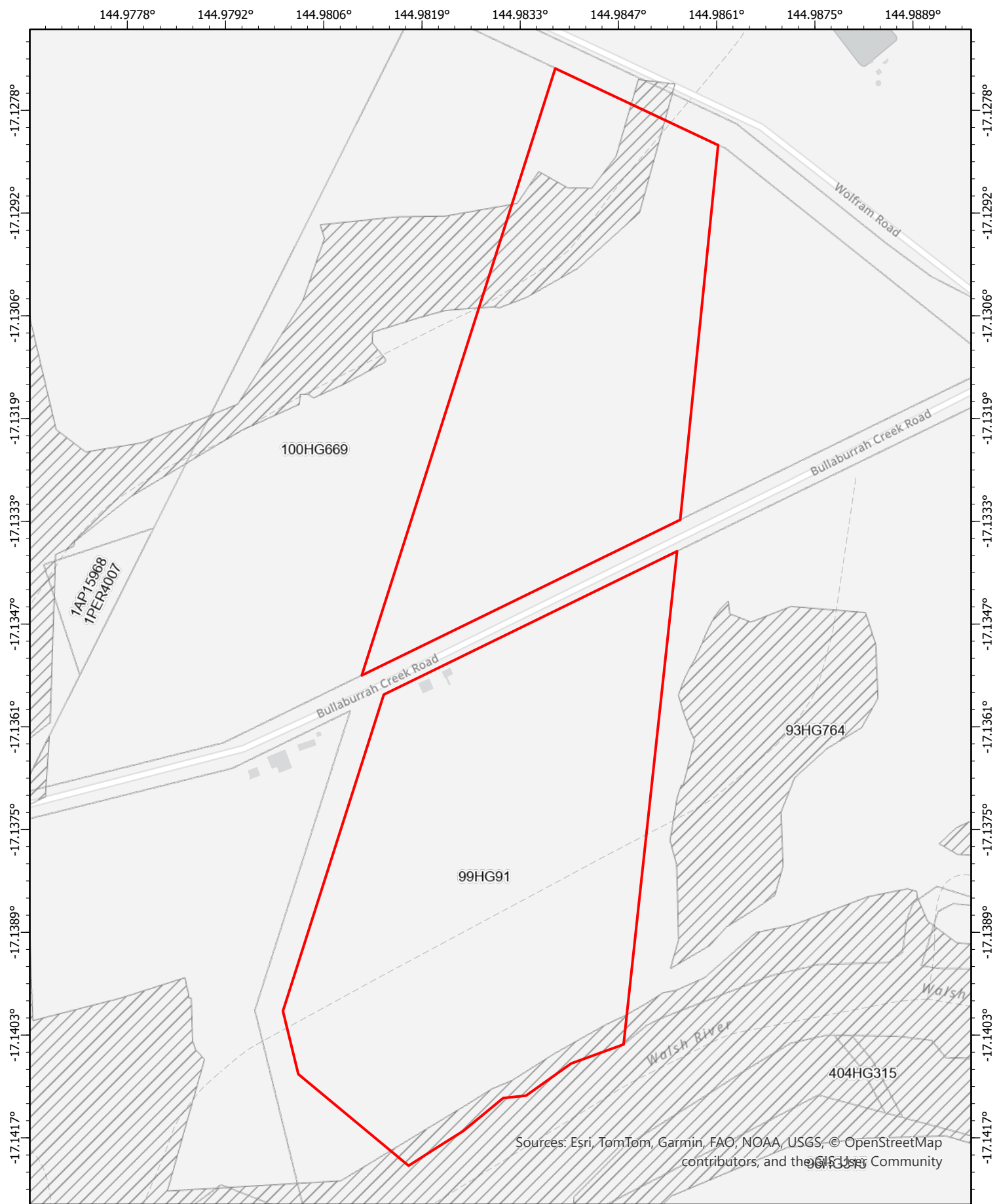
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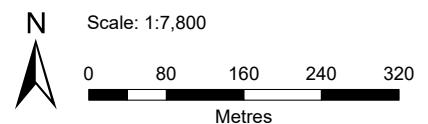




Regulated vegetation
management map (Category A
and B extract)

 Category B on the
regulated vegetation
management map

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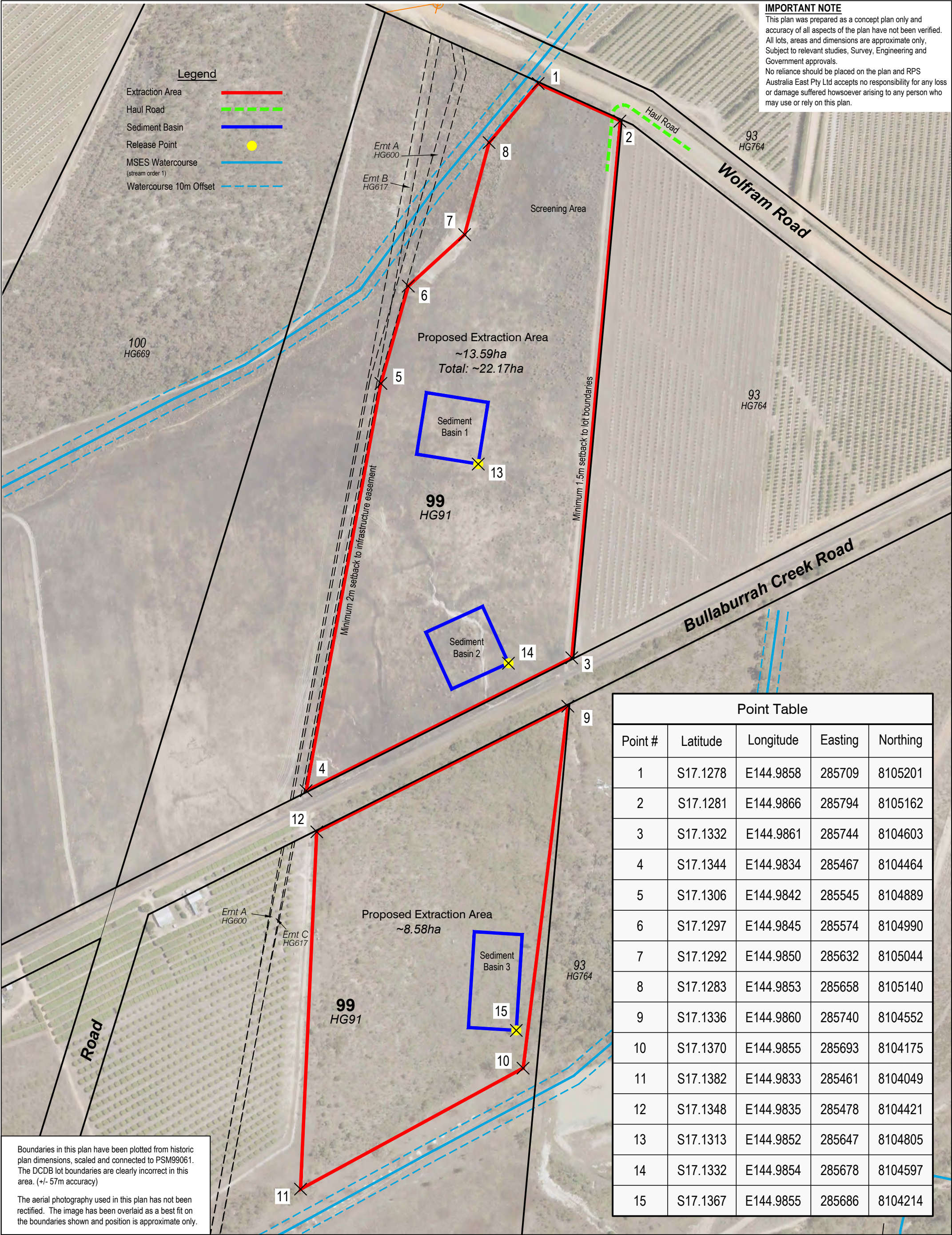


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Appendix C

Proposal Plans



Appendix D

Environmental Assessment Report

ENVIRONMENTAL ASSESSMENT REPORT

PNQ Bilic Sands

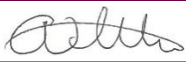
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10 June 2026
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REPORT

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
0	Environmental Assessment Report (EAR)	V. Glyde & M. Palmer	A. Fletcher	A. Fletcher	29 May 2026

Approval for issue

Adam Fletcher		10 June 2026
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1 INTRODUCTION

Pioneer North Queensland Pty Ltd (PNQ) are proposing to carry out sand extraction operation at Bilic Sands on Lot 99 HG91, Bullaburrah Creek Road, Dimbulah, QLD. As a result, RPS AAP Consulting Pty Ltd (RPS) has been engaged to prepare an Environmental Assessment Report (EAR) to assess potential environmental impacts the following proposed Environmentally Relevant Activities (ERAs) may have:

- ERA 16-2(a)- Extracting, other than by dredging, in a year, the following quantity of material 5,000 to 100,000t
- ERA 16-3(a)- Screening, in a year, the following quantity of material 5,000t to 100,000t.

The extent of proposed sand extraction area within Lot 99 HG91 is depicted in **Figure 1**.

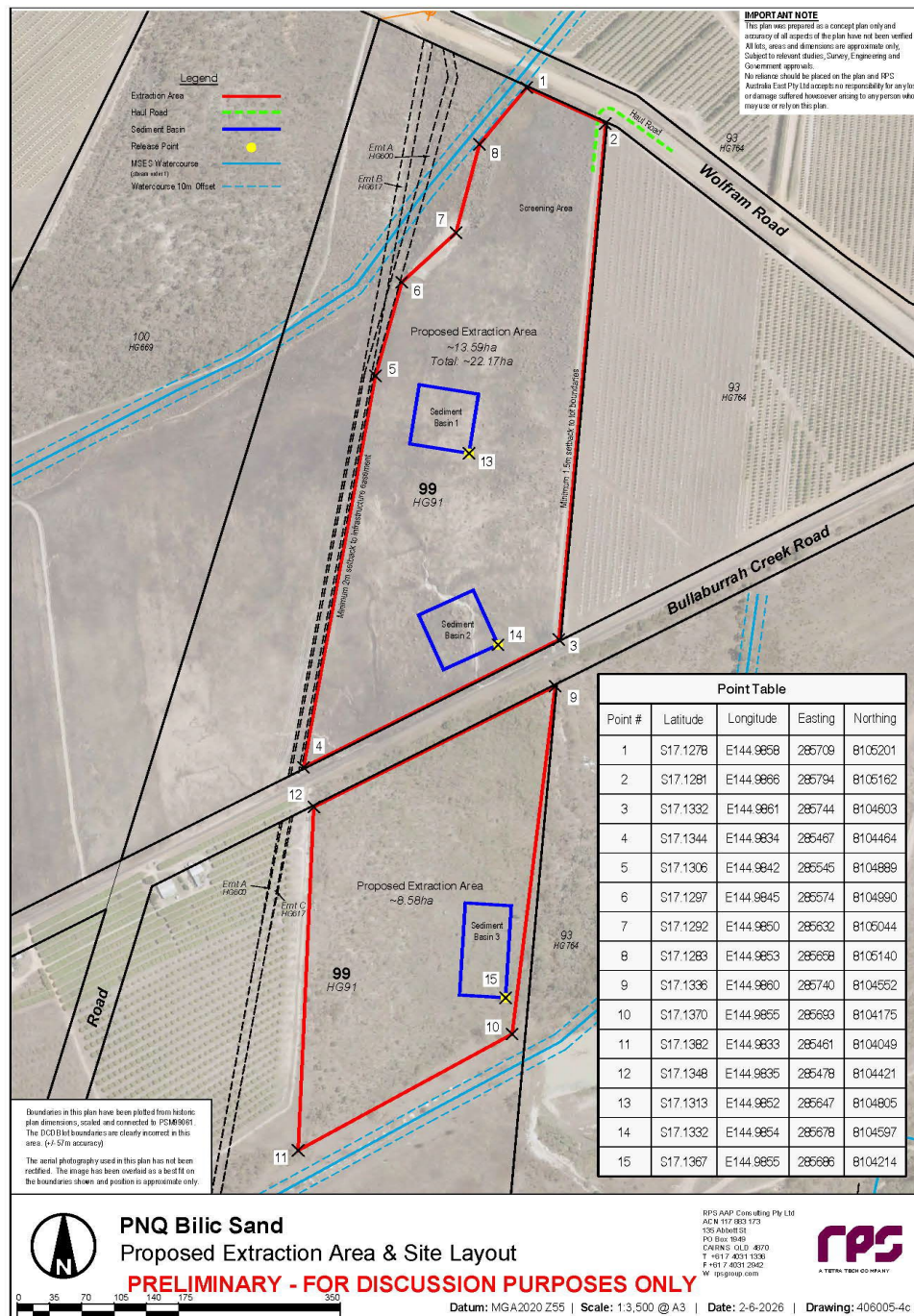


Figure 1 Site Layout Plan

1.1 Purpose of Report

The Purpose of this EAR is to provide an overview of the Proposed Environmental Authority (EA) application, incorporating information addressing the proposed area of extraction, while addressing the minimum application requirements prescribed under section 125(1)(l) of the *Environmental Protection Act 1994* (EP Act), which are as follows:

- An assessment of the likely impact of each relevant activity on the environmental values, including:
 - A description of the environmental values likely to be affected by the proposed activities;
 - Details of emissions or releases likely to be generated by the proposed amendment;
 - A description of the risk and likely magnitude of impacts on the environmental values;
 - Details of the management practices proposed to be implemented to prevent or minimise adverse impacts; and
 - Details of how the land, the subject of the application will be rehabilitated after each relevant activity ends.
- Include a description of the proposed measures for minimising and managing waste generated by amendments to the relevant activity; and
- Include details of any site management plan or environmental protection order that related to the land the subject of the application.

A Site Based Management Plan (SBMP) has been prepared which outlines work practices addressing the specified regulatory requirements under the *Environmental Protection Act 1994* (EP Act) to minimise the risk of environmental harm resulting from extractive operations and comply with the EA conditions.

1.2 Proposed Extraction Activity

The proposed sand extraction and screening activities will include the removal and storage of topsoil in earthen bunds, the extraction of the sand resource, and screening of the material into stockpiles prior to the distribution of the sand resource throughout the region. Once the sand is extracted, the site is to be rehabilitated by backfilling the voids, followed by the respreading of topsoil, and the recommencement of the agricultural use of the land as the site is situated in a rural area with surrounding agricultural land uses.

The proposed sand extraction and screening activities will be undertaken in accordance with the SBMP.

Infrastructure on site will include:

- Earthmoving equipment (excavators, dozers, loaders, and trucks for removal and transport of material);
- Screening plant and the resulting stockpiles of material; and
- Erosion and sediment controls.
- Fuel storage and maintenance area
- Site office and amenities

Topsoil will be striped prior to extraction and stockpiled in small windrows. Sand will be extracted by excavator and transported to the screening plant via dump truck. Processing will involve screening of the material prior to stockpiling and transport offsite.

The maximum depth of extraction is likely to be dependent on the depth of the sand resource and the site will be backfilled with the stripped topsoil and then used for growing crops.

No blasting or crushing is to occur as part of the process. Rehabilitation works will be undertaken progressively and in tandem with the extraction program. Profiling of the final landform will be undertaken to facilitate drainage.

Proposed work hours for the site are 6am to 6pm, Monday to Saturday.

2 EXISTING ENVIRONMENTAL VALUES

The desktop assessment involved a review of relevant environmental documents, databases, technical reports, maps and legislation (commonwealth, state and local) to identify the environmental values that potentially occur within and surrounding the project area. This review included an assessment of the following information:

- Qld Globe Mapping platform to determine the broad categorisation of vegetation within and surrounding the site to review the extent of historical clearing and land use, and any other significant environmental features such as watercourses and wetlands;
- Regional Ecosystem and Essential Habitat mapping;
- Protected Matters database of Matters of State and National Environmental Significance (MSES and MNES);
- Queensland Globe online mapping tool;
- Review of relevant legislation and associated plans and policies, including:
 - *Environmental Protection Act 1994* (EP Act) Qld
 - *Nature Conservation Act 1992* (NC Act) Qld
 - *Vegetation Management Act 1999* (VM Act) Qld
 - *Environment Protection and Conservation Act 1999* (EPBC Act) Cth
 - *Water Act 2000* Qld

2.1 Regional Climate

The site is located within the Tablelands Regional Council. The site is known for its tropical savannah climate zone characterised by a hot, humid and wet season from December to March, a warm and dry season from May to October with the temperature ranging from 14 to 32 degrees Celsius.

There are Bureau of Meteorology Weather stations located at Mareeba Aerodrome (031210). A review of the records confirms that approximately 70% of the annual rainfall falls between December and March. The driest month is September, and the annual rainfall is 894.9 mm. Mean monthly maximum temperatures are highest in November-January with roughly 31-32 degrees Celsius and falling to 24-25 degrees Celsius in June-July.

Table 1 Summary of Regional Climate Statistics

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
Rainfall (mm)													
Mean	243.1	217.9	159.0	49.0	13.7	10.2	9.0	7.2	6.8	15.8	38.8	128.8	894.9
Temperature (°C)													
Annual													
Mean Min	21.5	21.5	20.8	19.3	17.0	15.4	14.2	14.0	15.6	17.6	19.3	20.9	18.1
Mean Max	31.2	30.7	29.9	28.6	26.9	25.5	25.2	26.4	28.7	30.8	31.8	32.1	29.0

2.2 Topography, Drainage and Waterways

Lot 99 on HG91 is the proposed site for Bilic Sands Extraction and is situated approximately 13 km west of the township of Dimbulah. The Topography of the Bilic Sands Extraction site is characterized by a fertile plateau, and the elevation of the site vary from 440m to 450 m Australian Height Datum (AHD) from different directions of the site. In the Lot, the overall terrain is low relief, with no steep escarpments or deep alleys. The gently undulating rise provides the only notable change in elevation.

2.2.1 Surface Water

The Walsh River lies to the south of the site and is the major (purple) waterway within the site's vicinity. There are two tributaries off the Walsh River that flow through the northern and southern parts of the site mapped as low (green) waterway Three Miles Creek high (red) waterway is on the West and North of the Site, Bullaburra Creek on the Western side of the site, refer to **Figure 3** below.



Figure 2 Waterways at the Site (QLD Globe)

2.3 Groundwater

The Walsh River, part of the Mitchell catchment in Queensland, is primarily associated with local fractured rock aquifers in the upper catchment and alluvial aquifers along its course. Key geological structures influencing groundwater include the Hodgkinson Basin, the Einasleigh Uplands, and the Mitchell-Gilbert Fans, with limited but localized groundwater opportunities (CSIRO,2018).

The Environmental Values (EVs) for groundwater within the Mitchell River Basin and the Walsh River sub-basin includes aquatic ecosystems, irrigation, farm supply use, stock water, aquaculture, human consumer, primary recreation, secondary recreation, drinking water, industrial use, and cultural, spiritual and ceremonial values (*Environmental Protection (Water and Wetland Biodiversity) Policy 2019 (EPP(Water))*).

It is understood groundwater is deeper on the site and surrounding areas and will not be impacted as a result of the proposed extraction activities.

Nearest registered bore, with Aquifer details listed in the bore report is No.126372, located 3.5kms to the east and a comparable distance (approx..700m) on the northern side of the Walsh River. Detail recorded indicates groundwater at 7m below ground level recorded during August 2003 (dry season). Refer to **Figure 3** below of the registered bores in relation to the site.

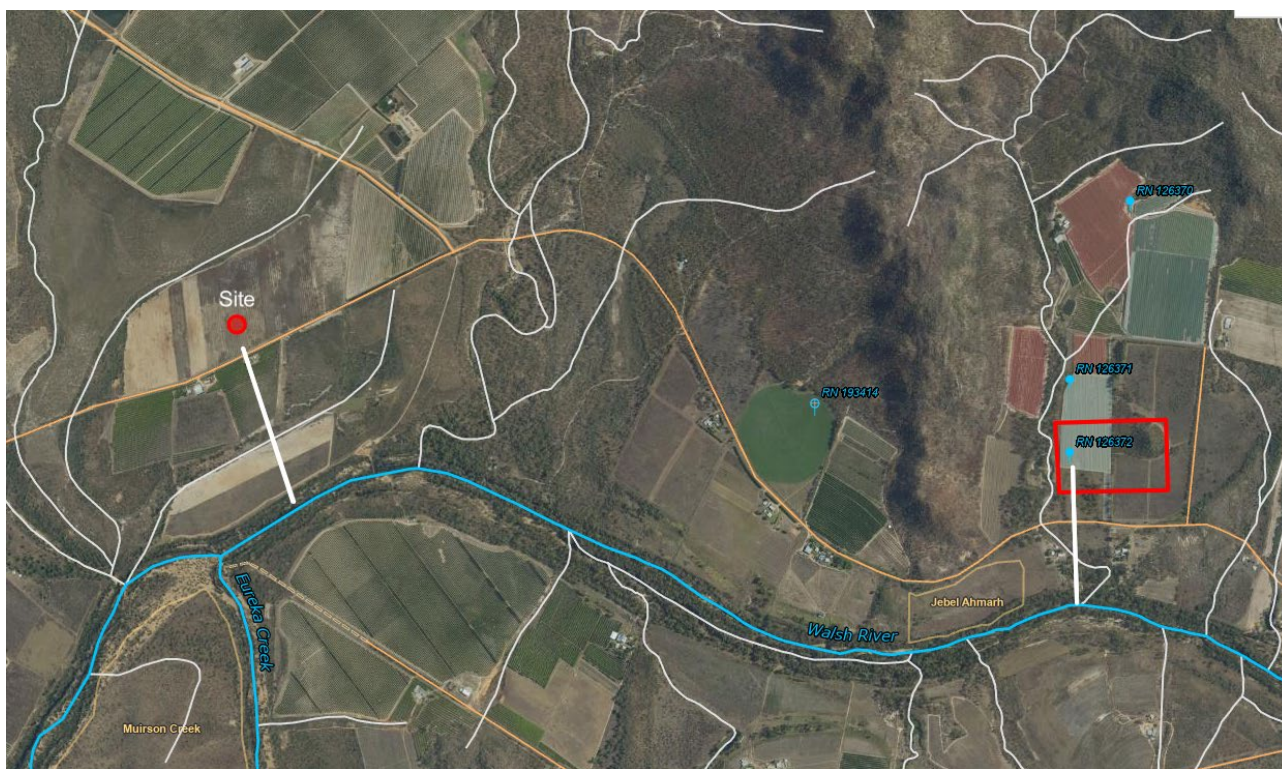


Figure 3 Registered Groundwater bores near site

2.4 Geology and soils

As per the Australia Soil Classification (ASC) mapping on QLD globe the site has soils mapped predominantly tenasols and kandosols which are deep sandy soils with loamy sands to sandy clay loams that are moderately acid to neutral with (pH 5.5 to 7.5).

The Erosion Risk for the site has been calculated based on monthly average rainfall depths in **Table 1** above and Table 4.42 from IECA, Best Practice Erosion & Sediment Control, Book 1 shown below in **Table 3**.

Table 3: Erosion Risk

Erosion Risk	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
	E	H	H	M	VL	VL	VL	VL	VL	VL	L	H

E = Extreme, H = High, M = Medium, L = Low, VL = Very Low

Source: IECA, Best Practice Erosion & Sediment Control, Book 1, November 2008, Table 4.4.5 – Erosion risk based on average monthly rainfall depth

2.5 Flooding

The site is not within a mapped flood location.

2.6 Regional Ecosystem and Matters of State Environmental Significance

2.6.1 MSES

The Matters of State Environmental Mapping on Queensland Globe shows that there are Regulated Vegetation-Defined Watercourses, mapped within the Lot, as per **Figure 4** below. Refer to the MSES search report in **Appendix B**.

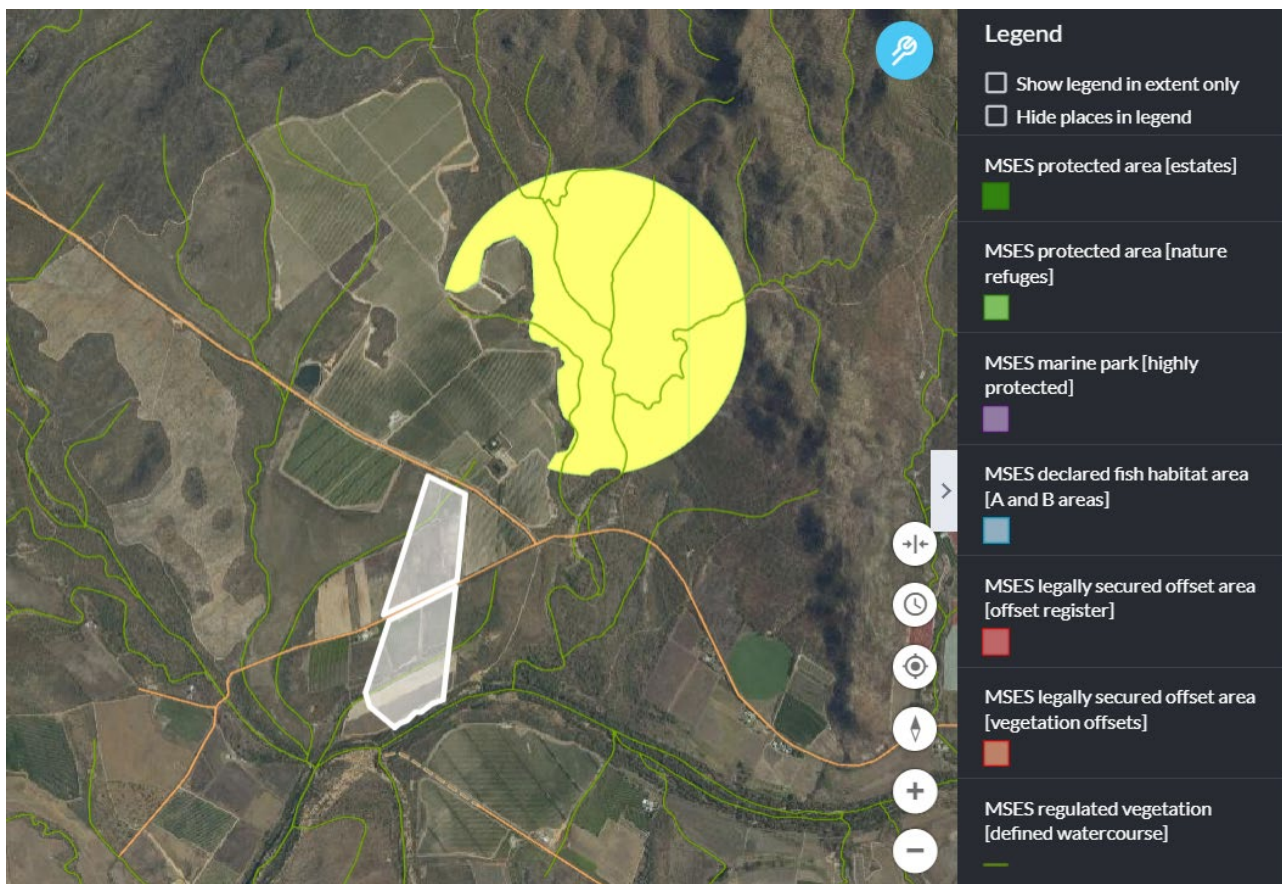


Figure 4 MSES Mapping (Queensland Globe, May 2026)

2.6.2 Regional Ecosystem and Protected Plants

The Regional Ecosystem Vegetation mapping on Queensland globe shows that majority of the site is non-remnant with only a small section within the northern end and a smaller section along the southern end of the site mapped as Category A or B area that is least concern refer to **Figure 5** below. The Regional Ecosystems search report is attached in **Appendix C**.

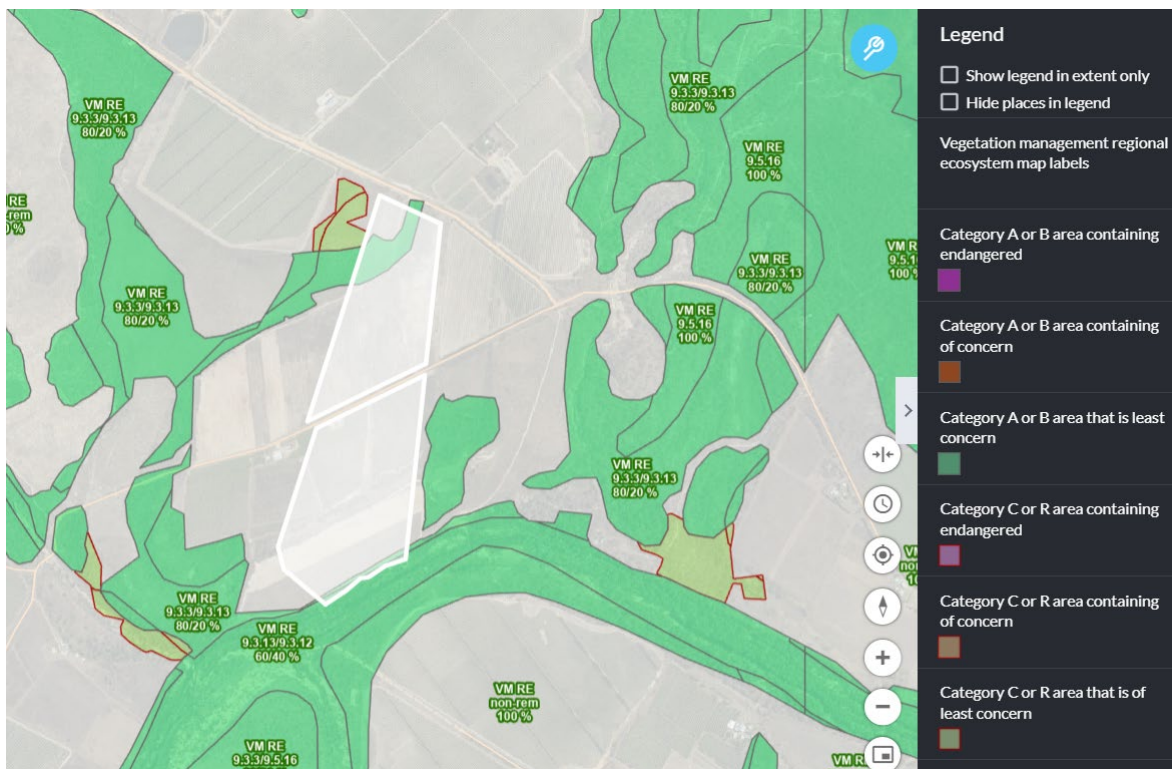


Figure 5 Regional Ecosystems Vegetation mapping (Queensland Globe, May 2026)

2.7 Existing Land Use and Sensitive Receptors

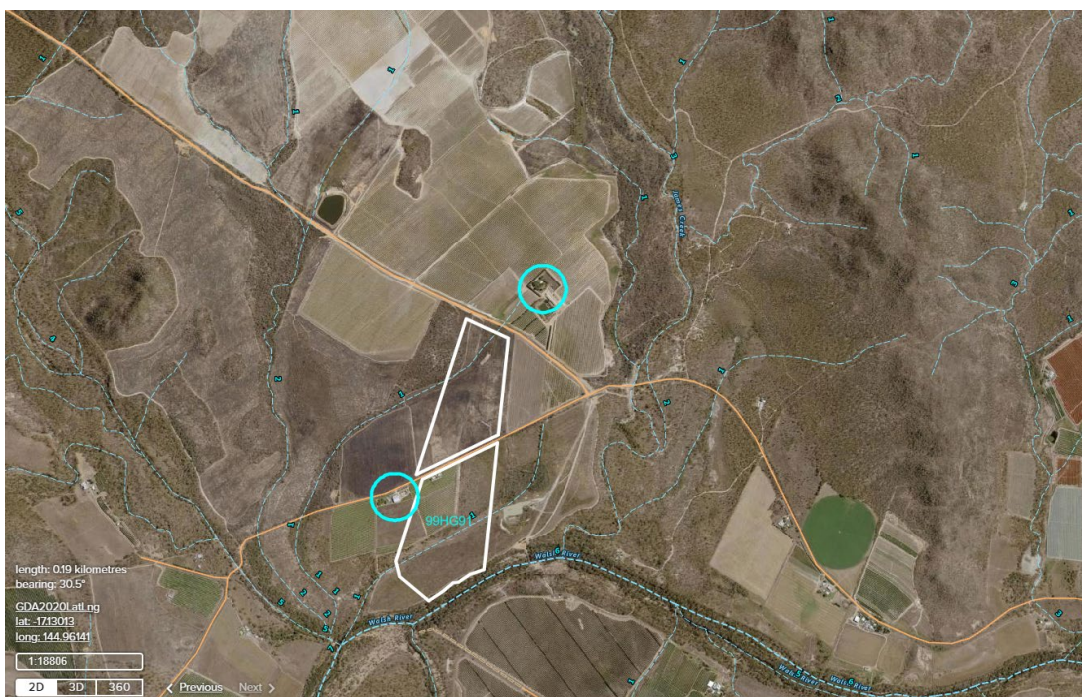


Figure 6 Sensitive receptors surrounding the site

The existing land use of the site is agricultural similar to the surrounding land use. The closest sensitive receptors would be the residential properties outlined above in **Figure 6**.

2.8 Air Quality

The proposed site is surrounded by agricultural land uses as per figures above therefore the ambient air quality for the area would be primarily influenced by these activities. The extraction activities on the site will impact air quality at a similar level to the surrounding land uses. Mitigation measures will be implemented to reduce any potential for dust.

2.9 Noise

The proposed site has rural residents located on the northeast and to the west. The closest potential sensitive receiver is approximately 100 m from the site, refer to **Figure 6** above. The extraction activities on the site will impact noise at a similar level to the surrounding land uses. Mitigation measures will be implemented to reduce any potential for nuisance.

3 ENVIRONMENTAL VALUES RISK ASSESSMENT

The following section describes risks to environmental values and likely magnitude of the impacts generated by the proposed extraction activities.

3.1 Risk Assessment Synopsis

The risk assessment adopted is a qualitative risk-based approach designed to assess risk based on the likelihood of an environmental impact or event occurring (refer to **Table 2-Definitions of Likelihood**), and the consequences of the occurrence on the surrounding environmental values (**Table 3-Definitions of Consequences**). The likelihood and consequences are scored between 1 and 5 for each potential impact or event. The risk assessment has been formulated considering potential for impact without control measures put in place to manage potential risk.

Table 2 Definitions of Likelihood

Rating	Descriptor	Score
Rare	May occur only in exceptional circumstances	1
Unlikely	Could occur but doubtful	2
Possible	Might occur at some point in the future	3
Likely	Will probably occur	4
Almost Certain	Is expected to occur in most circumstances	5

Table 3 Definitions of Consequences

Rating	Descriptor	Score
Negligible	Impacts not requiring any treatment or management plan	1
Minor	Nuisance or insignificant environmental harm requiring minor management actions	2
Moderate	Serious environmental impacts, readily manageable at low-cost	3
Major	Substantial environmental impacts, manageable but at considerable cost and some disruption	4
Catastrophic	Severe environmental impacts with major consequent disruption and heavy cost	5

Table 4 Risk Assessment Matrix

		Consequences of Said Impact				
Likelihood of an Environmental Impact		Negligible	Minor	Moderate	Major	Catastrophic
		1	2	3	4	5
Almost Certain	5	5	10	15	20	25
Likely	4	4	8	12	16	20
Possible	3	3	6	9	12	15
Unlikely	2	2	4	6	8	10
Rare	1	1	2	3	4	5

The consequences and likelihood scores are then plotted on the risk assessment matrix, refer to **Table 4** above. The final risk level assigned is thus a product of the likelihood and consequences scores. The higher the risk score, the higher priority is for management.

Table 5 Indicative management options per risk rating

Risk Rating	Risk Rating Scores	Indicative Management Options
Extreme	16-25	Manage by implementing site management and emergency procedures, plant design controls and regular monitoring.
High	10-15	Manage by implementing site management procedures, specific monitoring, and may require some operational/ plant design controls.
Medium	5-9	Manage by implementing specific monitoring or response procedures.
Low	1-4	Manage by routine procedures, unlikely to need specific application of resources.

3.2 Potential Environmental Impacts

Activities associated with the proposed extraction which have the potential to cause environmental harm and/or nuisance have been outlined in **Table 6**.

The risk assessment is limited to the potential for the activity to impact upon the existing environmental values and does not consider any pre-existing approved impacts taking place on the site.

Table 6 Activities and Potential Impacts

Activity	Potential Impacts- Environmental Values Impacted				
	Air	Water	Noise	Land	Waste
Extraction of sand	✓	✓	✓	✓	
Screening of sand	✓	✓	✓	✓	
Heavy machinery movement	✓	✓	✓	✓	
Light vehicle movement	✓	✓	✓	✓	
Chemical storage	✓	✓		✓	✓
Waste storage	✓	✓		✓	✓

Site activities have been tabulated against environmental values to determine the risk.

Table 7 Assessment of Environmental Impacts

Activity	Potential Impacts Environmental Values Impacted				
	Air	Water	Noise	Land	Waste
Extraction of sand	2 x 2 = 4	3 x 2 = 6	2 x 2 = 4	3 x 2 = 6	NA
Screening of sand	3 x 2 = 6	4 x 3 = 12	4 x 2 = 8	4 x 2 = 8	NA
Heavy machinery movement	3 x 2 = 6	4 x 3 = 12	4 x 2 = 8	4 x 2 = 8	NA
Light vehicle movement	4 x 2 = 8	3 x 2 = 6	4 x 2 = 8	4 x 2 = 8	NA
Chemical storage	4 x 1 = 4	3 x 2 = 6	4 x 1 = 4	3 x 2 = 6	NA
Waste storage	3 x 2 = 6	3 x 3 = 9	NA	4 x 2 = 8	3 x 1 = 3
Waste storage	3 x 1 = 3	3 x 1 = 3	NA	3 x 1 = 3	3 x 1 = 3

4 ENVIRONMENTAL OBJECTIVE ASSESSMENT

The following section assesses the proposed activity against the environmental objectives and performance outcomes of Air, Water, Wetlands, Groundwater, Noise, Waste, and Land environmental values as per Schedule 8, Part 3 of the *Environmental Protection Regulation 2019* (EP Regulation).

4.1 Air

The Environmental Objective for Air detailed within Schedule 8, Part 3, Division 1 of the EP Reg states:
The activity will be operated in a way that protects the environmental values of air.

Performance outcomes for Air as detailed in the EP Regulation include:

2. There is no discharge to air of contaminants that may cause an adverse effect on the environment from the operation of the activity.
3. All of the following:
 - a. Fugitive emissions of contaminants from storage, handling and processing of materials and transporting materials within the site are prevented or minimised;
 - b. Contingency measures will prevent or minimise adverse effects on the environment from unplanned emissions and shut down and start up emissions of contaminants to air;
 - c. Releases of contaminants to the atmosphere for dispersion will be managed to prevent or minimise adverse effects on environmental values.

The Part 3 of the Schedule 7 of the Environmental Protection (Air) Policy 2008 (EPP(Air)) prescribes the environmental values that are to be protected or enhanced, which are:

- The qualities of the air environment that are conducive to protecting the health and biodiversity of ecosystems;
- The qualities of the air environment that are conducive to human health and wellbeing;
- The qualities of the air environment that are conducive to protecting the aesthetics of the environment, including the appearance of buildings, structures and other property; and
- The qualities of the air environment that are conducive to protecting agricultural use of the environment.

No measurement or monitoring of the background air quality has been carried out for the purpose of this application however, it is expected that air quality would be typical of the pre-existing agricultural activities and adjacent land uses (e.g. rural, residential and agricultural). In the absence of background air quality to qualify the environmental values, fugitive emissions from storage, handling, processing, and transporting of sand within the site will be prevented or minimised as detailed within the Site Based Management Plan. Specific measures to prevent or minimise impacts to air quality include use of the water truck when required to prevent dust, undertaking progressive rehabilitation to limit exposed extraction areas, covering (i.e. with grass or mulch) or keeping moist all long-term topsoil stockpiles to prevent wind erosion, and enforcing an internal road speed limit of 40km/hr.

4.2 Water

The Environmental Objective for Water detailed within Schedule 8, Part 3, Division 1 of the EP Regulation states:

The activity will be operated in a way that protects the environmental values of waters.

Performance outcomes for Water as detailed in the EP Regulation include:

4. There is no actual or potential discharge to waters of contaminants that may cause an adverse effect on an environmental value from the operation of the activity.
5. All of the following:

- a. The storage and handling of contaminants will include effective means of secondary containment to prevent or minimise releases to the environment from spillage or leaks;
- b. contingency measures will prevent or minimise adverse effects on the environment due to unplanned releases or discharges of contaminants to water;
- c. the activity will be managed so that stormwater contaminated by the activity that may cause an adverse effect on an environmental value will not leave the site without prior treatment;
- d. the disturbance of any acid sulfate soil, or potential acid sulfate soil, will be managed to prevent or minimise adverse effects on environmental values;
- e. acid producing rock will be managed to ensure that the production and release of acidic waste is prevented or minimised, including impacts during operation and after the environmental authority has been surrendered;
- f. any discharge to water or a watercourse or wetland will be managed so that there will be no adverse effects due to the altering of existing flow regimes for water or a watercourse or wetland;
- g. for a petroleum activity, the activity will be managed in a way that is consistent with the coal seam gas water management policy, including the prioritisation hierarchy for managing and using coal seam gas water and the prioritisation hierarchy for managing saline waste;
- h. the activity will be managed so that adverse effects on environmental values are prevented or minimised.

The environmental objective for water is proposed to be met via Performance Outcome 2 as there is potential for discharge of sediment and/or contaminated wastewater to waters from the site. The proposed extraction will be undertaken in stages, with the topsoil used to back fill and then natural seed recolonisation or active rehabilitation via grass seed application to provide a vegetative cover. The Site Based Management Plan (SBMP) (**Appendix A**) includes mitigation measures, and specially the area to be used. The plan details stormwater management measures including watering the internal haul road, maintaining capacity within the stormwater basin, and recirculating water within the site to prevent unplanned releases to meet the Department of Environment, and Science's Stormwater Guideline for Environmentally Relevant Activities (Version 1.08 dated November 2025).

4.3 Wetlands

The Environmental Objective for Wetlands detailed within Schedule 8, Part 3, Division 1 of the EP Reg states:

The activity will be operated in a way that protects the environmental values of wetlands.

Performance Outcomes for Wetlands as detailed in the EP Reg include:

1. There will be no potential or actual adverse effect on a wetland as part of carrying out the activity.
2. The activity will be managed in a way that prevents or minimises adverse effects on wetlands.

There are no HES wetlands on the site or downstream, therefore the application will achieve the environmental objectives for wetlands through Performance Outcome 1.

4.4 Groundwater

The Environmental Objective for Groundwater detailed within the Schedule 8, Part 3, Division 1 of the EP Regulation states:

The activity will be operated in a way that protects the environmental values of groundwater and any associated surface ecological systems.

Performance Outcomes for Groundwater as detailed in EP Regulation include:

1. Both of the following apply:
 - a. There will be no direct or indirect release of contaminants to groundwater from the operation of the activity;

- b. There will be no actual or potential adverse effects on groundwater from the operation of the activity.
2. The activity will be managed to prevent or minimise adverse effects on groundwater or any associated surface ecological systems.

The application will achieve the environmental objective for groundwater through Performance Outcome 1 as there will be no direct or indirect release of contaminants to groundwater. The processing activity will be undertaken on a hardened pad on site to prevent infiltration.

4.5 Noise

The Environmental Objective for Noise detailed within Schedule 5, Part 3, Division 1 of the EP Reg states: *The activity will be operated in a way that protects the environmental values of the acoustic environment.* Performance Outcomes for Noise as detailed in the EP Reg include:

1. Sound from the activity is not audible at a sensitive receptor.
2. The release of sound to the environment from the activity is managed so that adverse effects on environmental values, including health and wellbeing and sensitive ecosystems, are prevented or minimised.

The *Environmental Protection (Noise) Policy 2019 (EPP(Noise))* prescribes the environmental values that are to be protected or enhanced, which are:

- a. The qualities of the acoustic environment that are conducive to protecting the health and biodiversity of ecosystems.
- b. The qualities of the acoustic environment that are conducive to human health and wellbeing, including by ensuring a suitable acoustic environment for individuals to do any of the following:
 - i. Sleep;
 - ii. Study or learn; or
 - iii. Involved in recreation, including relaxation and conservation.
- c. The qualities of the acoustic environment that are conducive to protecting the amenity of the community.

It is proposed that the release of sound to the environment from the activity is managed so that adverse effects on environmental values are prevented or minimised as detailed within the SBMP, refer to **Appendix A**.

Specific measures to prevent or minimise impacts to the acoustic environment include maintaining equipment in good working order, installing noise suppressors on equipment where required, limiting operational hours to approved hours of 6am until 6pm, Monday-Saturdays, and operating machinery with squawkers rather than reversing beepers.

4.6 Waste

The Environmental Objectives for Waste detailed within Schedule 8, Part 3, Division 1 of the EP Reg states: *Any waste generated, transported, or received as part of carrying out the activity is managed in a way that protects all environmental values.*

Performance Outcome for waste as detailed in the EP Regulation include:

1. Both of the following:
 - a. Waste generated, transported or received is managed in accordance with the waste management hierarchy under the *Waste Reduction and Recycling Act 2011*.
 - b. If waste is disposed of, it is disposed of in a way that prevents or minimised adverse effects on environmental values.

It is proposed that any waste likely to be generated, transported, or received as a result of the proposed extraction will be managed in accordance with the waste and resource management hierarchy as detailed

within the *Waste Reduction and Recycling Act 2011* (WRRRA), refer to the SBMP in **Appendix A**.

4.7 Land

The Environmental Objective for Land detailed within Schedule 8, Part 3, Division 1 of the EP Reg states: *The activity is operated in a way that protects the environmental value of land, including soils, subsoils, landforms and associated flora and fauna.*

Performance Outcomes for Land as detailed in the EP Regulation include:

1. There is no actual or potential disturbance or adverse effect to the environmental values of land as part of carrying out the activity.
2. All of the following apply—
 - a. activities that disturb land, soils, subsoils, landforms and associated flora and fauna will be managed in a way that prevents or minimises adverse effects on the environmental values of land;
 - b. areas disturbed will be rehabilitated or restored to achieve sites—
 - i. that are safe and stable; and
 - ii. where no environmental harm is being caused by anything on or in the land; and
 - iii. that are able to sustain an appropriate land use after rehabilitation or restoration;
 - c. the activity will be managed to prevent or minimise adverse effects on the environmental values of land due to unplanned releases or discharges, including spills and leaks of contaminants;
 - d. the application of water or waste to the land is sustainable and is managed to prevent or minimise adverse effects on the composition or structure of soils and subsoils.

Extent of proposed extraction area within the overall Lot has been informed by the mapped remnant vegetation and watercourses and defined to avoid impact on those values.

The extraction area/ borrow pit will be rehabilitated to an appropriate condition. Landforms will be reshaped, and in some cases disturbed areas will be revegetated. If approved, the borrow pit edges will be rounded off to prepare the pit for water ponding purposes.

5 RISK MITIGATION AND CONTROL MEASURES

A SBMP has been prepared, refer to **Appendix A** has been prepared by RPS for Pioneer North Queensland for Bilic Sand Extraction.

The SBMP details:

- Description of activities including pre and post extraction;
- Environmental commitments;
- Roles and responsibilities of all involved;
- Management of Environmental Values, including air, water, noise, waste and land;
- Inductions and training;
- Emergency Response;
- Complaints; and
- Incident Management.

6 CONCLUSION

This Environmental Assessment Report has been prepared to support the application for the proposed extractive operations within the boundaries of Lot 99 HG91. This report addresses the environmental values and risk of potential environmental impacts. All major documentation needed to address the risks that could possibly occur in the additional extraction area have been attached as appendices.

The risk assessment has determined that the potential environmental risks and impacts resulting from the proposed extractive industry will be effectively regulated through adoption of the Model Operating Conditions for ERA 16, and the effective implementation of environmental monitoring and management practices as detailed within the Site Based Management Plan (**Appendix A**).

Appendix A Site Based Management Plan

SITE BASED MANAGEMENT PLAN

PNQ Bilic Sands Extraction

406005
10 June 2026
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REPORT

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
0	Site Based Management Plan (SBMP)	M. Palmer	A. Fletcher	A. Fletcher	29 May 2026

Approval for issue

Adam Fletcher



10 June 2026

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1 INTRODUCTION

Pioneer North Queensland Pty Ltd (PNQ) have identified fine sand, topsoil and gravel resources within Lot 99 HG91 (herein referred to as 'the site'). As a result, PNQ have engaged RPS AAP Consulting Pty Ltd (RPS) to prepare a Site Based Management Plan (SBMP) to manage and mitigate potential environmental impacts of the following proposed Environmentally Relevant Activities (ERAs) at the site:

- ERA 16 – 2 (a): Extracting, other than by dredging, in a year, the following quantity of material, 5,000t to 100,000t; and
- ERA 16 – 3 (a) Screening, in a year, the following quantity of material, 5,000t to 100,000t.

1.1 Purpose

The objective of the SBMP is to outline work practices to address the specified regulatory requirements under the *Environmental Protection Act 1994* (EP Act) to minimise the risk of environmental harm resulting from extractive operations and comply with the Environmental Authority (EA), refer to **Appendix A**.

It is noted that requirements under the *Workplace Health and Safety Act 2011* are not included in this document and will be addressed by PNQ separately.

1.2 Objectives

The objectives of this SBMP are to:

- Identify environmental values of the project site and surrounds;
- Determine the potential risk of adverse environmental impacts associated with the operation of the quarry;
- Describe measures to minimise the risk of environmental harm;
- To ensure all environmental safeguards are implemented correctly;
- Provide a mechanism for review and continual improvement of environmental performance; and
- Provide a reporting, monitoring and training schedule.

1.3 Implementation

PNQ is responsible for implementing the SBMP for the 'site' and ensuring compliance with the nominated requirements. PNQ is also responsible for ensuring appropriate corrective actions arising from a failure to meet stated performance requirements are implemented.

Where contracts are entered into for work associated with this project, PNQ shall:

- Induct the employees on the requirements of the SBMP and PNQ expectations.
- Ensure that all employees comply with the requirements of the SBMP;
- Require the employees and its contractors report non-conformances with the SBMP; and
- Monitor and measure the performance of employees and its contractor against the requirements of the SBMP.

2 PROJECT DESCRIPTION

2.1 Site Description

PNQ propose to undertake sand extraction operations within the area of the Lot 99 on HG91, refer to the Site Layout Plan in **Appendix B**.

The site is situated in a rural area with the surrounding land use being agricultural farming. Proposed equipment and infrastructure on site will include:

- Earthmoving Equipment (i.e. excavators, scrappers, dozers, loaders and trucks for removal and transport of material);
- Screening plant;
- Processing and stockpiling; and
- Erosion sedimentation controls.

Sand will be extracted by excavator and transported to the processing plant by truck. Processing will involve screening of the final product prior to stockpiling. No blasting or crushing is to occur as part of the process. Rehabilitation works will be undertaken progressively and in tandem with the extraction program. Profiling of the final landform will be undertaken to facilitate drainage.

Work hours for the extractive activities are 6:30 am to 5:30 pm, Monday to Friday and 6:30 to 11:30 on Saturday and no operations on Sunday.

The Lot is divided into two parts North and South, separated by Bullaburrah Creek Road, and the site comprises an area of approximately 59.489 ha. This site is all farmland, lots of cleared and agricultural area surrounding the site.

The ground surface of the site is gently sloping towards the northern slot of land, with surrounding land used for agricultural purposes, and a small corridor of vegetation on each parcel of the Lot.

2.2 Legislative Requirements, Permits and Approvals

Table 1 Summary of Licences, Legislation, Permits and Approvals

Regulatory Authority	Licence/ Permit/Approval Type	Status	Summary of Key Conditions and Monitoring Required
Department of Environment, Tourism, Science and Innovation (DETSI)	Environmental Authority Ref: TBC	Application	ERA 16 (2a) and ERA (3a) Extraction and screening of between 5,000 tonnes and 100,000 tonnes per year.
Mareeba Shire Council	Development Approval Ref: TBC	Application	Approved Extraction within Lot 99 on HG91

2.3 Application

This SBMP applies to all personnel (staff and contractors) and activities associated with the operation of the facility.

The PNQ management is responsible for authorising this SBMP and monitoring its implementation at the site. The Site Supervisor is responsible for implementation of the SBMP and shall ensure that all persons

employed or sub-contracted to the project area are made aware of their environmental responsibilities as determined by this SBMP and as legislated by the *Environmental Protection Act 1994 (EP Act)*.

Environmental duties of all personnel include the following:

- General Environmental duty- whereby a person in the performance of their duties shall not do so in a manner which will cause, or is likely to cause, environmental harm unless the person takes all reasonable and practical measures to prevent or minimise the harm; and
- Duty to Notify Environmental Harm- whereby if a person in the performance of their duties becomes aware that serious or material environmental harm is caused or threatened, then the person must immediately contact the Site Supervisor who in turn must immediately notify the relevant authorities.

3 ENVIRONMENTAL COMMITMENTS

PNQ accepts the responsibility for environmental protection which is integral to the conduct of its extractive operations.

PNQ is committed to:

- Operating practices which seek to minimise impacts, prevent pollution and minimise the likelihood of environmental harm through work and management practices, continual improvement, training and the use of new technology.
- Compliance with all applicable environmental laws and regulations and Codes of Practice in extractive operations, and new developments.
- Management review of environmental objectives and targets.
- Waste management to minimise wastes, develop viable recycling opportunities, and ensure proper handling and disposal methods.
- Extraction processes which seek to combine commercial viability and efficient use and conservation of resources.
- Environmental assessment of new projects and sites and existing operations.
- Environmental Incident Response-contingency plans to minimise health, safety and environmental risks.
- Rehabilitation of areas affected by extractive operations.
- Striving to meet Community Expectations through consultation with community groups and landowners about environmental matters of common concern.
- Water management, which is integral to achieving sustainability, balancing today's needs with those of the future.
- Energy management which is integral to managing greenhouse gas emissions from extractive operations and therefore abating the impact of the business on the climate.

PNQ will encourage concern and respect for the environment and will emphasise every employee's responsibility for environmental performance.

4 ROLES AND RESPONSIBILITIES

4.1 Site Manager

The Site Manager is responsible for the following:

- Promoting and maintaining good environmental management;
- Ensuring that this SBMP is effectively implemented;
- Supporting the Site Supervisor and hold them accountable for their specific responsibilities;
- Taking prompt remedial action to eliminate any non-compliance or environmentally risky conditions;
- Investigating and addressing complaints and incidents;
- Inducting all workers and subcontractors and directing site activities in accordance with this SBMP;
- Taking all practical measures to ensure the site is operating according to this SBMP, and without risks to the environment;
- Detecting any non-compliance or environmentally risky conditions by undertaking regular inspections; and
- If the Site Manager does not have the necessary authority to fix a problem, they are responsible for reporting the matter promptly and recommending remedial action to the Operations Manager - Extraction.

4.2 All Workers

All workers are required to attend site inductions and follow this SBMP. All workers must undertake site works and comply with the general environmental duty as outlined within Section 319 of the *Environmental Protection Act 1994* and a duty to notify of environmental harm as outlined within Section 320 of the *Environmental Protection Act 1994*. Workers must undertake activities in accordance with this SBMP and report all incidents, spills or non-conformances.

4.3 Subcontractors

All subcontractors engaged to perform work for PNQ are required, as part of their contract, to comply with this SBMP and to comply with directions from the company's designated officers. Failure to comply will be considered a breach of the contract and sufficient grounds for termination of the contract.

4.4 Environmental Reporting Structure

The responsibilities and reporting structure for key environmental management roles at the site have been broadly described in **Table 2** below.

Table 2 Site Reporting Structure

Role	Responsibilities	Reports to
PNQ Executive Management	• Provision of sufficient resources to manage the environment. • Ensure appropriate training is undertaken by all personnel. • Maintenance of correct permits and approvals. • Commission third party audits and investigation as required. • Review of monitoring outcomes and ensure corporate compliance.	DETSI and other administering government authorities.

	Review SBMP effectiveness (Including for continuous improvement).	
Site Manager	- Management of personnel present at site. - Ensure personnel receive training to develop skills required. - Undertake site inductions and orientation. - Work with PNQ Management to address complainants, community groups and other stakeholders. - Perform regular inspections of the site e.g. the plant, equipment, maintenance schedules, security fences, etc. - Implement the SBMP for all environmental matters on site, with authority to direct compliance with the SBMP. - Undertake or coordinate scheduled and non-scheduled internal environmental audits.	PNQ Management
Site Supervisor	- Undertake or coordinate environmental monitoring events. - Maintain complaints register and works to address improvements for the site. - Ensure measures to prevent unauthorised site access are in place, including gates at the main entrance which are to be closed outside of operation hours. - Supervise persons entering the site. - Ensure any hazardous waste is dealt with as per <i>Environmental Protection (Waste Management) Policy 2000</i>. - Ensure the SBMP is made available and communicated to all staff. - Allocate resources for environmental management, staff training and SBMP duties.	PNQ Management
Environmental Advisor	- Undertake requested monitoring and reporting. - Undertake requested audits and technical assessments.	Site Supervisor, PNQ
All site Staff	- Undertake site works as instructed by the Site Supervisor. - Undertake site works with a duty of care under the <i>Environmental Protection Act and Regulation 1994</i>. - Undertake activities in compliance with this SBMP. - Report all incidents, spills, or environmental non-compliance with the SBMP to the Site Supervisor.	Site Supervisor, PNQ

5 ENVIRONMENTAL VALUES, IMPACTS AND RISKS

RPS has undertaken a detailed desktop assessment to identify potential environmental values that maybe impacted on by the extractive industry. The following sections provide a brief overview of the environmental values within and adjacent to the site. An assessment of the potential impacts to these values is provided, with detailed management measures to be implemented to minimise the risk of environmental harm provided in **Section 6- Environmental Management Measures**.

5.1 Environmental Values

A desktop review of environmental values for Lot 99 on HG91 found the presence of unnamed MSES Regulated Vegetation (defined watercourse), passing through both the Northern and Southern sections of the Lot. However, no other MSES including- Protected area, Marine Park, declared fish habitat, high ecological value waters (wetlands), protected Flora and Fauna species, Wildlife habitat or regulated vegetation have been identified on the site.

5.2 Environmental Values and Risks

As the extraction footprint of the site does not intersect with the MSES Regulated Vegetation (defined watercourse) found on the site, and a detailed desktop assessment found no presence of Wetlands, Watercourses, Essential Habitat, or Protected Flora and fauna species, the extractive industry is considered to have little or no immediate impacts or risks to the site's environmental values.

6 ENVIRONMENTAL MANAGEMENT MEASURES

6.1 Air

Aim

No environmental nuisance is caused by the release of noxious or offensive airborne odours or contaminants (e.g. dust) resulting from site activity.

Success Criteria

- Dust deposition does not exceed 120mg/m² per day at a nuisance sensitive or commercial place, or dust less than 10 micrometres does not exceed 150mg/m³ over 24 hours downwind of site at a nuisance sensitive or commercial place. Both monitoring methods are to be in accordance with the Australian Standard AS (3580.9.16 of 2016) or more recent additions.
- No dust and/or odour complaints received from adjoining operations, nearby sensitive places or from statutory authorities.

Management Actions	Responsibility	Frequency
Adhere to 40km/h speed limit across site.	All staff	At all Times
Cover (i.e. with grass or mulch) or keep moist all long term (greater than 3 months) topsoil stockpiles.	Site Supervisor	As Required
Implement progressive rehabilitation to limit open extraction area to as small as feasible.	Site Supervisor	As Required
Increase frequency of water cart use on internal roads and stockpile areas as required to suppress dust.	Site Supervisor	As Required
Routine Monitoring Program	Responsibility	Frequency
Report any dusty conditions to site supervisor.	All staff	As Required
Visually inspect site, operations and effectiveness of dust controls.	Site Supervisor	Daily
Proactive dust deposition monitoring may be undertaken if complaints are received.	Site Supervisor	As Required
Inspect site in relation to dust controls and operations.	Site Supervisor	Annual Audit
Inspect for sources of odour which may generate complaints.	Site Supervisor	Daily

Complaint Response Monitoring

When requested by the administering authority, dust and particulate monitoring must be undertaken to investigate any complaints of environmental nuisance caused by dust and/or particulate matter. The results of monitoring are to be passed to Department of Environment, Tourism, Science and Innovation (DETSI) within 14 days of completing the monitoring. Monitoring must be carried out at a place(s) relevant to the potentially affected dust sensitive place and at upwind control sites and must include:

- For a complaint alleging dust nuisance, dust deposition monitoring shall be in accordance with AS3580.9.16:2016 or more recent editions.
- For a complaint alleging adverse health effects caused by dust, the PM10 concentration suspended in the atmosphere over a 24hr averaging time shall be monitored in accordance with AS3580.9.16 2016 (or more recent editions).

PNQ is responsible for engaging a suitably qualified and experienced air quality consultant to undertake monitoring. All monitoring equipment used must be calibrated and appropriately operated and maintained.

In the event of an odour complaint being submitted, measures must be undertaken as soon as practicable to minimise the release of the odour beyond the boundaries of the licensed place.

Corrective Actions

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If success criteria are not met, examples of corrective actions may include:

1. Ensure tracks and stockpile area is dust suppressed (water cart) every morning and as required throughout the day.
2. Cease operating air polluting machinery and undertake maintenance.

Reporting	Responsibility	Frequency
Record observations, actions and notifications from staff in diary.	Site Supervisor	As Required
Record inspection notes and observations.	Site Supervisor	Annual Audit
Results from complaint monitoring shall be forwarded to the administering authority.	Site Supervisor	Within 14 days of the completion of monitoring.

6.2 Noise

Aim

No environmental nuisance is caused by noise from site at a noise sensitive or commercial place.

Success Criteria

- Noise emissions do not cause nuisance at any sensitive receptors.

Management Actions	Responsibility	Frequency
No unnecessary use of horns or other audible signals on mobile plant or equipment. Use of directional low frequency reversing beepers.	All staff	At all Times
Plant and equipment will be maintained in good working order and maintained as required. Where required, noise suppressors will be installed.	Site Supervisor to schedule equipment maintenance.	As per manufacturers specifications
Work will take place during nominated work hours only (6:30 am until 5:30pm Monday to Friday, 6:30 am to 11:30 am on Saturdays (as per the agreement between PNQ and the Farmer).	All Staff	At all Times
Operators to report faulty equipment.	As per manufacturers specifications	At all Times
Routine Monitoring Program	Responsibility	Frequency
Inspect site in relation to noise controls and operations.	Site Supervisor	Daily
Inspect site in relation to noise emissions, controls and operations.	Site Supervisor	Annual Audit

Complaint Response Monitoring

When requested by the administering authority noise monitoring must be undertaken to investigate any complaint of noise nuisance and must include:

1. LA 10, adj, 10mins.
2. LA 1, adj, 10mins.
3. The level and frequency of occurrence of impulsive or tonal noises.
4. Atmospheric condition including wind speed and direction.
5. Effects due to extraneous factors such as traffic noise.
6. Location, date and time of recording.

Results of the monitoring are to be submitted to Department of Environment, Technology, Science and Innovation (DETSI) within 14 days of the complaint being submitted.

PNQ is responsible for engaging a suitably qualified and experienced acoustic consultant to undertake the monitoring as required. The method of measurement and reporting of noise levels must comply with the latest edition of the DETSI Noise Measurement Manual. All monitoring equipment used must be calibrated and appropriately operated and maintained.

Corrective Actions

If success criteria are not met, examples of corrective actions may include:

1. Review the use of any audible signals.
2. Investigate feasible additional noise attenuation devices for plant or equipment.

Reporting	Responsibility	Frequency
Record observations, actions and notifications from staff in diary	Site Supervisor	As Required
Record inspection notes and observations	Site Supervisor	Annual Audit
Results from complaint monitoring shall be forwarded to the administering authority.	Site Supervisor	Within 14 days of the completion of monitoring.

6.3 Water Management

Aim

To minimise the risk of adverse impacts to surface or groundwater quality by implementing appropriate water pollution controls at the site.

Success Criteria

- No adverse impacts to existing surface water or groundwater quality from site operations.
- Oil spills and product spills are contained within 1 hour of the event and cleaned within 24 hours.
- Spill kits are available and maintained.
- No visual signs of erosion occurring onsite.
- No wastewater discharge to the environment.

Management Actions	Responsibility	Frequency
• Stockpiles – stockpiles will drain towards the excavation pit. • Bunds/Berms – Temporary bunds or berms will be constructed of clean material only (No Acid Sulfate Soils (ASS) or Potential Acid Sulfate Soils (PASS)). • Equipment – Equipment will be relocated above flood levels and checked for oil and hydraulic leaks – complete urgent & minor repairs using temporary bunding as required to prevent potential stormwater contamination. • Internal Haul Roads – Minimise vehicle activity through stormwaters. • Waste - All generated waste into skip bins and ensure regularly emptied. • Fuel Storage – install and maintain bunded storage area to AS1940:2017 above flood levels. • Offices/minor services – locate above flood levels.	Site Supervisor	At all Times
Management Actions	Responsibility	Frequency
Groundwater monitoring system to be designed and installed by a suitably qualified person as per the EA.	Site Supervisor	As soon as practicable
Groundwater quality monitoring will be undertaken in accordance with the EA conditions on a quarterly basis.	Consultant/ Site Supervisor	As Required
Surface water quality monitoring will be undertaken in accordance with the EA.	Consultant/ Site Supervisor	As Required
Machinery maintenance activities on site include limited/small repairs of light vehicles; regular servicing and major repairs of heavy vehicles/rebuild on a sealed bunded pad in the machinery shed.	Site Supervisor	At all Times

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Spill kits, oil collection trolley or containers, mobile drip trays shall be available and in place during servicing to contain any leaks or spills.	All staff	As Required
Management Actions	Responsibility	Frequency
Chemicals and fuels in containers greater than 15L to be stored within a secondary containment system.	All Staff	At all Times
All spills shall be reported and cleaned up to minimise land or water contamination. Preference to dry methods of cleaning up spills to be given where possible.	All Staff	At all Times
Long term cover and capping soil stockpiles to be seeded and stabilised. Silt fencing and/or bunding to be placed below short-term stockpiles to minimise sediment run off to the environment.	Site Supervisor	At all Times
Corrective Actions		
If success criteria are not met, examples of corrective actions may include:		
1. Ensure wash down and maintenance activities are undertaken in contained areas to minimise the risk of water or land contamination. 2. Employ rock mulching or graveling to reduce erosion occurring onsite. 3. Identify sources of non-conforming results and adjust methods. 4. Agricultural lime or Aglime maybe used to treat the acidification of surface waters.		
Reporting	Responsibility	Frequency
Record site observations, actions and notifications in diary.	Site Supervisor	Daily as Required
Record all uncontrolled spills and water quality sampling results.	Site Supervisor	As Required
Record inspection notes and observations.	Site Supervisor	Annual Audit
Site vehicle maintenance records.	Site Operators	As Required
Ground and surface water quality monitoring.	Consultant	As Required
Groundwater or surface monitoring results not in compliance with the site's environmental authority conditions are required to be reported to the Pollution Hotline on 1300 130 372 as soon as practicable or within 24 hours of you becoming aware.	Site Supervisor	As Required

6.4 Waste Management

Aim		
All solid and liquid wastes are handled and transferred in a proper and efficient manner to minimise the risk of release to the environment.		
Success Criteria		
- No improper storage, transport or disposal of wastes. - All reasonable and practical measures are taken to contain litter.		
Management Actions	Responsibility	Frequency
All waste oils/fuels or other liquid waste will be stored in a sealed bunded area according to AS 1940:2017– Storage and Handling of Flammable and Combustible Liquids (bund volume to exceed volume of largest container plus 10%).	Site Operators	At all Times

REPORT

Appropriate space will be provided for the temporary storage of general refuse, recyclable and compostable waste to ensure separation of waste products.	Site Operators	At all Times
Waste will be managed in the preferred order of avoid, re-use, recycle, recover, treat and dispose within the <i>Waste Reduction and Recycling Act 2011 (Qld)</i> .	Site Operators	At all Times
If litter is blown or washed off site, it is to be retrieved and ensure it is disposed of in the appropriate manner and additional measures to prevent a recurrence (e.g. litter screens) are to be undertaken.	All Staff	At all Times
Maintain spill kits and ensure clean up equipment is available at site office (240L wheelie bin with mobile kits in each vehicle) with annual inspection of spill kits.	Site Supervisor	Replenish as required following use.
Burning of waste is not to occur on site.	Site Supervisor	As Required
Routine Monitoring Program	Responsibility	Frequency
Monitor waste storage, handling and disposal practices.	Site Supervisor	Daily
Daily inspections to ensure the site is free of uncontrolled rubbish, tidy and all wastes are appropriately stored and managed.	Site Supervisor	At all Times
Corrective Actions		
If success criteria are not met, examples of corrective actions may include:		
1. Retrain staff in correct waste management and disposal procedures.		
2. Ensure appropriate storage facilities are available for regulated and general waste.		
Reporting	Responsibility	Frequency
Record site observations, actions and notifications in daily diary.	Site Supervisor	As Required

6.5 Land and Rehabilitation Management

Aim		
To return the site to a stable landform once extractive operations have ceased and meet EA conditions.		
Success Criteria		
- Extracted areas are progressively rehabilitated as works are staged and new extraction areas commence. - Potential impacts from sand extraction are avoided, mitigated, or managed. - Land is rehabilitated in such a way that: - potential for erosion is minimised; - the quality of water released from the site, including seepage, does not cause environmental harm; - potential for environmental nuisance by dust is minimised; - the water quality of any residual water body does not have the potential to cause environmental harm; and - the final landform is safe and stable.		
Management Actions	Responsibility	Frequency
Earthen surfaces must be established with suitable species of vegetation for the location as approved by the landowner.	Site Supervisor	As Required
The potential for erosion should be minimised through staged development and the progressive rehabilitation of extraction voids to stabilise banks.	Site Supervisor	As Required
The quality of water released from the site must not cause environmental harm.	Consultant/Site Supervisor	Monthly

REPORT

The water quality of any residual water body must not have the potential to cause environmental harm.	Consultant/Site Supervisor	Monthly
The final landform of the site overall must be stable and suitable to the landowner prior to surrender of the EA.	Site Supervisor	As Required
Routine Monitoring Program	Responsibility	Frequency
Monitor the quality of water released from the site including pH, EC and turbidity.	Consultant/Site Supervisor	Monthly upon release.
Monitor residual water bodies to ensure water quality is safe for agricultural use.	Consultant/Site Supervisor	Monthly as required
Progressive rehabilitation will be monitored to ensure areas undergoing rehabilitation are safe and stable and do not have the potential for environmental harm or nuisance.	Site Supervisor	Monthly
Reporting	Responsibility	Frequency
Record site observations, actions and notifications in diary.	Site Supervisor	Daily as Required
Groundwater or surface monitoring results not in compliance with the site's environmental authority conditions are required to be reported to the Environmental Protection Agency as per conditions of the EA.	Consultant	As Required
Retain records of progressive rehabilitation and actions performed.	Site Supervisor	As Required

7 COMPLAINTS

The Site Supervisor will maintain and update a complaints log.

The following details must be recorded for all complaints received:

- Time, date, name and contact details of the complainant;
- Reasons for complaint;
- Any investigations undertaken;
- Conclusions formed; and
- Any actions taken.

The complaints log must be provided to the administering authority on request.

7.1 Complaints Procedure

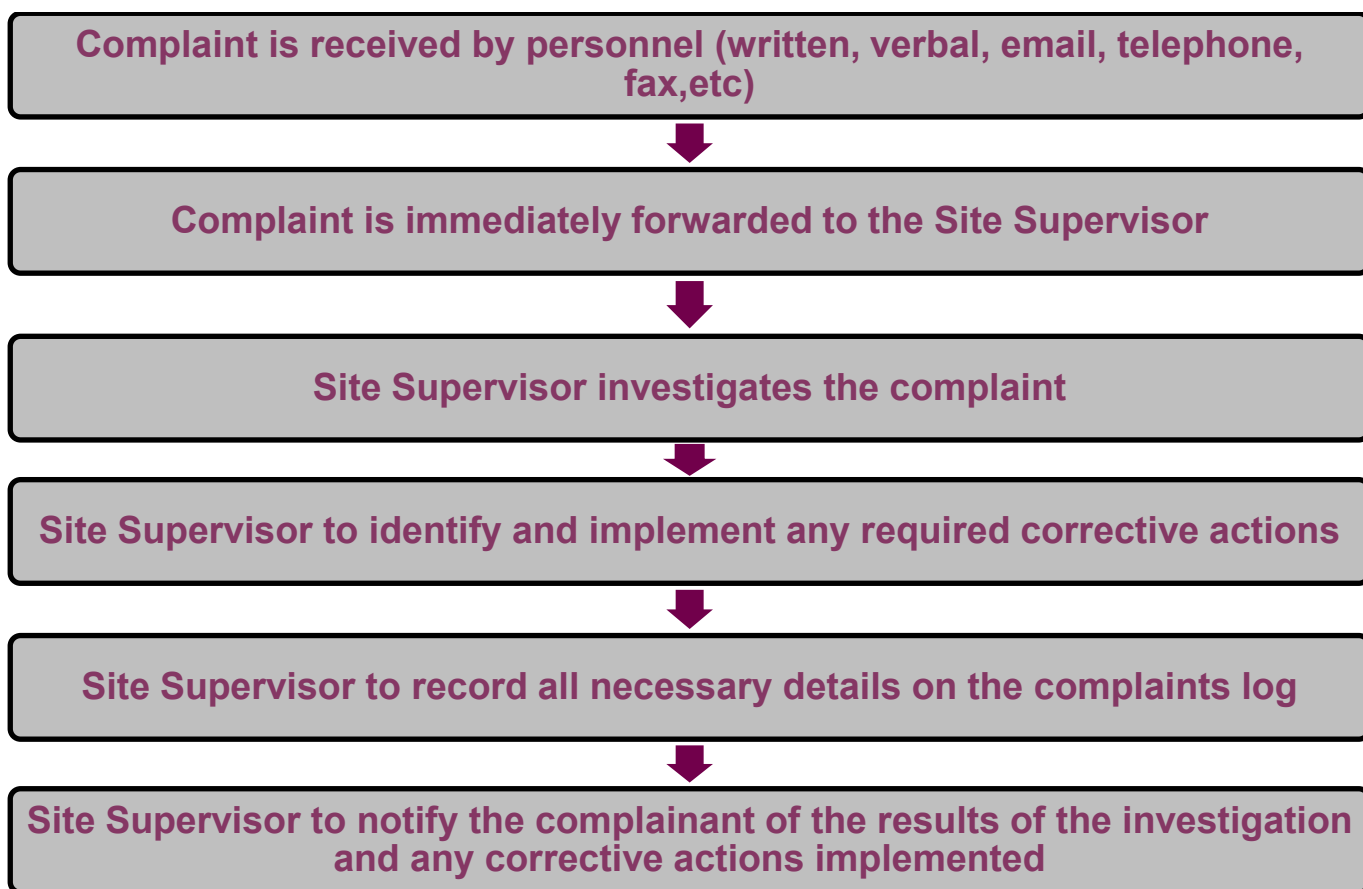


Figure 1 Complaints Procedure

8 EMERGENCY RESPONSE

This section provides an overview of response requirements for emergencies that could potentially occur at the site.

Ensure that all weather access to the normal operation sections of the site is to be kept maintained whilst the site is open.

8.1 Spill Response

If a spill threatens the safety or health of people, creates a fire hazard or has the potential to cause or causes serious environmental harm then the site emergency procedure shall be followed.

Where a chemical spill occurs, consult the Safety Data Sheet (SDS) for spill procedures. The following steps should also be considered:

Stop the source and spread of the spill if safe to do so:

- **Check for danger** (see note),
- Prevent the spill from getting larger (turn off valves, block damaged tanks or pipes, roll 44-gallon drums so that the opening is at the top), and
- Use any suitable material or equipment to confine the spills by 'damming it off' (e.g. use available spill response equipment such as booms or absorbent or if unavailable then use soil or other suitable material).

Clean up the Spill

- Once the spill has been contained, retrieve as much of the spilled liquid as possible and place in an appropriate container (e.g. 20L drum or 1000L IBC). The liquid should then be appropriately disposed of off-site to a facility licensed to receive such waste. The spill is to be cleaned up with preference to dry methods of cleaning up,
- Absorb remaining spill with absorbent material and place used absorbent in the appropriate waste bin,
- Treat areas of contaminated soil in accordance with **Figure 2** below; and
- Where applicable, replenish equipment used from Spill Response Kit.

Report the Spill

- Report and investigate all spills in accordance with Incident Reporting and Analysis (**Refer to Section 9.3**).

Note: If a significant hazardous chemical spill occurs, and no SDS exists due to the nature of the circumstance then the spill may need to be immediately notified to environmental and emergency response authorities before clean-up can commence. Specialized PPE or equipment may also be required.

8.1.1 Spill Kits

Spill kits and/or spill clean-up equipment will be available at the Site Office/Workshop. Equipment contained in spill response kits shall be replenished upon use, equal to the specified list contained within the kit. The Site Supervisor will be responsible for the regular inspection of the Spill Response Kit and for replenishing missing/used items when necessary.

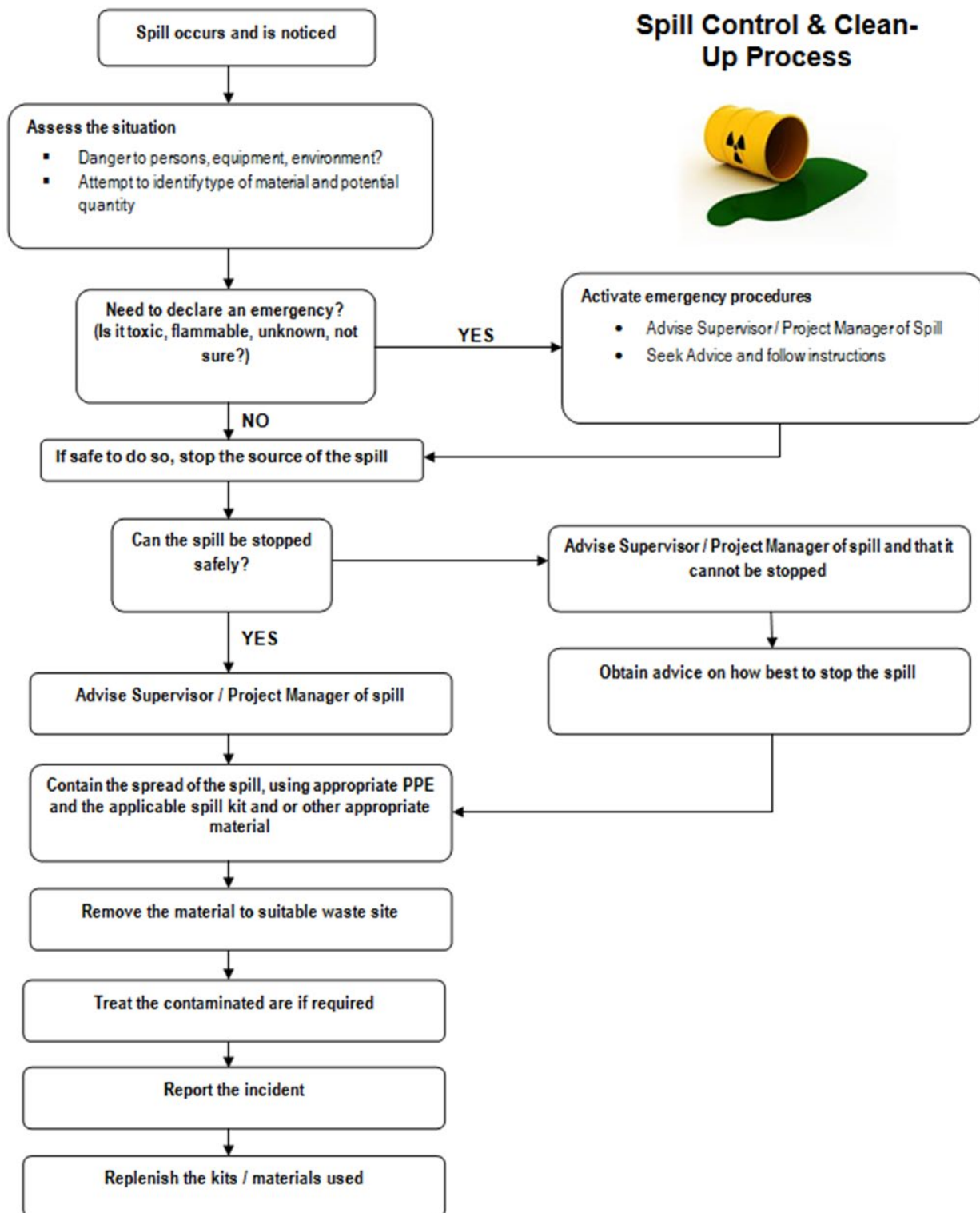


Figure 2 Spill Control and Clean-Up Process

8.2 Flooding and Stormwater Management

If heavy rainfall or flooding is forecast for the area, the Site Supervisor shall prepare the site by:

- Relocating any mobile plant or equipment to higher parts of the site,

- Removing potential contaminants from site ensuring that potential contaminants are protected from rainfall or stormwater flows; and
- Ensuring all erosion and sediment control measures have been maintained and are in place.

8.3 Fire Management

8.3.1 Potential Sources

Fire scenarios on the site could potentially arise from:

- Electrical failures,
- Refuelling incidents; and
- Waste combustion.

8.3.2 Risk Management

To minimise these risks the following measures have been adopted for the site:

- Fire Extinguishers must be installed beside refuelling areas,
- Maintaining accessible Fire Extinguishers at all times,
- Regular slashing of grassed or vegetated areas around the site,
- No unauthorised burning on the site,
- No stockpiling of vegetation on the site,
- The water truck used for dust prevention may also be used as an initial firefighting resource,
- Risk assessment on the co-storage of chemicals; and
- Clear access for fire-fighting vehicles.

Specific recommendations can be obtained by requesting an inspection by the local fire service.

8.3.3 Fire Response

In the event of a small fire at the site, a portable fire extinguisher or water truck may be used to attempt to extinguish the fire. If this is unsuccessful or the fire is large, Queensland Fire and Rescue Service shall be contacted immediately. An emergency should be declared on site, and all personnel should directly assemble at the site evacuation point for roll call.



IN AN EMERGENCY CALL 000

8.4 Cyclone Management

It is recommended that staff remain in contact with each other during times of extreme weather events and plan accordingly, eliminating the possibility of staff being caught out in extreme weather events.

8.4.1 Minimising Cyclone Damage

To minimise the potential damage caused by cyclones, the following measures are to be adopted:

- Ensure buildings are built to cyclone standards of local council.
- Eliminate loose objects on site that can act as projectiles during cyclones.

8.4.2 Cyclone Issued Warnings

When a cyclone warning is issued the progress of the cyclone is to be monitored and if requested by local authorities or Site Supervisor the site is to be evacuated.

All work is to cease, and erosion and sediment controls to be implemented to prevent loss of any stockpiled material. Cover materials must consist of soils that have been assessed as having low erodibility and are able to withstand water velocity up to 0.7m/s without any significant erosion.

Waste temporarily stored onsite must be removed from the site to a facility licensed to accept such wastes.

Under the circumstances, if the site is unable to be evacuated the following measures are to be undertaken:

- Park vehicles under shelter,
- All loose items to be secured,
- Tape or board up windows,
- Remain indoors until advised it's safe,
- Disconnect electrical appliances; and
- Be aware of radio updates.

Any injuries obtained should be noted and treated. If injuries are outside the scope of medical expertise of personnel present, contact 000 or the local hospital directly.

8.5 Emergency Contact Numbers

Project Contact Details	
Emergency Services	
Ambulance, Fire or Police	000
Poisons Information	13 11 26
Utilities for Mareeba	
Water (Flood/ Storm Assistance)	132 500
Electricity (Power outages)	132 296
Gas (Supagas emergency line)	1300 651 106
Telephone (Ergon Energy)	132 296
DETSI (24-hour pollution line)	1300 130 372 or email: pollutionhotline@detsi.qld.gov.au
Site Manager	
Barry Warne	Office: (07) 4047 8300
	Mobile: 0438 581 107
Other Contacts	
Darren Caddy, Operations Manager - Extractive	Office: (07) 4047 8315
	Mobile: 0407 489 493

9 INCIDENT MANAGEMENT

9.1 What is an Incident

An incident is any non-compliance with this SBMP. This may include but is not limited to:

- Spills from vehicle maintenance or refuelling outside bunded areas,
- Complaints regarding the facility,
- Contaminated water leaving the site during high rainfall events/floods,
- Spilling of products,
- Damage to site bunds or chemical storage infrastructure,
- Damage to stormwater diversions and ESC,
- Dusty, odorous or noisy conditions; and
- Unauthorised waste disposal.

9.2 Incident Investigation

All incidents shall be investigated by the Site Supervisor to determine:

- Nature, type, location and extent of the incident and the affected area,
- Actual and/or potential environmental impacts of the incident (see below),
- Suspected cause of the incident,
- Measures required to mitigate any further environmental harm,
- Remedial measures required to correct any environmental harm; and
- Measures to be implemented to prevent a recurrence of the incident.

The requirements for the environmental assessment of impacts of an incident shall be determined by an Environmental Consultant. The assessment may include environmental monitoring of contaminant releases in relation to land, water, noise, air and light (in addition to routine monitoring requirements). Based on the nature and type of the incident, the Environmental Consultant shall determine:

- Sampling and analytical requirements,
- Applicable guidelines or levels to apply to data for assessing compliance and level of impact; and
- Reporting requirements

Any monitoring shall be undertaken by a competent person, and all monitoring equipment shall be appropriately maintained, calibrated and operated. Monitoring will be designed in consultation with PNQ and Department of Environment, Tourism, Science and Innovation (DETSI).

9.3 Incident Reporting

In accordance with the *Environmental Protection Act 1994* (EP Act), serious or material environmental harm (Material harm defined as greater than \$5,000 to clean up and/or restore environment, Serious harm defined as greater than \$50,000 to clean up and/or restore environment) shall be reported by PNQ to DETSI within 24 hours of becoming aware of the event in accordance with the Duty to Notify (refer to Section 320 of the EP Act). Minor incidents (e.g. hydraulic oil leaks less than 20L) are to be reported in the site diary and cleaned up or remediated.

All personnel are responsible for reporting all incidents to the Site Supervisor. All incidents are to be recorded on the Incident Report Form provided in **Appendix C**.

REPORT

The Site Supervisor shall telephone DETSI as soon as practical after becoming aware of any release of contaminants not in accordance with the EA. Following this, a written notice detailing the following information must be provided within 14 days of the initial notification:

- The name of the operator, including their approval / registration number,
- The name and telephone number of a designated contact person,
- Quantity and substance released,
- Vehicle and registration details,
- Person/s involved (driver any others),
- The location and time of the release,
- The suspected cause of the release,
- A description of the effects of the release,
- The results of any sampling performed in relation to the release,
- Actions taken to mitigate any environmental harm caused by the release; and
- Proposed actions to prevent a recurrence of the release.

	DEPARTMENT OF ENVIRONMENT, TOURISM, SCIENCE AND INNOVATION Environmental services and Regulation Northern Region 5B Sheridan Street, Cairns QLD 4870 PHONE: 1300 130 372
	POLLUTION HOTLINE 1300 130 372

9.4 Incident Prevention

- To increase site safety, the appropriate personnel protection equipment is required at all times,
- Analysis of past incidents and potential future incidents is required to identify and minimise recurrences,
- Training and environmental awareness information; and
- Liaison with environmental consultants and DETSI officers.

10 TRAINING, RECORDS, AND REVIEW

10.1 Training

All PNQ staff employed on the site to have completed a site induction by the Site Supervisor. The induction training will include the following:

- Familiarisation with the requirements of this Site Based Management Plan,
- Familiarisation with site environmental controls,
- Process for management of environmental incidents,
- Legislations applicable to the extractive industry such as permits, approvals, and licences,
- Environmental duty of care and duty to notify,
- Cultural heritage duty of care and duty to notify,
- Operational requirements to meet design specifications including pond management, stormwater management, surface water monitoring etc,
- Spill kit use and response,
- Guidelines on waste management and chemicals,
- Identification and source separation of recyclable materials,
- Equipment, maintenance, refuelling procedures,
- Dust control measures; and
- Stormwater management measures.

PNQ may combine the Work Health and Safety (WHS) and Environmental induction into one. A record of site induction for all personnel will be made available on the Site Environmental Inductions Register.

10.2 Records Management

A copy of the Environmental Authority and SBMP shall be always kept in the PNQ site office. Any record or document required as an outcome of this SBMP or requested by a regulatory authority must be kept at the site for a period of 5 years in accordance with the EA and be available to an authorised person.

Records must be kept of the key environmental performance indicators, monitoring results, corrective actions, environmental incidents and complaints, reports to management, and any records required by law such as regulated waste tracking.

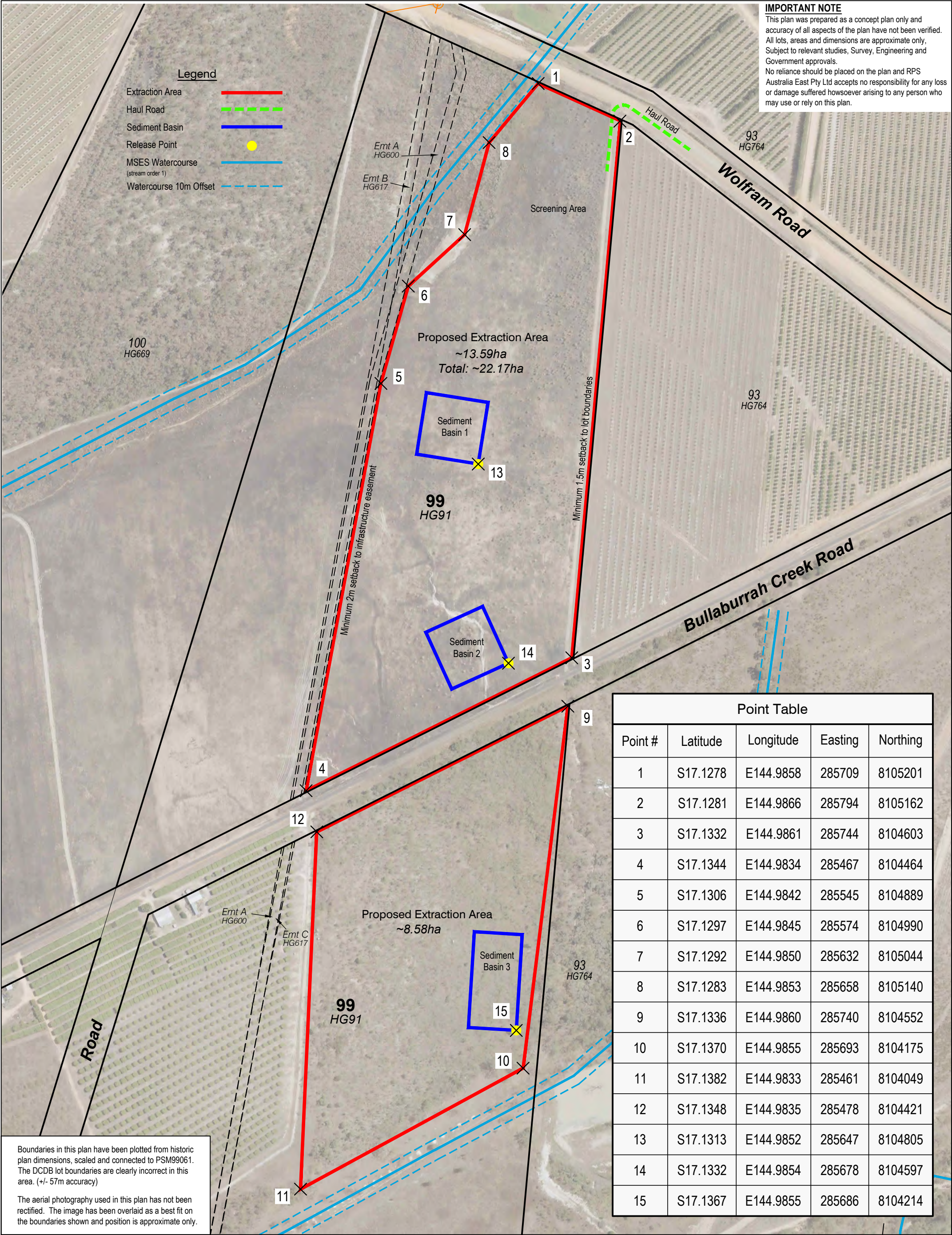
The records collected are to be made available upon request of administering authority. A weekly inspection checklist has been provided as **Appendix D**.

10.3 Audit and Review

The SBMP audit shall be undertaken by a third-party auditor nominated by the holder of the permit (PNQ) and undertaken on an annual basis in accordance with the EA. Following each audit, the SBMP shall be reviewed and updated where necessary.

Appendix A Environmental Authority

Appendix B Site Layout Plan



Appendix C Incident Report Form

REPORT

1. Project No & Name:		Log No:	
2. Location	Date	Time	
3. Type of Incident	☐ Near Miss ☐ Environmental ☐ Damage to Equipment ☐ Other _____	☐ First Aid Injury ☐ Lost Time Injury ☐ Hazard ☐ Restricted Duties Injury	☐ Dangerous Event ☐ Medical Treatment Injury Complaint
4. Incident Details (attach additional pages if required)			
5. Details of person(s) involved	Name: _____ ☐ Male ☐ Female Date of Birth: _____ Contact No: _____ Residential Address: _____		
6. Employment Basis	☐ Full-time ☐ Casual	☐ Part-time ☐ Other _____	☐ Sub-Contractor
7. Employment Type	☐ Admin ☐ Tradesperson ☐ Other: _____	☐ Professional ☐ Labourers & related workers	☐ Apprentice/Trainee ☐ Plant & Machine Operators/Drivers
8. Medical Treatment Taken	Did injury occur ☐ Yes ☐ No Was first aid treatment given ☐ Yes ☐ No		
9. Equipment/ Machinery Details	Make and Model: _____ Plant/Rego No: _____ Was the equipment/machinery ☐ repaired? ☐ returned to service? ☐ written off? ☐ other _____		
10. Witnesses (attach statements)			
1. Printed Name _____		Position _____	
2. Printed Name _____		Position _____	
3. Printed Name _____		Position _____	
4. Printed Name _____		Position _____	
11. Report Raised By			
Printed Name _____ Date _____		Signature _____ Position _____	
12. Supervisor Review			
Printed Name _____ Date _____		Signature _____ Position _____	
13. HSE Advisor			
Is further investigation required? ☐ Yes ☐ No		Related First/Aid	
Incident Report No: Printed Name _____		Signature _____ Date _____	
14. Closed Out By:			
Printed Name _____ Date _____		Signature _____ Position _____	

Appendix D Weekly Checklist

SITE BASED MANAGEMENT PLAN WEEKLY CHECKLIST			
CEMP ELEMENT	Yes/No/NA	Date	Initial
SURFACE AND GROUNDWATERS			
Are erosion and sediment controls in place at the site adequate for the works being undertaken? Do control measures require maintenance?			
Have overburden stockpiles and disturbed areas been stabilised where necessary?			
Have AASS and PASS material been treated or reburied as necessary?			
Are stabilised entry and exit points provided? Is any soil being transported onto public roads or highways?			
Are bunds in place to segregate clean and dirty water? Are drainage structures stabilised to minimise erosion?			
Has surface and groundwater monitoring been undertaken?			
CONTAMINATED LAND			
Are vehicles and plant in good operating condition (i.e. no oil or fuel leaks?)			
Are controls in place for refuelling or maintenance to prevent soil or water contamination from spills or leaks?			
Are chemicals stored in a covered and bunded impervious area?			
Is there evidence of any spills greater than 20 L at the site?			
Is any imported fill certified as clean (free of hazardous contaminants and not ASS)?			
Has any contaminated soil been encountered at the site?			
VEGETATION MANAGEMENT			
Are all works confined to the limits of the site?			
Has clearing of vegetation and ground disturbance been minimised where practicable?			
BUSHFIRE			
Any unauthorised burning at the site?			
NOISE/DUST IMPACTS			
No unnecessary use of horns or other audible signals on mobile plant or equipment.			
No unnecessary revving or idling of engines on mobile and stationary machines.			
Site kept neat and tidy?			
Dust reduction measures implemented and adequate for conditions?			
WASTE MANAGEMENT			
General wastes stored in covered bins?			
Recyclable materials segregated for recycling?			
Regulated wastes (i.e. waste oil) only removed from site by a regulated waste contractor? Are waste tracking documents available?			
Have any wastes been disposed of onsite?			
Wastes protected from rainfall and stormwater contact?			
DOCUMENTATION			
Is a copy of the SBMP readily available?			
Sight evidence of waste tracking paperwork, certification of fill, weed hygiene declarations and disposal receipts.			
Incident reporting and procedures - have all incidents have been documented on the "Incident Report Form" and correctly reported and investigated?			
Sight evidence of vehicle and equipment maintenance has been undertaken as per the manufacturer's instructions.			

REPORT

SITE BASED MANAGEMENT PLAN WEEKLY CHECKLIST			
CEMP ELEMENT	Yes/No/NA	Date	Initial
Review site manager has records of daily site observations, actions and notifications in diary.			
Sight evidence of staff induction training.			
Have any complaints been received? Have incident reports been completed for complaints?			

Record non-compliances as an incident and address accordingly.

Inspected by: _____

Print Name

Signature

Date

Acknowledged by: _____

Print Name

Signature

Date

Appendix B MSES Search Report



Queensland Government

Department of the Environment, Tourism, Science and Innovation

Environmental Reports

Matters of State Environmental Significance

For the selected area of interest

Lot: 99 Plan: HG91

Environmental Reports - General Information

The Environmental Reports portal provides for the assessment of selected matters of interest relevant to a user specified location, or area of interest (AOI). All area and derivative figures are relevant to the extent of matters of interest contained within the AOI unless otherwise stated. Please note, if a user selects an AOI via the "central coordinates" option, the resulting assessment area encompasses an area extending for a 2km radius from the point of interest.

All area and area derived figures included in this report have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 2020). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.

Figures in tables may be affected by rounding.

The matters of interest reported on in this document are based upon available state mapped datasets. Where the report indicates that a matter of interest is not present within the AOI (e.g. where area related calculations are equal to zero, or no values are listed), this may be due either to the fact that state mapping has not been undertaken for the AOI, that state mapping is incomplete for the AOI, or that no values have been identified within the site.

The information presented in this report should be considered as a guide only and a field survey may be required to validate values on the ground.

Please direct queries about these reports to: Planning.Support@detsi.qld.gov.au

Disclaimer

Whilst every care is taken to ensure the accuracy of the information provided in this report, the Queensland Government makes no representations or warranties about its accuracy, reliability, completeness, or suitability, for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which the user may incur as a consequence of the information being inaccurate or incomplete in any way and for any reason.



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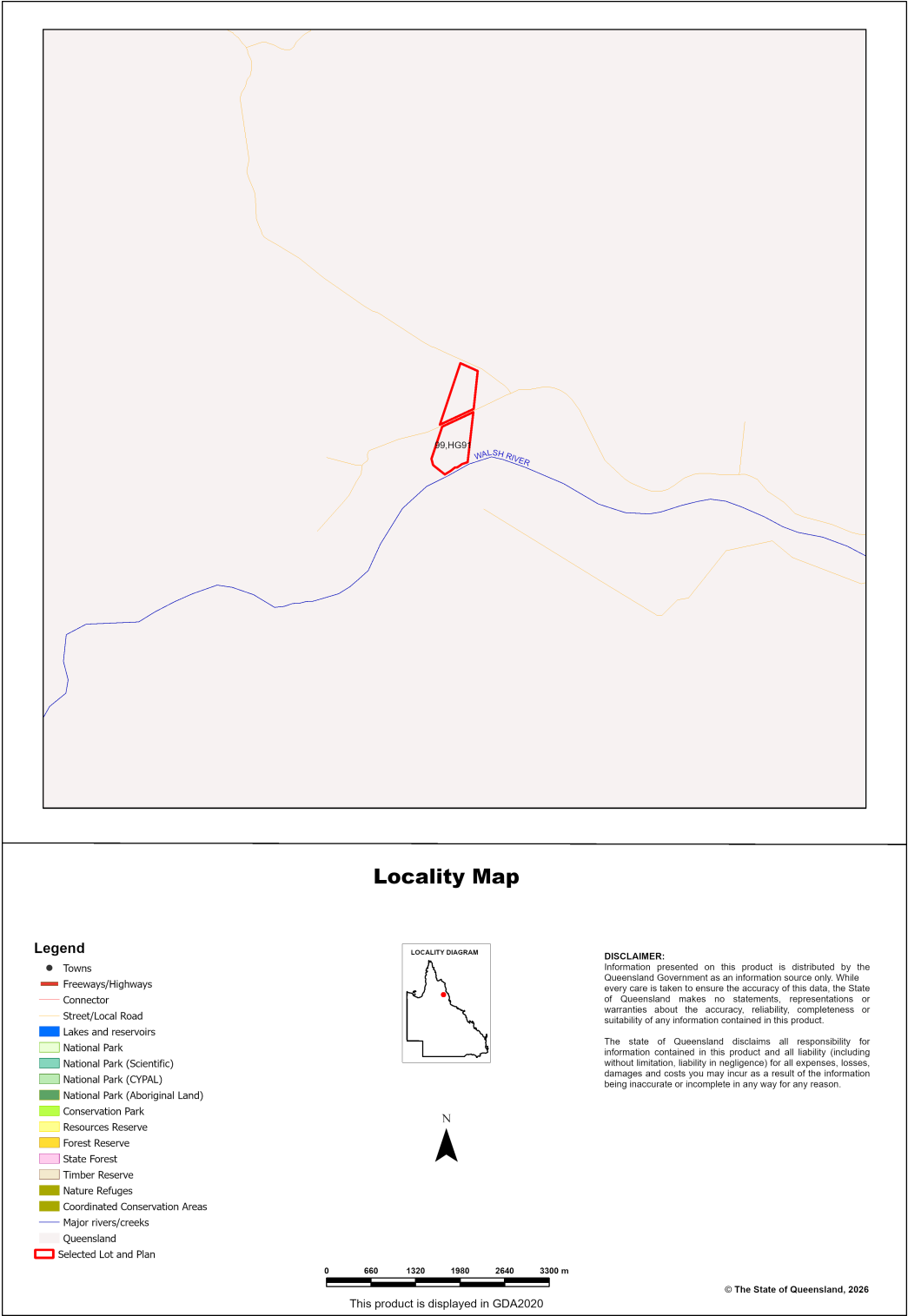
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Assessment Area Details

The following table provides an overview of the area of interest (AOI) with respect to selected topographic and environmental values.

Table 1: Summary table, details for AOI: Lot: 99 Plan: HG91, with area 59.3 ha

Local Government(s)	Catchment(s)	Bioregion(s)	Subregion(s)
Mareeba Shire	Mitchell	Einasleigh Uplands	Hodgkinson Basin



Matters of State Environmental Significance (MSES)

MSES Categories

Queensland's State Planning Policy (SPP) includes a biodiversity State interest that states:

'The sustainable, long-term conservation of biodiversity is supported. Significant impacts on matters of national or state environmental significance are avoided, or where this cannot be reasonably achieved; impacts are minimised and residual impacts offset.'

The MSES mapping product is a guide to assist implementation of the SPP biodiversity policy. While it supports the SPP, the mapping does not replace the regulatory mapping or environmental values specifically called up under other laws or regulations.

The SPP defines matters of state environmental significance as:

- Protected areas (including all classes of protected area except coordinated conservation areas) under the *Nature Conservation Act 1992*;
- *Marine parks and land within a 'marine national park', 'conservation park', 'scientific research', 'preservation' or 'buffer' zone under the Marine Parks Act 2004* ;
- *Areas within declared fish habitat areas that are management A areas or management B areas under the Fisheries Regulation 2008*;
- *Threatened wildlife under the Nature Conservation Act 1992* and special least concern animals under the Nature Conservation (Wildlife) Regulation 2006;
- Regulated vegetation under the *Vegetation Management Act 1999* that is:
 - Category B areas on the regulated vegetation management map, that are 'endangered' or 'of concern' regional ecosystems;
 - Category C areas on the regulated vegetation management map that are 'endangered' or 'of concern' regional ecosystems;
 - Category R areas on the regulated vegetation management map;
 - Regional ecosystems that intersect with watercourses identified on the vegetation management watercourse and drainage feature map;
 - Regional ecosystems that intersect with wetlands identified on the vegetation management wetlands map;
- Strategic Environmental Areas under the *Regional Planning Interests Act 2014* ;
- Wetlands in a wetland protection area of wetlands of high ecological significance shown on the Map of Queensland Wetland Environmental Values under the Environment Protection Regulation 2019;
- Wetlands and watercourses in high ecological value waters defined in the Environmental Protection (Water) Policy 2009, schedule 2;
- Legally secured offset areas.

MSES Values Present

The MSES values that are present in the area of interest are summarised in the table below:

Table 2: Summary of MSES present within the AOI

1a Protected Areas- estates	0 ha	0.0%
1b Protected Areas- nature refuges	0 ha	0.0%
1c Protected Areas- special wildlife reserves	0 ha	0.0%
2 State Marine Parks- highly protected zones	0 ha	0.0%
3 Fish habitat areas (A and B areas)	0 ha	0.0%
4 Strategic Environmental Areas (SEA)	0 ha	0.0%
5 High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values	0 ha	0.0%
6a High Ecological Value (HEV) wetlands	0ha	0.0%
6b High Ecological Value (HEV) waterways	0 km	Not applicable
7a Threatened (endangered or vulnerable) wildlife	0 ha	0.0%
7b Special least concern animals	0 ha	0.0%
7c i Koala habitat area - core (SEQ)	0 ha	0.0%
7c ii Koala habitat area - locally refined (SEQ)	0 ha	0.0%
7d Sea turtle nesting areas	0 km	Not applicable
8a Regulated Vegetation - Endangered/Of concern in Category B (remnant)	0 ha	0.0%
8b Regulated Vegetation - Endangered/Of concern in Category C (regrowth)	0 ha	0.0%
8c Regulated Vegetation - Category R (GBR riverine regrowth)	0 ha	0.0%
8d Regulated Vegetation - Essential habitat	0 ha	0.0%
8e Regulated Vegetation - intersecting a watercourse	1 km	Not applicable
8f Regulated Vegetation - within 100m of a Vegetation Management Wetland	0 ha	0.0%
9a Legally secured offset areas- offset register areas	0 ha	0.0%
9b Legally secured offset areas- vegetation offsets through a Property Map of Assessable Vegetation	0 ha	0.0%

Additional Information with Respect to MSES Values Present

MSES - State Conservation Areas

1a. Protected Areas - estates

(No results)

1b. Protected Areas - nature refuges

(No results)

1c. Protected Areas - special wildlife reserves

(No results)

2. State Marine Parks - highly protected zones

(No results)

3. Fish habitat areas (A and B areas)

(No results)

Refer to **Map 1 - MSES - State Conservation Areas** for an overview of the relevant MSES.

MSES - Wetlands and Waterways**4. Strategic Environmental Areas (SEA)**

(No results)

5. High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values

(no results)

6a. Wetlands in High Ecological Value (HEV) waters

(no results)

6b. Waterways in High Ecological Value (HEV) waters

(no results)

Refer to **Map 2 - MSES - Wetlands and Waterways** for an overview of the relevant MSES.

MSES - Species**7a. Threatened (endangered or vulnerable) wildlife**

Not applicable

7b. Special least concern animals

Not applicable

7c i. Koala habitat area - core (SEQ)

Not applicable

7c ii. Koala habitat area - locally refined (SEQ)

Not applicable

7d. Wildlife habitat (sea turtle nesting areas)

Not applicable

Threatened (endangered or vulnerable) wildlife habitat suitability models

Species	Common name	NCA status	Presence
<i>Boronia keysii</i>	Keys boronia	V	None
<i>Calyptrorhynchus lathamii</i>	Glossy black cockatoo	V	None
<i>Casuarium casuarium johnsonii</i>	Sthn population cassowary	E	None
<i>Crinia tinnula</i>	Wallum froglet	V	None
<i>Denisonia maculata</i>	Ornamental snake	V	None
<i>Euastacus bindal</i>	Mount Elliot crayfish	CR	None
<i>Euastacus binzayedii</i>		CR	None
<i>Euastacus eungella</i>		E	None
<i>Euastacus hystricosus</i>		E	None
<i>Euastacus jagara</i>	Jagara hairy crayfish	CR	None
<i>Euastacus maidae</i>		CR	None
<i>Euastacus monteithorum</i>		E	None
<i>Euastacus robertsi</i>		E	None
<i>Taudactylus pleione</i>	Kroombit tinkerfrog	E	None
<i>Litoria freycineti</i>	Wallum rocketfrog	V	None
<i>Litoria olongburensis</i>	Wallum sedgefrog	V	None
<i>Macadamia integrifolia</i>		V	None
<i>Melaleuca irbyana</i>	swamp tea-tree	E	None
<i>Macadamia ternifolia</i>		V	None
<i>Macadamia tetraphylla</i>	bopple nut	V	None
<i>Petrogale penicillata</i>	brush-tailed rock-wallaby	V	None
<i>Petrogale coenensis</i>	Cape York rock-wallaby	E	None
<i>Petrogale purpureicollis</i>	purple-necked rock-wallaby	V	None
<i>Petrogale sharmani</i>	Sharmans rock-wallaby	V	None
<i>Petrogale xanthopus celeris</i>	yellow-footed rock-wallaby (Qld subspecies)	V	None
<i>Petaurus gracilis</i>	Mahogany Glider	E	None
<i>Petrogale persephone</i>	Proserpine rock-wallaby	E	None
<i>Phascolarctos cinereus</i>	Koala - outside SEQ*	E	None
<i>Pezoporus wallicus wallicus</i>	Eastern ground parrot	V	None
<i>Xeromys myoides</i>	Water Mouse	V	None

*For koala model, this includes areas outside SEQ. Check 7c SEQ koala habitat for presence/absence.

Threatened (endangered or vulnerable) wildlife species records

(No results)

Special least concern animal species records

(No results)

Shorebird habitat (critically endangered/endangered/vulnerable)

Not applicable

Shorebird habitat (special least concern)

Not applicable

**Nature Conservation Act 1992 (NCA) Status- Endangered (E), Vulnerable (V) or Special Least Concern Animal (SL). Environment Protection and Biodiversity Conservation Act 1999 (EPBC) status: Critically Endangered (CE) Endangered (E), Vulnerable (V)*

Migratory status (M) - China and Australia Migratory Bird Agreement (C), Japan and Australia Migratory Bird Agreement (J), Republic of Korea and Australia Migratory Bird Agreement (R), Bonn Migratory Convention (B), Eastern Flyway (E)

To request a species list for an area, or search for a species profile, access Wildlife Online at:

<https://www.qld.gov.au/environment/plants-animals/species-list/>

Refer to **Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals** and **Map 3b - MSES - Species - Koala habitat area (SEQ)** and **Map 3c - MSES - Wildlife habitat (sea turtle nesting areas)** for an overview of the relevant MSES.

MSES - Regulated Vegetation

For further information relating to regional ecosystems in general, go to:

<https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/>

For a more detailed description of a particular regional ecosystem, access the regional ecosystem search page at:

<https://environment.ehp.qld.gov.au/regional-ecosystems/>

8a. Regulated Vegetation - Endangered/Of concern in Category B (remnant)

Not applicable

8b. Regulated Vegetation - Endangered/Of concern in Category C (regrowth)

Not applicable

8c. Regulated Vegetation - Category R (GBR riverine regrowth)

Not applicable

8d. Regulated Vegetation - Essential habitat

Not applicable

8e. Regulated Vegetation - intersecting a watercourse**

A vegetation management watercourse is mapped as present

8f. Regulated Vegetation - within 100m of a Vegetation Management wetland

Not applicable

Refer to **Map 4 - MSES - Regulated Vegetation** for an overview of the relevant MSES.

MSES - Offsets**9a. Legally secured offset areas - offset register areas**

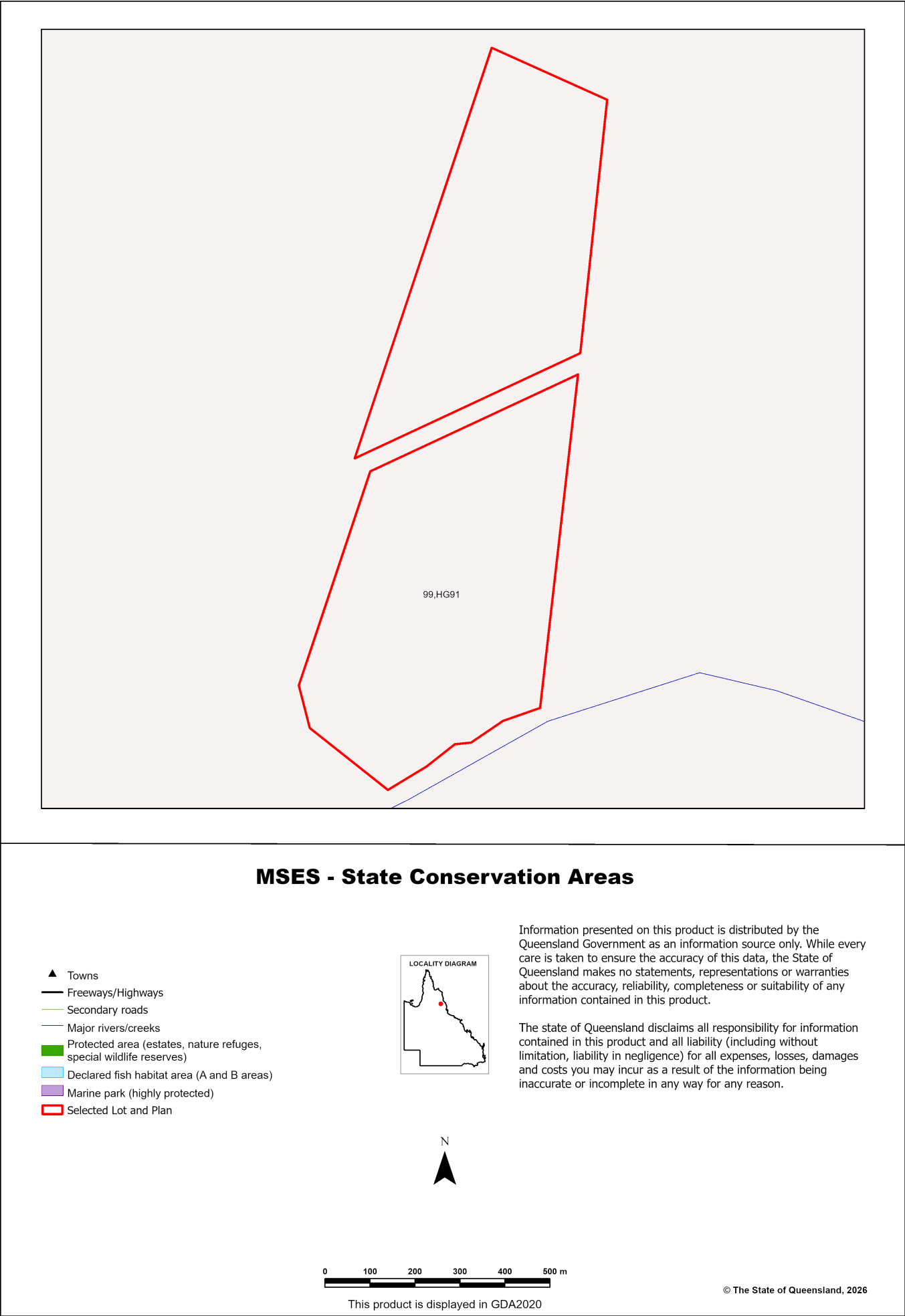
(No results)

9b. Legally secured offset areas - vegetation offsets through a Property Map of Assessable Vegetation

(No results)

Refer to **Map 5 - MSES - Offset Areas** for an overview of the relevant MSES.

Map 1 - MSES - State Conservation Areas

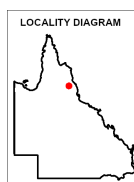


Map 2 - MSES - Wetlands and Waterways



MSES - Wetlands and Waterways

- ▲ Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Declared high ecological value waters (watercourse)
- ▨ Strategic environmental area (designated precinct)
- ▨ Declared high ecological value waters (wetland)
- ▨ High ecological significance wetlands
- ▭ Selected Lot and Plan



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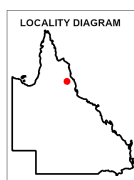
Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals



MSES - Species

Threatened (endangered or vulnerable) wildlife and special least concern animals

- ▲ Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Wildlife habitat (special least concern)
- Wildlife habitat (endangered or vulnerable)
- Selected Lot and Plan

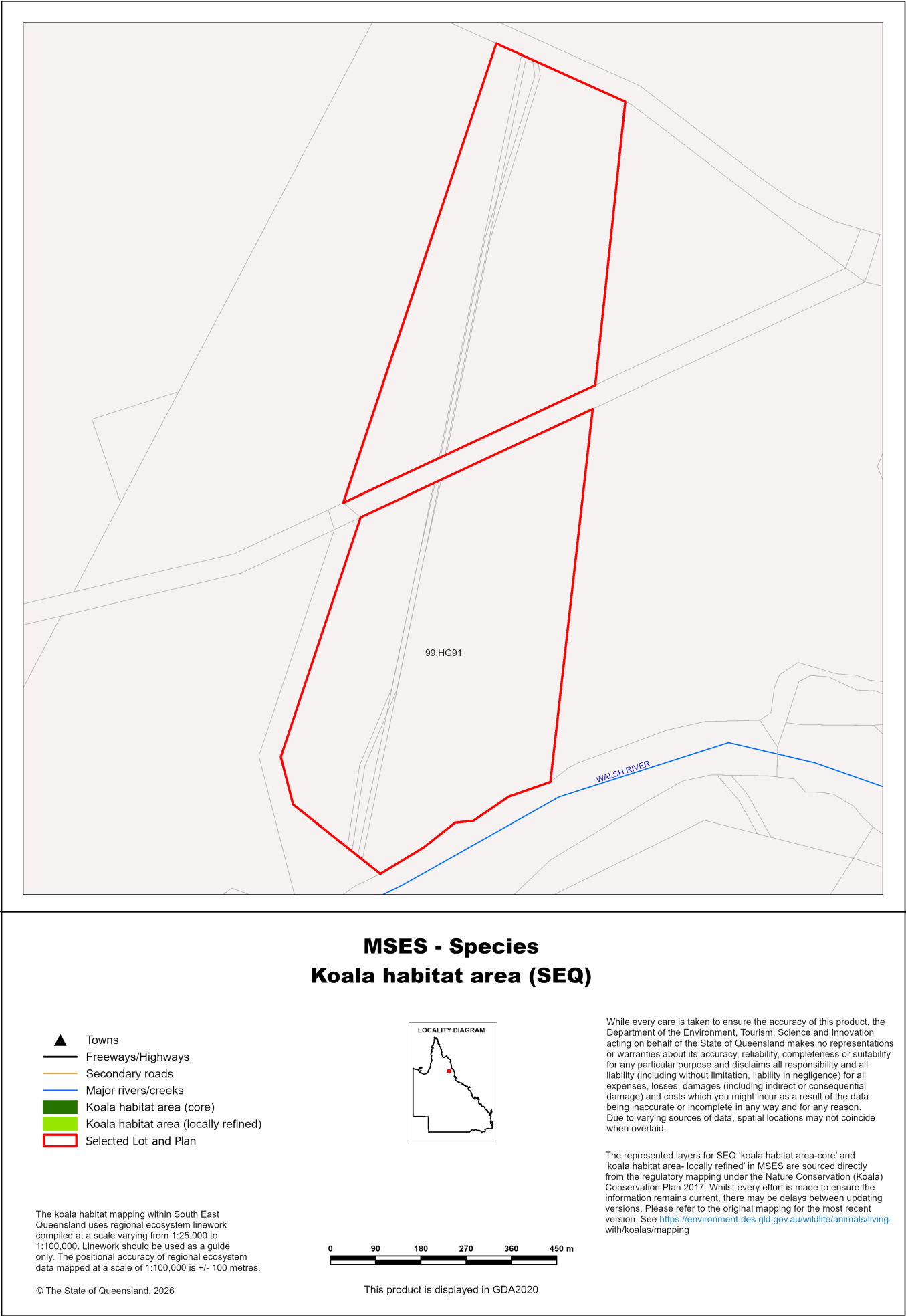


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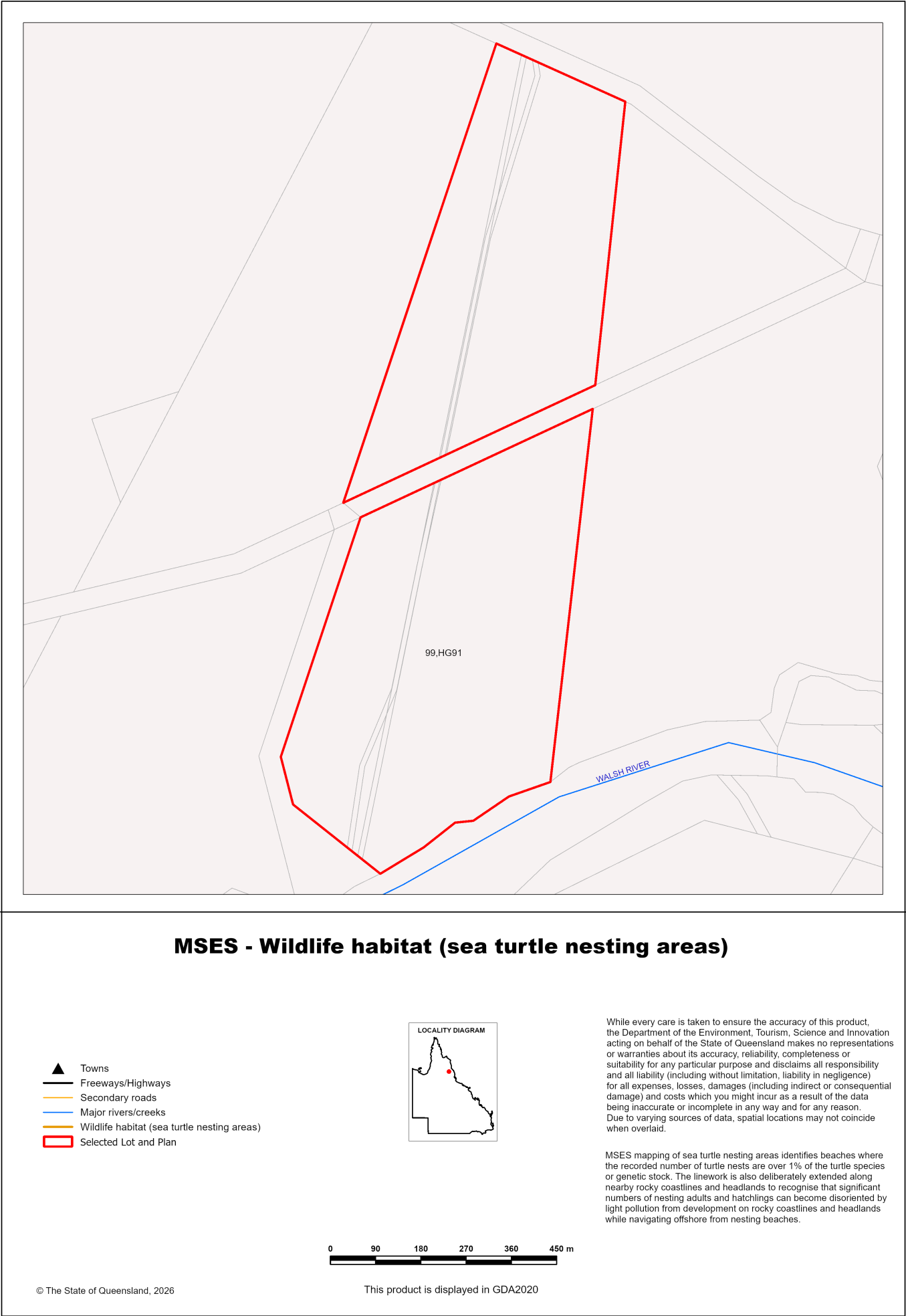
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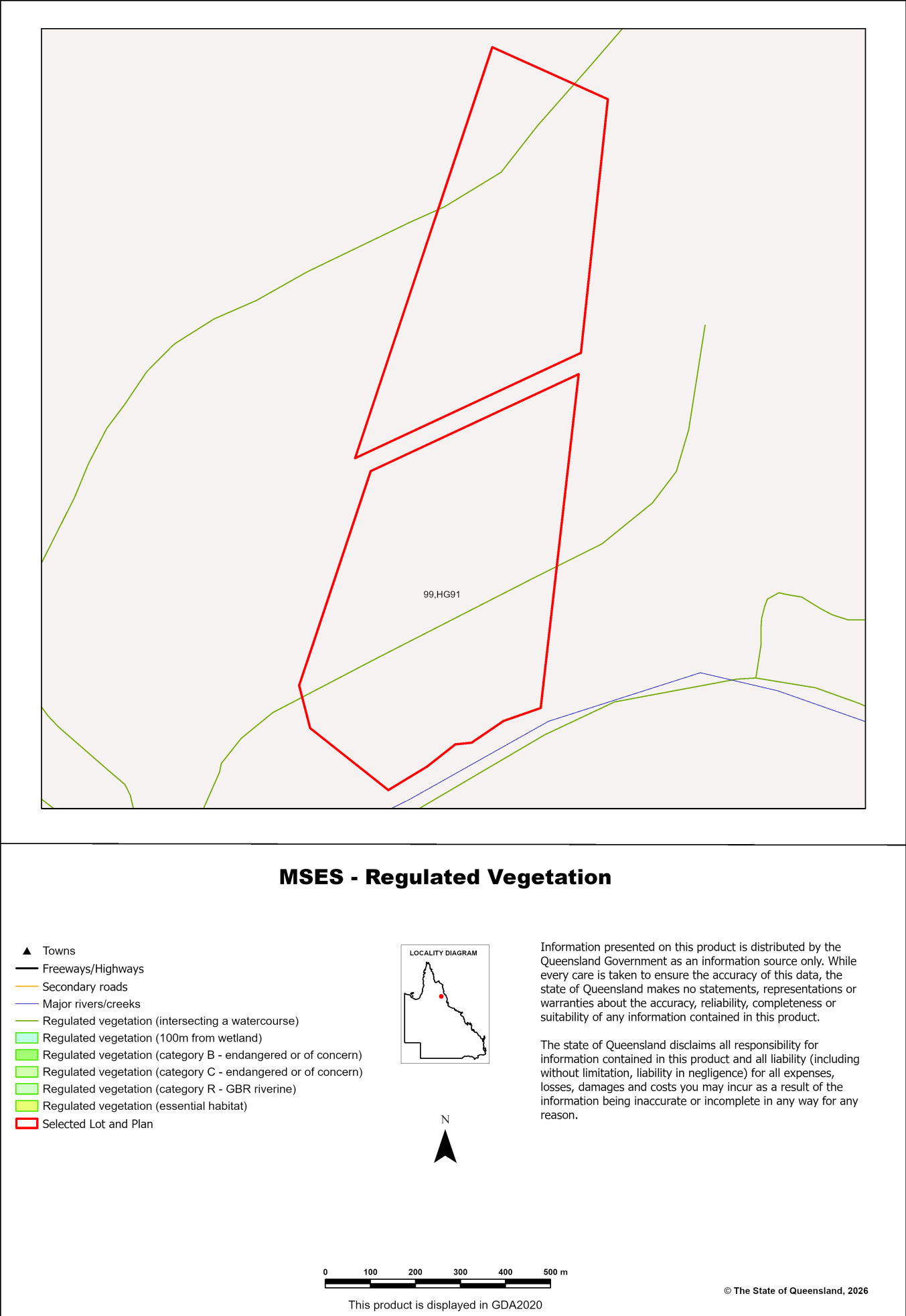
Map 3b - MSES - Species - Koala habitat area (SEQ)



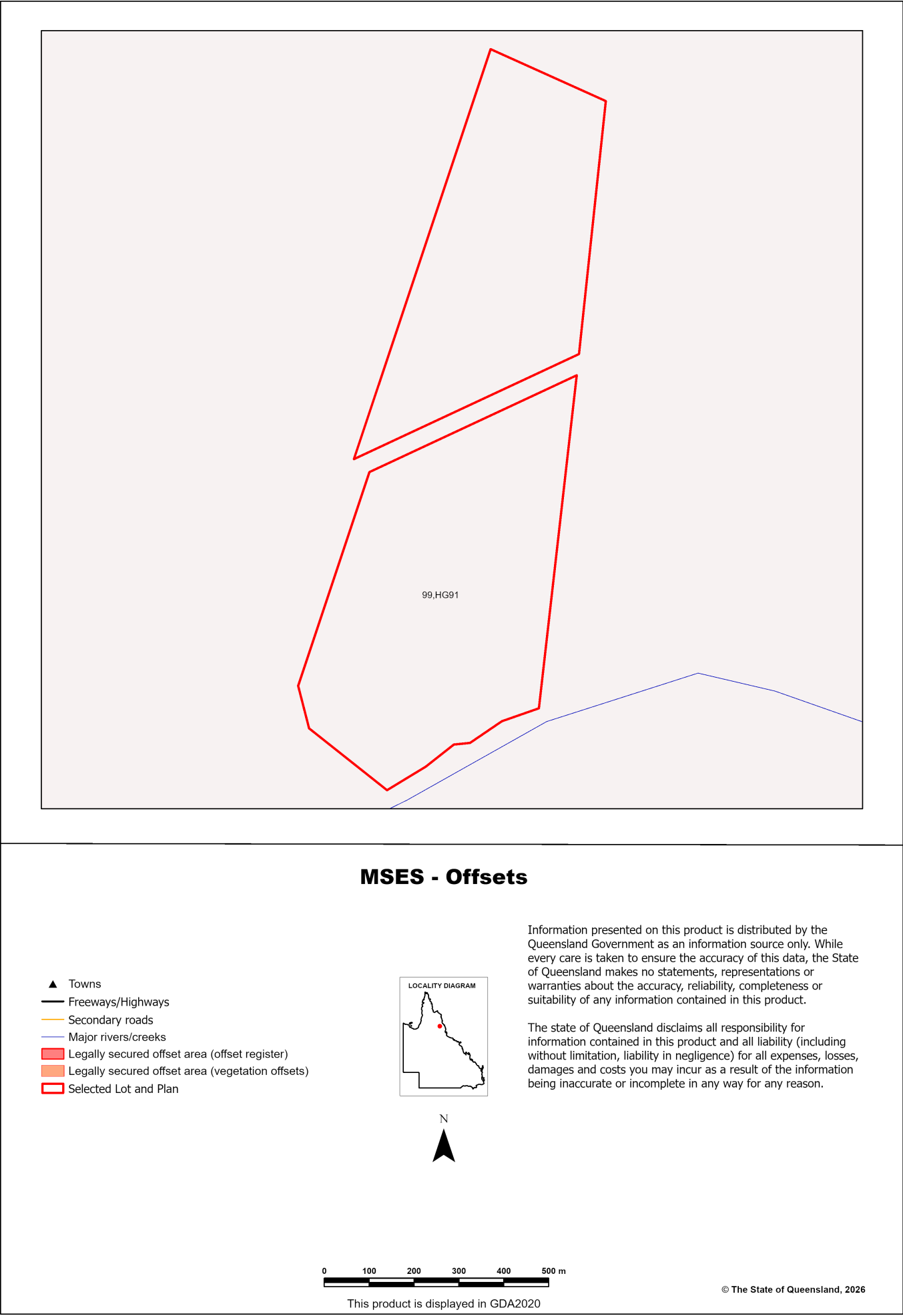
Map 3c - MSES - Species - Wildlife habitat (sea turtle nesting areas)



Map 4 - MSES - Regulated Vegetation



Map 5 - MSES - Offset Areas



Appendices

Appendix 1 - Matters of State Environmental Significance (MSES) methodology

MSES mapping is a regional-scale representation of the definition for MSES under the State Planning Policy (SPP). Its primary purpose is to support implementation of the SPP biodiversity policy.

MSES mapping does not replace the regulatory mapping or environmental values specifically called up under other laws or regulations.

MSES mapping does not determine whether state or local development assessment is required. For state assessment triggers refer to the Development Assessment Mapping System (DAMS). For local assessment triggers, refer to the relevant local planning scheme.

The Queensland Government's "Method for mapping - matters of state environmental significance can be downloaded from:

<http://www.ehp.qld.gov.au/land/natural-resource/method-mapping-mses.html> .

Appendix 2 - Source Data

The datasets listed below are available on request from:

<http://qldspatial.information.qld.gov.au/catalogue/custom/index.page>

- Matters of State environmental significance

Note: MSES mapping is not based on new or unique data. The primary mapping product draws data from a number of underlying environment databases and geo-referenced information sources. MSES mapping is a versioned product that is updated generally on a twice-yearly basis to incorporate the changes to underlying data sources. Several components of MSES mapping made for the current version may differ from the current underlying data sources. To ensure accuracy, or proper representation of MSES values, it is strongly recommended that users refer to the underlying data sources and review the current definition of MSES in the State Planning Policy, before applying the MSES mapping.

Individual MSES layers can be attributed to the following source data available at QSpatial:

MSES layers	current QSpatial data (http://qspatial.information.qld.gov.au)
Protected Areas-Estates, Nature Refuges, Special Wildlife Reserves	- Protected areas of Queensland - Nature Refuges - Queensland - Special Wildlife Reserves- Queensland
Marine Park-Highly Protected Zones	Moreton Bay marine park zoning 2008
Fish Habitat Areas	Queensland fish habitat areas
Strategic Environmental Areas-designated	Regional Planning Interests Act - Strategic Environmental Areas
HES wetlands	Map of Queensland Wetland Environmental Values
Wetlands in HEV waters	HEV waters: - EPP Water intent for waters Source Wetlands: - Queensland Wetland Mapping (Current version 5) Source Watercourses: - Vegetation management watercourse and drainage feature map (1:100000 and 1:250000)
Wildlife habitat (threatened and special least concern)	-WildNet database species records - habitat suitability models (various) - SEQ koala habitat areas under the Koala Conservation Plan 2019
VMA regulated regional ecosystems	Vegetation management regional ecosystem and remnant map
VMA Essential Habitat	Vegetation management - essential habitat map
VMA Wetlands	Vegetation management wetlands map
Legally secured offsets	Vegetation Management Act property maps of assessable vegetation. For offset register data-contact DETSI
Regulated Vegetation Map	Vegetation management - regulated vegetation management map

Appendix 3 - Acronyms and Abbreviations

AOI	- Area of Interest
DETSI	- Department of the Environment, Tourism, Science and Innovation
EP Act	- Environmental Protection Act 1994
EPP	- Environmental Protection Policy
GDA2020	- Geocentric Datum of Australia 2020
GEM	- General Environmental Matters
GIS	- Geographic Information System
MSES	- Matters of State Environmental Significance
NCA	- Nature Conservation Act 1992
RE	- Regional Ecosystem
SPP	- State Planning Policy
VMA	- Vegetation Management Act 1999

Appendix C Regional Ecosystems Report



Queensland Government

Department of the Environment, Tourism, Science and Innovation

Environmental Reports

Regional Ecosystems

Biodiversity Status

For the selected area of interest

Lot: 99 Plan: HG91

Environmental Reports - General Information

The Environmental Reports portal provides for the assessment of selected matters of interest relevant to a user specified location, or area of interest (AOI). All area and derivative figures are relevant to the extent of matters of interest contained within the AOI unless otherwise stated. Please note, if a user selects an AOI via the "central coordinates" option, the resulting assessment area encompasses an area extending for a 2km radius from the input coordinates.

All area and area derived figures included in this report have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 2020). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.

Figures in tables may be affected by rounding.

The matters of interest reported on in this document are based upon available state mapped datasets. Where the report indicates that a matter of interest is not present within the AOI (e.g. where area related calculations are equal to zero, or no values are listed), this may be due either to the fact that state mapping has not been undertaken for the AOI, that state mapping is incomplete for the AOI, or that no values have been identified within the site.

The information presented in this report should be considered as a guide only and field survey may be required to validate values on the ground.

Important Note to User

Information presented in this report is based upon the Queensland Herbarium & Biodiversity Science's Regional Ecosystem framework. The Biodiversity Status has been used to depict the extent of "Endangered", "Of Concern" and "No Concern at Present" regional ecosystems in all cases, rather than the classes used for the purposes of the *Vegetation Management Act 1999* (VMA). Mapping and figures presented in this document reflect the Queensland Herbarium & Biodiversity Science's Remnant and Pre-clearing Regional Ecosystem Datasets, and not the certified mapping used for the purpose of the VMA.

For matters relevant to vegetation management under the VMA, please refer to the Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development website <https://www.nrmrdd.qld.gov.au/>

Please direct queries about these reports to: Queensland.Herbarium@qld.gov.au

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Summary Information

The following table provides an overview of the AOI with respect to selected topographic and environmental themes. Refer to **Map 1** for locality information.

Table 1: Details for area of interest:
Lot: 99 Plan: HG91, with area 59.3 ha

Local Government(s)	Catchment(s)	Bioregion(s)	Subregion(s)
Mareeba Shire	Mitchell	Einasleigh Uplands	Hodgkinson Basin

The table below summarizes the extent of remnant vegetation classed as "Endangered", "Of concern" and "No concern at present" regional ecosystems classified by Biodiversity Status within the area of interest (AOI).

Table 2: Summary table, biodiversity status of regional ecosystems within the AOI

Biodiversity Status	Area (Ha)	% of AOI
Endangered	0.00	0.00
Of concern	4.47	7.53
No concern at present	0.00	0.00
Total remnant vegetation	4.47	7.53

Refer to **Map 2** for further information.

Regional Ecosystems

1. Introduction

Regional ecosystems are vegetation communities in a bioregion that are consistently associated with particular combinations of geology, landform and soil (Sattler and Williams 1999). Descriptions of Queensland's Regional ecosystems are available online from the Regional Ecosystem Description Database (REDD). Descriptions are compiled from a broad range of information sources including vegetation, land system and geology survey and mapping and detailed vegetation site data. The regional ecosystem classification and descriptions are reviewed as new information becomes available. A number of vegetation communities may form a single regional ecosystem and may be distinguished by differences in structure or sub-dominant species in the ecologically dominant layer. Vegetation communities with different dominant species in the ecologically dominant layer may be amalgamated into a regional ecosystem if they are not mappable and predictable in the landscape at 1:100 000 scale. Vegetation communities may be mappable at a scale larger than 1:100 000. Vegetation communities within a regional ecosystem are denoted by a letter following the regional ecosystem code (e.g. a, b, c). Vegetation communities and regional ecosystems are amalgamated into a higher level classification of broad vegetation groups (BVGs).

A published methodology for survey and mapping of regional ecosystems across Queensland (Neldner et al 2023) provides further details on regional ecosystem concepts and terminology.

This report provides information on the type, status, and extent of vegetation communities, regional ecosystems and broad vegetation groups present within a user specified area of interest. Please note, for the purpose of this report, the Biodiversity Status is used. This report has not been developed for application of the *Vegetation Management Act 1999* (VMA). Additionally, information generated in this report has been derived from the Queensland Herbarium & Biodiversity Science's Regional Ecosystem Mapping, and not the regulated mapping certified for the purposes of the VMA. If your interest/matter relates to regional ecosystems and the VMA, users should refer to the Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development website <https://www.nrm.mrd.qld.gov.au/>.

With respect to the Queensland Biodiversity Status,

"Endangered" regional ecosystems are described as those where:

- remnant vegetation is less than 10 per cent of its pre-clearing extent across the bioregion; or 10-30% of its pre-clearing extent remains and the remnant vegetation is less than 10,000 hectares, or
- less than 10 per cent of its pre-clearing extent remains unaffected by severe degradation and/or biodiversity loss*, or
- 10-30 percent of its pre-clearing extent remains unaffected by severe degradation and/or biodiversity loss and the remnant vegetation is less than 10,000 hectares; or
- it is a rare** regional ecosystem subject to a threatening process.***

"Of concern" regional ecosystems are described as those where:

- the degradation criteria listed above for 'Endangered' regional ecosystems are not met and,
- remnant vegetation is 10-30 per cent of its pre-clearing extent across the bioregion; or more than 20 per cent of its pre-clearing extent remains and the remnant extent is less than 10,000 hectares, or
- 10-30 percent of its pre-clearing extent remains unaffected by moderate degradation and/or biodiversity loss.****

and "No concern at present" regional ecosystems are described as those where:

- remnant vegetation is over 30 percent of its pre-clearing extent across the bioregion, and the remnant area is greater than 10,000 hectares, and
- the degradation criteria listed above for 'Endangered' or 'Of concern' regional ecosystems are not met.

**Severe degradation and/or biodiversity loss is defined as: floristic and/or faunal diversity is greatly reduced but unlikely to recover within the next 50 years even with the removal of threatening processes; or soil surface is severely degraded, for example, by loss of A horizon, surface expression of salinity; surface compaction, loss of organic matter or sheet erosion.*

***Rare regional ecosystem: pre-clearing extent (<1000 ha); or patch size (<100 ha and of limited total extent across its range).*

****Threatening processes are those that are reducing or will reduce the biodiversity and ecological integrity of a regional ecosystem. For example, clearing, weed invasion, fragmentation, inappropriate fire regime or grazing pressure, or infrastructure development.*

****Moderate degradation and/or biodiversity loss is defined as: floristic and/or faunal diversity is greatly reduced but unlikely to recover within the next 20 years even with the removal of threatening processes; or soil surface is moderately degraded.

2. Remnant Regional Ecosystems

The following table identifies the remnant regional ecosystems and vegetation communities mapped within the AOI and provides their short descriptions, Biodiversity Status, and remnant extent within the selected AOI. Please note, where heterogeneous vegetated patches (mixed patches of remnant vegetation mapped as containing multiple regional ecosystems) occur within the AOI, they have been split and listed as individual regional ecosystems (or vegetation communities where present) for the purposes of the table below. In such instances, associated area figures have been generated based upon the estimated proportion of each regional ecosystem (or vegetation community) predicted to be present within the larger mixed patch.

Table 3: Remnant regional ecosystems, description and status within the AOI

Regional Ecosystem	Short Description	BD Status	Area (Ha)	% of AOI
9.3.12a	River beds and associated waterholes on major rivers and channels	Of concern	0.17	0.29
9.3.13	Melaleuca spp., Eucalyptus camaldulensis and Casuarina cunninghamiana fringing open forest on streams and channels	Of concern	1.06	1.79
9.3.3c	Corymbia spp. and Eucalyptus spp. dominated mixed woodland on alluvial flats, levees and plains	Of concern	3.23	5.45
non-remnant	None	None	54.84	92.48

Refer to **Map 2** for further information. **Map 3** also provides a visual estimate of the distribution of regional ecosystems present before clearing.

Table 4 provides further information in regards to the remnant regional ecosystems present within the AOI. Specifically, the extent of remnant vegetation remaining within the bioregion, the 1:1,000,000 broad vegetation group (BVG) classification, whether the regional ecosystem is identified as a wetland, and extent of representation in Queensland's Protected Area Estate. For a description of the vegetation communities within the AOI and classified according to the 1:1,000,000 BVG, refer to **Table 6**.

Table 4: Remnant regional ecosystems within the AOI, additional information

Regional Ecosystem	Remnant Extent	BVG (1 Million)	Wetland	Representation in protected estate
9.3.12a	Pre-clearing 67000 ha; Remnant 2021 66000 ha	16d	Riverine	Low
9.3.13	Pre-clearing 95000 ha; Remnant 2021 93000 ha	22c	Riverine	Low
9.3.3c	Pre-clearing 151000 ha; Remnant 2021 130000 ha	16b	Not a Wetland	Low
non-remnant	None	None	None	None

Representation in Protected Area Estate: High greater than 10% of pre-clearing extent is represented; Medium 4 - 10% is represented; Low less than 4% is represented, No representation.

The distribution of mapped wetland systems within the area of interest is displayed in **Map 6**.

The following table lists known special values associated with a regional ecosystem type.

Table 5: Remnant regional ecosystems within the AOI, special values

Regional Ecosystem	Special Values
9.3.12a	9.3.12: Significant habitat as drought refuge, wildlife corridors and for arboreal animals.
9.3.13	9.3.13: Significant habitat as drought refuge, wildlife corridors and for arboreal animals.
9.3.3c	9.3.3: Significant habitat as drought refuge, wildlife corridors and for arboreal animals.
non-remnant	None

3. Remnant Regional Ecosystems by Broad Vegetation Group

BVGs are a higher-level grouping of vegetation communities. Queensland encompasses a wide variety of landscapes across temperate, wet and dry tropics and semi-arid climatic zones. BVGs provide an overview of vegetation communities across the state or a bioregion and allow comparison with other states. There are three levels of BVGs which reflect the approximate scale at which they are designed to be used: the 1:5,000,000 (national), 1:2,000,000 (state) and 1:1,000,000 (regional) scales.

A comprehensive description of BVGs is available at: <https://publications.qld.gov.au/dataset/redd/resource/>

The following table provides a description of the 1:1,000,000 BVGs present and their associated extent within the AOI.

Table 6: Broad vegetation groups (1 million) within the AOI

BVG (1 Million)	Description	Area (Ha)	% of AOI
None	None	54.84	92.48
16b	Woodlands dominated by <i>Eucalyptus leptophleba</i> (Molloy red box), with <i>Corymbia tessellaris</i> (carbeen) or <i>C. clarksoniana</i> (grey bloodwood) or <i>C. dallachiana</i> ; or dominated by <i>Corymbia terminalis</i> (desert bloodwood) or other <i>Corymbia</i> or dominated by <i>Corymbia terminalis</i> (desert bloodwood) or other <i>Corymbia</i> spp. in the Gulf Plains and Northwest Highlands bioregions. On sandy levees.	3.23	5.45
16d	River beds, open water or sand, or rock, frequently unvegetated.	0.17	0.29
22c	Open forests dominated by <i>Melaleuca</i> spp. (<i>M. argentea</i> (silver tea-tree), <i>M. leucadendra</i> (broad-leaved tea-tree), <i>M. dealbata</i> (swamp tea-tree) or <i>M. fluviatilis</i>), fringing major streams with <i>Melaleuca saligna</i> or <i>M. bracteata</i> (black tea-tree) in minor streams.	1.06	1.79

Refer to **Map 4** for further information. **Map 5** also provides a representation of the distribution of vegetation communities as per the 1:5,000,000 BVG believed to be present prior to European settlement.

4. Technical and BioCondition Benchmark Descriptions

Technical descriptions provide a detailed description of the full range in structure and floristic composition of regional ecosystems (e.g. 11.3.1) and their component vegetation communities (e.g. 11.3.1a, 11.3.1b). See: <http://www.qld.gov.au/environment/plants-animals/plants/ecosystems/technical-descriptions/>

The descriptions are compiled using site survey data from the Queensland Herbarium & Biodiversity Science's QBEIS database. Distribution maps, representative images (if available) and the pre-clearing and remnant extent (hectares) of each vegetation community derived from the regional ecosystem mapping data are included. The technical descriptions should be used in conjunction with the fields from the regional ecosystem description database (REDD) for a full description of the regional ecosystem.

Technical descriptions include data on canopy height, canopy cover and native plant species composition of the predominant layer, which are attributes relevant to assessment of the remnant status of vegetation under the *Vegetation Management Act 1999*. However, as technical descriptions reflect the full range in structure and floristic composition across the climatic, natural disturbance and geographic range of the regional ecosystem, local reference sites should be used for remnant assessment where possible (Neldner et al. 2023 (PDF)* section 3.3 of: https://www.qld.gov.au/_data/assets/pdf_file/0033/459186/methodology-mapping-surveying-v7.pdf

The technical descriptions are subject to review and are updated as additional data becomes available.

When conducting a BioCondition assessment, these technical descriptions should be used in conjunction with BioCondition benchmarks for the specific regional ecosystem, or component vegetation community. <http://www.qld.gov.au/environment/plants-animals/biodiversity/benchmarks/>

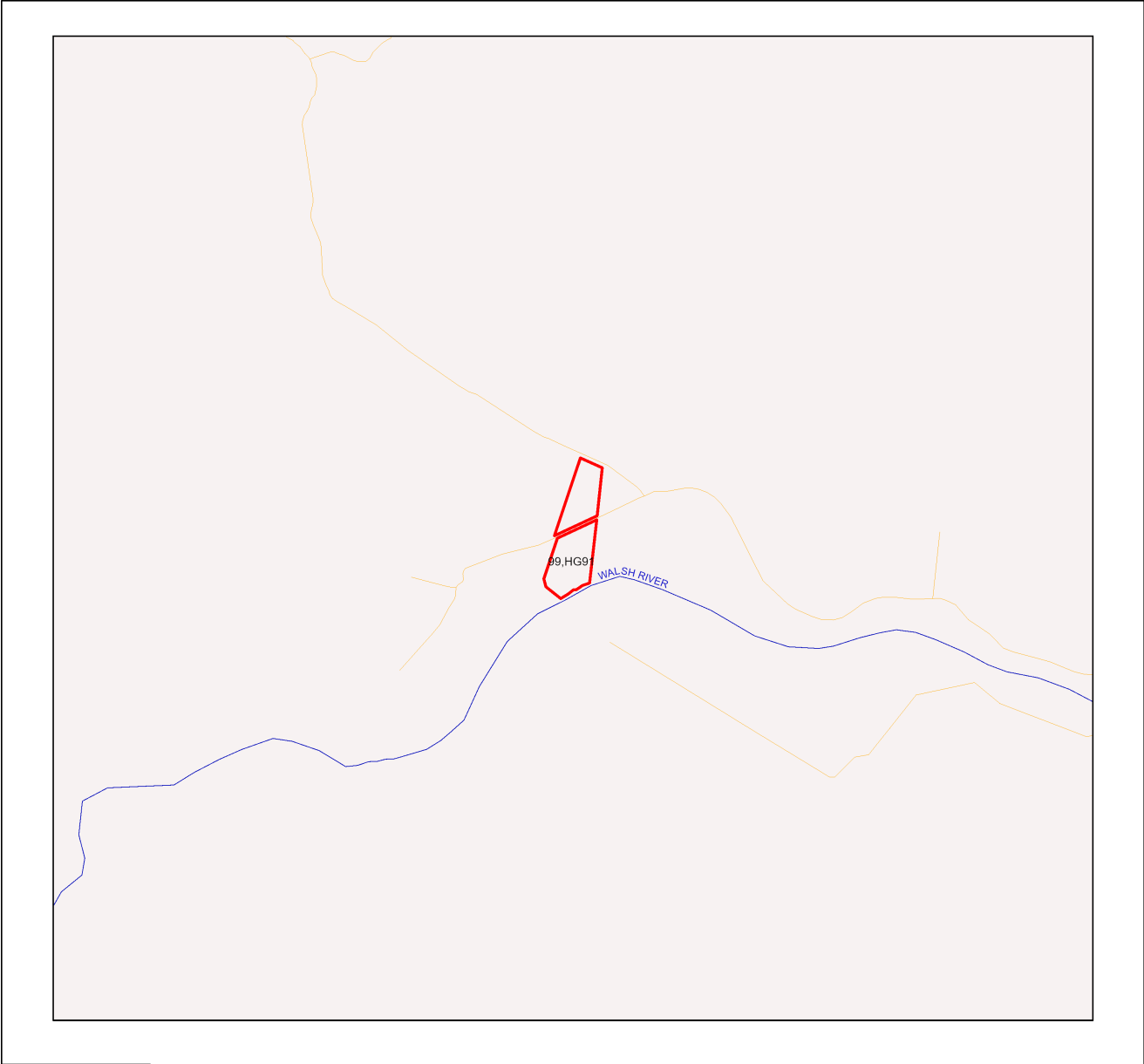
Benchmarks are based on a combination of quantitative and qualitative information and should be used as a guide only. Benchmarks are specific to one regional ecosystem vegetation community, however, the natural variability in structure and floristic composition under a range of climatic and natural disturbance regimes has been considered throughout the geographic extent of the regional ecosystem. Local reference sites should be used for this spatial and temporal (seasonal and annual) variability.

Table 7: List of remnant regional ecosystems within the AOI for which technical and biocondition benchmark descriptions are available

Regional ecosystems mapped as within the AOI	Technical Descriptions	Biocondition Benchmarks
9.3.12a	Available	Not currently available
9.3.13	Available	Not currently available
9.3.3c	Available	Not currently available
non-remnant	Not currently available	Not currently available

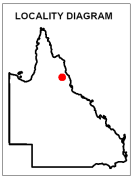
Maps

Map 1 - Location



Locality Map

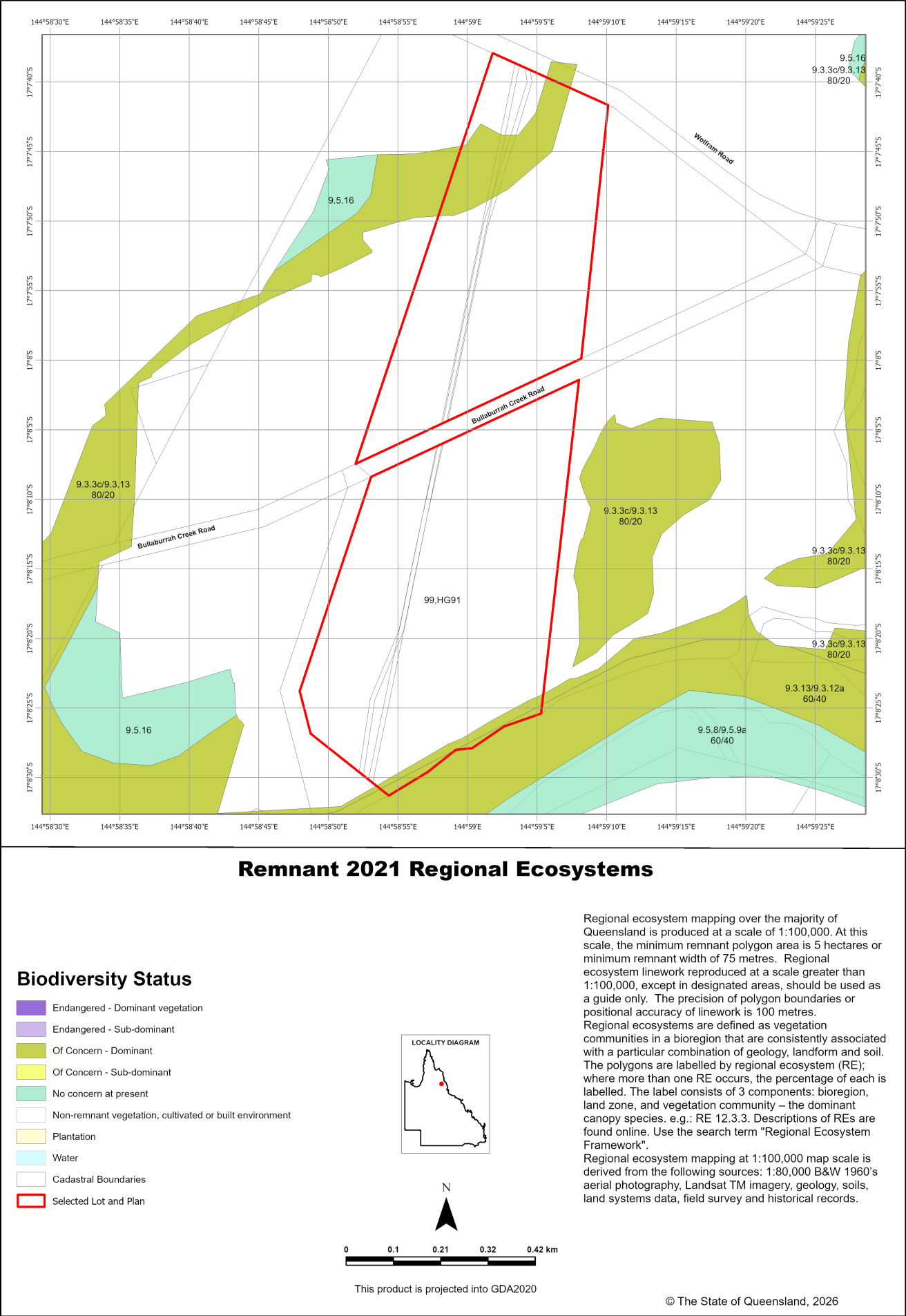
- Legend**
- Towns
 - Freeways/Highways
 - Connector
 - Street/Local Road
 - Lakes and reservoirs
 - National Park
 - National Park (Scientific)
 - National Park (CYPAL)
 - National Park (Aboriginal Land)
 - Conservation Park
 - Resources Reserve
 - Forest Reserve
 - State Forest
 - Timber Reserve
 - Nature Refuges
 - Coordinated Conservation Areas
 - Major rivers/creeks
 - Queensland
 - Selected Lot and Plan



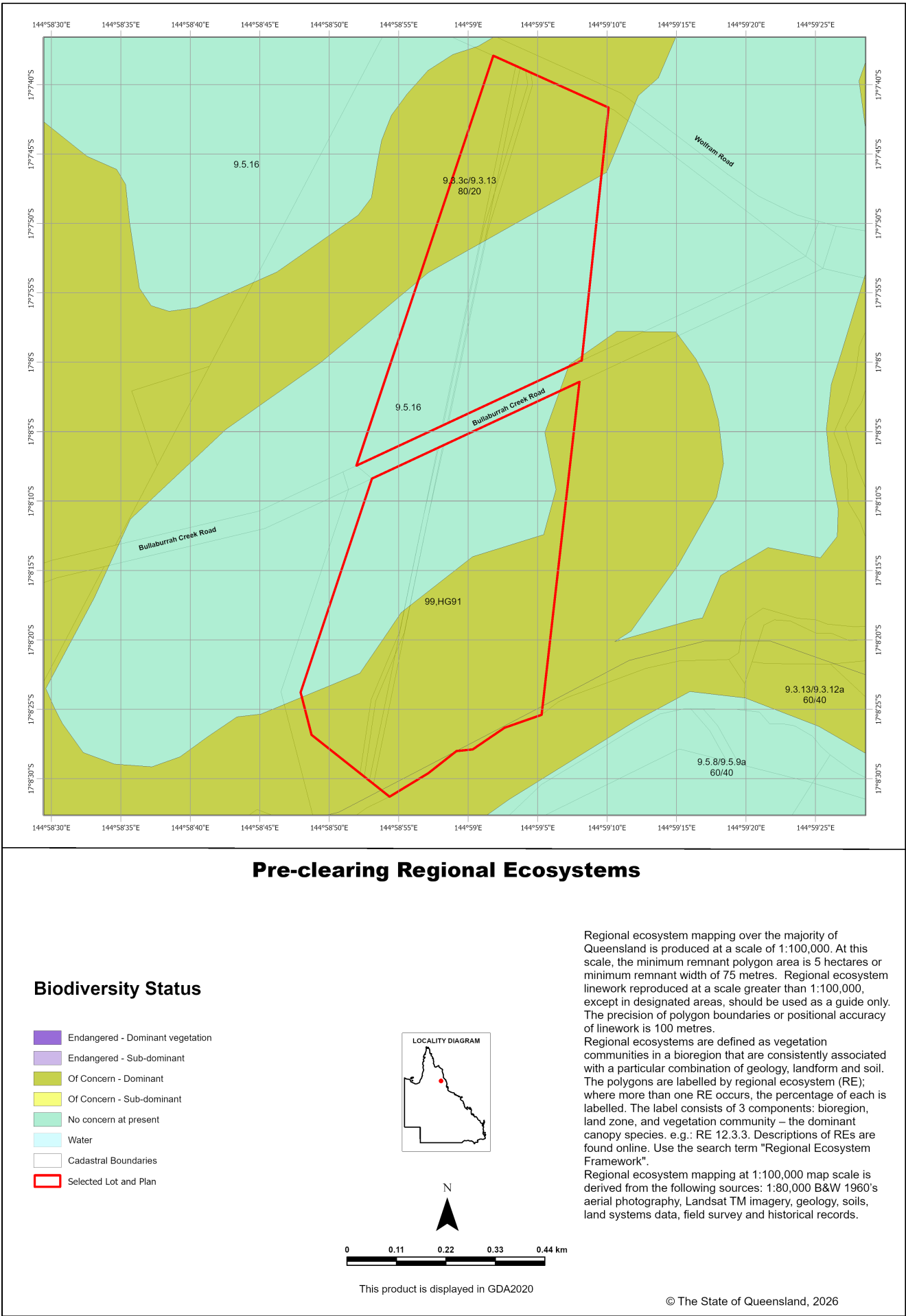
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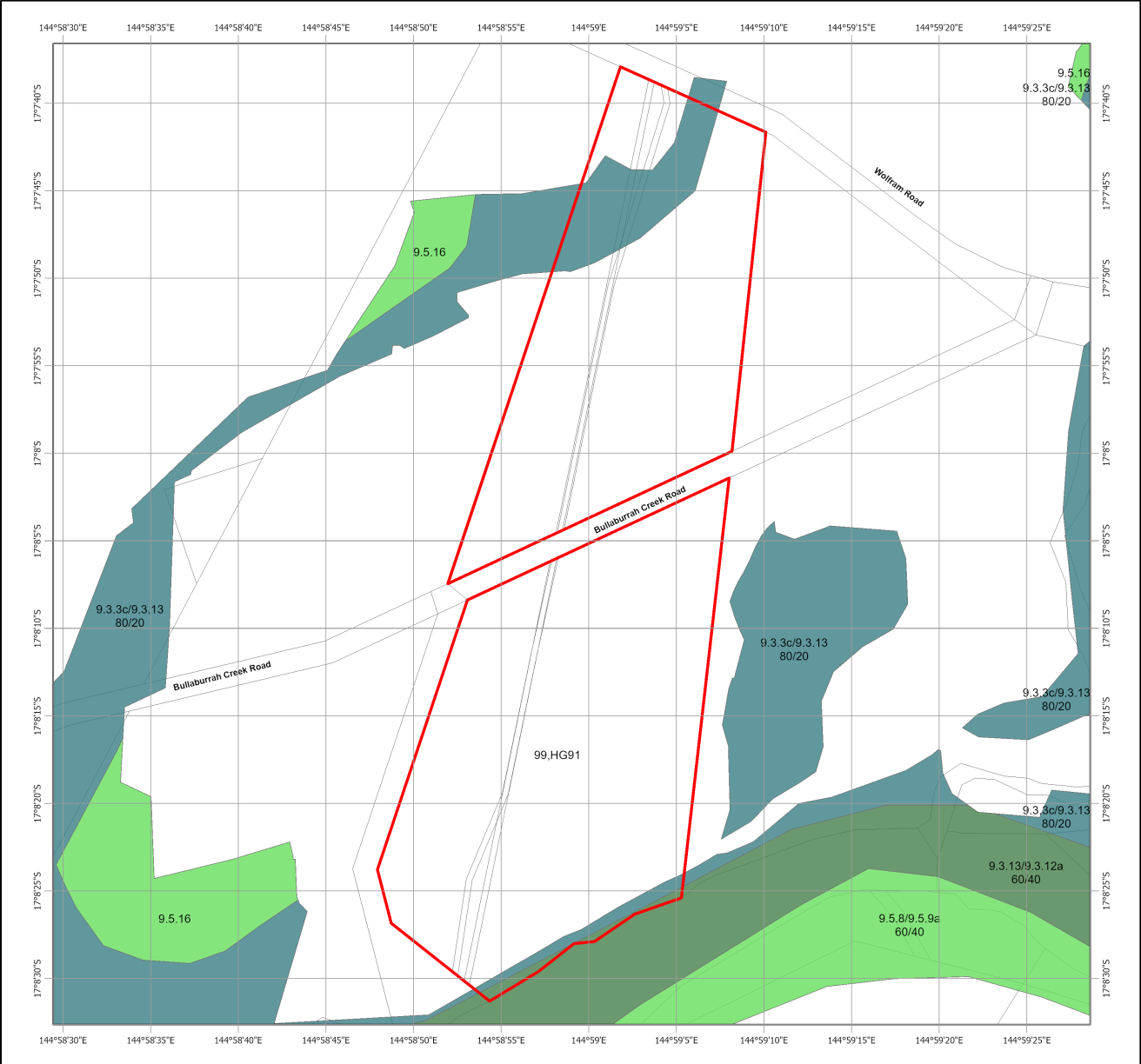
Map 2 - Remnant 2021 regional ecosystems



Map 3 - Pre-clearing regional ecosystems



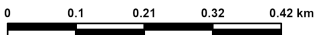
Map 4 - Remnant 2021 regional ecosystems by BVG (5M)



Remnant 2021 Regional Ecosystems coloured by Broad Vegetation Groups

Broad Vegetation Groups
BVG5M Description (BVG1M codes)

- 1. Rainforests and scrubs (1-7b)
- 2. Wet eucalypt open forests (8-8b)
- 3. Eucalypt woodlands to open forests (mainly eastern Qld) (9-15b)
- 4. Eucalypt open forests to woodlands on floodplains (16-16d)
- 5. Eucalypt dry woodlands on inland depositional plains (17-18d)
- 6. Eucalypt low open woodlands usually with spinifex understorey (19-19d)
- 7. Callitris woodland - open forests (20a)
- 8. Melaleuca open woodlands on depositional plains (21-22c)
- 9. Acacia aneura (mulga) dominated open forests, woodlands and shrublands (23-23b)
- 10. Other acacia dominated open forests, woodlands and shrublands (24-26a)
- 11. Mixed species woodlands, open woodland - (inland bioregions) includes wooded downs (27-27c)
- 12. Other coastal communities or heaths (28-29b)
- 13. Tussock grasslands, forblands (30-32b)
- 14. Hummock grasslands (33-33b)
- 15. Wetlands (swamps and lakes) (34-34g)
- 16. Mangroves and saltmarshes (35-35b)
- Non-remnant vegetation, cultivated or built environment
- Water
- Cadastral Boundaries
- Selected Lot and Plan



This product is displayed in GDA2020

Broad Vegetation Groups (BVG) of Queensland are applied by look up table to the regional ecosystem vegetation communities. Each polygon is coloured by the dominant BVG5M and the component regional ecosystems labelled. Where more than one regional ecosystem occurs, the percentage of each is labelled. Regional ecosystem mapping over the majority of Queensland is produced at a scale of 1:100,000. At this scale, the minimum remnant polygon area is 5 hectares or minimum remnant width of 75 metres. Regional ecosystem linework reproduced at a scale greater than 1:100,000, except in designated areas, should be used as a guide only. The precision of polygon boundaries or positional accuracy of linework is 100 metres. Regional ecosystems are defined as vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil. The label consists of 3 components: bioregion, land zone, and vegetation community – the dominant canopy species, e.g.: RE 12.3.3. Descriptions of REs are found online. Use the search term "Regional Ecosystem Framework". Regional ecosystem mapping at 1:100,000 map scale is derived from the following sources: 1:80,000 B&W 1960's aerial photography, Landsat TM imagery, geology, soils, land systems data, field survey and historical records. Remnant woody vegetation is defined as vegetation that has not been cleared or vegetation that has been cleared but where the dominant canopy has >70% of the height and >50% of the cover relative to the undisturbed height and cover of that stratum and is dominated by species characteristic of the vegetation's undisturbed canopy. Non-remnant vegetation includes regrowth and disturbed native vegetation.

Map 5 - Pre-clearing regional ecosystems by BVG (5M)



Pre-clearing Regional Ecosystems coloured by Broad Vegetation Groups

Broad Vegetation Groups
BVG5M Description (BVG1M codes)

-
1. Rainforests and scrubs (1-7b)
2. Wet eucalypt open forests (8-8b)
3. Eucalypt woodlands to open forests (mainly eastern Qld) (9-15b)
4. Eucalypt open forests to woodlands on floodplains (16-16d)
5. Eucalypt dry woodlands on inland depositional plains (17-18d)
6. Eucalypt low open woodlands usually with spinifex understorey (19-19d)
7. Callitris woodland - open forests (20a)
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12. Other coastal communities or heaths (28-29b)
13. Tussock grasslands, forblands (30-32b)
14. Hummock grasslands (33-33b)
15. Wetlands (swamps and lakes) (34-34g)
16. Mangroves and saltmarshes (35-35b)
- Water
- Cadastral Boundaries
- Selected Lot and Plan
- 0 0.11 0.22
- LOCALITY

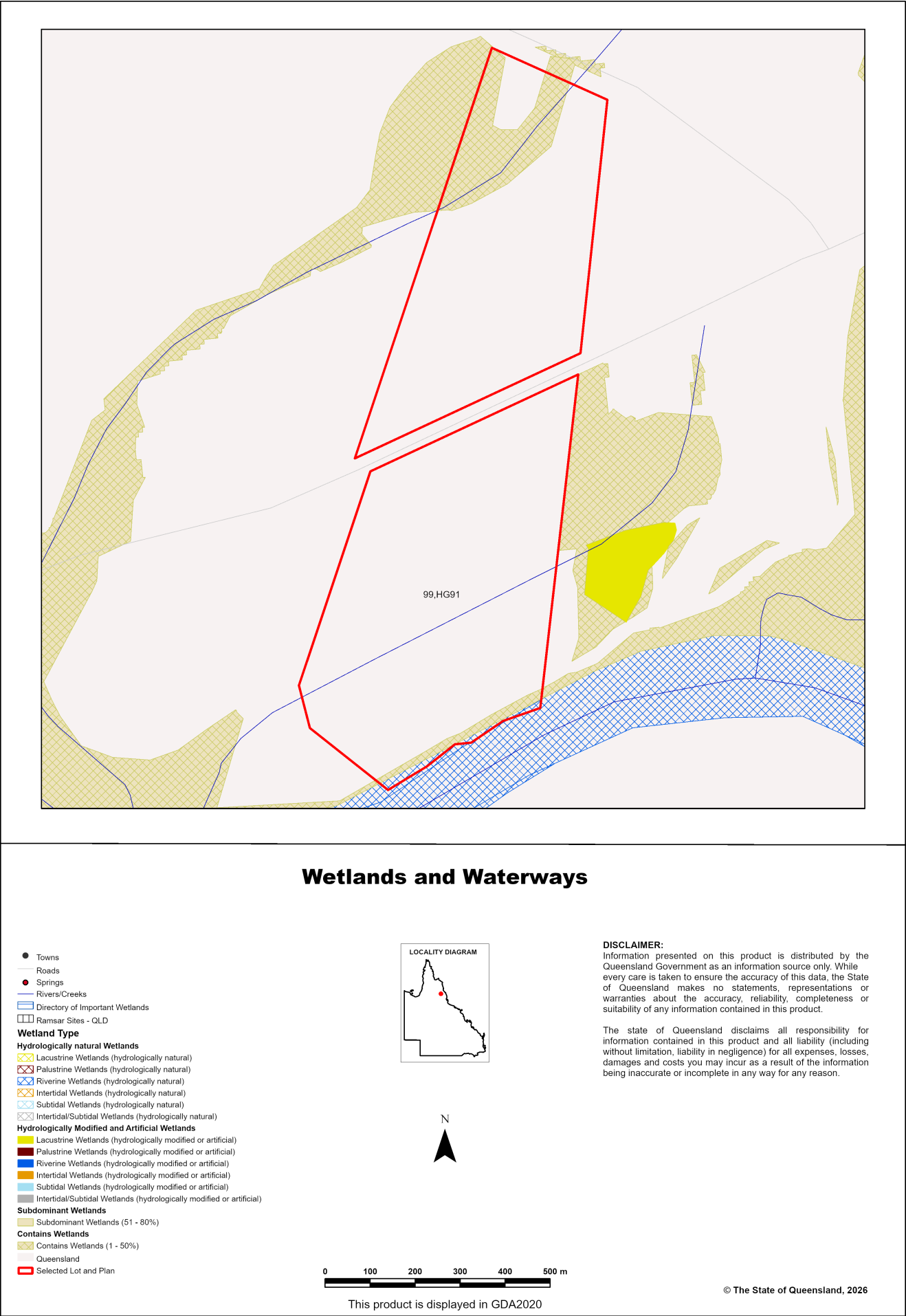
Broad Vegetation Groups (BVG) of Queensland are applied by look up table to the regional ecosystem vegetation communities. Each polygon is coloured by the dominant BVGSM and the component regional ecosystems labelled. Where more than one regional ecosystem occurs, the percentage of each is labelled.

Regional ecosystem mapping over the majority of Queensland is produced at a scale of 1:100,000. At this scale, the minimum remnant polygon area is 5 hectares or minimum remnant width of 75 metres. Regional ecosystem linework reproduced at a scale greater than 1:100,000, except in designated areas, should be used as a guide only. The precision of polygon boundaries or positional accuracy of linework is 100 metres.

Regional ecosystems are defined as vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil. The label consists of 3 components: bioregion, land zone, and vegetation community – the dominant canopy species. e.g.: RE 12.3.3. Descriptions of REs are found online. Use the search term "Regional Ecosystem Framework".

Regional ecosystem mapping at 1:100,000 map scale is derived from the following sources: 1:80,000 B&W 1960's aerial photography, Landsat TM imagery, geology, soils, land systems data, field survey and historical records.

Map 6 - Wetlands and waterways



Links and Other Information Sources

The Department of the Environment, Tourism, Science and Innovation's Website -

<http://www.qld.gov.au/environment/plants-animals/plants/ecosystems/> provides further information on the regional ecosystem framework, including access to links to the Regional Ecosystem Database, Broad Vegetation Group Definitions, Regional Ecosystem and Land zone descriptions.

Descriptions of the broad vegetation groups of Queensland can be downloaded from:

<https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/broad-vegetation>

The methodology for mapping regional ecosystems can be downloaded from:

https://www.qld.gov.au/_data/assets/pdf_file/0033/459186/methodology-mapping-surveying-v7.pdf

Technical descriptions for regional ecosystems can be obtained from:

<http://www.qld.gov.au/environment/plants-animals/plants/ecosystems/technical-descriptions/>

Benchmarks can be obtained from: <http://www.qld.gov.au/environment/plants-animals/biodiversity/benchmarks/>

For further information associated with the remnant regional ecosystem dataset used by this report, refer to the metadata associated with the Biodiversity status of pre-clearing and Remnant Regional Ecosystems of Queensland dataset (version listed in **Appendix 1**) which is available through the Queensland Spatial Catalogue, [Queensland Spatial Catalogue : Queensland Government \(information.qld.gov.au\)](http://www.qld.gov.au/spatial-catalogue)

The Queensland Globe is a mapping and data application. As an interactive online tool, Queensland Globe allows you to view and explore Queensland maps, imagery (including up-to-date satellite images) and other spatial data, including regional ecosystem mapping. To further view and explore regional ecosystems over an area of interest, access the Biota Globe (a component of the Queensland Globe). The Queensland Globe can be accessed via the following link:

<https://qldglobe.information.qld.gov.au/>

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Neldner, V.J., Wilson, B.A., Dillewaard, H.A., Ryan, T.S., Butler, D.W., McDonald, W.J.F., Richter, D., Addicott, E.P. and Appelman, C.N. (2023) Methodology for survey and mapping of regional ecosystems and vegetation communities in Queensland. Version 7.0. Updated December 2023. Queensland Herbarium, Queensland Department of Environment, Science and Innovation, Brisbane.

https://www.qld.gov.au/_data/assets/pdf_file/0033/459186/methodology-mapping-surveying-v7.pdf.

Sattler, P.S. and Williams, R.D. (eds) (1999). *The Conservation Status of Queensland's Bioregional Ecosystems*. Environmental Protection Agency, Brisbane.

Appendices

Appendix 1 - Source Data

The dataset listed below is available for download from:

<http://www.qld.gov.au/environment/plants-animals/plants/ecosystems/download/>

- Regional Ecosystem Description Database

The datasets listed below are available for download from:

[Queensland Spatial Catalogue : Queensland Government \(information.qld.gov.au\)](http://www.qld.gov.au/environment/plants-animals/plants/ecosystems/download/)

- Biodiversity status of pre-clearing and 2021 remnant regional ecosystems of Queensland
- Pre-clearing Vegetation Communities and Regional Ecosystems of Queensland
- Queensland Wetland Data Version - Wetland lines
- Queensland Wetland Data Version - Wetland points
- Queensland Wetland Data Version - Wetland areas
- Pre-clearing broad vegetation groups of Queensland
- Remnant 2021 broad vegetation groups of Queensland

Appendix 2 - Acronyms and Abbreviations

AOI	- Area of Interest
GIS	- Geographic Information System
RE	- Regional Ecosystem
REDD	- Regional Ecosystem Description Database
VMA	- <i>Vegetation Management Act 1999</i>

Appendix E

Site Based Management Plan

SITE BASED MANAGEMENT PLAN

PNQ Bilic Sands Extraction

406005
10 June 2026
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REPORT

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
0	Site Based Management Plan (SBMP)	M. Palmer	A. Fletcher	A. Fletcher	29 May 2026

Approval for issue

Adam Fletcher		10 June 2026
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This report was prepared by RPS within the terms of RPS’ engagement with its client and in direct response to a scope of services. This report is supplied for the sole and specific purpose for use by RPS’ client. The report does not account for any changes relating the subject matter of the report, or any legislative or regulatory changes that have occurred since the report was produced and that may affect the report. RPS does not accept any responsibility or liability for loss whatsoever to any third party caused by, related to or arising out of any use or reliance on the report.

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1 INTRODUCTION

Pioneer North Queensland Pty Ltd (PNQ) have identified fine sand, topsoil and gravel resources within Lot 99 HG91 (herein referred to as 'the site'). As a result, PNQ have engaged RPS AAP Consulting Pty Ltd (RPS) to prepare a Site Based Management Plan (SBMP) to manage and mitigate potential environmental impacts of the following proposed Environmentally Relevant Activities (ERAs) at the site:

- ERA 16 – 2 (a): Extracting, other than by dredging, in a year, the following quantity of material, 5,000t to 100,000t; and
- ERA 16 – 3 (a) Screening, in a year, the following quantity of material, 5,000t to 100,000t.

1.1 Purpose

The objective of the SBMP is to outline work practices to address the specified regulatory requirements under the *Environmental Protection Act 1994* (EP Act) to minimise the risk of environmental harm resulting from extractive operations and comply with the Environmental Authority (EA), refer to **Appendix A**.

It is noted that requirements under the *Workplace Health and Safety Act 2011* are not included in this document and will be addressed by PNQ separately.

1.2 Objectives

The objectives of this SBMP are to:

- Identify environmental values of the project site and surrounds;
- Determine the potential risk of adverse environmental impacts associated with the operation of the quarry;
- Describe measures to minimise the risk of environmental harm;
- To ensure all environmental safeguards are implemented correctly;
- Provide a mechanism for review and continual improvement of environmental performance; and
- Provide a reporting, monitoring and training schedule.

1.3 Implementation

PNQ is responsible for implementing the SBMP for the 'site' and ensuring compliance with the nominated requirements. PNQ is also responsible for ensuring appropriate corrective actions arising from a failure to meet stated performance requirements are implemented.

Where contracts are entered into for work associated with this project, PNQ shall:

- Induct the employees on the requirements of the SBMP and PNQ expectations.
- Ensure that all employees comply with the requirements of the SBMP;
- Require the employees and its contractors report non-conformances with the SBMP; and
- Monitor and measure the performance of employees and its contractor against the requirements of the SBMP.

2 PROJECT DESCRIPTION

2.1 Site Description

PNQ propose to undertake sand extraction operations within the area of the Lot 99 on HG91, refer to the Site Layout Plan in **Appendix B**.

The site is situated in a rural area with the surrounding land use being agricultural farming. Proposed equipment and infrastructure on site will include:

- Earthmoving Equipment (i.e. excavators, scrappers, dozers, loaders and trucks for removal and transport of material);
- Screening plant;
- Processing and stockpiling; and
- Erosion sedimentation controls.

Sand will be extracted by excavator and transported to the processing plant by truck. Processing will involve screening of the final product prior to stockpiling. No blasting or crushing is to occur as part of the process. Rehabilitation works will be undertaken progressively and in tandem with the extraction program. Profiling of the final landform will be undertaken to facilitate drainage.

Work hours for the extractive activities are 6:30 am to 5:30 pm, Monday to Friday and 6:30 to 11:30 on Saturday and no operations on Sunday.

The Lot is divided into two parts North and South, separated by Bullaburrah Creek Road, and the site comprises an area of approximately 59.489 ha. This site is all farmland, lots of cleared and agricultural area surrounding the site.

The ground surface of the site is gently sloping towards the northern slot of land, with surrounding land used for agricultural purposes, and a small corridor of vegetation on each parcel of the Lot.

2.2 Legislative Requirements, Permits and Approvals

Table 1 Summary of Licences, Legislation, Permits and Approvals

Regulatory Authority	Licence/ Permit/Approval Type	Status	Summary of Key Conditions and Monitoring Required
Department of Environment, Tourism, Science and Innovation (DETSI)	Environmental Authority Ref: TBC	Application	ERA 16 (2a) and ERA (3a) Extraction and screening of between 5,000 tonnes and 100,000 tonnes per year.
Mareeba Shire Council	Development Approval Ref: TBC	Application	Approved Extraction within Lot 99 on HG91

2.3 Application

This SBMP applies to all personnel (staff and contractors) and activities associated with the operation of the facility.

The PNQ management is responsible for authorising this SBMP and monitoring its implementation at the site. The Site Supervisor is responsible for implementation of the SBMP and shall ensure that all persons

employed or sub-contracted to the project area are made aware of their environmental responsibilities as determined by this SBMP and as legislated by the *Environmental Protection Act 1994 (EP Act)*.

Environmental duties of all personnel include the following:

- General Environmental duty- whereby a person in the performance of their duties shall not do so in a manner which will cause, or is likely to cause, environmental harm unless the person takes all reasonable and practical measures to prevent or minimise the harm; and
- Duty to Notify Environmental Harm- whereby if a person in the performance of their duties becomes aware that serious or material environmental harm is caused or threatened, then the person must immediately contact the Site Supervisor who in turn must immediately notify the relevant authorities.

3 ENVIRONMENTAL COMMITMENTS

PNQ accepts the responsibility for environmental protection which is integral to the conduct of its extractive operations.

PNQ is committed to:

- Operating practices which seek to minimise impacts, prevent pollution and minimise the likelihood of environmental harm through work and management practices, continual improvement, training and the use of new technology.
- Compliance with all applicable environmental laws and regulations and Codes of Practice in extractive operations, and new developments.
- Management review of environmental objectives and targets.
- Waste management to minimise wastes, develop viable recycling opportunities, and ensure proper handling and disposal methods.
- Extraction processes which seek to combine commercial viability and efficient use and conservation of resources.
- Environmental assessment of new projects and sites and existing operations.
- Environmental Incident Response-contingency plans to minimise health, safety and environmental risks.
- Rehabilitation of areas affected by extractive operations.
- Striving to meet Community Expectations through consultation with community groups and landowners about environmental matters of common concern.
- Water management, which is integral to achieving sustainability, balancing today's needs with those of the future.
- Energy management which is integral to managing greenhouse gas emissions from extractive operations and therefore abating the impact of the business on the climate.

PNQ will encourage concern and respect for the environment and will emphasise every employee's responsibility for environmental performance.

4 ROLES AND RESPONSIBILITIES

4.1 Site Manager

The Site Manager is responsible for the following:

- Promoting and maintaining good environmental management;
- Ensuring that this SBMP is effectively implemented;
- Supporting the Site Supervisor and hold them accountable for their specific responsibilities;
- Taking prompt remedial action to eliminate any non-compliance or environmentally risky conditions;
- Investigating and addressing complaints and incidents;
- Inducting all workers and subcontractors and directing site activities in accordance with this SBMP;
- Taking all practical measures to ensure the site is operating according to this SBMP, and without risks to the environment;
- Detecting any non-compliance or environmentally risky conditions by undertaking regular inspections; and
- If the Site Manager does not have the necessary authority to fix a problem, they are responsible for reporting the matter promptly and recommending remedial action to the Operations Manager - Extraction.

4.2 All Workers

All workers are required to attend site inductions and follow this SBMP. All workers must undertake site works and comply with the general environmental duty as outlined within Section 319 of the *Environmental Protection Act 1994* and a duty to notify of environmental harm as outlined within Section 320 of the *Environmental Protection Act 1994*. Workers must undertake activities in accordance with this SBMP and report all incidents, spills or non-conformances.

4.3 Subcontractors

All subcontractors engaged to perform work for PNQ are required, as part of their contract, to comply with this SBMP and to comply with directions from the company's designated officers. Failure to comply will be considered a breach of the contract and sufficient grounds for termination of the contract.

4.4 Environmental Reporting Structure

The responsibilities and reporting structure for key environmental management roles at the site have been broadly described in **Table 2** below.

Table 2 Site Reporting Structure

Role	Responsibilities	Reports to
PNQ Executive Management	• Provision of sufficient resources to manage the environment. • Ensure appropriate training is undertaken by all personnel. • Maintenance of correct permits and approvals. • Commission third party audits and investigation as required. • Review of monitoring outcomes and ensure corporate compliance.	DETSI and other administering government authorities.

	Review SBMP effectiveness (Including for continuous improvement).	
Site Manager	- Management of personnel present at site. - Ensure personnel receive training to develop skills required. - Undertake site inductions and orientation. - Work with PNQ Management to address complainants, community groups and other stakeholders. - Perform regular inspections of the site e.g. the plant, equipment, maintenance schedules, security fences, etc. - Implement the SBMP for all environmental matters on site, with authority to direct compliance with the SBMP. - Undertake or coordinate scheduled and non-scheduled internal environmental audits.	PNQ Management
Site Supervisor	- Undertake or coordinate environmental monitoring events. - Maintain complaints register and works to address improvements for the site. - Ensure measures to prevent unauthorised site access are in place, including gates at the main entrance which are to be closed outside of operation hours. - Supervise persons entering the site. - Ensure any hazardous waste is dealt with as per <i>Environmental Protection (Waste Management) Policy 2000</i>. - Ensure the SBMP is made available and communicated to all staff. - Allocate resources for environmental management, staff training and SBMP duties.	PNQ Management
Environmental Advisor	- Undertake requested monitoring and reporting. - Undertake requested audits and technical assessments.	Site Supervisor, PNQ
All site Staff	- Undertake site works as instructed by the Site Supervisor. - Undertake site works with a duty of care under the <i>Environmental Protection Act and Regulation 1994</i>. - Undertake activities in compliance with this SBMP. - Report all incidents, spills, or environmental non-compliance with the SBMP to the Site Supervisor.	Site Supervisor, PNQ

5 ENVIRONMENTAL VALUES, IMPACTS AND RISKS

RPS has undertaken a detailed desktop assessment to identify potential environmental values that maybe impacted on by the extractive industry. The following sections provide a brief overview of the environmental values within and adjacent to the site. An assessment of the potential impacts to these values is provided, with detailed management measures to be implemented to minimise the risk of environmental harm provided in **Section 6- Environmental Management Measures**.

5.1 Environmental Values

A desktop review of environmental values for Lot 99 on HG91 found the presence of unnamed MSES Regulated Vegetation (defined watercourse), passing through both the Northern and Southern sections of the Lot. However, no other MSES including- Protected area, Marine Park, declared fish habitat, high ecological value waters (wetlands), protected Flora and Fauna species, Wildlife habitat or regulated vegetation have been identified on the site.

5.2 Environmental Values and Risks

As the extraction footprint of the site does not intersect with the MSES Regulated Vegetation (defined watercourse) found on the site, and a detailed desktop assessment found no presence of Wetlands, Watercourses, Essential Habitat, or Protected Flora and fauna species, the extractive industry is considered to have little or no immediate impacts or risks to the site's environmental values.

6 ENVIRONMENTAL MANAGEMENT MEASURES

6.1 Air

Aim

No environmental nuisance is caused by the release of noxious or offensive airborne odours or contaminants (e.g. dust) resulting from site activity.

Success Criteria

- Dust deposition does not exceed 120mg/m² per day at a nuisance sensitive or commercial place, or dust less than 10 micrometres does not exceed 150mg/m³ over 24 hours downwind of site at a nuisance sensitive or commercial place. Both monitoring methods are to be in accordance with the Australian Standard AS (3580.9.16 of 2016) or more recent additions.
- No dust and/or odour complaints received from adjoining operations, nearby sensitive places or from statutory authorities.

Management Actions	Responsibility	Frequency
Adhere to 40km/h speed limit across site.	All staff	At all Times
Cover (i.e. with grass or mulch) or keep moist all long term (greater than 3 months) topsoil stockpiles.	Site Supervisor	As Required
Implement progressive rehabilitation to limit open extraction area to as small as feasible.	Site Supervisor	As Required
Increase frequency of water cart use on internal roads and stockpile areas as required to suppress dust.	Site Supervisor	As Required
Routine Monitoring Program	Responsibility	Frequency
Report any dusty conditions to site supervisor.	All staff	As Required
Visually inspect site, operations and effectiveness of dust controls.	Site Supervisor	Daily
Proactive dust deposition monitoring may be undertaken if complaints are received.	Site Supervisor	As Required
Inspect site in relation to dust controls and operations.	Site Supervisor	Annual Audit
Inspect for sources of odour which may generate complaints.	Site Supervisor	Daily

Complaint Response Monitoring

When requested by the administering authority, dust and particulate monitoring must be undertaken to investigate any complaints of environmental nuisance caused by dust and/or particulate matter. The results of monitoring are to be passed to Department of Environment, Tourism, Science and Innovation (DETSI) within 14 days of completing the monitoring. Monitoring must be carried out at a place(s) relevant to the potentially affected dust sensitive place and at upwind control sites and must include:

- For a complaint alleging dust nuisance, dust deposition monitoring shall be in accordance with AS3580.9.16:2016 or more recent editions.
- For a complaint alleging adverse health effects caused by dust, the PM10 concentration suspended in the atmosphere over a 24hr averaging time shall be monitored in accordance with AS3580.9.16 2016 (or more recent editions).

PNQ is responsible for engaging a suitably qualified and experienced air quality consultant to undertake monitoring. All monitoring equipment used must be calibrated and appropriately operated and maintained.

In the event of an odour complaint being submitted, measures must be undertaken as soon as practicable to minimise the release of the odour beyond the boundaries of the licensed place.

Corrective Actions

REPORT

If success criteria are not met, examples of corrective actions may include:

1. Ensure tracks and stockpile area is dust suppressed (water cart) every morning and as required throughout the day.
2. Cease operating air polluting machinery and undertake maintenance.

Reporting	Responsibility	Frequency
Record observations, actions and notifications from staff in diary.	Site Supervisor	As Required
Record inspection notes and observations.	Site Supervisor	Annual Audit
Results from complaint monitoring shall be forwarded to the administering authority.	Site Supervisor	Within 14 days of the completion of monitoring.

6.2 Noise

Aim

No environmental nuisance is caused by noise from site at a noise sensitive or commercial place.

Success Criteria

- Noise emissions do not cause nuisance at any sensitive receptors.

Management Actions	Responsibility	Frequency
No unnecessary use of horns or other audible signals on mobile plant or equipment. Use of directional low frequency reversing beepers.	All staff	At all Times
Plant and equipment will be maintained in good working order and maintained as required. Where required, noise suppressors will be installed.	Site Supervisor to schedule equipment maintenance.	As per manufacturers specifications
Work will take place during nominated work hours only (6:30 am until 5:30pm Monday to Friday, 6:30 am to 11:30 am on Saturdays (as per the agreement between PNQ and the Farmer).	All Staff	At all Times
Operators to report faulty equipment.	As per manufacturers specifications	At all Times
Routine Monitoring Program	Responsibility	Frequency
Inspect site in relation to noise controls and operations.	Site Supervisor	Daily
Inspect site in relation to noise emissions, controls and operations.	Site Supervisor	Annual Audit

Complaint Response Monitoring

When requested by the administering authority noise monitoring must be undertaken to investigate any complaint of noise nuisance and must include:

1. LA 10, adj, 10mins.
2. LA 1, adj, 10mins.
3. The level and frequency of occurrence of impulsive or tonal noises.
4. Atmospheric condition including wind speed and direction.
5. Effects due to extraneous factors such as traffic noise.
6. Location, date and time of recording.

Results of the monitoring are to be submitted to Department of Environment, Technology, Science and Innovation (DETSI) within 14 days of the complaint being submitted.

PNQ is responsible for engaging a suitably qualified and experienced acoustic consultant to undertake the monitoring as required. The method of measurement and reporting of noise levels must comply with the latest edition of the DETSI Noise Measurement Manual. All monitoring equipment used must be calibrated and appropriately operated and maintained.

Corrective Actions

If success criteria are not met, examples of corrective actions may include:

1. Review the use of any audible signals.
2. Investigate feasible additional noise attenuation devices for plant or equipment.

Reporting	Responsibility	Frequency
Record observations, actions and notifications from staff in diary	Site Supervisor	As Required
Record inspection notes and observations	Site Supervisor	Annual Audit
Results from complaint monitoring shall be forwarded to the administering authority.	Site Supervisor	Within 14 days of the completion of monitoring.

6.3 Water Management

Aim

To minimise the risk of adverse impacts to surface or groundwater quality by implementing appropriate water pollution controls at the site.

Success Criteria

- No adverse impacts to existing surface water or groundwater quality from site operations.
- Oil spills and product spills are contained within 1 hour of the event and cleaned within 24 hours.
- Spill kits are available and maintained.
- No visual signs of erosion occurring onsite.
- No wastewater discharge to the environment.

Management Actions	Responsibility	Frequency
• Stockpiles – stockpiles will drain towards the excavation pit. • Bunds/Berms – Temporary bunds or berms will be constructed of clean material only (No Acid Sulfate Soils (ASS) or Potential Acid Sulfate Soils (PASS)). • Equipment – Equipment will be relocated above flood levels and checked for oil and hydraulic leaks – complete urgent & minor repairs using temporary bunding as required to prevent potential stormwater contamination. • Internal Haul Roads – Minimise vehicle activity through stormwaters. • Waste - All generated waste into skip bins and ensure regularly emptied. • Fuel Storage – install and maintain bunded storage area to AS1940:2017 above flood levels. • Offices/minor services – locate above flood levels.	Site Supervisor	At all Times
Management Actions	Responsibility	Frequency
Groundwater monitoring system to be designed and installed by a suitably qualified person as per the EA.	Site Supervisor	As soon as practicable
Groundwater quality monitoring will be undertaken in accordance with the EA conditions on a quarterly basis.	Consultant/ Site Supervisor	As Required
Surface water quality monitoring will be undertaken in accordance with the EA.	Consultant/ Site Supervisor	As Required
Machinery maintenance activities on site include limited/small repairs of light vehicles; regular servicing and major repairs of heavy vehicles/rebuild on a sealed bunded pad in the machinery shed.	Site Supervisor	At all Times

REPORT

Spill kits, oil collection trolley or containers, mobile drip trays shall be available and in place during servicing to contain any leaks or spills.	All staff	As Required
Management Actions	Responsibility	Frequency
Chemicals and fuels in containers greater than 15L to be stored within a secondary containment system.	All Staff	At all Times
All spills shall be reported and cleaned up to minimise land or water contamination. Preference to dry methods of cleaning up spills to be given where possible.	All Staff	At all Times
Long term cover and capping soil stockpiles to be seeded and stabilised. Silt fencing and/or bunding to be placed below short-term stockpiles to minimise sediment run off to the environment.	Site Supervisor	At all Times
Corrective Actions		
If success criteria are not met, examples of corrective actions may include:		
1. Ensure wash down and maintenance activities are undertaken in contained areas to minimise the risk of water or land contamination. 2. Employ rock mulching or graveling to reduce erosion occurring onsite. 3. Identify sources of non-conforming results and adjust methods. 4. Agricultural lime or Aglime maybe used to treat the acidification of surface waters.		
Reporting	Responsibility	Frequency
Record site observations, actions and notifications in diary.	Site Supervisor	Daily as Required
Record all uncontrolled spills and water quality sampling results.	Site Supervisor	As Required
Record inspection notes and observations.	Site Supervisor	Annual Audit
Site vehicle maintenance records.	Site Operators	As Required
Ground and surface water quality monitoring.	Consultant	As Required
Groundwater or surface monitoring results not in compliance with the site's environmental authority conditions are required to be reported to the Pollution Hotline on 1300 130 372 as soon as practicable or within 24 hours of you becoming aware.	Site Supervisor	As Required

6.4 Waste Management

Aim		
All solid and liquid wastes are handled and transferred in a proper and efficient manner to minimise the risk of release to the environment.		
Success Criteria		
- No improper storage, transport or disposal of wastes. - All reasonable and practical measures are taken to contain litter.		
Management Actions	Responsibility	Frequency
All waste oils/fuels or other liquid waste will be stored in a sealed bunded area according to AS 1940:2017– Storage and Handling of Flammable and Combustible Liquids (bund volume to exceed volume of largest container plus 10%).	Site Operators	At all Times

REPORT

Appropriate space will be provided for the temporary storage of general refuse, recyclable and compostable waste to ensure separation of waste products.	Site Operators	At all Times
Waste will be managed in the preferred order of avoid, re-use, recycle, recover, treat and dispose within the <i>Waste Reduction and Recycling Act 2011 (Qld)</i> .	Site Operators	At all Times
If litter is blown or washed off site, it is to be retrieved and ensure it is disposed of in the appropriate manner and additional measures to prevent a recurrence (e.g. litter screens) are to be undertaken.	All Staff	At all Times
Maintain spill kits and ensure clean up equipment is available at site office (240L wheelie bin with mobile kits in each vehicle) with annual inspection of spill kits.	Site Supervisor	Replenish as required following use.
Burning of waste is not to occur on site.	Site Supervisor	As Required
Routine Monitoring Program	Responsibility	Frequency
Monitor waste storage, handling and disposal practices.	Site Supervisor	Daily
Daily inspections to ensure the site is free of uncontrolled rubbish, tidy and all wastes are appropriately stored and managed.	Site Supervisor	At all Times
Corrective Actions		
If success criteria are not met, examples of corrective actions may include:		
1. Retrain staff in correct waste management and disposal procedures.		
2. Ensure appropriate storage facilities are available for regulated and general waste.		
Reporting	Responsibility	Frequency
Record site observations, actions and notifications in daily diary.	Site Supervisor	As Required

6.5 Land and Rehabilitation Management

Aim		
To return the site to a stable landform once extractive operations have ceased and meet EA conditions.		
Success Criteria		
- Extracted areas are progressively rehabilitated as works are staged and new extraction areas commence. - Potential impacts from sand extraction are avoided, mitigated, or managed. - Land is rehabilitated in such a way that: - potential for erosion is minimised; - the quality of water released from the site, including seepage, does not cause environmental harm; - potential for environmental nuisance by dust is minimised; - the water quality of any residual water body does not have the potential to cause environmental harm; and - the final landform is safe and stable.		
Management Actions	Responsibility	Frequency
Earthen surfaces must be established with suitable species of vegetation for the location as approved by the landowner.	Site Supervisor	As Required
The potential for erosion should be minimised through staged development and the progressive rehabilitation of extraction voids to stabilise banks.	Site Supervisor	As Required
The quality of water released from the site must not cause environmental harm.	Consultant/Site Supervisor	Monthly

REPORT

The water quality of any residual water body must not have the potential to cause environmental harm.	Consultant/Site Supervisor	Monthly
The final landform of the site overall must be stable and suitable to the landowner prior to surrender of the EA.	Site Supervisor	As Required
Routine Monitoring Program	Responsibility	Frequency
Monitor the quality of water released from the site including pH, EC and turbidity.	Consultant/Site Supervisor	Monthly upon release.
Monitor residual water bodies to ensure water quality is safe for agricultural use.	Consultant/Site Supervisor	Monthly as required
Progressive rehabilitation will be monitored to ensure areas undergoing rehabilitation are safe and stable and do not have the potential for environmental harm or nuisance.	Site Supervisor	Monthly
Reporting	Responsibility	Frequency
Record site observations, actions and notifications in diary.	Site Supervisor	Daily as Required
Groundwater or surface monitoring results not in compliance with the site's environmental authority conditions are required to be reported to the Environmental Protection Agency as per conditions of the EA.	Consultant	As Required
Retain records of progressive rehabilitation and actions performed.	Site Supervisor	As Required

7 COMPLAINTS

The Site Supervisor will maintain and update a complaints log.

The following details must be recorded for all complaints received:

- Time, date, name and contact details of the complainant;
- Reasons for complaint;
- Any investigations undertaken;
- Conclusions formed; and
- Any actions taken.

The complaints log must be provided to the administering authority on request.

7.1 Complaints Procedure

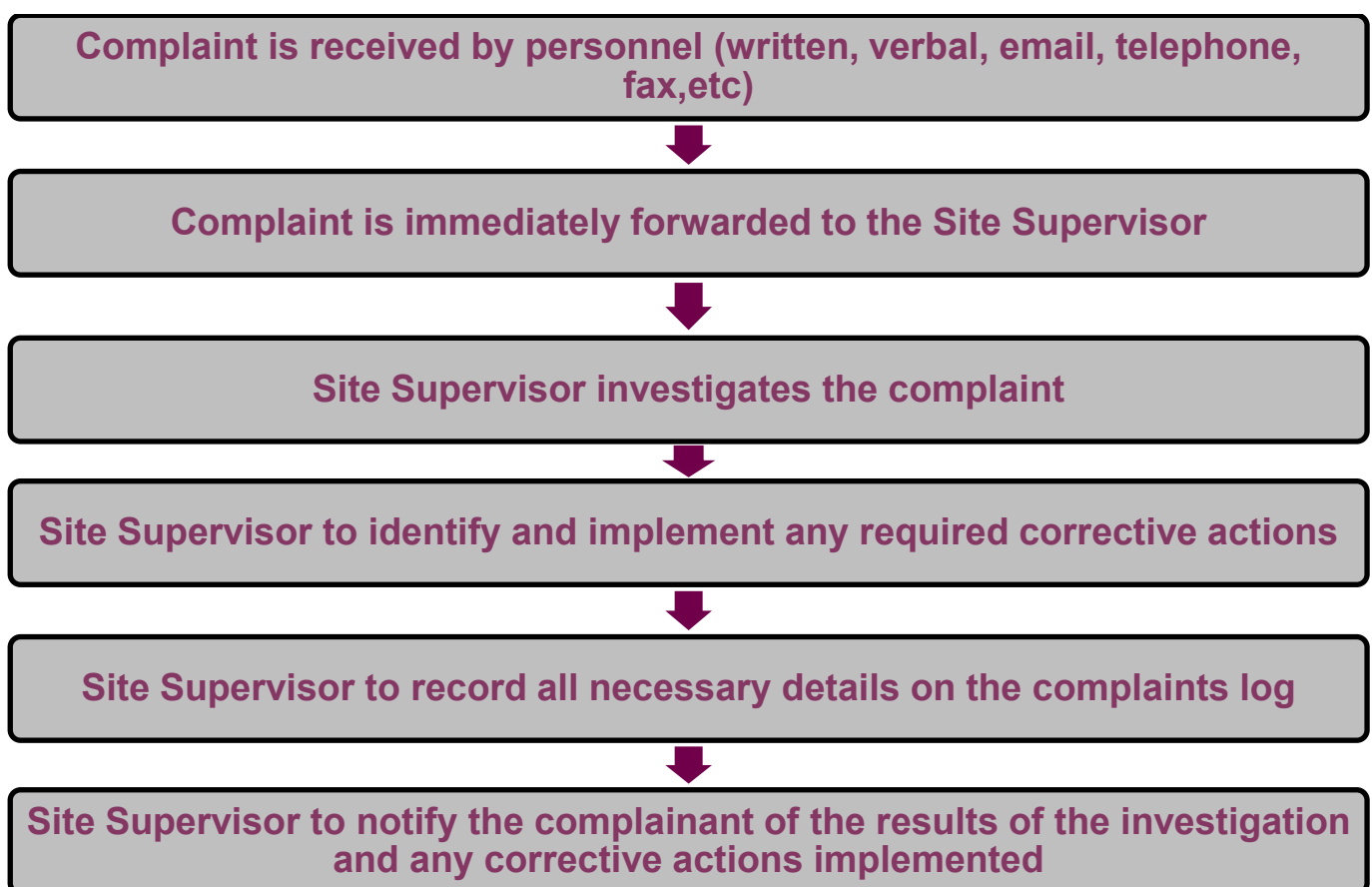


Figure 1 Complaints Procedure

8 EMERGENCY RESPONSE

This section provides an overview of response requirements for emergencies that could potentially occur at the site.

Ensure that all weather access to the normal operation sections of the site is to be kept maintained whilst the site is open.

8.1 Spill Response

If a spill threatens the safety or health of people, creates a fire hazard or has the potential to cause or causes serious environmental harm then the site emergency procedure shall be followed.

Where a chemical spill occurs, consult the Safety Data Sheet (SDS) for spill procedures. The following steps should also be considered:

Stop the source and spread of the spill if safe to do so:

- **Check for danger** (see note),
- Prevent the spill from getting larger (turn off valves, block damaged tanks or pipes, roll 44-gallon drums so that the opening is at the top), and
- Use any suitable material or equipment to confine the spills by 'damming it off' (e.g. use available spill response equipment such as booms or absorbent or if unavailable then use soil or other suitable material).

Clean up the Spill

- Once the spill has been contained, retrieve as much of the spilled liquid as possible and place in an appropriate container (e.g. 20L drum or 1000L IBC). The liquid should then be appropriately disposed of off-site to a facility licensed to receive such waste. The spill is to be cleaned up with preference to dry methods of cleaning up,
- Absorb remaining spill with absorbent material and place used absorbent in the appropriate waste bin,
- Treat areas of contaminated soil in accordance with **Figure 2** below; and
- Where applicable, replenish equipment used from Spill Response Kit.

Report the Spill

- Report and investigate all spills in accordance with Incident Reporting and Analysis (**Refer to Section 9.3**).

Note: If a significant hazardous chemical spill occurs, and no SDS exists due to the nature of the circumstance then the spill may need to be immediately notified to environmental and emergency response authorities before clean-up can commence. Specialized PPE or equipment may also be required.

8.1.1 Spill Kits

Spill kits and/or spill clean-up equipment will be available at the Site Office/Workshop. Equipment contained in spill response kits shall be replenished upon use, equal to the specified list contained within the kit. The Site Supervisor will be responsible for the regular inspection of the Spill Response Kit and for replenishing missing/used items when necessary.

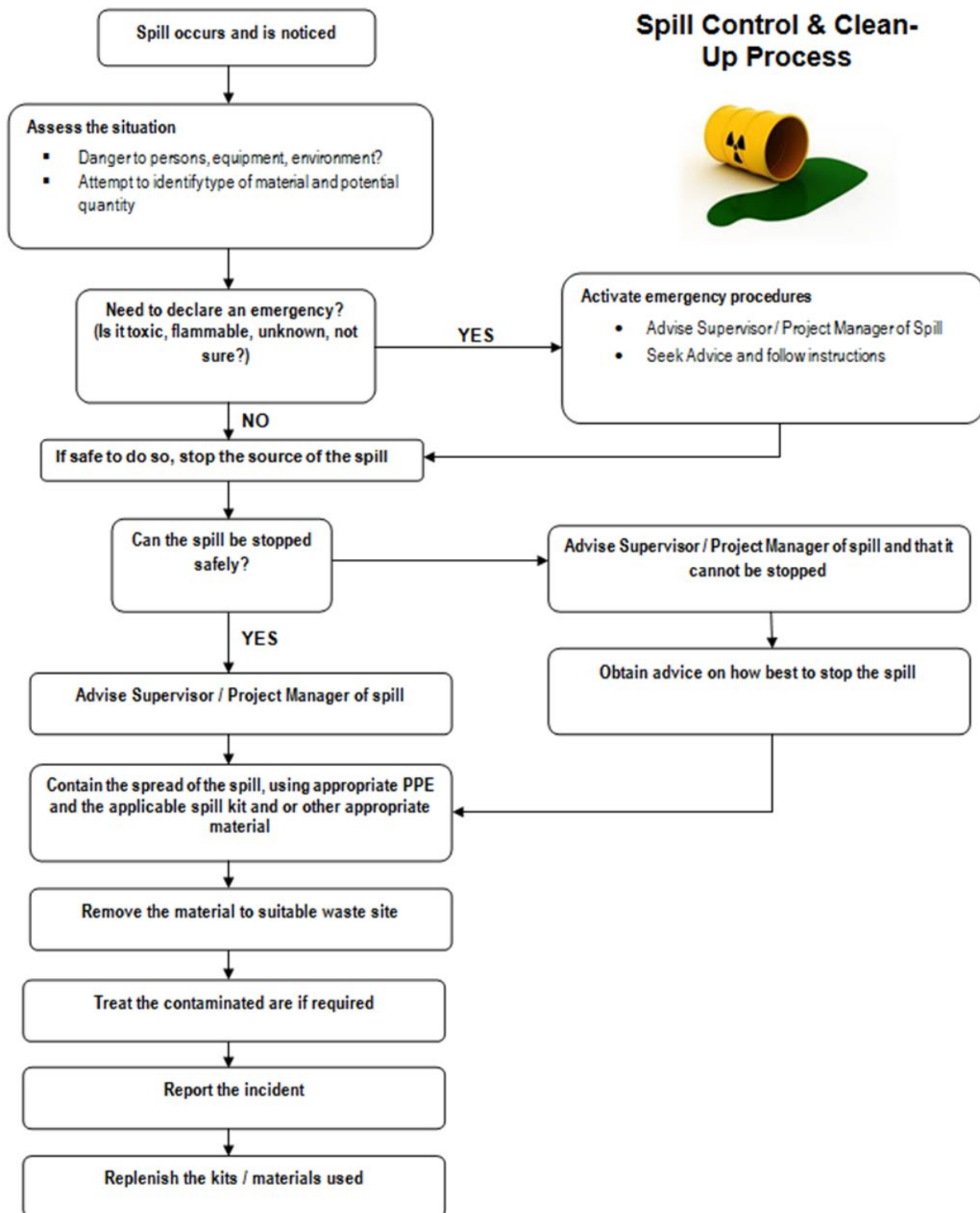


Figure 2 Spill Control and Clean-Up Process

8.2 Flooding and Stormwater Management

If heavy rainfall or flooding is forecast for the area, the Site Supervisor shall prepare the site by:

- Relocating any mobile plant or equipment to higher parts of the site,

- Removing potential contaminants from site ensuring that potential contaminants are protected from rainfall or stormwater flows; and
- Ensuring all erosion and sediment control measures have been maintained and are in place.

8.3 Fire Management

8.3.1 Potential Sources

Fire scenarios on the site could potentially arise from:

- Electrical failures,
- Refuelling incidents; and
- Waste combustion.

8.3.2 Risk Management

To minimise these risks the following measures have been adopted for the site:

- Fire Extinguishers must be installed beside refuelling areas,
- Maintaining accessible Fire Extinguishers at all times,
- Regular slashing of grassed or vegetated areas around the site,
- No unauthorised burning on the site,
- No stockpiling of vegetation on the site,
- The water truck used for dust prevention may also be used as an initial firefighting resource,
- Risk assessment on the co-storage of chemicals; and
- Clear access for fire-fighting vehicles.

Specific recommendations can be obtained by requesting an inspection by the local fire service.

8.3.3 Fire Response

In the event of a small fire at the site, a portable fire extinguisher or water truck may be used to attempt to extinguish the fire. If this is unsuccessful or the fire is large, Queensland Fire and Rescue Service shall be contacted immediately. An emergency should be declared on site, and all personnel should directly assemble at the site evacuation point for roll call.



IN AN EMERGENCY CALL 000

8.4 Cyclone Management

It is recommended that staff remain in contact with each other during times of extreme weather events and plan accordingly, eliminating the possibility of staff being caught out in extreme weather events.

8.4.1 Minimising Cyclone Damage

To minimise the potential damage caused by cyclones, the following measures are to be adopted:

- Ensure buildings are built to cyclone standards of local council.
- Eliminate loose objects on site that can act as projectiles during cyclones.

8.4.2 Cyclone Issued Warnings

When a cyclone warning is issued the progress of the cyclone is to be monitored and if requested by local authorities or Site Supervisor the site is to be evacuated.

All work is to cease, and erosion and sediment controls to be implemented to prevent loss of any stockpiled material. Cover materials must consist of soils that have been assessed as having low erodibility and are able to withstand water velocity up to 0.7m/s without any significant erosion.

Waste temporarily stored onsite must be removed from the site to a facility licensed to accept such wastes.

Under the circumstances, if the site is unable to be evacuated the following measures are to be undertaken:

- Park vehicles under shelter,
- All loose items to be secured,
- Tape or board up windows,
- Remain indoors until advised it's safe,
- Disconnect electrical appliances; and
- Be aware of radio updates.

Any injuries obtained should be noted and treated. If injuries are outside the scope of medical expertise of personnel present, contact 000 or the local hospital directly.

8.5 Emergency Contact Numbers

Project Contact Details	
Emergency Services	
Ambulance, Fire or Police	000
Poisons Information	13 11 26
Utilities for Mareeba	
Water (Flood/ Storm Assistance)	132 500
Electricity (Power outages)	132 296
Gas (Supagas emergency line)	1300 651 106
Telephone (Ergon Energy)	132 296
DETSI (24-hour pollution line)	1300 130 372 or email: pollutionhotline@detsi.qld.gov.au
Site Manager	
Barry Warne	Office: (07) 4047 8300
	Mobile: 0438 581 107
Other Contacts	
Darren Caddy, Operations Manager - Extractive	Office: (07) 4047 8315
	Mobile: 0407 489 493

9 INCIDENT MANAGEMENT

9.1 What is an Incident

An incident is any non-compliance with this SBMP. This may include but is not limited to:

- Spills from vehicle maintenance or refuelling outside bunded areas,
- Complaints regarding the facility,
- Contaminated water leaving the site during high rainfall events/floods,
- Spilling of products,
- Damage to site bunds or chemical storage infrastructure,
- Damage to stormwater diversions and ESC,
- Dusty, odorous or noisy conditions; and
- Unauthorised waste disposal.

9.2 Incident Investigation

All incidents shall be investigated by the Site Supervisor to determine:

- Nature, type, location and extent of the incident and the affected area,
- Actual and/or potential environmental impacts of the incident (see below),
- Suspected cause of the incident,
- Measures required to mitigate any further environmental harm,
- Remedial measures required to correct any environmental harm; and
- Measures to be implemented to prevent a recurrence of the incident.

The requirements for the environmental assessment of impacts of an incident shall be determined by an Environmental Consultant. The assessment may include environmental monitoring of contaminant releases in relation to land, water, noise, air and light (in addition to routine monitoring requirements). Based on the nature and type of the incident, the Environmental Consultant shall determine:

- Sampling and analytical requirements,
- Applicable guidelines or levels to apply to data for assessing compliance and level of impact; and
- Reporting requirements

Any monitoring shall be undertaken by a competent person, and all monitoring equipment shall be appropriately maintained, calibrated and operated. Monitoring will be designed in consultation with PNQ and Department of Environment, Tourism, Science and Innovation (DETSI).

9.3 Incident Reporting

In accordance with the *Environmental Protection Act 1994* (EP Act), serious or material environmental harm (Material harm defined as greater than \$5,000 to clean up and/or restore environment, Serious harm defined as greater than \$50,000 to clean up and/or restore environment) shall be reported by PNQ to DETSI within 24 hours of becoming aware of the event in accordance with the Duty to Notify (refer to Section 320 of the EP Act). Minor incidents (e.g. hydraulic oil leaks less than 20L) are to be reported in the site diary and cleaned up or remediated.

All personnel are responsible for reporting all incidents to the Site Supervisor. All incidents are to be recorded on the Incident Report Form provided in **Appendix C**.

REPORT

The Site Supervisor shall telephone DETSI as soon as practical after becoming aware of any release of contaminants not in accordance with the EA. Following this, a written notice detailing the following information must be provided within 14 days of the initial notification:

- The name of the operator, including their approval / registration number,
- The name and telephone number of a designated contact person,
- Quantity and substance released,
- Vehicle and registration details,
- Person/s involved (driver any others),
- The location and time of the release,
- The suspected cause of the release,
- A description of the effects of the release,
- The results of any sampling performed in relation to the release,
- Actions taken to mitigate any environmental harm caused by the release; and
- Proposed actions to prevent a recurrence of the release.

	DEPARTMENT OF ENVIRONMENT, TOURISM, SCIENCE AND INNOVATION Environmental services and Regulation Northern Region 5B Sheridan Street, Cairns QLD 4870 PHONE: 1300 130 372
	POLLUTION HOTLINE 1300 130 372

9.4 Incident Prevention

- To increase site safety, the appropriate personnel protection equipment is required at all times,
- Analysis of past incidents and potential future incidents is required to identify and minimise recurrences,
- Training and environmental awareness information; and
- Liaison with environmental consultants and DETSI officers.

10 TRAINING, RECORDS, AND REVIEW

10.1 Training

All PNQ staff employed on the site to have completed a site induction by the Site Supervisor. The induction training will include the following:

- Familiarisation with the requirements of this Site Based Management Plan,
- Familiarisation with site environmental controls,
- Process for management of environmental incidents,
- Legislations applicable to the extractive industry such as permits, approvals, and licences,
- Environmental duty of care and duty to notify,
- Cultural heritage duty of care and duty to notify,
- Operational requirements to meet design specifications including pond management, stormwater management, surface water monitoring etc,
- Spill kit use and response,
- Guidelines on waste management and chemicals,
- Identification and source separation of recyclable materials,
- Equipment, maintenance, refuelling procedures,
- Dust control measures; and
- Stormwater management measures.

PNQ may combine the Work Health and Safety (WHS) and Environmental induction into one. A record of site induction for all personnel will be made available on the Site Environmental Inductions Register.

10.2 Records Management

A copy of the Environmental Authority and SBMP shall be always kept in the PNQ site office. Any record or document required as an outcome of this SBMP or requested by a regulatory authority must be kept at the site for a period of 5 years in accordance with the EA and be available to an authorised person.

Records must be kept of the key environmental performance indicators, monitoring results, corrective actions, environmental incidents and complaints, reports to management, and any records required by law such as regulated waste tracking.

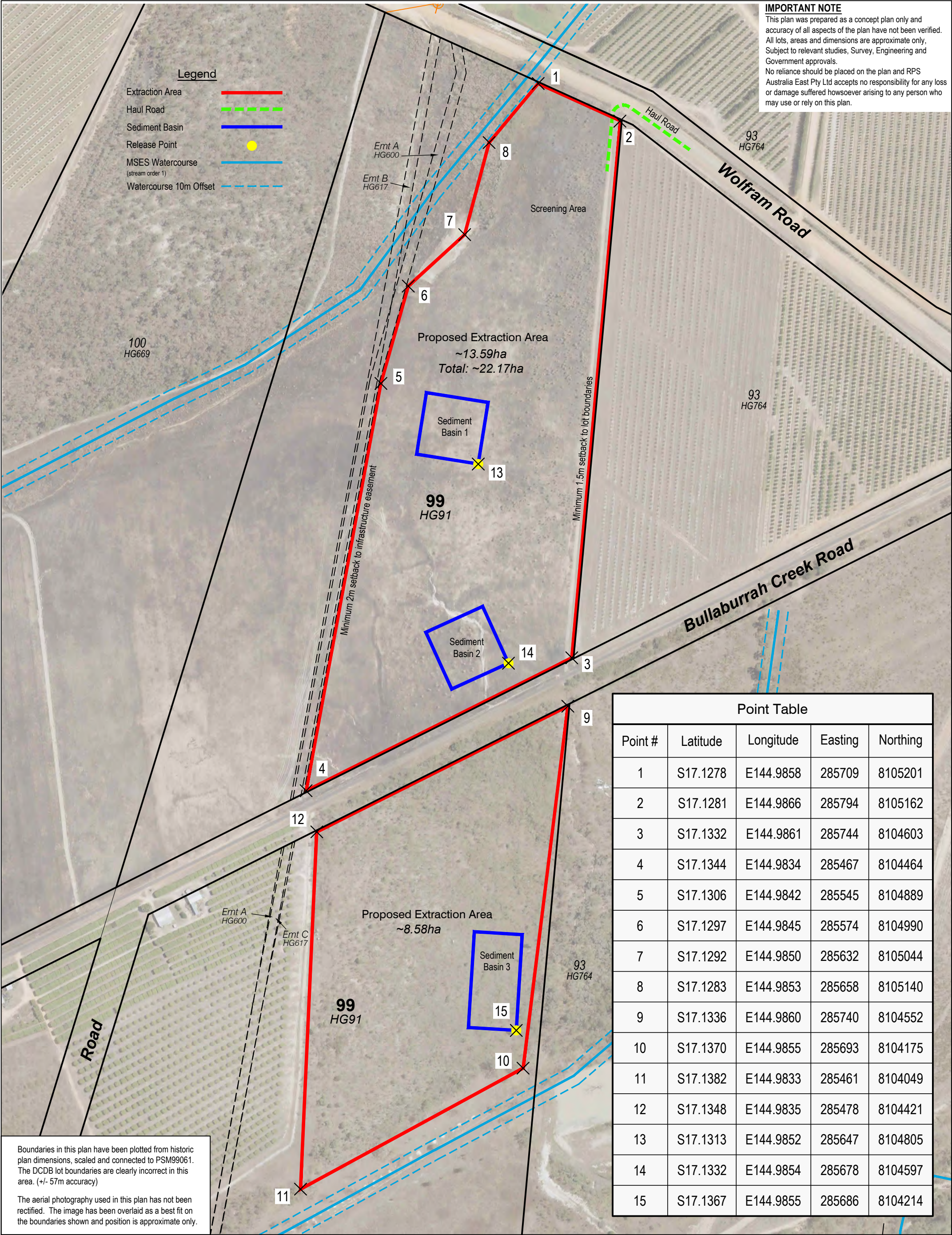
The records collected are to be made available upon request of administering authority. A weekly inspection checklist has been provided as **Appendix D**.

10.3 Audit and Review

The SBMP audit shall be undertaken by a third-party auditor nominated by the holder of the permit (PNQ) and undertaken on an annual basis in accordance with the EA. Following each audit, the SBMP shall be reviewed and updated where necessary.

Appendix A Environmental Authority

Appendix B Site Layout Plan



Appendix C Incident Report Form

REPORT

1. Project No & Name:		Log No:	
2. Location		Date	Time
3. Type of Incident	☐ Near Miss	☐ First Aid Injury	☐ Dangerous Event
	☐ Environmental	☐ Lost Time Injury	☐ Medical Treatment Injury
	☐ Damage to Equipment	☐ Hazard	☐ Complaint
	☐ Other _____	☐ Restricted Duties Injury	
4. Incident Details (attach additional pages if required)			
5. Details of person(s) involved	Name: _____ ☐ Male ☐ Female		
	Date of Birth: _____ Contact No: _____		
	Residential Address: _____		
6. Employment Basis	☐ Full-time	☐ Part-time	☐ Sub-Contractor
	☐ Casual	☐ Other _____	
7. Employment Type	☐ Admin	☐ Professional	☐ Apprentice/Trainee
	☐ Tradesperson	☐ Labourers & related workers	☐ Plant & Machine Operators/Drivers
	☐ Other: _____		
8. Medical Treatment Taken	Did injury occur ☐ Yes ☐ No		
	Was first aid treatment given ☐ Yes ☐ No		
9. Equipment/ Machinery Details	Make and Model: _____ Plant/Rego No: _____		
	Was the equipment/machinery ☐ repaired? ☐ returned to service?		
	☐ written off? ☐ other _____		
10. Witnesses (attach statements)			
1. Printed Name _____ Position _____		2. Printed Name _____ Position _____	
3. Printed Name _____ Position _____		4. Printed Name _____ Position _____	
11. Report Raised By			
Printed Name _____ Date _____		Signature _____	Position _____
12. Supervisor Review			
Printed Name _____ Date _____		Signature _____	Position _____
13. HSE Advisor	Is further investigation required? ☐ Yes ☐ No		Related First/Aid _____
	Incident Report No: Printed Name _____ Signature _____		Date _____
14. Closed Out By:			
Printed Name _____ Date _____		Signature _____	Position _____

Appendix D Weekly Checklist

SITE BASED MANAGEMENT PLAN WEEKLY CHECKLIST			
CEMP ELEMENT	Yes/No/NA	Date	Initial
SURFACE AND GROUNDWATERS			
Are erosion and sediment controls in place at the site adequate for the works being undertaken? Do control measures require maintenance?			
Have overburden stockpiles and disturbed areas been stabilised where necessary?			
Have AASS and PASS material been treated or reburied as necessary?			
Are stabilised entry and exit points provided? Is any soil being transported onto public roads or highways?			
Are bunds in place to segregate clean and dirty water? Are drainage structures stabilised to minimise erosion?			
Has surface and groundwater monitoring been undertaken?			
CONTAMINATED LAND			
Are vehicles and plant in good operating condition (i.e. no oil or fuel leaks?)			
Are controls in place for refuelling or maintenance to prevent soil or water contamination from spills or leaks?			
Are chemicals stored in a covered and bunded impervious area?			
Is there evidence of any spills greater than 20 L at the site?			
Is any imported fill certified as clean (free of hazardous contaminants and not ASS)?			
Has any contaminated soil been encountered at the site?			
VEGETATION MANAGEMENT			
Are all works confined to the limits of the site?			
Has clearing of vegetation and ground disturbance been minimised where practicable?			
BUSHFIRE			
Any unauthorised burning at the site?			
NOISE/DUST IMPACTS			
No unnecessary use of horns or other audible signals on mobile plant or equipment.			
No unnecessary revving or idling of engines on mobile and stationary machines.			
Site kept neat and tidy?			
Dust reduction measures implemented and adequate for conditions?			
WASTE MANAGEMENT			
General wastes stored in covered bins?			
Recyclable materials segregated for recycling?			
Regulated wastes (i.e. waste oil) only removed from site by a regulated waste contractor? Are waste tracking documents available?			
Have any wastes been disposed of onsite?			
Wastes protected from rainfall and stormwater contact?			
DOCUMENTATION			
Is a copy of the SBMP readily available?			
Sight evidence of waste tracking paperwork, certification of fill, weed hygiene declarations and disposal receipts.			
Incident reporting and procedures - have all incidents have been documented on the "Incident Report Form" and correctly reported and investigated?			
Sight evidence of vehicle and equipment maintenance has been undertaken as per the manufacturer's instructions.			

REPORT

SITE BASED MANAGEMENT PLAN WEEKLY CHECKLIST			
CEMP ELEMENT	Yes/No/NA	Date	Initial
Review site manager has records of daily site observations, actions and notifications in diary.			
Sight evidence of staff induction training.			
Have any complaints been received? Have incident reports been completed for complaints?			

Record non-compliances as an incident and address accordingly.

Inspected by: _____

Print Name

Signature

Date

Acknowledged by: _____

Print Name

Signature

Date

Appendix F

State Code Responses

State code 22: Environmentally relevant activities

Guideline – SDAP State code 22: Environmentally Relevant Activities provides direction on how to address this code.

Table 22.1: All development

Performance outcomes	Acceptable outcomes	Response
All ERAs		
PO1 Development is suitably located and designed to avoid or mitigate environmental harm to the acoustic environment .	AO1.1 Development meets the acoustic quality objectives for sensitive receptors identified in the Environmental Protection (Noise) Policy 2019.	Complies with AO1.1 The proposed extraction area is located within the Rural Zone approximately 380 metres from the nearest sensitive receptor.
PO2 Development is suitably located and designed to avoid or mitigate environmental harm to the air environment .	AO2.1 Development meets the air quality objectives of the Environmental Protection (Air) Policy 2019.	Complies with AO2.1 The proposed development is located within a rural area. Ambient air quality is influenced by existing agricultural activities. The proposal would not result in environmental harm given that it is located approx. 380 metres east of the nearest sensitive receptor.
PO3 Development (other than intensive animal industry for poultry farming), is suitably located and designed to avoid or mitigate environmental harm on adjacent sensitive land uses caused by odour.	No acceptable outcome is prescribed.	Not applicable The proposal is for extractive industry. No odour would be generated by the proposed development.
PO4 Development is suitably located and designed to avoid or mitigate environmental harm to the receiving waters environment .	AO4.1 Development meets the management intent, water quality guidelines and objectives of the Environmental Protection (Water and Wetland Biodiversity) Policy 2019.	Complies with AO4.1 The proposed extraction activities would be undertaken strictly in accordance with the Environmental Assessment Report (Appendix D) and Site Based Management Plan (Appendix E). Sediment basins would be strategically located on-site to capture and prevent discharge of sediment laden water to watercourses.

Performance outcomes	Acceptable outcomes	Response
PO5 Development is designed to include elements which: 1. prevent or minimise the production of hazardous contaminants and waste as by-products; or 2. contain and treat hazardous contaminants on-site rather than releasing them into the environment; and 3. provide secondary containment to prevent the accidental release of hazardous contaminants to the environment from spillage or leaks.	No acceptable outcome is prescribed.	Complies with PO5 The proposal is for the extraction of sand only. No hazardous contaminants or wastes would be generated by the proposal.
PO6 Environmentally hazardous materials located on-site are stored to avoid or minimise their release into the environment due to inundation during flood events.	No acceptable outcome is prescribed.	Not applicable No environmentally hazardous materials would be stored on-site as part of this proposal.
All development – matters of state environmental significance		
PO7 Development is designed and sited to: 1. avoid impacts on matters of state environmental significance; or 2. minimise and mitigate impacts on matters of state environmental significance after demonstrating avoidance is not reasonably possible; and 3. provide an offset if, after demonstrating all reasonable avoidance, minimisation and mitigation measures are undertaken, the development results in an acceptable significant residual impact on a matter of state environmental significance. Statutory note: For Brisbane core port land, an offset may only be applied to development on land identified as E1 Conservation/Buffer, E2 Open Space or Buffer/Investigation in the Brisbane Port LUP precinct plan.	No acceptable outcome is prescribed.	Complies with PO7 The proposed area of extraction avoids areas of mapped regulated vegetation Category B (Least Concern) regional ecosystem. There are no protected plants within the proposed extraction area. The site is currently utilised for agricultural production, horticultural cropping and the balance is vacant. The proposal would not adversely impact matters of state environmental significance.
Intensive animal industry – poultry farming (ERA 4(2))		
PO8 Poultry farming development (where farming more than 200,000 birds) is suitably located and designed to avoid or mitigate environmental harm on adjacent sensitive land uses , caused by odour.	AO8.1 For poultry farming involving 300,000 birds or less, development meets the separation distances as determined using the S-factor methodology to: 1. a sensitive land use in a rural zone; and 2. boundary of a non-rural zone. OR	Not applicable The proposal is for extractive industry.

Performance outcomes	Acceptable outcomes	Response
	AO8.2 Development meets the separation distances as determined by odour modelling using the following criteria: 1. 2.5 odour units, 99.5 percent, 1 hour average for a sensitive land use in a rural zone; or 2. 1.0 odour units, 99.5 percent, 1 hour average for the boundary of a non-rural zone.	

Appendix G

Planning Scheme Code Responses

6.2.9 Rural Zone Code

6.2.9.1 Application

- 1) This code applies to assessing development where:
 - (a) located in the Rural zone; and
 - (b) it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme.

6.2.9.2 Purpose

- 1) The purpose of the Rural zone code is to:
 - (a) provide for rural uses including cropping, intensive horticulture, intensive animal industries, animal husbandry, animal keeping and other primary production activities;
 - (b) provide opportunities for non-rural uses that are compatible with agriculture, the environmental features, and landscape character of the rural area where the uses do not compromise the long-term use of the land for rural purposes;
 - (c) protect or manage significant natural resources and processes to maintain the capacity for primary production.
- 2) Mareeba Shire Council's purpose of the Rural zone code is to recognise the importance of primary production to the economy of the region and to maintain and strengthen the range of primary industries which contribute to the rural economy.

The purpose of the Rural zone code is to:

- (a) recognise the diversity of rural uses that exists throughout the region;
- (b) protect the rural character of the region;
- (c) provide facilities for visitors and tourists that are accessible and offer a unique experience;
- (d) protect the infrastructure of the Mareeba-Dimbulah Irrigation Scheme Area from development which may compromise long term use for primary production;
- (e) maintain distinct boundaries between the rural areas and the villages, towns and urban areas of the region;
- (f) provide for a range of uses, compatible and associated with rural or ecological values including recreational pursuits and tourist activities;
- (g) prevent adverse impacts of development on ecological values;
- (h) preserve land in large holdings; and
- (i) facilitate the protection of strategic corridors across the landscape which link remnant areas of intact habitat and transport corridors.

3) The purpose of the Rural zone code will be achieved through the following overall outcomes:

- (a) Areas for use for primary production are conserved and fragmentation below economically viable lot sizes is avoided;
- (b) The establishment of a wide range of rural pursuits is facilitated, including cropping, intensive horticulture, forestry, intensive animal industries, animal husbandry and animal keeping and other compatible primary production uses;
- (c) The establishment of extractive industries, mining and associated activities and alternative forms of energy generation is appropriate where environmental impacts and land use conflicts are minimised;
- (d) Uses that require isolation from urban areas as a consequence of their impacts such as noise or odour may be appropriate where land use conflicts are minimised;
- (e) Development is reflective of and responsive to the environmental constraints of the land;
- (f) Residential and other development is appropriate only where directly associated with the rural nature of the zone;
- (g) Low-impact tourism and recreation activities do not compromise the long-term use of the land for rural purposes;
- (h) The viability of both existing and future rural uses and activities is protected from the intrusion of incompatible uses;
- (i) Visual impacts of clearing, building, materials, access ways and other aspects of development are minimised or appropriately managed;
- (j) Adverse impacts of development both on-site and from adjoining areas are avoided and any impacts are minimised through location, design, operation and management; and
- (k) Natural features such as creeks, gullies, waterways, wetlands and bushland are retained, managed, enhanced and separated from adjacent development.

6.2.9.3 Criteria for Assessment

Table 6.2.9.3 – Rural Zone Code – For acceptable development subject to requirements and assessable development.

Performance outcomes	Acceptable outcomes	Applicant response
For accepted development subject to requirements and assessable development.		
Height		
PO1 Building height takes into consideration and	AO1.1 Development, other than buildings used for rural	Not applicable The proposed development is for Material Change

Performance outcomes	Acceptable outcomes	Applicant response
respects the following: (a) the height of existing buildings on adjoining premises; (b) the development potential, with respect to height, on adjoining premises; (c) the height of buildings in the vicinity of the site; (d) access to sunlight and daylight for the site and adjoining sites; (e) privacy and overlooking; and (f) site area and street frontage length.	activities, has a maximum building height of: (a) 8.5 metres; and (b) 2 storeys above ground level.	of Use (Extractive Industry). No buildings are proposed as part of this application.
	AO1.2 Buildings and structures associated with a rural activity including machinery, equipment, packing or storage buildings do not exceed 10 metres in height.	Complies with AO1.2 Structures associated with screening of material would not exceed 10 metres in height.
Siting, where not involving a Dwelling house. Note – Where for Dwelling house, the setbacks of the Queensland Development Code Apply		
PO2 Development is sited in a manner that considers and respects: (a) the siting and use of adjoining premises; (b) access to sunlight and daylight for the site and adjoining sites; (c) privacy and overlooking; (d) air circulation and access to natural breezes; (e) appearance of building bulk; and (f) relationship with road corridors.	AO2.1 Buildings and structures include a minimum setback of: (a) 40 metres from a frontage to a State controlled road; and (b) 10 metres from a boundary to an adjoining lot.	Complies with AO2.1 Proposed screening of material would be located at least 10 metres from the boundary with adjoining lots.
	AO2.2 Buildings and structures, where for a Roadside stall, include a minimum setback of 0 metres from a frontage to a road that is not a State-controlled road.	Not applicable The proposal is for extractive industry.

Performance outcomes	Acceptable outcomes	Applicant response
	AO2.3 Buildings and structures, except where a Roadside stall, include a minimum setback of: (a) 10 metres from a frontage to a sealed road that is not a State-controlled road; and (b) 100 metres from a frontage to any other road that is not a State controlled road;	Complies with AO2.3 Proposed screening activities would be setback a minimum of 10 metres from Bullaburrah Creek Road and Wolfram Road.
Accommodation Density		
PO3 The density of Accommodation activities: (a) respects the nature and density of surrounding land use; (b) is complementary and subordinate to the rural and natural landscape values of the area; and (c) is commensurate to the scale and frontage of the site.	AO3.1 Residential density does not exceed one dwelling house per lot.	Not applicable The proposal is for extractive industry only.
	AO3.2 Residential density does not exceed two dwellings per lot and development is for: (a) a secondary dwelling; or (b) Caretaker's accommodation and includes building work or minor building work with a maximum gross floor area of 100m ² ; or (c) Rural worker's accommodation.	Not applicable The proposal is for extractive industry only.
For Assessable Development		
Site Cover		

Performance outcomes	Acceptable outcomes	Applicant response
PO4 Buildings and structures occupy the site in a manner that: (a) makes efficient use of land; (b) is consistent with the bulk and scale of buildings in the surrounding area; and (c) appropriately balances built and natural features.	AO4 No Acceptable outcome is provided	Not applicable The proposal is for extractive industry only. No buildings are proposed.
PO5 Development complements and integrates with the established built character of the Rural zone, having regard to: (a) roof form and pitch; (b) eaves and awnings; (c) building materials, colours and textures; and (d) window and door size and location.	AO5 No acceptable outcome is provided	Not applicable The proposal is for extractive industry only. No buildings are proposed.
Amenity		
PO6 Development must not detract from the amenity of the local area, having regard to: (a) noise; (b) hours of operation;	AO6 No acceptable outcome is provided	Able to comply with PO6 The proposal for extractive industry would ensure that screening activities are adequately setback from front, side and rear boundaries, operation of the proposal would be conducted in accordance with the prepared Site Based Management Plan,

Performance outcomes	Acceptable outcomes	Applicant response
(c) traffic; (d) advertising devices; (e) visual amenity; (f) privacy; (g) lighting; (h) odour; and (i) emissions.		provided as Appendix E .
PO7 Development must take into account and seek to ameliorate any existing negative environmental impacts, having regard to: (a) noise; (b) hours of operation; (c) traffic; (d) advertising devices; (e) visual amenity; (f) privacy; (g) lighting; (h) odour; and (i) emissions.	A07 No acceptable outcome is provided	Able to comply with PO7 The proposal would be undertaken strictly in accordance with the Environmental Assessment Report (Appendix D) and the Site Based Management Plan (Appendix E), to where possible avoid or otherwise mitigate potential environmental impacts.

8.2.1 Agricultural Land Overlay Code

8.2.1.1 Application

(1) This code applies to assessing development where:

- (a) land the subject of development is located within identified on the **Agricultural land overlay maps (OM-001a-n)**; and
- (b) it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme.

Note – Agriculture is appropriately reflected in Overlay Map 1 and is required to be mapped by State Government in response to Economic Growth State Interests.

8.2.1.2 Purpose

(1) The purpose of the Agricultural land overlay code is to protect or manage important agricultural areas, resources, and processes which contribute to the shire's capacity for primary production.

(2) The purpose of the code will be achieved through the following overall outcomes:

- (a) The alienation, fragmentation or reduction in primary production potential of land within the 'Class A' area or 'Class B' area is avoided, except where:
 - (i). an overriding need exists for the development in terms of public benefit,
 - (ii). no suitable alternative site exists; and
 - (iii). the fragmentation or reduced production potential of agricultural land is minimised;
- (b) 'Class A' areas and 'Class B' areas continue to be used primarily for more intensive agricultural activities which utilise the land quality provided in these areas;
- (c) Grazing on very large land holdings is maintained as the dominant rural activity in the 'Broadhectare rural' area; and
- (d) Land with the 'Broadhectare rural' area is maintained in its current configuration.

8.2.1.3 Purpose

Table 8.2.1.3 – Scenic Amenity Overlay Code – For acceptable development subject to requirements and assessable development.

Performance outcomes	Acceptable outcomes	Applicant response
For accepted development subject to requirements and assessable development.		

Performance outcomes	Acceptable outcomes	Applicant response
Where adjoining a Local scenic route		
PO1 The fragmentation or loss of productive capacity of land within the 'Class A' area or 'Class B' area identified on the Agricultural land overlay maps (OM-001a-n) is avoided unless: (a) an overriding need exists for the development in terms of public benefit; (b) no suitable alternative site exists; and (c) loss or fragmentation is minimised to the extent possible.	AO1.1 Buildings and structures are not located on land within the 'Class A' area or 'Class B' area identified on the Agricultural land overlay maps (OM-001a-n) unless they are associated with: (a) animal husbandry; or (b) animal keeping; or (c) cropping; or (d) dwelling house; or (e) home based business; or (f) intensive animal industry (only where for feedlotting); or (g) intensive horticulture; or (h) landing; or (i) roadside stalls; or (j) winery.	Complies with AO1.1 The proposed development for Material Change of Use (Extractive Industry) would not involve any buildings or permanent structures. The proposed screening plant would be located temporarily on-site and relocated as required to facilitate screening of material. Whilst the site is mapped as Class A Agricultural land, the site is marginal and the proposed extraction area would exclude existing cropping areas. Upon completion of the proposed extraction, the area of extraction would be rehabilitated to facilitate future agricultural production.
For assessable development		
PO2 Sensitive land uses in the 'Class A' area, 'Class B' area or the 'Broadhectare rural' area identified on the Agricultural land overlay maps (OM-001a-	AO2 No acceptable outcome is provided.	Not applicable The proposal is for extractive industry. No sensitive land uses are proposed.

Performance outcomes	Acceptable outcomes	Applicant response
n) are designed and located to: (a) avoid land use conflict; (b) manage impacts from agricultural activities, including chemical spray drift, odour, noise, dust, smoke and ash; (c) avoid reducing primary production potential; and (d) not adversely affect public health, safety and amenity.		
PO3 Development in the 'Class A' area or 'Class B' area identified on the Agricultural land overlay maps (OM-001a-n): (a) ensures that agricultural land is not permanently alienated; (b) ensures that agricultural land is preserved for agricultural purposes; and (c) does not constrain the viability or use of agricultural land.	AO3 No acceptable outcome is provided.	Able to comply with PO3 The proposed development seeks to extract sand from areas of the site that are not currently utilised for agricultural production. The proposal for sand extraction and screening would include removal and stockpiling of topsoil, extraction and screening of the suitable sand resource prior to the rehabilitation of the site by means of backfilling and resspreading of topsoil. Post completion of the rehabilitation works, agricultural use of the land would recommence.
If for Reconfiguring a Lot		
PO4 The 'Broadhectare rural area' identified on the Agricultural land overlay maps (OM001a-n) is retained in very large rural holdings viable for	AO4 Development does not involve the creation of a new lot within the 'Broadhectare rural' area identified on the Agricultural land overlay maps	Not applicable The proposed is for Material Change of Use (Extractive Industry).

Performance outcomes	Acceptable outcomes	Applicant response
broad scale grazing and associated activities.	(OM-001a-n).	
PO5 Reconfiguring a lot in the 'Class A' area, 'Class B' area or the 'Broadhectare rural' area identified on the Agricultural land overlay maps (OM-001a-n) that is severed by a gazetted road occurs only where it does not fragment land used for agricultural purposes.	AO5 No acceptable outcome is provided.	Not applicable The proposed is for Material Change of Use (Extractive Industry).
PO6 Any Reconfiguring a lot in the 'Class A' area, 'Class B' area or the 'Broadhectare rural' area identified on the Agricultural land overlay maps (OM-001a-n) , including boundary realignments, only occurs where it: (a) improves agricultural efficiency; (b) facilitates agricultural activity; or (c) facilitates conservation outcomes; or (d) resolves boundary issues where a structure is built over the boundary line of two lots.	AO6 No acceptable outcome is provided.	Not applicable The proposed is for Material Change of Use (Extractive Industry).

8.2.3 Bushfire Hazard Overlay Code

8.2.3.1 Application

1) This code applies to assessing development where:

- (a) land the subject of development is located within a Bushfire hazard area and Potential impact buffer (100 metres) identified on the **Bushfire hazard overlay maps (OM-003a-o)**; and
- (b) it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme.

Note—Natural hazards are appropriately reflected in Overlay Maps 3, 6 and 8 and are required to be mapped by State Government in response to Hazard and Safety State Interests.

8.2.3.2 Purpose

- 1) The purpose of the Bushfire hazard overlay code is to minimise the threat of bushfire to people and property.
- 2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) Development in a Bushfire hazard area is compatible with the nature of the hazard;
 - (b) The number of people and properties subject to bushfire hazards are minimised through appropriate building design and location;
 - (c) Development does not result in a material increase in the extent, duration or severity of bushfire hazard; and
 - (d) Appropriate infrastructure is available to emergency services in the event of a bushfire.

Criteria for assessment

Table 8.2.2.3 – Bushfire hazard overlay code – For acceptable development subject to requirements and assessable development.

Performance outcomes	Acceptable outcomes	Applicant response
For accepted development subject to requirements and assessable development.		
Water supply for fire-fighting purposes		
PO1 Development where within a 'Bushfire hazard area' and 'Potential impact buffer (100 metres)'	Where within a 'Bushfire hazard area' and 'Potential impact buffer (100 metres)' identified on the Bushfire hazard overlay maps	Complies with AO1.2 The proposed development for extractive industry includes provision for three (3) sediment basins, 2

Performance outcomes	Acceptable outcomes	Applicant response
identified on the Bushfire hazard overlay maps (OM-003a-o) maintains the safety of people and property by providing an adequate, accessible and reliable water supply for fire-fighting purposes which is safely located and has sufficient flow and pressure characteristics. Note— A Bushfire hazard management plan must be prepared by suitably qualified persons in seeking to demonstrate compliance with the Performance outcome.	(OM-003a-o) AO1.1 Where in a reticulated water service area, the on-site water supply has flow and pressure characteristics of 10 litres a second at 200 kPa. OR AO1.2 Where access to the reticulated water network is not available, a minimum on site water storage of 5,000 litres is provided that must comprise: (a) a separate tank; or (b) a reserve section in the bottom part of the main water supply tank; (c) or a dam; (d) or a swimming pool. Note—Where a water tank is provided for fire-fighting purposes it is fitted with standard rural fire brigade fittings and the tank is provided with a hardstand area for heavy vehicles.	within the northern part lot and 1 within the southern part lot. The proposed sediment basins would provide for water supply for fire-fighting purposes in the absence of water reticulation.
For assessable development		
Land use		
PO2 Development within a 'Bushfire hazard area' and 'Potential impact buffer (100 metres)' identified on the Bushfire hazard overlay maps (OM-003a-o) is appropriate to the bushfire hazard risk having	AO2 All buildings, structures, infrastructure and facilities associated with the following uses are located outside any area of the site located within a 'Bushfire hazard area' and a 'Potential impact	Not applicable The proposal is for extractive industry.

Performance outcomes	Acceptable outcomes	Applicant response
regard to the: (a) the bushfire risk compatibility of development; (b) the vulnerability of and safety risk to persons associated with the use; and (c) consequences of bushfire in regard to impacts on essential infrastructure, buildings and structures. Note— A Bushfire hazard management plan must be prepared by suitably qualified persons in seeking to demonstrate compliance with the Performance outcome.	buffer (100 metres)' identified on the Bushfire hazard overlay maps (OM-003a-o): (a) child care centre; or (b) community care centre; or (c) correctional facility; or (d) educational establishment; or (e) emergency services; or (f) hospital; or (g) residential care facility; or (h) retirement facility; or (i) rooming accommodation; or (j) shopping centre; or (k) tourist park; or (l) tourist attraction.	
Lot Design		
PO3 Reconfiguring a lot within a 'Bushfire hazard area' and 'Potential impact buffer (100 metres)' identified on the Bushfire hazard overlay maps (OM-003a-o) minimises the potential adverse impacts of bushfire on the safety of people, property and the environment through lot design that: (a) is responsive to the nature and extent of	Where within a 'Bushfire hazard area' and 'Potential impact buffer (100 metres)' identified on the Bushfire hazard overlay maps (OM-003a-o) AO3.1 No new lots are created. OR	Complies with AO3.1 No new lots are created. The proposal is solely for Material Change of Use (Extractive Industry).

Performance outcomes	Acceptable outcomes	Applicant response
bushfire risk; and (b) allows efficient emergency access to buildings for fire-fighting appliances. Note— A Bushfire hazard management plan must be prepared by suitably qualified persons in seeking to demonstrate compliance with the Performance outcome.	AO3.2 All lots include a building envelope that achieves a radiant heat flux level of 29kW/m² at the permitter of the building envelope. Note—Where a radiant heat flux of 29kW/m² is achieved and this relies on cleared or maintained land external to the land the subject of the development application it must be demonstrated that land external to the site will be maintained to a standard that does not exceed the level of bushfire hazard identified in a Bushfire hazard management plan.	
Firebreaks and access		
PO4 In a 'Bushfire hazard area' and 'Potential impact buffer (100 metres)' identified on the Bushfire hazard overlay maps (OM-003ao), vehicular access is designed to mitigate against bushfire hazard by: (a) ensuring adequate access for firefighting and other emergency vehicles; (b) ensuring adequate access for the evacuation of residents and emergency personnel in an emergency situation, including alternative safe access routes should access in one direction be blocked in the event of a fire; and (c) providing for the separation of developed areas and adjacent bushland. Note—Where it is not practicable to provide firebreaks in accordance with A04.2 Fire Maintenance Trails are provided in accordance with the following:	AO4.1 In a 'Bushfire hazard area' and 'Potential impact buffer (100 metres)' identified on the Bushfire hazard overlay maps (OM-003ao), roads are designed and constructed: (a) with a maximum gradient of 12.5%; (b) to not use cul-de-sacs; and (c) a constructed road width and weather standard complying with Planning Scheme Policy 4 - FNQROC Regional Development Manual.	Not applicable No new roads are required to support the proposal for extractive industry.
	AO4.2 In a 'Bushfire hazard area' and 'Potential impact buffer (100 metres)' identified on the Bushfire hazard overlay maps (OM-003ao), firebreaks are provided:	Complies with AO4.2 The proposal would be located within existing cleared areas and provide for adequate separation from areas of mapped High and Medium Potential Bushfire Hazard. Proposed

Performance outcomes	Acceptable outcomes	Applicant response
I. located as close as possible to the boundaries of the lot and the adjoining hazardous vegetation; II. the minimum cleared width not less than 6 metres; III. the formed width is not less than 2.5 metres; IV. the formed gradient is not greater than 15%; V. vehicular access is provided at both ends; VI. passing bays and turning areas are provided for fire-fighting appliances located on public land. Note— A Bushfire hazard management plan must be prepared by suitably qualified persons in seeking to demonstrate compliance with the Performance outcome.	(a) consisting of a perimeter road that separates lots from areas of bushfire hazard; (b) a minimum cleared width of 20 metre; (c) a maximum gradient of 12.5%; and (d) a constructed road width and weather standard complying with Planning Scheme Policy 4 - FNQROC Regional Development Manual.	internal haul routes would facilitate access to the site in the event of an emergency.
Hazardous Materials		
PO5 Public safety and the environment are not adversely affected by the detrimental impacts of bushfire of hazardous materials manufactured or stored in bulk. Note— A Bushfire hazard management plan must be prepared by suitably qualified persons in seeking to demonstrate compliance with the Performance outcome.	AO5 The processing or storage of dangerous goods or hazardous materials is not undertaken in a 'Bushfire hazard area' and a 'Potential impact buffer (100 metres)' identified on the Bushfire hazard overlay maps (OM-003a-o).	Not applicable The proposal for Material Change of Use (Extractive Industry) would not include the storage of dangerous or hazardous goods on-site.

Performance outcomes	Acceptable outcomes	Applicant response
Landscaping		
PO6 Landscaping within a 'Bushfire hazard area' and a 'Potential impact buffer (100 metres)' identified on the Bushfire hazard overlay maps (OM-003a-o) does not result in a material increase in the extent, duration or severity of bushfire hazard having regard to: (a) fire ecology; (b) slope of site; and (c) height and mix of plant species. Note—Frost hollows and the associated grass kill facilitates a rapid curing of fuel and exacerbates bushfire hazard. Note— A Bushfire hazard management plan must be prepared by suitably qualified persons in seeking to demonstrate compliance with the Performance outcome.	AO6 No acceptable outcome is provided	Not applicable No landscaping is proposed as part of this application.
Infrastructure		
PO7 Infrastructure services located in a 'Bushfire hazard area' and a 'Potential impact buffer (100 metres)' identified on the Bushfire hazard overlay maps (OM-003a-o) are protected from damage or destruction in the event of a bushfire. Note— A Bushfire hazard management plan must be prepared by suitably qualified persons in seeking to demonstrate compliance with the Performance outcome.	AO7 The following infrastructure services are located below ground: (a) water supply; (b) sewer; (c) electricity; (d) gas; and (e) telecommunications	Not applicable No infrastructures services are required for the proposed development.

Performance outcomes	Acceptable outcomes	Applicant response
Private Driveways		
PO8 All premises located in a 'Bushfire hazard area' and a 'Potential impact buffer (100 metres)' identified on the Bushfire hazard overlay maps (OM-003a-o) are provided with vehicular access that enables safe evacuation for occupants and easy access by fire-fighting appliances. Note— A Bushfire hazard management plan must be prepared by suitably qualified persons in seeking to demonstrate compliance with the Performance outcome.	AO8 Private driveways: (a) do not exceed a length of 60 metres from the street frontage; (b) do not exceed a gradient of 12.5%; (c) have a minimum width of 3.5 metres; (d) have a minimum vertical clearance of 4.8 metres; (e) accommodate turning areas for firefighting appliances in accordance with the Queensland Fire and Emergency Services' Fire Hydrant and Vehicle Access Guidelines; and (f) serve no more than three dwellings or buildings.	Not applicable No private driveways are proposed or required.

8.2.6 Flood hazard overlay code

8.2.6.1 Application

1. This code applies to assessing development where:
 - (a) land the subject of development is located within a Flood hazard area identified on the Flood hazard overlay maps (OM-006a-o); and
 - (b) it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme.

Note—Natural hazards are appropriately reflected in Overlay Maps 3, 6 and 8 and are required to be mapped by State Government in response to Hazard and Safety State Interests.

8.2.6.2 Purpose

1. The purpose of the Flood hazard overlay code is to manage development outcomes in flood hazard areas identified on the Flood hazard overlay maps (OM-006a-o) so that risk to life, property, community and the environment during flood events is minimised, and to ensure that development does not increase the potential for flood damage on site or to other property.
2. The purpose of the code will be achieved through the following overall outcomes:
 - (a) Development in the 'Extreme flood hazard area':
 - (i). maintains and enhances the hydrological function of the land;
 - (ii). does not involve filling (earthworks) or changes to existing landform or drainage lines that results in a loss of the flood conveyance and flood storage capacity of the land;
 - (iii). is limited to:
 - A. flood proofed Sport and recreation activities;
 - B. Rural activities where for Animal husbandry, Cropping or Permanent plantation;
 - C. flood proofed Utility installations, Substations or Major electricity infrastructure;
 - D. conservation and natural area management; and
 - E. replacement of existing lawful development, including Accommodation activities where habitable rooms are elevated above the defined flood level and include freeboard;

Where there is no increase to the number of persons at risk of flood and where development reduces existing or potential risks to life and property.
 - (b) Development in the 'High flood hazard area':
 - (i). maintains and enhances the hydrological function of the land;

- (ii). does not involve filling (earthworks) or changes to the existing landform or drainage lines that results in a loss of the flood conveyance and flood storage capacity of the land;
 - (iii). is limited to:
 - A. flood proofed Sport and recreation activities and Club uses;
 - B. Non-resident workforce accommodation, Relocatable home park, Resort complex, Rooming accommodation, Short term accommodation and Tourist park uses where these uses comprise permanent on-site management and a flood evacuation management plan ensures the health and safety of persons during a flood event;
 - C. a Dwelling house only where the lot existed or had a lawful reconfiguring a lot approval at the commencement of the planning scheme and the land is included in a Residential zone or the Centre zone or where for minor intensification of existing Dwelling houses;
 - D. Rural activities where for Animal husbandry, Cropping or Permanent plantation;
 - E. Industrial activities and Commercial activities where it is accepted development that flood damage is incurred as an operational cost and where flood sensitive elements of the development or use are elevated above the defined flood level, including freeboard;
 - F. flood proofed Utility installations, Substations or Major electricity infrastructure;
 - G. conservation and natural area management; and
 - H. replacement of existing lawful development;where there is no increase to the number of persons at risk of flood and where development reduces existing or potential risks to life and property.
 - (iv). protects surrounding land and land uses from increased flood hazard impacts;
 - (v). elevates habitable rooms for all accommodation activities (including where for minor building work) above the defined flood level, including freeboard.
- (c) Development in the 'Significant flood hazard area':
- (i). minimises risk to life and property from flood events;
 - (ii). involves changes to the existing landform and drainage lines in this area only where detrimental impacts to the flood hazard risk of surrounding areas is avoided;
 - (iii). is limited to:
 - A. Sport and recreation activities;
 - B. Industrial activities and Commercial activities where it is accepted development that flood damage is incurred as an operational cost and where flood sensitive elements of the development or use are elevated above the defined flood level, including freeboard;

- C. Rural activities;
- D. Accommodation activities, excluding Residential care facility and Retirement facility;
- E. flood proofed Community activities, excluding Child care centre, Hospital and Community use where a flood emergency evacuation plan ensures the safety of people during a flood event;
- F. flood proofed Utility installations, Substations or Major electricity infrastructure;
- G. conservation and natural area management;
- (iv). locates habitable rooms for all accommodation activities above the defined flood level, including freeboard; and
- (v). locates the minimum floor level for all buildings other than accommodation activities, industrial activities and business activities above the defined flood level.
- (d) Development in the 'Low flood hazard area':
 - (i). minimises risk to life and property from flood events;
 - (ii). locates habitable rooms for all Accommodation activities above the defined flood level, including freeboard; and
 - (iii). locates the minimum floor level for all buildings other than Accommodation activities above the defined flood level, including freeboard.
- (e) Development in the 'Potential flood hazard area':
 - (i). maintains the safety of people on the development site from flood events and minimises the potential damage from flooding to property;
 - (ii). does not result in adverse impacts on people's safety, the environment or the capacity to use land within the floodplain;
 - (iii). locates habitable rooms for all Accommodation activities above a 1% Annual Exceedance Probability (AEP), including freeboard; and
 - (iv). locates the minimum floor level for all building work other than Accommodation activities above the 1% AEP flood level, including freeboard.

8.2.6.3 Criteria for assessment

Table 8.2.6.3A – Flood hazard overlay code – For accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes	Applicant response
For accepted development subject to requirements and assessable development		
All flood hazard areas		

Performance outcomes	Acceptable outcomes	Applicant response
PO1 Development prevents the carriage or dispersal of contaminants or pollutants into the receiving environment.	AO1 The processing or storage of dangerous goods or hazardous materials is: (a) not undertaken in a flood hazard area identified on the Flood hazard overlay maps (OM-006a-o); or (b) is located above the defined flood level plus 0.3 metre freeboard.	Not applicable The proposed development for Material Change of Use (Extractive Industry) would not involve the processing or storage of dangerous or hazardous materials and proposal would be adequately separated from the mapped flood hazard area.
PO2 Essential community infrastructure is able to function effectively during and immediately after flood events.	AO2 Design levels for buildings must comply with the flood immunity standards specified in Table 8.2.6.3.B and Table 8.2.6.3.C where within a flood hazard area identified on the Flood hazard overlay maps (OM-006a-o) .	Not applicable No buildings are proposed as part of this application.
Extreme flood hazard area		
PO3 Development, where involving a Material change of use within an 'Extreme flood hazard area' on the Flood hazard overlay maps (OM006a-o) , is appropriate to the flood hazard risk having regard to the: (a) likelihood and frequency of flooding; (b) flood risk acceptability of development;	AO3.1 Uses within the following activity groups are not located within an 'Extreme flood hazard area identified' on the Flood hazard overlay maps (OM006a-o) : (a) Accommodation activities; (b) Commercial activities; (c) Community activities except where for a Club with a maximum gross floor area of	Not applicable The proposal is for extractive industry and would not be located within the mapped flood hazard area.

Performance outcomes	Acceptable outcomes	Applicant response
(c) vulnerability of and safety risk to persons associated with the use; (d) associated consequences of flooding in regard to impacts on proposed buildings, structures, and supporting infrastructure; and (e) associated consequences of flooding in respect to undue burden on disaster response recovery capacity and capabilities.	100m2; (d) Industrial activities: (e) Rural activities, except where for Animal husbandry, Cropping, or Permanent plantation.	
	AO3.2 Sport and recreation activities are not located within an 'Extreme flood hazard area' identified on the Flood hazard overlay maps (OM006a-o) except where for: (a) Environment facility; (b) Park; or (c) Outdoor sport and recreation (excluding the provision of ancillary facilities or amenities conducted within a building).	Not applicable The proposal is for extractive industry.
PO4 (a) Development is located and designed to: maintain and enhance the flood conveyance capacity of the premises; (b) not increase the number of people calculated to be at risk from flooding; (c) not increase the flood impact on adjoining	AO4.1 Buildings, including extensions to existing buildings, are: (a) not located within an 'Extreme flood hazard area' identified on the Flood hazard overlay maps (OM006a-o); or (b) elevated above the defined flood level,	Not applicable No buildings are proposed as part of this application.

Performance outcomes	Acceptable outcomes	Applicant response
premises; (d) ensure the safety of all persons by ensuring that development levels are set above the defined flood level; (e) reduce property damage; and (f) provide flood immune access to buildings. Note—Buildings may be constructed from flood resistant, waterproof materials below the defined flood level where certified by a qualified structural engineer to be flood proof (including the ability to withstand damage from floodwater and debris) and where an alternative outcome to AO4.1-AO4.4 is also demonstrated. Note—In the event that a lawful building or structure is destroyed by flood or other event the building may be replaced in situ where there is no increase in: i. gross floor area; or ii. PO5 the number of dwellings or bedrooms on the premises.	with 0.3 metres freeboard from the defined flood level provided for habitable rooms within a dwelling.	Not applicable No buildings are proposed as part of this application.
	AO4.2 All building work must be high set and retains the flood storage and conveyance capacity of the premises. Note—Building work must be certified by a qualified structural engineer to be flood proof including the ability to withstand damage from floodwater and debris.	
	AO4.3 New buildings are provided with flood free pedestrian and vehicle evacuation access between the building and a flood safe accessible road. Note—A flood safe accessible road includes a road where identified as outside a flood hazard area or within a 'Low flood hazard area', 'Potential flood hazard area' or 'Significant flood hazard area' on the Flood hazard overlay maps (OM006a-o).	
	AO4.4 Development does not increase the number of lots in the 'Extreme flood hazard area' identified on the Flood hazard overlay maps (OM006a-o) except where for the purposes of public open	

Performance outcomes	Acceptable outcomes	Applicant response
	space.	
PO5 Development involving earthworks in a Flood hazard area below the defined flood level must protect life and property on premises and off premises through maintaining: (a) flood storage capacity of land; (b) flood conveyance function of land; (c) flood and drainage channels; (d) overland flow paths; and (e) flood warning times.	AO5 Filling above ground level is not undertaken in the 'Extreme flood hazard area' identified on the Flood hazard overlay maps (OM006a-o) .	Not applicable The proposal for extractive industry would be adequately setback from the mapped flood hazard area.
High flood hazard area		
PO6 Development, where for a Material change of use within a 'High flood hazard area' identified on the Flood hazard overlay maps (OM-006a-o) , is appropriate to the flood hazard risk having regard to the: (a) likelihood and frequency of flooding; (b) flood risk acceptability of development; (c) vulnerability of and safety risk to persons associated with the use;	AO6.1 Uses within the following activity groups are not located within a 'High flood hazard area' identified on the Flood hazard overlay maps (OM006a-o) : (a) Accommodation activities, except where for Dwelling house and only where the lot existed or had a lawful reconfiguring a lot approval at the commencement of the planning scheme and the land is included in a Residential zone or the Centre zone; (b) Community activities except where for a	Not applicable The proposal is for extractive industry and would not be located within the mapped flood hazard area.

Performance outcomes	Acceptable outcomes	Applicant response
(d) associated consequences of flooding in regard to impacts on proposed buildings, structures and supporting infrastructure; and associated consequences of flooding in respect to undue burden on disaster response recovery capacity and capabilities.	Club with a maximum gross floor area of 100m²; (c) Rural activities, except where for Animal husbandry, Cropping or Permanent plantation.	Not applicable The proposal is for extractive industry.
	AO6.2 Sport and recreation activities are not located within a 'High flood hazard area' identified on the Flood hazard overlay maps (OM006a-o) except where for: (a) Environment facility; (b) Park; or (c) Outdoor sport and recreation (excluding the provision of ancillary facilities or amenities conducted within a building).	
PO7 Development is located and designed to: (a) maintain hydrological function of the premises; (b) not increase the number of people calculated to be at risk from flooding; (c) minimises the flood impact on adjoining premises; (d) ensure the safety of all persons by	AO7.1 Buildings, including extensions to existing buildings are: (a) not located within the 'High flood hazard area' identified on the Flood hazard overlay maps (OM006a-o); or (b) elevated above the defined flood level, with 0.3 metres freeboard from the defined flood level provided for habitable rooms within a dwelling.	Not applicable No buildings are proposed as part of this application.

Performance outcomes	Acceptable outcomes	Applicant response
ensuring that an appropriate proportion of buildings are set above the defined flood level; (e) reduce the carriage of debris in flood waters; (f) reduce property damage; and (g) provide flood immune access to buildings. Note—Buildings may be constructed from flood resistant, waterproof materials below the defined flood level where certified by a qualified structural engineer to be flood proof (including the ability to withstand damage from floodwater and debris) and where an alternative outcome to AO8.1-AO8.9 is also demonstrated.	OR	Not applicable No buildings are proposed as part of this application.
	AO7.2 Buildings used for Commercial activities or Industrial activities include a minimum floor level of 0.3 metres above the defined flood where for the following components of the use: (a) administrative areas; or (b) services, plant and equipment associated with the building. Note—AO8.2 accepts that the cost of flood impact is an operational cost of the Commercial activity or Industrial activity. Note—Building work must be certified by a qualified structural engineer to be flood proof including the ability to withstand damage from floodwater and debris.	
	AO7.3 All building work below the defined flood level must be high set (comprising pier and beam construction) and retains the flood storage and conveyance capacity of the premises.	
	AO7.4 New buildings are provided with flood free pedestrian and vehicle evacuation access between the building and a flood safe accessible	

Performance outcomes	Acceptable outcomes	Applicant response
	road. Note—A flood safe accessible road includes a road where identified as outside a flood hazard area or within a 'Low flood hazard area', 'Potential flood hazard area' or 'Significant flood hazard area' on the Flood hazard overlay maps (OM006a-o).	
	AO7.5 New temporary, relocatable or impermanent buildings and structures are to be anchored with the ability to withstand transportation by floodwater. Note—Building work must be certified by a qualified structural engineer.	Not applicable The proposed extraction area is not located within the mapped flood hazard area.
	AO7.6 Dwellings do not exceed four bedrooms.	Not applicable No dwellings are proposed as part of this application.
	AO7.7 Building work on an existing dwelling does not comprise additional bedrooms.	Not applicable No dwellings are proposed as part of this application.
	AO7.8 Building work on an existing dwelling is limited to a maximum increase of 20 percent of the	Not applicable No dwellings are proposed as part of this application.

Performance outcomes	Acceptable outcomes	Applicant response
	lawfully approved gross floor area of the existing dwelling.	
	AO7.9 Development does not increase the number of lots in the 'High flood hazard area; as identified on the Flood hazard overlay maps (OM006a-o) except where for the purposes of public open space.	Not applicable The proposal is for Material Change of Use (Extractive Industry) only.
Significant flood hazard area		
PO8 Development involving earthworks in a Flood hazard area below the defined flood level must protect life and property on premises and off premises through maintaining: (a) flood storage capacity of land; (b) flood conveyance function of land; (c) flood and drainage channels; (d) overland flow paths; and flood warning times.	AO8 Filling above ground level is not undertaken in the 'High flood hazard area' identified on the Flood hazard overlay maps (OM006a-o) .	Not applicable The proposal is for extractive industry, which would not be located within a mapped flood hazard area.
PO9 Development, involving a Material change of use, within a 'Significant flood hazard area' on the Flood hazard overlay maps (OM006a-o)	AO9 The following uses are not located within a 'Significant flood hazard area' identified on the Flood hazard overlay maps (OM006a-o) :	Not applicable The proposal is for extractive industry, which would not be located within a mapped flood hazard area.

Performance outcomes	Acceptable outcomes	Applicant response
is appropriate to the flood hazard risk having regard to the: (a) likelihood and frequency of flooding; (b) flood risk acceptability of development; (c) vulnerability of and safety risk to persons associated with the use; (d) associated consequences of flooding in regard to impacts on proposed buildings, structures and supporting infrastructure; and (e) associated consequences of flooding in respect to undue burden on disaster response recovery capacity and capabilities.	(a) Residential care facility; (b) Retirement facility; (c) Child care centre; (d) Hospital; or (e) Community use.	
Significant flood hazard area, Low flood hazard area or Potential flood hazard area		
PO9 Development, involving a Material change of use, within a 'Significant flood hazard area' on the Flood hazard overlay maps (OM006a-o) is appropriate to the flood hazard risk having regard to the: (a) likelihood and frequency of flooding; (b) flood risk acceptability of development; (c) vulnerability of and safety risk to persons associated with the use; (d) associated consequences of flooding in	AO9 The following uses are not located within a 'Significant flood hazard area' identified on the Flood hazard overlay maps (OM006a-o): (a) Residential care facility; (b) Retirement facility; (c) Child care centre; (d) Hospital; or (e) Community use.	Not applicable The proposal is for extractive industry, which would not be located within a mapped flood hazard area.

Performance outcomes	Acceptable outcomes	Applicant response
regard to impacts on proposed buildings, structures and supporting infrastructure; and (e) associated consequences of flooding in respect to undue burden on disaster response recovery capacity and capabilities.		
Significant flood hazard area, Low flood hazard area or Potential flood hazard area		
PO10 Development, where involving a Material change of use or Building work, is located and designed to: (a) maintain hydrological function of the premises; (b) not increase the number of people calculated to be at risk from flooding; (c) minimises the flood impact on adjoining premises; (d) ensure the safety of all persons by ensuring that a proportion of buildings are set above the defined flood level; (e) reduce the carriage of debris in flood waters; (f) reduce property damage; and (g) provide flood immune access to buildings.	AO10.1 Buildings, including extensions to existing buildings are: (a) elevated above the defined flood level; and (b) the defined flood event does not exceed a depth of 600mm; and (c) elevated above the defined flood level plus 0.3 metres freeboard where for habitable rooms within a dwelling. OR	Not applicable No buildings are proposed as part of this application.
	AO10.2 Buildings used for Commercial activities or Industrial activities include a minimum floor level of 0.3 metres above the defined flood where for the following components of the use: (a) administrative areas; or	Not applicable No buildings are proposed as part of this application.

Performance outcomes	Acceptable outcomes	Applicant response
Note—Where the development is located in a 'Potential flood hazard area' identified on the Flood hazard overlay maps (OM006a-o) and there is no defined flood level a hydraulic (flood hazard assessment) report prepared by a RPEQ is required in substantiation of an alternative outcome is required or the defined flood level from the adjacent representative hazard zone is used.	(b) services, plant and equipment associated with the building. Note—AO10.2 accepts that the cost of flood impact is an operational cost of the Commercial activity or Industrial activity. Note—Building work must be certified by a qualified structural engineer to be flood proof including the ability to withstand damage from floodwater and debris.	Not applicable No buildings are proposed as part of this application.
	AO10.3 All building work below the defined flood level must be high set (comprising pier and beam construction) and retains the flood storage and conveyance capacity of the premises. Note—Building work must be certified by a qualified structural engineer to be flood proof including the ability to withstand damage from floodwater and debris.	
PO11 Development involving earthworks in a Flood hazard area below the defined flood level must protect life and property on premises and off premises through maintaining: (a) flood storage capacity of land; (b) flood conveyance function of land; (c) flood and drainage channels; (d) overland flow paths; and (e) flood warning times.	AO11 Development does not involve in excess of 50m³ of fill above ground level per 1,000m² of site area.	Not applicable The proposal is for extractive industry outside the mapped flood impact area.

Performance outcomes	Acceptable outcomes	Applicant response
For assessable development		
Where for Material change of use or Reconfiguring a lot that involves new gross floor area or increases the number of persons living, working or residing in the Extreme flood hazard area, High flood hazard area or Significant flood hazard area other than a Dwelling house.		
PO12 Flood risk management minimises the impact on property and appropriately protects the health and safety of persons at risk of Extreme, high or significant flood hazard, and: (a) indicates the position and path of all safe evacuation routes off the site; and (b) if the site contains or is within 100 metres of a flood hazard area, hazard warning signage and depth indicators are provided at key hazard points, such as at floodway crossings. Note—A Material change of use or Reconfiguring a lot that involves new gross floor area or increases the number of persons living, working or residing in the 'Extreme flood hazard area' identified on the Flood hazard overlay map (OM006a-o) is supported by a Flood Emergency Evacuation Plan prepared by suitably qualified persons having regard to Floodplain Management in Australia: Best Practice Principles and Guidelines (2000), prepared by Standing Committee on Agriculture and Resource Management (SCARM), CSIRO.	AO12 No acceptable outcome is provided.	Not applicable The proposal is for Material Change of Use (Extractive Industry).
Significant flood hazard area, Low flood hazard area or Potential flood hazard area		
PO13	AO13	Not applicable

Performance outcomes	Acceptable outcomes	Applicant response
Development, where involving Reconfiguring a lot, is located and designed to: (a) maintain hydrological function of the premises; (b) not increase the number of people calculated to be at risk from flooding; (c) minimises the flood impact on adjoining premises; (d) ensure the safety of all persons by ensuring that a proportion of buildings are set above the defined flood level; (e) reduce the carriage of debris in flood waters; (f) reduce property damage; and (g) provide flood immune access to buildings. Note—Where the development is located in a 'Potential flood hazard area' identified on the Flood hazard overlay maps (OM006a-o) and there is no defined flood level a hydraulic (flood hazard assessment) report prepared by a RPEQ is required in substantiation of an alternative outcome is required or the defined flood level from the adjacent representative hazard zone is used.	No acceptable outcome is provided.	The proposal is for Material Change of Use (Extractive Industry).

Table 8.2.6.3B Flood immunity levels

Development Category	Minimum design floor or pavement levels (mAHD)
Category A	1% AEP + 0.5 metres

Category B	1% AEP + 0.3 metres
Category C	1% AEP
Category D	1% AEP
Category E	2% AEP

Note—Refer Table 8.2.6.3D for building classification by Category.

Table 8.2.6.3C Community infrastructure flood immunity levels

Development Type	Minimum design floor or pavement levels (mAHD)
Emergency services, where for:	
• Emergency Shelters	0.1% AEP
• Police facilities	0.5% AEP
• Other Emergency services	0.1% AEP + 0.5 metres
Hospital	0.1% AEP+ 0.5 metres
Community use (where for the storage of valuable records or items of historic or cultural significance including libraries and museums)	0.5% AEP
Special industry (where for power station)	0.5% AEP

Development Type	Minimum design floor or pavement levels (mAHD)
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Substations	0.5% AEP
Utility installation (where for a sewage treatment plant)	Defined flood level
Utility installation (where for a water treatment plant)	0.5% AEP
Utility installation (other)	Alternative outcome required.
Air services	Alternative outcome required.

Table 8.2.6.3D Development category

Building Code of Australia Building classification ⁽¹⁾	Development types and design levels, assigned design floor or pavement levels	Category – refer to Table 8.2.6.3B for flood planning levels
Class 1–4	Habitable room	Category A
	Non-habitable room including patio and courtyard	Category B
	Non-habitable part of a Class 2 or Class 3 building excluding the essential services ⁽²⁾ control room	Category B
	Parking located in the building undercroft of a multiple dwelling	Category C
	Carport, unroofed car park; vehicular manoeuvring area	Category D

Building Code of Australia Building classification ⁽¹⁾	Development types and design levels, assigned design floor or pavement levels	Category – refer to Table 8.2.6.3B for flood planning levels
	Essential electrical services ⁽²⁾ of a Class 2 or Class 3 building only	Category A
	Basement parking entry	Category C + 0.3 metres
Class 5, Class 6, or Class 8	Building floor level	Category C
	Garage or car park located in the building undercroft	Category C
	Carport or unroofed car park	Category D
	Vehicular access and manoeuvring areas	Category D
	Basement parking entry	Category C
	Essential electrical services ⁽²⁾	Class 8 – Category Class 5 & 6 – Category A
Class 7a	Refer to the relevant building class specified in this table	
Class 7b	Building floor level	Category C
	Vehicular access and manoeuvring area	Category D
	Essential electrical services ⁽²⁾	Category C

Building Code of Australia Building classification ⁽¹⁾	Development types and design levels, assigned design floor or pavement levels	Category – refer to Table 8.2.6.3B for flood planning levels
Class 9	Building floor level	Category A
	Building floor level for habitable rooms in Class 9a or 9c where for a Residential care facility	0.2% AEP flood
	Building floor level for habitable rooms in Class 9b where involving children, such as a child care centre	0.2% AEP flood
	Garage or car park located in the building undercroft	Category C
	Carport or unroofed car park	Category D
	Vehicular access and manoeuvring areas	Category D
	Essential electrical services ⁽²⁾	Category A

Building Code of Australia Building classification ⁽¹⁾	Development types and design levels, assigned design floor or pavement levels	Category – refer to Table 8.2.6.3B for flood planning levels
Class 10a	Car parking facility	Refer to the relevant building class specified

		in this table
	Shed or the like	Category D
Class 10b	Swimming pool	Category E
	Associated mechanical and electrical pool equipment	Category C
	Other structures	Flood planning levels do not apply

⁽¹⁾ Refer to the Building Code of Australia for definitions of building classifications.

⁽²⁾ Essential electrical services include any area or room used for fire control panel, telephone PABX, sensitive substation equipment including transformers, low voltage switch gear, high voltage switch gear, battery chargers, protection control and communication equipment, low voltage cables, high voltage cables, and lift or pump controls.

8.2.12 Transport Infrastructure Overlay Code

8.2.12.1 Application

- (1) This code applies to assessing development where:
- (a) land the subject of development adjoins a rail corridor identified on the **Transport infrastructure overlay maps (OM-012a-j)**; and
 - (b) it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme.

Note—State transport infrastructure is appropriately reflected in Overlay Map 12 and is required to be mapped by State Government in response to Infrastructure State Interests.

Note—The Transport infrastructure overlay includes mapped Transport Noise Corridors in accordance with section 246ZA of the Building Act. These corridors are mapped on **Transport infrastructure overlay maps (OM-012i-s)** for information purposes only. Development on land within a mapped corridor is not subject to any specific provisions under this planning scheme. The Queensland Development Code should be consulted in this respect.

8.2.12.2 Purpose

- (1) The purpose of the Transport infrastructure overlay code is to promote the ongoing and expanded use of rail corridors within the shire for the transportation of passengers and freight.
- (2) The purpose of the code will be achieved through the following overall outcomes:
- (a) Active ‘Rail corridors’ are protected from adjoining land uses which may prejudice their ongoing and expanded use;
 - (b) Inactive ‘Rail corridors’ are preserved and protected for potential reuse for passenger or freight movements;
 - (c) Non-residential development adjoining a ‘Rail corridor’ does not prevent the future use of the rail corridor by the site; and
 - (d) Development complements the use of ‘Rail corridors’ for tourist activities.

8.2.12.3 Criteria for assessment

Table 8.2.12.3 – Transport infrastructure overlay code – for accepted development subject to requirements and assessable development.

Performance outcomes	Acceptable outcomes	Aplicant Response
For accepted development subject to requirements and assessable development		Not applicable The proposed development is for Material Change of Use (Extractive Industry). The site is not identified as being located within a rail corridor.

PO1 Development does prejudice the: (a) ongoing operation of an active 'Rail corridor' identified on the Transport infrastructure overlay maps (OM-012a-j) ; or (b) the potential future use of an inactive 'Rail corridor' identified on the Transport infrastructure overlay maps (OM-012a-j) .	AO1 Buildings and structures are setback from a boundary with an active or inactive 'Rail corridor' identified on the Transport infrastructure overlay maps (OM-012a-j) a minimum of: (a) 40 metres where: (i) in the Rural zone; and (ii) on a site with an area of 2 hectares or greater; or (b) 5 metres otherwise.	
For assessable development		
PO2 Non-residential development adjoining a rail corridor identified on the Transport infrastructure overlay maps (OM-012a-j) is designed to allow for the future use of the 'Rail corridor' by the land use.	AO2 No acceptable outcome is provided	Not applicable The site is not located within a rail corridor.
PO3 Development adjoining a 'Rail corridor' identified on the Transport infrastructure overlay maps (OM-012a-j) used for the transportation of tourists is designed to: (a) provide visual interest; (b) screen or enhance areas of limited visual interest; and (c) complement and enhance the character of the shire.	AO3 No acceptable outcome is provided	Not applicable The site is not located within a rail corridor.

9.3.5 Industrial Activities Code

9.3.5.1 Application

- 1) This code applies to assessing development where:
 - (a) involving Industrial activities; and
 - (b) it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme.

9.3.5.1 Purpose

- 1) The purpose of the Industrial activities code is to ensure Industrial activities are:
 - (a) appropriately located within designated industrial areas;
 - (b) established and operated in an efficient manner with minimal impact on the character, scale, amenity and environmental values of the surrounding area; and
 - (c) managed to allow for progressive rehabilitation where involving Extractive industry.
- 2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) Industrial activities are appropriately located having regard to topography, surrounding land uses, natural environment, accessibility, local character and potential social and community impacts;
 - (b) Industrial activities meet the needs of the local community and the local economy through well located, safe and convenient points of service;
 - (c) Industrial activities are designed to have minimal impact on the character, amenity and environment of the surrounding area;
 - (d) Industrial activities provide a safe working environment;
 - (e) Industrial activities are designed to promote sustainability and energy efficiency;
 - (f) Industrial activities are co-located with complimentary and compatible uses;
 - (g) External impacts associated with Extractive industry operations do not impact on the character and amenity of the surrounding area and the safety and wellbeing of the community;
 - (h) Extractive industry operations are adequately separated from potentially incompatible land uses; and
 - (i) Extractive industry sites are progressively rehabilitated.

9.3.5.3 Criteria for assessment

Table 9.3.5.3 – Industrial activities code – For accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes	Applicant response
For accepted development subject to requirements and assessable development.		
Separation		
PO1 Industrial activities are appropriately separated from sensitive uses to ensure their amenity is maintained, having regard to: (a) noise; (b) odour; (c) light; and (d) emissions. Note—Development proposed to be located closer than the separation distances specified in AO2 requires supporting investigations to demonstrate that the expected impacts from the industry use have been adequately mitigated in consideration of the local context.	AO1 Development is separated from sensitive uses as follows: (a) medium impact industry—250 metres; or (b) high impact industry—500 metres; or (c) special industry— 1.5 kilometres.	Complies with AO1 The proposed development is for Material Change of Use (Extractive Industry). With the exception of the owner's residence, the proposed area of extraction is located approximately 380 metres from the nearest sensitive receptor to the west.
For assessable development		
Amenity		
PO2 Industrial activities protect and enhance the character and amenity of the locality and	AO2 No acceptable outcome is provided.	Not applicable The proposal is for extractive industry.

Performance outcomes	Acceptable outcomes	Applicant response
streetscape through the appropriate location and screening of: (a) air conditioning; (b) refrigeration plant; (c) mechanical plant; and (d) refuse bin storage areas.		
PO3 Development avoids and, where unavoidable, mitigates impacts on ground water, particularly where ground water is heavily drawn upon for irrigation or domestic purposes.	AO3 No acceptable outcome is provided.	Able to comply with PO3 The proposal extraction activity would be undertaken in accordance with the Site Based Management Plan (Appendix E) and the Environmental Management Plan (Appendix D).
If for Extractive Industry		
PO4 The site has sufficient area and dimensions to safely accommodate: (a) the extractive use; (b) vehicular access and on site vehicular movements; (c) buildings including staff facilities; (d) parking areas for visitors and employees; (e) storage areas and stockpiles; (f) any environmentally significant land; and	AO4 No acceptable outcome is provided.	Complies with PO4 The development site has sufficient area and dimension to adequately accommodate the proposed extraction area, including screening activity, stockpile areas, sediment basins and internal haul roads. The proposed extraction area would be setback from existing easements, watercourses and areas of mapped regulated vegetation.

Performance outcomes	Acceptable outcomes	Applicant response
(g) landscaping and buffer areas. Note—Refer to Planning Scheme Policy 3 - Extractive Industry.		
PO5 Extractive industry is established and operated in a way that does not impact on public safety.	AO5 Safety fencing is provided for the full length of the perimeter of the site and is appropriately signed with warning signs advising of the nature of the use and any danger or hazard.	Able to comply with PO5 The development site is located within the Rural Zone and the proposed extraction area equate to approximately 22.17 hectares. The proposed development would be appropriately signed advising of the nature of the use and any potential hazards. The proposal would be established and operated in a manner consistent with existing extractive industry operations and suitably managed to prevent impacts on public safety.
PO6 Extractive industry is appropriately located to adequately mitigate visual, noise, vibration and dust impacts on sensitive uses.	AO6 All aspects of the Extractive industry are setback from all boundaries: (a) 200 metres where not involving blasting or crushing; and (b) 1,000 metres for where involving blasting or crushing. Note—Refer to Planning Scheme Policy 3 - Extractive Industry.	Complies with PO6 With the exception of the owner's residence, the proposed extraction area is located a minimum of 380 metres east of the nearest sensitive receptor.
PO7 The Extractive industry is designed and managed to appropriately address its interface with the	AO7.1 The Extractive industry does not cause a reduction in the quality of ground water or receiving surface waters.	Able to comply with AO7.1 The Environmental Management Plan (Appendix D) has determined that the

Performance outcomes	Acceptable outcomes	Applicant response
natural environment and landscape, having regard to: (a) water quality; (b) existing vegetation; and (c) declared plants.		groundwater table is located at a depth of 7 metres within the surrounding area. The proposed extraction activities would not impact groundwater sources. The proposed extraction area is setback from the Walsh River by approximately 325 metres.
	A07.2 Vegetation is retained on site that contributes towards alleviating the impact of the development on the visual amenity of surrounding sensitive land uses.	Complies with A07.2 The proposed extraction area would be setback from the mapped regulated vegetation located within the north west corner of the site. The retained vegetation would partially buffer the proposed extraction activities from Wolfram Road.
	A07.3 No declared plants are transported from the site.	Able to comply with A07.3 The Site Based Management Plan (Appendix E) would includes measures to prevent the spread of declared plants and weeds.
PO8 Extractive industry actively integrates rehabilitation into the ongoing operations on the site to progressively restore the site to its original (or an improved) condition, having regard to matters of: (a) locally prevalent plant species; (b) plant spacing; (c) local climatic conditions;	A08 No acceptable outcome is provided.	Complies with PO8 The proposal is supported by an Environmental Management Plan (Appendix D) and Site Based Management Plan (Appendix E), which outlines the progressive rehabilitation as part of the staged extraction activities.

Performance outcomes	Acceptable outcomes	Applicant response
(d) locations of waterways and wetlands; (e) ongoing maintenance; ((f) potential habitat opportunities; (g) erosion and sediment control; and (h) fencing. Note—A revegetation plan must be prepared by a suitably experienced person in the field of natural area revegetation and rehabilitation, at a standard acceptable to Council, which addresses the items identified in Performance Outcome PO8.		

9.4.3 Parking and Access Code

9.4.3.1 Application

This code applies to assessing development where it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme

9.4.3.2 Purpose

- 1) The purpose of the Parking and access code is to ensure:
 - (a) parking areas are appropriately designed, constructed and maintained;
 - (b) the efficient functioning of the development and the local road network; and
 - (c) all development provides sufficient parking, loading/service and manoeuvring areas to meet the demand generated by the use.
- 2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) Land uses have a sufficient number of parking and bicycle spaces designed in a manner to meet the requirements of the user;
 - (b) Parking spaces and associated manoeuvring areas are safe, functional and provide equitable access;
 - (c) Suitable access for all types of vehicles likely to utilise a parking area is provided in a way that does not compromise the safety and efficiency of the surrounding road network;
 - (d) Premises are adequately serviced to meet the reasonable requirements of the development; and
 - (e) End of trip facilities are provided by new major developments to facilitate alternative travel modes.

9.4.3.3 Criteria for assessment

Table 9.4.3.3A – Parking and access code – For accepted development subject to requirements and assessable development.

Performance outcomes	Acceptable outcomes	Applicant response
For accepted development subject to requirements and assessable development.		
Car parking spaces		
PO1 Development provides sufficient car parking to	AO1 The number of car parking spaces provided for the use	Able to comply with PO1 The development site is of sufficient area and

Performance outcomes	Acceptable outcomes	Applicant response
accommodate the demand likely to be generated by the use, having regard to the: (a) nature of the use; (b) location of the site; (c) proximity of the use to public transport services; (d) availability of active transport infrastructure; and (e) accessibility of the use to all members of the community/	is in accordance with Table 9.4.3.3B . Note – Car parking spaces provided for persons with a disability are to be considered in determining compliance with AO1.	dimension to adequately accommodate vehicle parking on-site associated with the proposed extractive industry activity.
Vehicle Crossovers		
PO2 Vehicle crossovers are provided to: (a) ensure safe and efficient access between the road and premises; (b) minimize interference with the function and operation of roads; and (c) minimise pedestrian to vehicle conflict.	AO2.1 Vehicular access to/from Council roads is designed and constructed in accordance with the Standard drawings in Planning Scheme Policy 4 - FNQROC Regional Development Manual.	Able to comply with AO2.1 The proposal would utilise existing access crossovers from Wolfram Road and Bullaburrah Creek Road.
	AO2.2 Development on a site with two or more road frontages provides vehicular access from: (a) the primary frontage where involving Community activities or Sport and recreation activities, unless the primary road frontage is a State-controlled road; or (b) from the lowest order road in all other instances.	Able to comply with AO2.2 The development site is comprised of two (2) part lots. Haul road access would be predominately via Wolfram Road.
	AO2.3	Able to comply with AO2.3

Performance outcomes	Acceptable outcomes	Applicant response
	Vehicular access for particular uses is provided in accordance with Table 9.4.3.3E .	The proposal would utilise existing access crossovers from Wolfram Road and Bullaburrah Creek Road.
PO3 Access, manoeuvring and car parking areas include appropriate pavement treatments having regard to: (a) the intensity of anticipated vehicle movements; (b) the nature of the use that they service; and (c) the character of the surrounding locality.	A03 Access, manoeuvring and car parking areas include pavements that are constructed in accordance with Table 9.4.3.3C .	Not applicable The proposal is for an extractive industry. The proposal would be conducted in accordance with the Environmental Management Plan (Appendix D) and the Site Based Management Plan (Appendix E).
For Assessable Development Parking area location and design		
PO4 Car parking areas are located and designed to: (a) ensure safety and efficiency in operation; and (b) be consistent with the character of the surrounding locality.	A04.1 Car parking spaces, access and circulation areas have dimensions in accordance with AS/NZS 2890.1 Off-street car parking.	Not applicable The proposal is for an extractive industry.
	A04.2 Disabled access and car parking spaces are located and designed in accordance with AS/NZS 2890.6 Parking facilities - Off-street parking for people with disabilities.	Not applicable The proposal is for an extractive industry.
	A04.3 The car parking area includes designated pedestrian	Not applicable The proposal is for an extractive industry.

Performance outcomes	Acceptable outcomes	Applicant response
	routes that provide connections to building entrances	
	AO4.4 Parking and any set down areas are: (a) wholly contained within the site; (b) visible from the street where involving Commercial activities, Community activities, Industrial activities or a use in the Recreation and open space zone; (c) are set back behind the main building line where involving a Dual occupancy, Multiple dwelling, Residential care facility or Retirement facility; and (d) provided at the side or rear of a building in all other instances.	Not applicable The proposal is for an extractive industry.
Site access and manoeuvring		
PO5 Access to, and manoeuvring within, the site is designed and located to: (a) ensure the safety and efficiency of the external road network; (b) ensure the safety of pedestrians; (c) provide a functional and convenient layout; and (d) accommodate all vehicles intended to use the site.	AO5.1 Access and manoeuvrability is in accordance with : (a) AS28901 – Car Parking Facilities (Off Street Parking); and (b) AS2890.2 – Parking Facilities (Off street Parking) Commercial Vehicle Facilities. Note—Proposal plans should include turning circles designed in accordance with AP34/95 (Austroads 1995) Design Vehicles and Turning Path Templates.	Not applicable The proposal is for an extractive industry.
	AO5.2	Complies with AO5.2

Performance outcomes	Acceptable outcomes	Applicant response
	Vehicular access has a minimum sight distance in accordance with Part 5 of AUSTROADS.	The proposal includes vehicle access locations with sufficient sightlines along both Wolfram Road and Bullaburrah Creek Road.
	AO5.3 Vehicular access is located and designed so that all vehicles enter and exit the site in a forward gear.	Complies with AO5.3 The development site is of sufficient area and dimension to facilitate on-site manoeuvring and all haulage and other vehicles to enter and exit in forward gear.
	AO5.4 Pedestrian and cyclist access to the site: (a) is clearly defined; (b) easily identifiable; and (c) provides a connection between the site frontage and the entrance to buildings and end of trip facilities (where provided).	Not applicable The proposal is for an extractive industry with the Rural Zone.
PO6 Development that involves an internal road network ensures that it's design: (a) ensure safety and efficiency in operation; (b) does not impact on the amenity of residential uses on the site and on adjoining sites, having regard to matters of: i. hours of operation;	AO6.1 Internal roads for a Tourist park have a minimum width of: (a) 4 metres if one way; or (b) 6 metres if two way.	Not applicable The proposal is for an extractive industry.
	AO6.2 For a Tourist park, internal road design avoids the use of cul-de-sacs in favour of circulating roads, where	Not applicable The proposal is for an extractive industry.

Performance outcomes	Acceptable outcomes	Applicant response
ii. noise iii. light; and iv. odour; (c) accommodates the nature and volume of vehicle movements anticipated to be generated by the use; (d) allows for convenient access to key on-site features by pedestrians, cyclists and motor vehicles; (e) and in the Rural zone, avoids environmental degradation.	unavoidable, cul-de-sacs provide a full turning circle for vehicles towing caravans having: (a) a minimum approach and departure curve radius of 12 metres; and (b) a minimum turning circle radius of 8 metres.	
	AO6.3 Internal roads are imperviously sealed and drained, apart from those for an Energy and infrastructure activity or Rural activity.	Not applicable The proposal is for an extractive industry.
	AO6.4 Speed control devices are installed along all internal roads, apart from those for an Energy and infrastructure activity or Rural activity, in accordance with Complete Streets.	Not applicable The proposal is for an extractive industry.
	AO6.5 Internal roads, apart from those for an Energy and infrastructure activity or Rural activity, are illuminated in accordance with AS 4282 (as amended) - Control of Obtrusive effects of outdoor lighting.	Not applicable The proposal is for an extractive industry.
	AO6.6 Where involving an accommodation activity, internal roads facilitate unobstructed access to every dwelling, accommodation unit, accommodation site and building by emergency services vehicles.	Not applicable The proposal is for an extractive industry.

Performance outcomes	Acceptable outcomes	Applicant response
	AO6.7 For an Energy and infrastructure activity or Rural activity, internal road gradients: (a) are no steeper than 1:5; or (b) are steeper than 1:5 and are sealed.	Not applicable The proposal is for an extractive industry.
Servicing		
PO7 Development provides access, manoeuvring and servicing areas on site that: (a) accommodate a service vehicle commensurate with the likely demand generated by the use; (b) do not impact on the safety or efficiency of internal car parking or manoeuvring areas; (c) do not adversely impact on the safety or efficiency of the road network; (d) provide for all servicing functions associated with the use; and (e) are located and designed to minimise their impacts on adjoining sensitive land uses and streetscape quality.	AO7.1 All unloading, loading, service and waste disposal areas are located: (a) on the site; (b) to the side or rear of the building, behind the main building line; (c) not adjacent to a site boundary where the adjoining property is used for a sensitive use.	Not applicable The proposal is for an extractive industry.
	AO7.2 Unloading, loading, service and waste disposal areas allow service vehicles to enter and exit the site in a forward gear.	Not applicable The proposal is for an extractive industry.
	AO7.3 Development provides a servicing area, site access and manoeuvring areas to accommodate the applicable minimum servicing vehicle specified in	Not applicable The proposal is for an extractive industry.

Performance outcomes	Acceptable outcomes	Applicant response
	Table 9.4.3.3B .	
Maintenance		
PO8 Parking areas are used and maintained for their intended purpose.	AO8.1 Parking areas are kept and used exclusively for parking and are maintained in a suitable condition for parking and circulation of vehicles.	Not applicable The proposal is for an extractive industry.
	AO8.2 All parking areas will be compacted, sealed, drained, line marked and maintained until such time as the development ceases.	Not applicable The proposal is for an extractive industry.
End of trip facilities		
PO9 Development within the Centre zone; Industry zone or Emerging community zone provides facilities for active transport users that: (a) meet the anticipated demand generated from the use; (b) comprise secure and convenient bicycle parking and storage; and (c) provide end of trip facilities for all active transport users.	AO9.1 The number of bicycle parking spaces provided for the use is in accordance with Table 9.4.3.3D .	Not applicable The proposal is for an extractive industry.
	AO9.2 End of trip facilities are provided in accordance with Table 9.4.3.3D .	Not applicable The proposal is for an extractive industry.
If for Educational establishment or Child care centre where involving more than 100 vehicle movements per day or Renewable energy facility,		

Performance outcomes	Acceptable outcomes	Applicant response
Sport and recreation activities or Tourist park		
PO10 The level of traffic generated by the development on the surrounding local road network must not result in unacceptable impacts on adjacent land and local road users.	AO10 A traffic impact report is prepared by a suitably qualified person that identifies: (a) the expected traffic movements to be generated by the facility; (b) any associated impacts on the road network; and (c) any works that will be required to address the identified impacts.	Not applicable The proposal is for an extractive industry.
If for Educational establishment or Child care centre where involving more than 100 vehicle movements per day or Renewable energy facility, Sport and recreation activities or Tourist park		
PO11 The level of traffic generated by the development on the surrounding local road network must not result in unacceptable impacts on adjacent land and local road users	AO11 A traffic impact report is prepared by a suitably qualified person that identifies: (a) the expected traffic movements to be generated by the facility; (b) any associated impacts on the road network; and (c) any works that will be required to address the identified impacts.	Not applicable The proposal is for an extractive industry.

9.4.5 Works, services and infrastructure code

9.4.5.1 Application

- (1) This code applies to assessing development where it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme.

9.4.5.2 Purpose

- (1) The purpose of the Works, services and infrastructure code is to ensure that all development is appropriately serviced by physical infrastructure, public utilities and services and that work associated with development is carried out in a manner that does not adversely impact on the surrounding area.
- (2) The purpose of the code will be achieved through the following overall outcomes:
- (a) Development provides an adequate, safe and reliable supply of potable, firefighting and general use water in accordance with relevant standards;
 - (b) Development provides for the treatment and disposal of wastewater and ensures there are no adverse impacts on water quality, public health, local amenity or ecological processes;
 - (c) Development provides for the disposal of stormwater and ensures that there are no adverse impacts on water quality or ecological processes;
 - (d) Development connects to the road network and any adjoining public transport, pedestrian and cycle networks while ensuring no adverse impacts on the safe, convenient and efficient operation of these networks;
 - (e) Development provides electricity and telecommunications services that meet its desired requirements;
 - (f) Development is connected to a nearby electricity network with adequate capacity without significant environment, social or amenity impact;
 - (g) Development does not affect the efficient functioning of public utility mains, services or installations;
 - (h) Infrastructure dedicated to Council is cost effective over its life cycle;
 - (i) Work associated with development does not cause adverse impacts on the surrounding area; and
 - (j) Development prevents the spread of weeds, seeds or other pests.

9.4.5.2 Criteria for Assessment

Table 9.4.5.3 – Works, services and infrastructure code – For acceptable development subject to requirements and assessable development.

Performance outcomes	Acceptable outcomes	Applicant response
For accepted development subject to requirements and assessable development.		

Performance outcomes	Acceptable outcomes	Applicant response
Water supply		
PO1 Each lot has an adequate volume and supply of water that: (a) meets the needs of users; (b) is adequate for fire-fighting purposes; (c) ensures the health, safety and convenience of the community; and (d) minimises adverse impacts on the receiving environment.	AO1.1 Development is connected to a reticulated water supply system in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual other than where located: (a) in the Conservation zone, Rural zone or Rural residential zone; and (b) outside a reticulated water supply service area	Not applicable The development site is located within the Rural Zone.
	AO1.2 Development, where located outside a reticulated water supply service area and in the Conservation zone, Rural zone or Rural residential zone is provided with: (a) a bore or bores are provided in accordance with the Design Guidelines set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual; or (b) on-site water storage tank/s: (i). with a minimum capacity of 90,000L; (ii). fitted with a 50mm ball valve with a camlock fitting; and (iii). which are installed and connected prior to the occupation or use of the development.	Complies with AO1.2 The proposed development for extractive industry includes provision for three (3) sediment basins, 2 within the northern part lot and 1 within the southern part lot. The proposed sediment basins would provide for water supply for fire-fighting and dust suppression purposes in the absence of water reticulation.

Performance outcomes	Acceptable outcomes	Applicant response
Waste disposal		
PO2 Each lot provides for the treatment and disposal of effluent and other waste water that: (a) meets the needs of users; (b) is adequate for fire-fighting purposes; (c) ensures the health, safety and convenience of the community; and (d) minimises adverse impacts on the receiving environment.	AO2 Development is connected to a reticulated sewerage system in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual other than where located: (a) in the Conservation zone, Rural zone or Rural residential zone; and (b) outside a reticulated sewerage service area.	Not applicable The proposed development is for extractive industry.
	AO2.2 An effluent disposal system is provided in accordance with ASNZ 1547 On-Site Domestic Wastewater Management (as amended) where development is located: (a) in the Conservation zone, Rural zone or Rural residential zone; and (b) outside a reticulated sewerage service area.	Not applicable The proposed development is for extractive industry.
Stormwater infrastructure		
PO3 Stormwater infrastructure is designed and constructed to collect and convey the design storm event to a lawful point of discharge in a manner	AO3.1 Where located within a Priority infrastructure area or where stormwater infrastructure is available, development is connected to Council's stormwater network in accordance with the Design Guidelines and	Not applicable The development site is not located within a Priority Infrastructure Area.

Performance outcomes	Acceptable outcomes	Applicant response
that mitigates impacts on life and property.	Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	
	AO3.2 On-site drainage systems are constructed: (a) to convey stormwater from the premises to a lawful point of discharge; and (b) in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	Able to comply with AO3.2 The Environmental Management Plan (Appendix D) and the Site based Management Plan (Appendix E) detail measures for the lawful discharge of stormwater, including erosion and sediment control measures.
Electricity supply		
PO4 Each lot is provided with an adequate supply of electricity	AO4 The premises: (a) is connected to the electricity supply network; or (b) has arranged a connection to the transmission grid; or (c) where not connected to the network, an independent energy system with sufficient capacity to service the development (at near average energy demands associated with the use) may be provided as an alternative to reticulated electricity where: (i). it is approved by the relevant regulatory authority; and (ii). it can be demonstrated that no air or noise	Not applicable The proposed is for extractive industry only.

Performance outcomes	Acceptable outcomes	Applicant response
	emissions; and (iii). it can be demonstrated that no adverse impact on visual amenity will occur.	
Telecommunications infrastructure		
PO5 Each lot is provided with an adequate supply of telecommunication infrastructure.	AO5 Development is provided with a connection to the national broadband network or telecommunication services.	Not applicable The proposed is for extractive industry only.
Existing public utility services		
PO6 Development and associated works do not affect the efficient functioning of public utility mains, services or installations.	AO6 Public utility mains, services are relocated, altered or repaired in association with the works so that they continue to function and satisfy the relevant Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	Not applicable The proposed is for extractive industry only.
Excavation or filling		
PO7 Excavation or filling must not have an adverse impact on the:	AO7.1 Excavation or filling does not occur within 1.5 metres of any site boundary.	Able to comply with AO7.1 The proposed area of extraction is setback a minimum of 1.5 metres from the site boundaries.

Performance outcomes	Acceptable outcomes	Applicant response
(a) streetscape; (b) scenic amenity; (c) environmental values; (d) slope stability; (e) accessibility; or (f) privacy of adjoining premises.	A07.2 Excavation or filling at any point on a lot is to be no greater than 1.5 metres above or below natural ground level.	Complies with PO7 The proposed extraction activity would be undertaken in accordance with the Environmental Management Plan (Appendix D).
	A07.3 Earthworks batters: (a) are no greater than 1.5 metres in height; (b) are stepped with a minimum width 2 metre berm; (c) do not exceed a maximum of two batters and two berms (not greater than 3.6 metres in total height) on any one lot; (d) have a slope no greater than 1 in 4; and (e) are retained.	Not applicable The proposed is for extractive industry only.
	A07.4 Soil used for filling or spoil from excavation is not stockpiled in locations that can be viewed from: (a) adjoining premises; or (b) a road frontage, for a period exceeding 1 month from the commencement of the filling or excavation.	Complies with A07.4 The stockpiling of material would be undertaken in accordance with the Environmental Management Plan (Appendix D) and the Site Based Management Plan (Appendix E).
	A07.5 All batters and berms to be constructed in accordance	Not applicable The proposed is for extractive industry only.

Performance outcomes	Acceptable outcomes	Applicant response
	with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	
	A07.6 Retaining walls have a maximum height of 1.5 metres and are designed and constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development manual.	Not applicable The proposed is for extractive industry only.
	A07.7 Excavation or filling at any point on a lot is to include measures that protect trees at the foot or top of cut or fill batters by the use of appropriate retaining methods and sensitive earth removal or placement and in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development manual.	Not applicable The proposed is for extractive industry only.
For assessable development		
Transport network		
PO8 The development has access to a transport network of adequate standard to provide for the safe and efficient movement of vehicles, pedestrians and cyclists.	A08.1 Vehicle access, crossovers, road geometry, pavement, utilities and landscaping to the frontage/s of the site are designed and constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional	Complies with A08.1 Vehicle crossovers from Wolfram Road and Bullaburrah Creek Road may be upgraded as required in accordance with the FNQROC Development Manual.

Performance outcomes	Acceptable outcomes	Applicant response
	Development manual.	
	AO8.2 Development provides footpath pavement treatments in accordance with Planning Scheme Policy 9 – Footpath Paving.	Not applicable The proposed is for extractive industry only.
Public infrastructure		
PO9 The design, construction and provision of any infrastructure that is to be dedicated to Council is cost effective over its life cycle and incorporates provisions to minimise adverse impacts.	AO9 Development is in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	Not applicable The proposed is for extractive industry only.
Stormwater quality		
PO10 Development has a non-worsening effect on the site and surrounding land and is designed to: (a) optimise the interception, retention and removal of waterborne pollutants, prior to the discharge to receiving waters; (b) protect the environmental values of waterbodies affected by the development, including upstream, onsite and downstream waterbodies; (c) achieve specified water quality objectives; (d) minimise flooding; (e) maximise the use of natural channel design principles; (f) maximise community benefit; and (g) minimise risk	AO10.1 The following reporting is prepared for all Material change of use or Reconfiguring a lot proposals: (a) a Stormwater Management Plan and Report that meets or exceeds the standards of design and construction set out in the Queensland Urban Drainage Manual (QUDM) and the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual; and (b) an Erosion and Sediment Control Plan that meets or exceeds the Soil Erosion and Sedimentation	Able to comply with AO10.1 The Environmental Management Plan (Appendix D) and the Site based Management Plan (Appendix E) detail measures for the lawful discharge of stormwater, including erosion and sediment control measures.

Performance outcomes	Acceptable outcomes	Applicant response
to public safety.	Control Guidelines (Institute of Engineers Australia), including: (i) drainage control; (ii) erosion control; (iii) sediment control; and (iv) water quality outcomes.	
	AO10.2 For development on land greater than 2,500m² or that result in more than 5 lots or more than 5 dwellings or accommodation units, a Stormwater Quality Management Plan and Report prepared and certified by a suitably qualified design engineer (RPEQ) is prepared that demonstrates that the development: (a) meets or exceeds the standards of design and construction set out in the Urban Stormwater Quality Planning Guideline and the Queensland Water Quality Guideline; (b) is consistent with any local area stormwater water management planning; (c) accounts for development type, construction phase, local climatic conditions and design objectives; and (d) provides for stormwater quality treatment measures reflecting land use constraints, such as soil type, landscape features (including landform), nutrient hazardous areas, acid sulfate soil and rainfall erosivity.	Not applicable The proposed is for extractive industry only.
PO11	AO11	Complies with PO11

Performance outcomes	Acceptable outcomes	Applicant response
Storage areas for stormwater detention and retention: (a) protect or enhance the environmental values of receiving waters; (b) achieve specified water quality objectives; (c) where possible, provide for recreational use; (d) maximise community benefit; and (e) minimise risk to public safety.	No acceptable outcome is provided.	The proposal provides for the three (3) stormwater detention /sediment basins on the site, two (2) within the northern part lots and one (1) within the southern part lot. The sediment basins would prevent the discharge of the sediment laden stormwater to the Wash River and unnamed tributaries. The sediment basins would be suitable located within the site to prevent unlawful access and minimise risk to public safety.
Excavation or filling		
PO12 Traffic generated by filling or excavation does not impact on the amenity of the surrounding area.	AO12.1 Haul routes used for transportation of fill to or from the site only use major roads and avoid residential areas.	Complies with AO12.1 The proposed haul route would be via Wolfram Road and may be conditioned to ensure that haul vehicle movements do not coincide with the school bus run.
	AO12.2 Transportation of fill to or from the site does not occur: (a) within peak traffic times; and (b) before 7am or after 6pm Monday to Friday; (c) before 7am or after 1pm Saturdays; and (d) on Sundays or Public Holidays.	Able to comply with AO12.1 The applicant would be agreement to the imposition of a reasonable and relevant condition with respect to the movement of haul vehicles to and from the site.
PO13 Air pollutants, dust and sediment particles from	AO13.1 Dust emissions do not extend beyond the boundary of	Able to comply with AO13.1 The proposed development would include

Performance outcomes	Acceptable outcomes	Applicant response
excavation or filling, do not cause significant environmental harm or nuisance impacts.	the site.	dust mitigation measures such as use of a water truck on internal hauls roads, stockpiles and within the site, enforcing internal vehicle speed limits and progression rehabilitation. The Environmental Management Plan (Appendix D) and the Site Based Management Plan (Appendix E) outline mitigation measures.
	AO13.2 No other air pollutants, including odours, are detectable at the boundary of the site.	Able to comply with AO13.2 Refer to the Environmental Management Plan (Appendix D) and the Site Based Management Plan (Appendix E).
	AO13.3 A management plan for control of dust and air pollutants is prepared and implemented.	Able to comply with AO13.3 Refer to the Environmental Management Plan (Appendix D) and the Site Based Management Plan (Appendix E).
PO14 Access to the premises (including driveways and paths) does not have an adverse impact on: (a) safety; (b) drainage; (c) visual amenity; and (d) privacy of adjoining premises.	AO14 Access to the premises (including all works associated with the access): (a) must follow as close as possible to the existing contours; (b) be contained within the premises and not the road reserve, and (c) are designed and constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional	Able to comply with AO14 The development site is relatively flat with minor undulations. Any required upgrades to the access crossovers would be undertaken in accordance with eh FNQROC Development Manual.

Performance outcomes	Acceptable outcomes	Applicant response
	Development manual.	
Weed and pest management		
PO15 Development prevents the spread of weeds, seeds or other pests into clean areas or away from infested areas.	AO15 No acceptable outcome is provided.	Complies with PO15 The proposed extractive industry activity would be undertaken in such a manner to prevent the spread of weeds, seeds or other pests.
Contaminated land		
PO16 Development is located and designed to ensure that users and nearby sensitive land uses are not exposed to unacceptable levels of contaminants	AO16 Development is located where: (a) soils are not contaminated by pollutants which represent a health or safety risk to users; or (b) contaminated soils are remediated prior to plan sealing, operational works permit, or issuing of building works permit.	Able to comply with AO16 The development site is located approximately 380 metres east of the nearest sensitive receptor, with the exception of the owner's residence. The proposed activity would be undertaken in accordance with the Environmental Management Plan (Appendix D) and the Site Based Management Plan (Appendix E).
Fire services in developments accessed by common private title		
PO17 Fire hydrants are located in positions that will enable fire services to access water safely,	AO17.1 Fire hydrants are located in accessways or private roads held in common private title at a maximum	Not applicable The proposed is for extractive industry only.

Performance outcomes	Acceptable outcomes	Applicant response
effectively and efficiently.	spacing of: (a) 120 metres for residential development; and (b) 90 metres for any other development	
	AO17.2 Fire hydrants are located at all intersections of accessways or private roads held in common private title.	Not applicable The proposed is for extractive industry only.