

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)	Tyburn Pastoral Co Pty Ltd
Contact name (only applicable for companies)	Craig Stewart Reynolds
Postal address (P.O. Box or street address)	PO Box 535
Suburb	Port Douglas
State	Queensland
Postcode	4877
Country	Australia
Contact number	0422477889
Email address (non-mandatory)	craig@tyburnpastoral.com.au
Mobile number (non-mandatory)	0422477889
Fax number (non-mandatory)	
Applicant's reference number(s) (if applicable)	
1.1) Home-based business	
☐ Personal details to remain private in accordance with section 264(6) of <i>Planning Act 2016</i>	

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
		1159	Hales Siding Road	Irvinebank
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	4887	Lot 10	Plan CP862894	Mareeba Shire Council
b)	Unit No.	Street No.	Street Name and Type	Suburb
		1159	Hales Siding Road	Irvinebank
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	4887	Lot 537	Plan OL448	Mareeba Shire Council
c)	Unit No.	Street No.	Street Name and Type	Suburb
		1159	Hales Siding Road	Irvinebank
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	4887	Lot 8	Plan HG652	Mareeba Shire Council

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)
17°23'31"S	145°11'14"E	☒ WGS84 ☐ GDA94 ☐ Other:	Mareeba Shire Council

☒ Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) (if applicable)
17°24'16"S	145°10'08"E	☒ WGS84 ☐ GDA94 ☐ Other:	Mareeba Shire Council

☒ Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) (if applicable)
17°24'03"S	145°11'55"E	☒ WGS84 ☐ GDA94 ☐ Other:	Mareeba Shire Council

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? <i>(tick only one box)</i>
☒ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work
b) What is the approval type? <i>(tick only one box)</i>
☒ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval
c) What is the level of assessment?
☐ Code assessment ☒ Impact assessment <i>(requires public notification)</i>
d) Provide a brief description of the proposal <i>(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):</i>
Tyburn Pastoral Company (TPC) currently has two (2) Mullock heaps (stockpiles) of inert waste rock and gravel within their property boundary which they are seeking extraction permits for each of the sites for the purposes of: - having exclusive right to, and use of the material, - for internal use - and for selling the product offsite. TPC currently has permission from Mareeba Shire Council to extract and use the materials internally. The stockpiles are the result of historical tailings and alluvial dredging (river rock) which was moved and piled up from mining activities (generally tin) in the 1970s-1980s. The Mullock heaps consist of rock, sand and gravel. The proposal seeks to establish a crushing and screening operation on the properties using mobile crushing and screening equipment in accordance with methods contained within the approved Environmental Authority (EA) P-EA-101032730. Two existing mullock piles of coarse rock and gravel will be progressively loaded into a mobile crushing plant with an excavator or front-end loader and screened to size fractions dictated by customer's demands and specifications. The activity will involve the following: - No clearing of native vegetation or stripping of topsoil is required – the mullock piles are existing - There is no drilling, blasting or excavating of undisturbed land – the mullock piles are existing - Existing access roads and tracks will be utilised – no new tracks are proposed - Stormwater control structures (e.g., perimeter banks) and sediments ponds will be installed as required. - Once the rock is crushed and screened, the sized gravel will be temporarily stockpiled on the hardstand until it's ready for loading into road trucks with an excavator or front-end loader. - Combinations of road trucks permitted on both the Hales Siding Road (Mareeba Shire controlled road) and the Herberton-Petford Road (State Department of Transport and Mains Roads controlled road) include Body Truck and 3 axle Dog Trailer (~28 t payload) and Body Truck and 4 axle Dog Trailer (~38 t payload)

- Proposed hours of operation are Monday to Friday: 7:00 am to 5:00 pm, and Saturday: 7:00 am to 12:00 pm. No operations will occur on Sundays or Public Holidays - The operational months will be April through to December (eight months) to avoid the annual wet seasons. Approximately 192 days of truck movements are planned per year (Dry Season, excluding Public Holidays) which equates 14 loads per day at maximum capacity. - There will be two exit points from the property with all trucks turning right onto these two public roads. Trucks will turn right onto these roads from each exit point. - Extracting and screening the Mullock heaps will occur at a rate of >5,000t/yr but <100,000t/yr in accordance with the approved EA. - Most of the final products will be trucked off-site for sale to wholesale suppliers. - Rehabilitating disturbed areas will occur progressively as mullock heaps are removed - Rehabilitation will consist of cultivation and seeding with pastoral species consistent with the existing land use and native growth.
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? <i>(tick only one box)</i>
☐ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work
b) What is the approval type? <i>(tick only one box)</i>
☐ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval
c) What is the level of assessment?
☐ Code assessment ☐ Impact assessment <i>(requires public notification)</i>
d) Provide a brief description of the proposal <i>(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):</i>
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)
Extractive Industry (Quarry)	"Extractive Industry" – removal of existing mullock heaps consisting of rock, gravel and sand	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?	
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 ☐ Drainage work ☐ Landscaping ☐ Other – please specify:	☐ Stormwater ☐ Earthworks ☐ Signage	☐ Water infrastructure ☐ Sewage infrastructure ☐ Clearing vegetation
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



Queensland
Government

☐ 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 <i>(from a watercourse or lake)</i> ☐ Water-related development – referable dams ☐ Water-related development – levees <i>(category 3 levees only)</i> ☐ Wetland protection area
Matters requiring referral to the local government: ☐ Airport land ☐ Environmentally relevant activities (ERA) <i>(only if the ERA has been devolved to local government)</i> ☐ 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 <i>(where inconsistent with the Brisbane port LUP for transport reasons)</i> ☐ 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 <i>(below high-water mark)</i>
Matters requiring referral to the Chief Executive of the relevant port authority: ☐ Ports – Land within limits of another port <i>(below high-water mark)</i>
Matters requiring referral to the Gold Coast Waterways Authority: ☐ Tidal works or work in a coastal management district <i>(in Gold Coast waters)</i>
Matters requiring referral to the Queensland Fire and Emergency Service: ☐ Tidal works or work in a coastal management district <i>(involving a marina (more than six vessel berths))</i>

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
SARA and DETSI pre-lodgement advice – Tyburn Pastoral Co. Pty Ltd Mullock Heaps Extraction at Irvinebank. Advice DA and EA requirements for ERA 16 - Extraction and Screening - 3(a) - Screening, in a year, the following quantity of material - 5,000t to 100,000t and ERA 16 - Extraction and Screening - 2(a) - Extracting, other than by dredging, in a year, the following quantity of material - 5,000t to 100,000t	DETSI and SARA	26 November 2025

The Department of Primary Industries - Forestry ("DPI Forestry") is responsible for the administration and sale of quarry material under the Forestry Act 1959 ("the Act") and the Chief Executive of DPI Forestry through his/her delegate ("the Chief Executive") is responsible for issuing any authorisation required under the Act to interfere with or to get or remove State-owned quarry material. Expression of Interest (EOI) is required.	Department of Primary Industries - Forestry	23 April 2026
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).		
TPC applied to DETSI for the quarrying activities. Environmental Authority P-EA-101032730 was granted and took effect on 11 February 2026. Standard Conditions apply to the proposal. TPC applied to the Department of Primary Industries – Forestry by way of an expression of interest (EOI) seeking permission to access the quarry material and make it available for sale under the Act. Supporting documents were attached.		

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.
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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:		Proposed ERA threshold:	
Proposed ERA name:			

- ☐ 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



**Queensland
Government**

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			



TOWN PLANNING REPORT

Material Change of Use – Extractive Industries for Sand and Gravel at 1159 Hales Siding Road, Irvinebank

PREPARED FOR

TYBURN PASTORAL COMPANY

Date: 23 June 2026

Document Control

Project Name:	Mont Albion Quarries
Report Title:	Town Planning Report Material Change of Use – Extractive Industries for Sand and Gravel at 1159 Hales Siding Road, Irvinebank
Client:	Tyburn Pastoral Company
Project Manager:	Glenn Firth, Senior Environmental Consultant

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1 Introduction

Tyburn Pastoral Company (TPC), the applicant, is seeking to establish quarrying activities over three Lots of land privately-owned by TPC. TPC require granted extraction permits to crush and screen existing piles of inert rock and gravel (mullock heaps or stockpiles) located within:

- Lot 8 on HG652
- Lot 10 on CP862894; and
- Lot 537 on OL448.

As the proposed development is for obtaining extraction permits and/or a material change of use on state land for quarry material administered under the *Forestry Act 1959*, TPC has submitted an Expression of Interest (EOI) application to the Department of Primary Industries (Forest Products) regarding this matter and owner's consent.

The proposal sits within the area of the Mareeba Shire Council who has advised TPC that a *Development Permit for Material Change of Use – Extractive Industry* is required. The application seeks approval to crush and screen two (2) existing Mullock heaps (stockpiles) of waste rock (Figure 1 and Figure 2) within TPC's property boundary. TPC is seeking extraction permits for each of the sites for the purposes of:

- having exclusive right to, and use of the material;
- for internal use; and
- and for selling the product offsite.

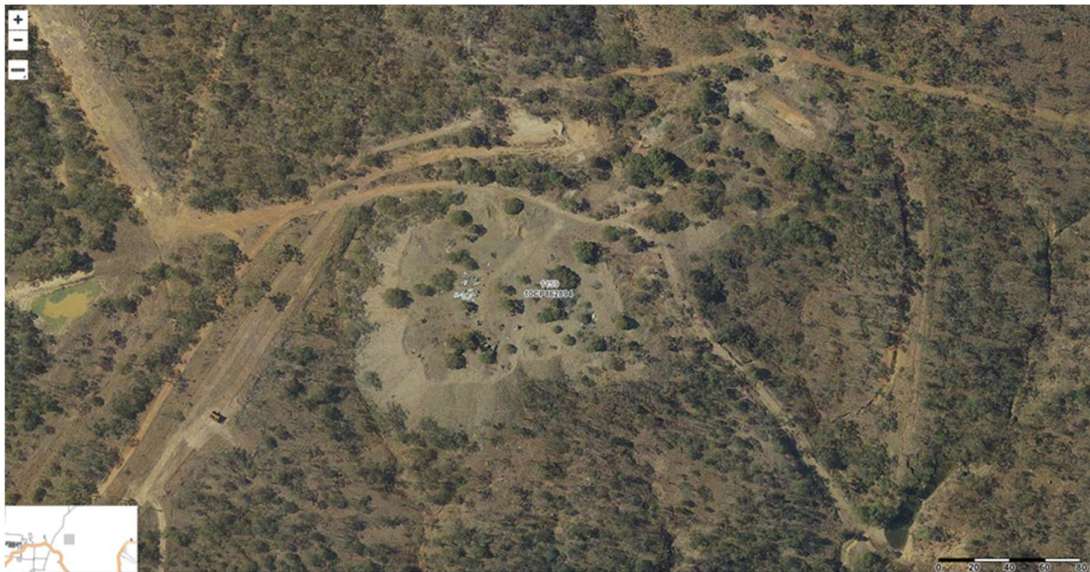


Figure 1: Quarry Resource on Existing Disturbed Land (Mullock Heap 1)

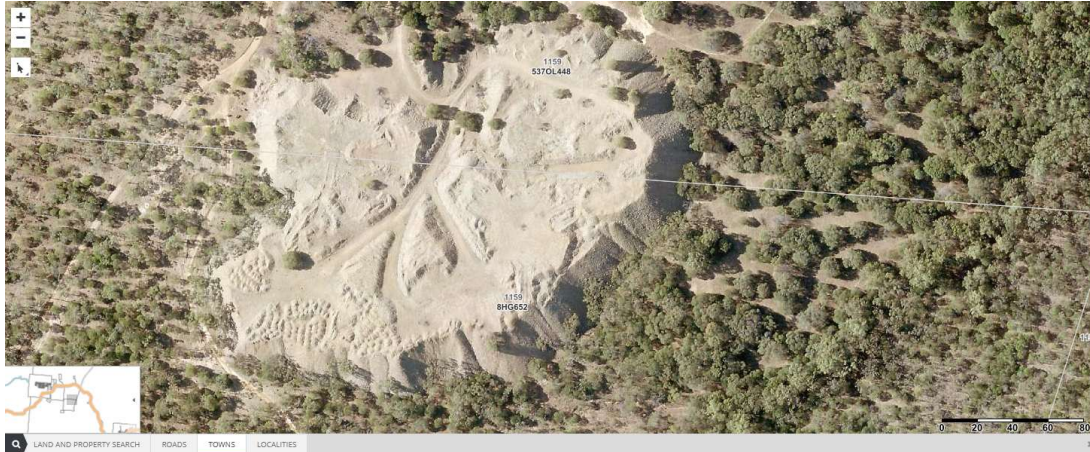


Figure 2: Quarry Resource on Existing Disturbed Land (Mullock Heap 2)

The proposed activity involves the loading, crushing and screening of up to 100,000 tonnes of material annually using a mobile crushing and screening plant, temporarily stockpiling the different grades of material, and transporting the crushed material offsite for sale. The routes for truck transport offsite will be via Herberton-Petford Road and Hales Siding Road. As the mullock heaps and site access roads are already on cleared, disturbed land, the proposal does not require any native vegetation clearing. Nor does the proposal require any drilling or blasting activities as the rock piles are already existing. The proposal seeks to screen all rock for smaller landscaping sizes, then crush the larger rock.

The proposed operation constitutes an Environmentally Relevant Activity (ERA) under Schedule 2 of the *Environmental Protection Regulation 2008*. TPC has already obtained its EA (Environmental authority P-EA-101032730) which took effect on 11 February 2026. The EA permits the following applicable ERA categories:

- ERA 16(2)(a): extraction of more than 5,000 tonnes but less than 100,000 tonnes of material per year; and
- ERA 16(3)(a): screening of more than 5,000 tonnes but less than 100,000 tonnes per year.

This Town Planning Report supports the DA Form 1 application to comply with Mareeba Shire Council's assessment process.

2 Site Location

The lands subject to this Town Planning Report on which the sand and gravel crushing and screening activities are proposed are located at the address of 1159 Hales Siding Road, Irvinebank (Figure 3) on the following Lots:

- Lot 10 on Plan CP862894 (Mullock Heap 1)
- Lot 8 and Lot 537 on Plan HG652 and Plan OL448 respectively (Mullock Heap 2)



Figure 3: Site Location Map

The total size of the property is 7,755 ha. The existing piles of mullock sand and gravel are located about 4 km to the north of the town of Irvinebank. The nearest neighbour is an occupied farm residence and ancillary farm buildings on Lot 4387 on CP857705 at a distance of 3.1 km from Mullock Heap 1 and 1.5 km from Mullock Heap 2 (Figure 4).



Figure 4: Location of proposal with respect to the nearest neighbour

In a planning context, the subject lands are located within the Rural Zone (Broadhectare) of the *Mareeba Shire Planning Scheme 2016* (Planning Scheme), where a Material Change of Use for Extractive Industry use triggers the need for an Impact Assessable development application, subject to assessment against the provisions of the current Planning Scheme, to be lodged with and approved by Council. The two resource sites and surrounding areas are predominantly flat with minor undulations.

The size (footprint) of each mullock heap area is:

- Mullock heap 1 2.0 ha
- Mullock heap 2 4.5 ha

The crushing and screening activities proposed by the DA and supported by the Town Planning Report will total no more than 7 ha (or 0.09% of the entire property).

3 Proposed Quarrying Activities

TPC currently has permission from Mareeba Shire Council to extract and use the gravel material internally (for farm track and road maintenance). The stockpiles are the result of historical tailings and alluvial dredging (river rock) which was moved and piled from mining (generally tin) in the 1970s-1980s. The Mullock heaps consist of inert rock, sand and gravel. The proposal seeks to establish a crushing and screening operation on the properties using mobile crushing and screening equipment in accordance with methods contained within the approved Environmental Authority (EA) P-EA-101032730. The two existing mullock piles of coarse rock and gravel will be progressively loaded into a mobile crushing plant with an excavator or front-end loader and screened to size fractions dictated by customer's demands and specifications. The activities of the proposal can be summarised as:

- No clearing of native vegetation or stripping of topsoil is required – the mullock piles are existing
- There is no drilling, blasting or excavating of undisturbed land – the mullock piles are existing
- Existing access tracks and major haul roads (properly formed and drained) will be utilised – no new tracks or roads are proposed
- On-site infrastructure will include a small transportable office and toilet, designated parking and a washdown area
- Plant and equipment includes one loader, one grader, one bulldozer, one excavator, one service truck, one water truck, and one scalping screen and crushing plant.
- Minor repairs of plant and equipment will be undertaken on-site. Major repairs will be carried out off-site at the Mont Albion Station workshop.
- Stormwater control structures (e.g., perimeter banks) and sediments ponds will be installed as necessary. Sediment-laden runoff will be directed into an existing dam (settling pond) which overflows and discharges clean water into a second, larger existing pond, which were both built for the previous historical mining operation.
- Once the rock is crushed and screened, the sized gravel will be temporarily stockpiled on the work area until it's ready for loading with an excavator or front-end loader into road trucks.
- Combinations of road trucks permitted on both the Hales Siding Road (Mareeba Shire controlled road) and the Herberton-Petford Road (State Department of Transport and Mains Roads controlled road) including Body Truck and axle Dog Trailer (~28 t payload) and 19m Body Truck and 4 axle Dog Trailer (~38 t payload)
- Proposed hours of operation are Monday to Friday: 7:00 am to 5:00 pm, and Saturday: 7:00 am to 12:00 pm. No operations will occur on Saturday afternoons, Sundays or Public Holidays
- The operational months will be April through to December (eight months) to avoid the annual wet seasons. Approximately 192 operational days per annum. At maximum capacity there is 19 loads per day (28 t configuration) or 14 loads per day (for the 38 t configuration).
- There will be two exit points from the property with all trucks turning right onto these two public roads. Trucks will turn right onto these roads from each exit point.
- Extracting and screening the Mullock heaps will occur at a rate of >5,000t/yr but <100,000t/yr in accordance with the approved EA.
- Most of the final products will be trucked off-site for sale to wholesale distribution and other external users
- Rehabilitating disturbed areas will occur progressively as mullock heaps are removed
- Rehabilitation will consist of cultivation and seeding with pastoral species consistent with the existing land use

An indicative site layout plan is provided in Appendix A.

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

Table 1 summarises the categorising instruments and categories of assessment applicable to this application.

Table 1: Category of Assessment

Aspect of Development	Categorising Instrument	Category of Assessment
Development Permit for Material Change of Use	Mareeba Shire Council Planning Scheme 2016	Impact

4.3 Referral Agencies

A review of Schedule 10, Part 9 of the *Planning Regulation 2017* indicates that referral is required and Table 2 summarise the referrals that may apply.

Table 2: Applicable Referral Agencies

Part	Division	Table	Referral Trigger (item 1)	Referral Agency
Part 9 – Infrastructure related referrals	Division 4 – State transport infrastructure Subdivision 1 – State transport infrastructure generally	Table 1 – Aspect of development stated in Schedule 20	Development application for an aspect of development stated in schedule 20 that is assessable development under a local categorising instrument	The Chief Executive (SARA)
	Division 4 – State transport infrastructure Subdivision 2 - State transport corridors and future State transport corridors	Table 4 - Material change of use of premises near a State transport corridor or that is a future State transport corridor	Development application for a material change of use, other than an excluded material change of use, that is assessable development under a local categorising instrument, if all or part of the premises— (a) are within 25m of a State transport corridor; or (b) are a future State transport corridor; or (c) are— (i) adjacent to a road that intersects with a State-controlled road; and (ii) within 100m of the intersection	The Chief Executive (SARA)

While the development application relates to a MCU – Extractive Industry, the actual mullock heaps are not within

the threshold distances from a State transport corridor, but the proposed trucking of the final products will be via private roads that intersect with a State Road (Herberton-Petford – mullock heap 2) and a Minor Rural Road (Hales Siding Road) connecting through to mullock heap 1. The type of truck vehicles and trip rates expected to be a combination of road trucks that are permitted on both the Hales Siding Road (Mareeba Shire controlled road) and the Herberton-Petford Road (State Department of Transport and Mains Roads controlled road). These are a Body Truck and 3 axle Dog Trailer (~28 t payload) and Body Truck and 4 axle Dog Trailer (~38 t payload). The operational months will be April through to December (eight months) to avoid the wet season. Approximately 192 operational days per annum (excludes Public Holidays and Wet Season) are planned with 19 loads per day (28 t configuration) or 14 loads per day (for the 38 t configuration) at maximum capacity. The exit points from the project onto and intersecting the public roads are shown in Appendix C (Photos of Intersections with Public Roads).

4.4 Requirement for Public Notification

Mareeba Shire Council has advised that this proposal is subject to the impact assessable DA process and as such, public notification is a mandatory component. Once the application is lodged, TPC will compose a letter of notification and request Council to advise all the adjoining properties of the proposal. TPC will also publish an advertisement in The Express Newspaper¹ as well as place notification signs on the frontages of the subject land (1159 Hales Siding Road, Irvinebank).

5 Statutory Planning Assessment

This section presents the planning assessment of the proposed extractive industry within the applicable statutory framework. The assessment has been prepared in accordance with the *Planning Act 2016* and the *Planning Regulation 2017* and considers all relevant assessment benchmarks. This includes an evaluation of the Statutory Planning context, the State and Regional Assessment Benchmarks—particularly those contained within the State Development Assessment Provisions (SDAP) relevant to extractive industry and vegetation management—and the Local Government Assessment Benchmarks under the *Mareeba Shire Council Planning Scheme 2016*. The assessment demonstrates how the proposed development appropriately manages environmental and amenity impacts, and achieves compliance with, or suitably addresses, the applicable codes and provisions of the planning scheme.

5.1 State and Regional Assessment Benchmarks

5.1.1 Regional Plan

Section 2.2 of the *Mareeba Shire Council Planning Scheme 2016* states that, “*The minister has identified that the planning scheme, specifically the strategic framework, appropriately advances the Far North Queensland Regional Plan 2009-2031, as it applies in the planning scheme area* “. Accordingly, assessment against the applicable Planning Scheme provisions will address any relevant Regional Plan matters.

5.1.2 State Planning Policy

As outlined in Part 2 of the *Mareeba Shire Council Planning Scheme 2016*, all aspects of the State Planning Policy have been adequately reflected in the Council’s current Planning Scheme. Accordingly, assessment against the applicable Planning Scheme provisions will address any relevant State Issues.

5.1.3 State Development Assessment Provisions

The SDAP are a set of state-level assessment benchmarks used in Queensland to assess certain development applications where the State has an interest. They are made under the *Planning Act 2016* and referenced in the *Planning Regulation 2017*.

The SDAP State Codes are essentially standardised assessment criteria that apply to specific types of

¹ The primary local newspaper for Mareeba is The Express Newspaper, an independent, locally owned paper covering news, sport, agriculture, and community stories for Mareeba, the Tablelands, and Far North Queensland. It provides both online and print coverage of local issues.

development or matters of state interest. Each code contains a Purpose statement, Performance outcomes (POs) and Acceptable outcomes (AOs). They function similarly to local planning scheme codes, but apply to State interests (e.g., transport, environment, resources). State Codes are triggered when a development is assessable against a state interest, for example:

- Environmentally relevant activities (ERAs)
- Development in a Key Resource Area (KRA)
- Clearing of regulated vegetation
- Development near State-controlled roads

TPC assumes that for a MCU for (only) crushing and screening of the existing mullock heap stockpiles (i.e., no extraction using drilling or blasting, and no native vegetation clearing), the State's interest is expected to be more limited than for a quarry or KRA-based operation. Common State Codes relevant to quarrying in the Mareeba area are listed in Table 3 along with their applicability as triggers.

Table 3: State Codes Potentially Triggered by the Proposal

State Code	Topic	Potentially Triggered?
State Code 1	Development in a state-controlled road environment	Yes , the proposed trucking of the final products will be via private roads that intersect with a State Road (Herberton-Petford) and a Minor Rural Road (Hales Siding Road). Connecting the project's internal roads triggers a new or changed access to a State-controlled road, increases traffic volumes impacting the road and changes to intersections or haulage routes.
State Code 10	Taking or interfering with water	No , the existing mullock heaps are not near water.
State Code 15	Development in a watercourse, lake or spring	No , the existing mullock heaps are not near water.
State Code 16	Native vegetation clearing	No , the existing mullock heaps are on existing cleared land and existing tracks and roads will be used for transport of product. No native vegetation clearing is required.
State Code 17	Development adjacent to a state transport corridor	No , the locations of the mullock heaps are not adjacent to a transport corridor
State Code 19	Development within a Key Resource Area (KRA)	No , the locations of the mullock heaps are not within the Mareeba Shire's Key Resource Area.

A review of the SDAP has been undertaken in accordance with the *Planning Regulation 2017*. The proposed development involves the crushing and screening (only) of existing mullock heap stockpiles and does not require the extraction of material (i.e., no drilling or blasting) and no native vegetation clearing. On this basis, the proposal does not trigger assessment against most of the relevant SDAP State Codes other than State Code 1.

State Code 1 Development in a State-controlled road environment

As indicated in Section 4.3, while the development application relates to a MCU, the quarrying activities are not located within 25 m of a State transport corridor but will be intersecting with a Local and State Road. The proposal trigger referral and impact assessment against the applicable SDAP is State Code 1 Development in a State-controlled road environment.

The proposed development has been assessed against the requirements of State Code 1 of the SDAP, which seeks to ensure that development does not adversely impact the safety, function or efficiency of the State-controlled road network (*i.e.*, Herberton-Petford Road). Figure 5 shows the access point to Mullock heap 1 is from the State-controlled Herberton-Petford Road (black and yellow dashed). Hales Siding Road (red) is a local rural road that intersects Herberton-Petford Road. Mullock heap 1 will be accessed via Hales Siding Road.

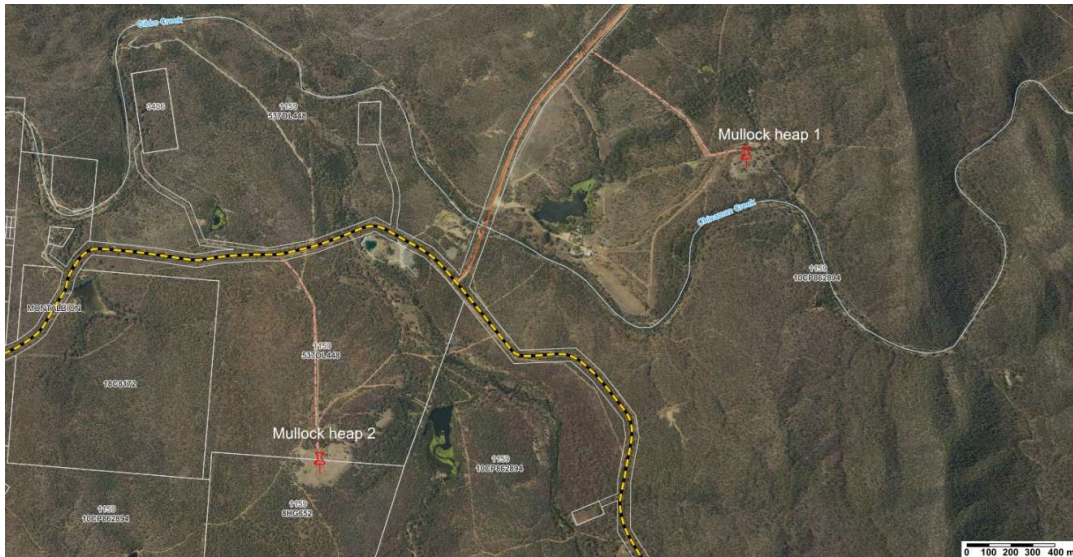


Figure 5: Access points from public roads to the resource areas

The only relevant Performance Outcomes of State Code 1 are PO15 and PO16 (Vehicular access to a State-controlled road) and PO17 (Vehicular access to local roads within 100 m of an intersection with a State-controlled road) which are assessed against Acceptable Outcomes for the proposal (Table 4).

Table 4: State Code 1 – Development in a State-Controlled Road Environment

Performance Outcomes	Acceptable Outcomes	Compliance Statement
PO15 -Vehicular access to a State-controlled road that is a limited access road is consistent with government policy for the management of limited access roads	AO15.1 – Development does not require new or changed access to a limited access road.	The proposal does not front a limited access road
	AO15.2 – A new or changed access to a limited access road is consistent with the limited access policy for the State-controlled road.	The proposal does not front a limited access road
	AO15.3 – Where a new or changed access is for a service centre, access is consistent with the Service centre policy, Department of Transport and Main Roads, 2013 and the Access policy for roadside service centre strategy for the State-controlled road.	The proposal does not front a limited access road
PO16 – The location and design of vehicular access to a State-controlled road (including access to a limited access road) does not create a safety hazard for users of a State-controlled road or result in a worsening of operating conditions on a State-controlled road.	AO16.1 – Vehicular access is provided from a local road	Complies with PO16.1 Hales Siding Road is a local rural road that connects to State-controlled Herberton-Petford Road. The intersection is 300 m from the exist point of the property for the Mullock

Performance Outcomes	Acceptable Outcomes	Compliance Statement
		heap 1 resource.
	OR all of the following acceptable outcomes apply: AO16.2 – Vehicular access for the development is consistent with the function and design of the State-controlled road AND	Complies with PO16 The proposed project has planned for a maximum of 14 or 19 truck movements per day (at maximum capacity) with each truck weighing between 28-38 t. The operation expects to employ 2-3 staff on site on any particular week day (Monday-Friday) and Saturday morning, up to eight working months of the year. The low number of vehicle movements per day, combined with significant sight distances available in both directions and in general, the standard and carrying capacity of the State-controlled road results in a conclusion that the development can be suitably and safely accessed within operational standards without the need for any upgrades to the State-controlled road. TPC requests notification from Main Roads (in the form of an Information Request) if a different outcome is determined.
	AO16.3 – Development does not require new or changed access between the premises and the State-controlled road AND	Complies with AO16
	AO16.4 – Use of any existing vehicular access to the development is consistent with a decision under section 62 of the <i>Transport Infrastructure Act 1994</i> AND	Complies with AO16
	AO16.5 – On-site vehicle circulation is designed to give priority to entering vehicles at all times so vehicles do not queue in a road intersection or on the State-controlled road	Complies with AO16.5 There is sufficient room on the property to manage the number of daily truck movements on and off the property to avoid queueing on the State-controlled Herberton-Petford Road.
PO17 – The location and design of vehicular access to a local road within 100 metres of an	AO17.1 – vehicular access is located as far away as possible from the State-controlled road intersection	Complies with PO17.1 Hales Siding Road is a local rural road that connects to

Performance Outcomes	Acceptable Outcomes	Compliance Statement
intersection with a State-controlled road does not create a safety hazard for users of a State-controlled road.	AND	State-controlled Herberton-Petford Road. The intersection is 300 m from the exist point of the property for the Mullock heap 1 resource. The exist point of the property for the Mullock heap 2 resource is also 300 m from the intersection.
	AO17.2 – vehicular access is in accordance with Parts 3, 4 and 4A of the Road Planning and Design Manual, 2 nd Edition Volume 3, Department of Transport and Main Roads, 2016 AND	Complies with PO17.2 The existing vehicular access road existing the property from Mullock 2 onto the State- controlled road meets the standards of geometric design, intersections and crossings and unsignalised and signalised intersections as per the Department of Transport and Main Roads, 2016 ² . The development can be suitably and safely accessed within operational standards without the need for any upgrades to the State-controlled road. TPC requests notification from Main Roads (in the form of an Information Request) if a different outcome is determined.
	AO17.3 – On-site vehicle circulation is designed to give priority to entering vehicles at all times so vehicles do not queue in a road intersection or on the State-controlled road	Complies with AO17.3 There is sufficient room on the property to comfortably manage the number of daily truck movements on and off the property to avoid queueing on the State-controlled Herberton-Petford Road.

With regard to access and traffic generation, the proposal will utilise existing access points to Herberton-Petford Road and Hales Siding Road (see Appendix C). No new access is required. The operation will generate only limited additional heavy vehicle movements associated with the transport of crushed and screened quarry

² Department of Transport and Main Roads 2016, Road Planning and Design Manual, Volume 3: Guide to Road Design – Part 3: Geometric Design, Queensland Government, Brisbane.

Department of Transport and Main Roads 2016, Road Planning and Design Manual, Volume 3: Guide to Road Design – Part 4: Intersections and Crossings – General, Queensland Government, Brisbane.

Department of Transport and Main Roads 2016, Road Planning and Design Manual, Volume 3: Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections, Queensland Government, Brisbane.

materials. In summary, the proposal is expected to generate no more than:

- 14 or 19 daily truck trips (none during peak hours)
- 14 or 19 right-hand turning movements onto the Herberton-Petford Road (towards Herberton) at the intersection

The operational months will be April through to December (eight months) to avoid the annual wet seasons. Approximately 192 workdays are planned per year which equates to 14 or 19 loads per day (28 t configuration) or 14 loads per week (for the 38 t configuration) at maximum capacity.

TPC has determined that in this instance, a Traffic Impact Assessment (TIA) report is not required given there will only be 14-19 truck movements/day, there is good existing geometry of the intersection with good long-distance visibility, and default rural road speed limit which is 100 km/h. TPC believes that the existing intersection has sufficient capacity to accommodate the forecast increase in heavy vehicle movements and that the proposed traffic volumes will not result in a material worsening of operating conditions on the State-controlled road. Given that this proposal contributes minimal cumulative impact (e.g., there are no other quarries, limited agricultural freight movements or other heavy vehicle traffic, TPC does not see the development as compromising the safe and efficient operation of the existing road network.

5.2 Local Authority Assessment Benchmarks

This application is to be assessed against the current *Mareeba Shire Council Planning Scheme, July 2016*. The assessment benchmarks applicable under the Planning Scheme are addressed below.

5.2.1 Zone

The *Mareeba Shire Council Planning Scheme 2016* includes the subject land within the Rural Zone (Broadhectare) where the proposed crushing and screening operation is located. It is an Impact Assessable Development as it is a MCU for a quarry proposal to be considered in a Rural Zone. The intent of the Rural Zone is to provide opportunities for non-rural uses that are compatible with agricultural production, including extractive industries, provided environmental impacts and land-use conflicts are minimised (Planning Scheme Section 6.2.9.2 of the Purpose of the Rural Zone Code).

5.2.2 Codes

Mareeba Shire Council Planning Scheme Codes potentially applicable to the proposal are identified below:

- Rural Zone Code;
- Agricultural Land Overlay Code;
- Environmental Significance Overlay Code;
- Extractive Resources Overlay Code;
- Industrial Activities Code;
- Works Services and Infrastructure Code.

A review of the potentially applicable Codes has been completed, and the following commentary is provided in respect of the proposed development's compliance with each Code:

Rural Zone Code

Table 6.2.9.3 of the Planning Scheme, Rural Zone Code, lists accepted developments subject to requirements and assessable development. Most of the Rural Zone Code provisions relate to building developments and are

not applicable to this extractive industry proposal. The Code provisions that are applicable seek to ensure that development does not detract from the local amenity (PO6) and that development ameliorates any negative environmental impacts (PO7) arising from the development and in respect of those provisions of the following aspects and impacts;

- a) noise
- b) hours of operation
- c) traffic
- d) advertising devices
- e) visual amenity
- f) privacy
- g) lighting
- h) odour
- i) emissions.

The proposed crushing and screening activities will occur on a footprint of <7 ha and will be located at significant distances (Mullock heap 2 is 900+m from Herberton-Petford Road and Mullock heap 1 is 1000+m from Hales Siding Road) and will be screened from areas of remnant vegetation and natural topographic relief to maintain the existing amenity of the area. Although the proposal is not located within a KRA, the proponent (Tyburn Pastoral Company) is confident that the crushing, screening and transport of product activities will remain compatible with rural land uses and potential impacts on agricultural activities. This is because the proponent is the landowner of the property and will continue to maintain primary production activities in parallel with the quarry. Tyburn Pastoral Company activity is generally running 700 head of Adult Equivalent (AE) cattle, subject to seasonal variability. Furthermore, there will be no net land degradation as a result of development as the resource is already existing and once loaded and hauled off-site, the remaining natural ground will be rehabilitated on the existing natural topography back to its original pasture.

Tyburn Pastoral Company has prepared an Impact Assessment Report (IAR) to support this Town Planning Report and the Development Approval application. The IAS is used to show the likely planning, environmental, and community effects of the proposed extractive industry, and how those impacts will be avoided, managed, or reduced. The IAR will assist Mareeba Shire Council in deciding whether the proposed extractive industry is suitable against the Planning Scheme and whether any conditions are needed. A summary of the proposed mitigation and management measures contained in the IAR is presented in Table 5.

Table 5: Summary of proposed impact mitigation and management measures

Aspect or Impact	Risk, Proposed impact mitigation and management measures
Flora and Vegetation	Negligible. No native vegetation clearing proposed. Development confined to previously disturbed areas. No impact management required.
Fauna	Negligible. No fauna habitat clearing proposed. Development confined to previously disturbed areas. No impact management required.
Surface Water	Low to Medium. Installation of erosion and sediment controls, diversion of clean stormwater around operational areas, progressive rehabilitation, maintaining minimal disturbed areas at any one time, routine inspections and maintenance of drainage infrastructure.

Aspect or Impact	Risk, Proposed impact mitigation and management measures
Groundwater	Negligible. No extraction below natural ground surface, no interference with groundwater table or groundwater abstraction. No impact management required.
Air Quality	Low to Medium. Watering of haul roads and operational areas, application of internal speed limits, progressive rehabilitation of disturbed areas, minimisation of exposed surfaces, management of stockpile heights and locations, suspension of high dust-generating activities during adverse weather conditions where necessary, and regular inspection of dust controls.
Noise	Low. Noise generating equipment include the earthmoving equipment, trucks and mobile crushing and screening plants. No drilling, no blasting, large separation distance from receptors and engines enclosed or screened if necessary. Equipment purchased for the project shall be equipped with standard noise attenuation devices.
Traffic	Low. Minimal truck movements, existing access arrangements, safe exits onto public roads, restricted speed limits.
Bushfire	Low. Development confined to previously disturbed areas with native vegetation already cleared (no adjacent fuel load). Standard fire management procedures and equipment.
Contaminated Land	Low to Negligible. Spill kits on-site, major servicing and maintenance of vehicles, plant and equipment undertaken off-site.
Heritage	Negligible. No additional ground disturbance required – project area is already cleared and disturbed
Hours of operation	The hours of operation will be from 7am – 5pm, Monday to Friday, and Saturday 7:00 am to 12:00 pm. No operations on Sundays or Public Holidays. The quarrying activities are only planned to occur for eight months of the year which allows for down time during adverse weather conditions.
Visual amenity	The proposed crushing and screening activities will be located at significant distances (Mullock heap 2 is 900+m from Herberton-Petford Road and Mullock heap 1 is 1000+m from Hales Siding Road) and will be screened from areas of remnant vegetation and natural topographic relief to maintain the existing amenity of the area. The activities will not be visible from any public road or neighbouring residence.
Advertising devices	Not applicable – the proponent is the landowner and no advertising devices are required for the project
Privacy	Not applicable – the proponent is the landowner and does not have an issue with privacy. Privacy of the nearest neighbour in residence is maintained by being at a significant distance from the proposed activities and not able to see the project's location.
Lighting	Not applicable – the activities will only be operational during daylight hours and no lighting is required.
Odour	Not applicable – the activities do not use organic or inorganic processing chemicals of any nature in the crushing and screening of existing rock piles.
Emissions	The only emissions expected by the proposal are dust generated during the loading, hauling, crushing and screening activities. TPC will minimise dust emissions by undertaking all earthmoving activities outside of windy conditions and water roads and other exposed areas when dry and as required. Vehicle speeds shall be restricted to minimise dust.

Any potentially adverse impacts related to the extractive industry activity will be effectively managed in accordance with the Environmental Authority (P-EA-101032730) and the site's Environmental Management Plan.

Agricultural Land Overlay Code

The mullock heap stockpiles are within the Agricultural Land Overlay Code. The provisions of the Code seek to ensure that the proposal does not impinge upon the property's suitability for agricultural purposes. In respect of this matter, the presence of these mullock heap stockpiles currently excludes productive agricultural purposes, and TPC's proposal to progressively remove them off-site as crushed and screened aggregate will facilitate the re-instatement of future agricultural production after rehabilitation of the footprints and project areas back to pasture.

Environmental Significance Overlay Code

The two mullock heap stockpile resources are located outside of all features of the Environmental Significance Overlay Code.

Extractive Resources Overlay Code

The Extractive Resources Overlay Code revealed a granted mining lease partially overlying Mullock heap 1 refers. The following commentary is provided in respect of the Code's provisions:

Tyburn Pastoral Company received advice on 26 November 2025 from the State Assessment and Referral Agency (SARA) following its pre-lodgement meeting for the Mullock Heaps Extraction proposal at Irvinebank. SARA identified mining lease applications for various minerals granted under the *Mineral Resources Act 1989* over land subject to this proposal for rock quarrying. These applications are for ML20390 and ML20391 which are currently active over the site. Tyburn Pastoral Company is in discussions with the applicant of these mining lease renewal applications to discuss the progression of the application and mutually beneficial outcomes that avoid negative implications for resource development.

Industrial Activities Code

With regards to the Industrial Activities Code, Figure 4 indicated the locations of the existing piles of mullock being about 4 km to the north of Irvinebank with the nearest neighbour being an occupied farm residence and ancillary farm buildings on Lot 4387 on CP857705 at a distance of 1.5 km from Mullock Heap 2 and 3.3 km from Mullock Heap 1. As such the proposed extractive industry operation is appropriately located to mitigate potential impacts upon sensitive receptors. The locations of the two mullock heap resources also separated by up to 1 km from public roads demonstrating a substantial separation distance will be ensured as well as a significant visual buffer.

TPC believes that the small project footprint (7 ha of a total of 7755 ha of the property size) of the proposal enables the property to easily accommodate the proposed use. The small footprint also permits the extractive industry use to be established within the surrounds of existing rural land, allowing the operations to occur safely and at no risk to the general public.

Finally, TPC will manage all potential environmental impacts in accordance with its granted EA and any conditions to come out following the assessment of the IAR. The currently disturbed land will be progressively rehabilitated back to a pastoral land use.

Works Services and Infrastructure Code

TPC believe they can comply with the applicable code provisions of the Works, Services and Infrastructure Code through progressive rehabilitation of the currently disturbed land in accordance with the Environmental Management Plan and approvals conditions contained within the granted EA. The EMP provides detailed provisions for the management of water quality discharge from the site through an erosion and sediment control plan, as well as mitigating potential air quality (dust) impacts associated with the proposed crushing and screening operations, and truck movement of saleable material to off-site customers.

6 Summary

Tyburn Pastoral Company has compiled this Town Planning Report to support its proposal for an Extractive Industry (crushing and screening only) of existing mullock heaps of rock located on a property zoned Rural. The MCU Development Approval sort to establish this extractive industry on rural zoned land proposes minimal activities including the production of up to 100,000 t of aggregate material per year from Lot 10 on Plan CP862894 (Mullock Heap 1) and Lot 8 and Lot 537 on Plan HG652 and Plan OL537 respectively (Mullock Heap 2) and the hauling of the material on existing property roads to public roads being Herberton-Petford Road and Hales Siding Road.

The Town Planning Report has been compiled to demonstrate the proposal's consistency with the intent and Code requirements of the Mareeba Shire Council Planning Scheme, and details how the proposed extractive industry is compatible within the currently zoned Rural landscape by maintaining minimal footprint (7 ha), requires no vegetation clearing, and can effectively manage potential environmental impacts whilst the property owner has confirmed they can still undertake uninhibited primary production activities on the bulk of the property in parallel with the proposed development (total landholding size of the property is 7,755 ha). The report has provided appropriate justification for aspects of the proposed development in relation to the Planning Scheme.

Tyburn Pastoral Company believes that the proposed extractive industry development is unlikely to have any significant impacts upon infrastructure, environment or community that cannot be adequately addressed through the imposition of reasonable and relevant conditions. Tyburn Pastoral Company therefore respectfully request Council to approve this application for a Material Change of Use – Extractive Industries for Sand and Gravel at 1159 Hales Siding Road, Irvinebank.

Appendix A: Indicative Site Layout Plans

Worksite and Site Office Amenity at Mullock Heap 1 (main project infrastructure). Mobile crushing and screening plants to be relocated around the mullock heap as required



Worksite Mullock Heap 2. Mobile crushing and screening plants to be relocated around the mullock heap as required



Craig Reynolds
Tyburn Pastoral Company
PO Box 535
Port Douglas, QLD 4877

Tuesday, 16 June 2026

To the Proponents,

Landowner Consent for Proposed Mobile Crushing and Screening Operation

I, Craig Reynolds, of Tyburn Pastoral Company ATF CS Reynolds Family Trust, am the registered owner of the property located at 1159 Hales Siding Road, Irvinebank QLD 4887 (Mont Albion Station).

I hereby provide my consent for Tyburn Pastoral Company to establish and operate a temporary mobile crushing and screening plant on the property for the purpose of processing existing stockpiles of waste rock currently located on the site.

I understand that the proposed activity involves the crushing, screening and processing of the existing material and that no new extraction of rock or quarrying activities are proposed as part of this project.

I further understand that the processed material may be removed from the site or utilised in accordance with the relevant approvals and operational requirements.

I acknowledge that, upon completion of the processing activities, the project area will be rehabilitated and stabilised to an appropriate condition at the proponent's expense, including the management of any disturbed land associated with the operation. The area is to be rehabilitated back to pasture.

This letter is provided in support of any development approval, permit or other application required for the proposed activity and confirms my consent for the project to be undertaken on my property.

Should you require any further information, please do not hesitate to contact me.

Yours sincerely,



Craig Reynolds, Tyburn Pastoral Company
Registered Owner
Ph 0422 477 889
craig@tyburnpastoral.com.au
Property: 1159 Hales Siding Road, Irvinebank QLD 4887

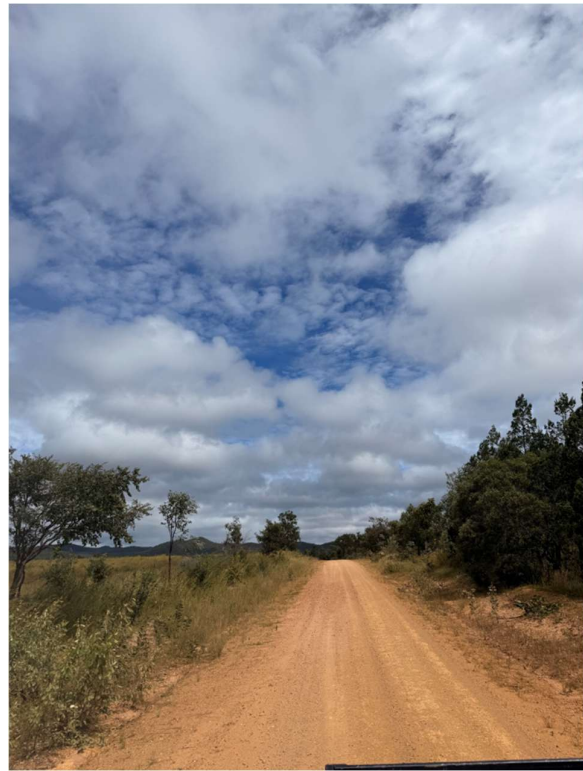
Appendix C: Photos of Intersections with Public Roads



Existing Points from the Proposed Project. Exit from the Mullock Heap 1 resource is at “Exit MH1” onto Hales Siding Road. Exit from the Mullock Heap 2 resource is at “Exit MH2” onto Herberton-Petford Road.



East View Hales Siding Road entry to Mullock Heap 1



West View Hales Siding Road entry to Mullock Heap 1



East View Herberton-Petford Road entry to Mullock Heap 2



West View Herberton-Petford Road entry to Mullock Heap 2



IMPACT ASSESSMENT REPORT

Material Change of Use – Extractive Industries for Sand and Gravel at 1159 Hales Siding Road, Irvinebank

PREPARED FOR

TYBURN PASTORAL COMPANY

Date: 23 June 2026

Document Control

Project Name:	Mont Albion Quarries
Report Title:	Impact Assessment Report Material Change of Use – Extractive Industries for Sand and Gravel at 1159 Hales Siding Road, Irvinebank
Client:	Tyburn Pastoral Company
Project Manager:	Glenn Firth, Senior Environmental Consultant

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1 Introduction

Tyburn Pastoral Company (TPC), the applicant, is seeking to establish quarrying activities over three Lots (Lot 10 on Plan CP862894, Lot 8 on Plan HG652 and Lot 537 on Plan OL537) privately owned by the applicant. The proposal sits within the area of the Mareeba Shire Council who has advised TPC that a *Development Permit for Material Change of Use – Extractive Industry* is required. The application seeks approval to crush and screen two (2) existing Mullock heaps (stockpiles) of waste rock within TPC's property boundary (Figure 1-1 and Figure 1-2). TPC is seeking extraction permits for each of the sites for the purposes of:

- having exclusive right to, and use of the material;
- for internal use; and
- and for selling the product offsite.

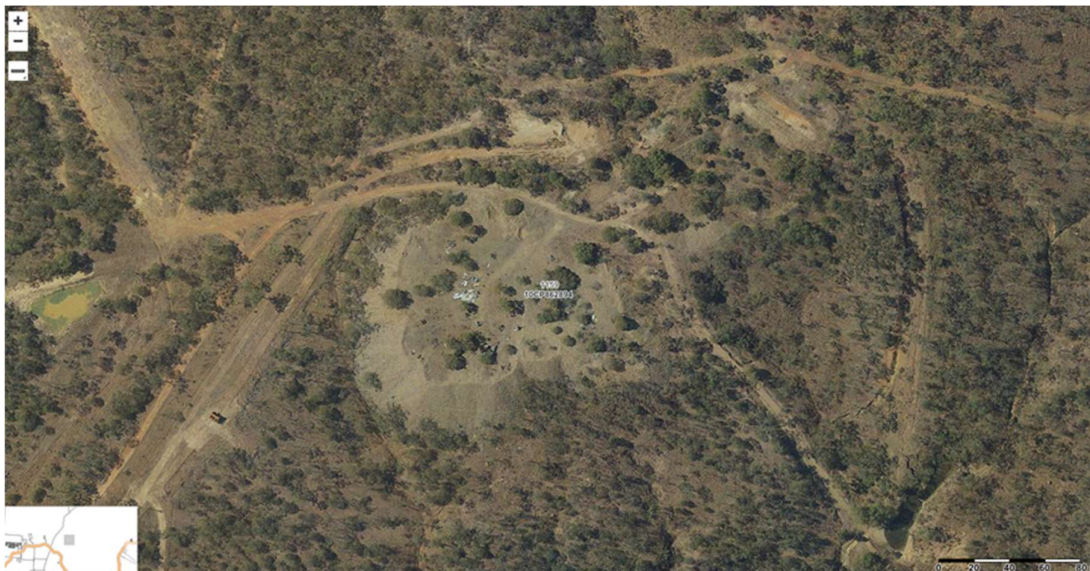


Figure 1-1: Quarry Resource on Existing Disturbed Land (Mullock Heap 1)



Figure 1-2: Quarry Resource on Existing Disturbed Land (Mullock Heap 2)

Mareeba Shire Council also advised that an impact assessment report (IAR) is also required to support the proposed quarry application. The application requirements include an assessment of the likely impacts of the proposed quarry on environmental values including:

- description of the environmental values likely to be affected by the activity
- details of any emissions or releases likely to be generated by the activity
- description of the risk and likely magnitude of impacts on the environmental qualities
- details of the management practises proposed to be implemented to prevent or minimise adverse impacts
- details of how the land subject of the application will be rehabilitated after each relevant activity ceases

The IAR must also include a description of the proposed measures for minimising and managing waste generated by each relevant activity as well as details of any site management plan that relates to the land the subject of the application or any other document relating to the application prescribed under regulation. This impact assessment report contains the above-mentioned information to the extent that it relates to the proposed quarry.

The proposed activity involves the loading, crushing and screening of up to 100,000 tonnes of material annually using a mobile crushing and screening plant, temporarily stockpiling the different grades of material, and transporting the processed material offsite for sale. The routes for truck transport offsite will be via Herberton Petford Road and Hales Siding Road. As the mullock heaps and site access roads are already on cleared, disturbed land, the proposal does not require any native vegetation clearing. Nor does the proposal require any drilling or blasting activities as the rock piles are already existing.

The proposed operation constitutes an Environmentally Relevant Activity (ERA) under Schedule 2 of the *Environmental Protection Regulation 2008*. TPC has already obtained its EA (Environmental authority P-EA-101032730) which took effect on 11 February 2026. The EA permits the following applicable ERA categories:

- ERA 16(2)(a): extraction of more than 5,000 tonnes but less than 100,000 tonnes of material per year; and
- ERA 16(3)(a): screening of more than 5,000 tonnes but less than 100,000 tonnes per year.

This IAR supports the DA Form 1 application to comply with Mareeba Shire Council's assessment process.

2 Site Location

The lands subject to this IAR on which the sand and gravel crushing and screening activities are proposed are located at the address of 1159 Hales Siding Road, Irvinebank (Figure 2-1) on the following Lots:

- Lot 10 on Plan CP862894 (Mullock Heap 1)
- Lot 8 and Lot 537 on Plan HG652 and Plan OL537 respectively (Mullock Heap 2)



Figure 2-1: Site Location Map

The total size of the property is 7,755 ha. The existing piles of mullock sand and gravel are located about 4 km to the north of Irvinebank.

In a planning context, subject lands are located within the Rural Zone of the *Mareeba Shire Planning Scheme 2016* (Planning Scheme), where a Material Change of Use for Extractive Industry use triggers the need for an Impact Assessable development application, subject to assessment against the provisions of the current Planning Scheme, to be lodged with and approved by Council. The two sites and surrounding areas are predominantly flat with minor undulations.

The footprint of each mullock heap area is:

- Mullock heap 1 2.0 ha
- Mullock heap 2 4.5 ha

The crushing and screening activities proposed by the DA and supported by the Town Planning Report and this IAR will total no more than 7 ha (or 0.09% of the entire property).

3 Proposed Quarrying Activities

3.1 Description

TPC currently has permission from Mareeba Shire Council to extract and use the sand and gravel internally (maintenance or property tracks and roads). The stockpiles are the result of historical tailings and alluvial dredging (river rock) which was moved and piled up from projects (generally tin) in the 1970s-1980s. The mullock heaps consist of inert rock, sand and gravel. The proposal seeks to establish a crushing and screening operation on the properties using mobile crushing and screening equipment in accordance with methods contained within the approved Environmental Authority (EA) P-EA-101032730. Two existing mullock piles of coarse rock and gravel will be progressively loaded into a mobile crushing plant with an excavator or front-end loader and screened to size fractions dictated by customer's demands and specifications. The plan is to screen all rock for smaller landscaping sizes, then crush the larger rock. The activities of the proposal can be summarised as:

- No clearing of native vegetation or stripping of topsoil is required – the mullock piles are existing
- There is no drilling, blasting or excavating of undisturbed land – the mullock piles are existing
- Existing access tracks and major haul roads (properly formed and drained) will be utilised – no new tracks are proposed

- On-site infrastructure will include a small transportable office and toilet
- Plant and equipment include one loader, one grader, one bulldozer, one excavator, one service truck, one water truck and one mobile scalping screen and crushing plant.
- Minor repairs of plant and equipment will be undertaken on-site. Major repairs will be carried out off-site at the Mont Albion Station workshop.
- Stormwater control structures (e.g., perimeter banks) and sediments ponds to be installed as required. Sediment-laden runoff will be directed into an existing dam (settling pond) which overflows and discharges clean water into a second, larger existing pond, which were both built for the previous historical mining operation.
- Once the rock is crushed and screened, the sized gravel will be temporarily stockpiled on the work area, located on the Mullock Heaps, until it's ready for loading into road trucks with an excavator or front-end loader.
- Combinations of road trucks permitted on both the Hales Siding Road (Mareeba Shire controlled road) and the Herberton-Petford Road (State Department of Transport and Mains Roads controlled road) include Body Truck and axle Dog Trailer (~28 t payload) and 19m Body Truck and 4 axle Dog Trailer (~38 t payload)
- Proposed hours of operation are Monday to Friday: 7:00 am to 5:00 pm, and Saturday: 7:00 am to 12:00 pm. No operations on Saturday afternoons, Sundays or Public Holidays.
- The operational months will be April through to December (eight months) to avoid the annual wet seasons. Approximately 192 operational days per annum with truck movements. At maximum capacity, there is 19 loads per day (28 t configuration) or 14 loads per day (for the 38 t configuration).
- There will be two exit points from the property with all trucks turning right onto these two public roads. Trucks will turn right onto these roads from each exit point.
- Extracting and screening the mullock heaps will occur at a rate of >5,000t/yr but <100,000t/yr in accordance with the approved EA.
- Most of the final products will be trucked off-site for sale to wholesale distribution and other external users.
- Rehabilitating disturbed areas will occur progressively as mullock heaps are removed.
- Rehabilitation will consist of cultivation and seeding with pastoral species consistent with the existing land use.

Operations will be supported by a range of ancillary buildings and structures including but not limited:

- site office and amenities block
- visitors and staff car park
- weighbridge
- internal haul and access roads.

An indicative site layout plan is provided in Appendix A.

3.2 Plant and Equipment

Plant and equipment required for the proposal will vary according to needs and demands of certain product types. Major plant and equipment may include but not be limited to:

- bulldozer
- grader
- excavator
- front end loader
- mobile crushing and screening plant
- highway haul trucks
- wheel loader
- water truck
- service trucks
- light vehicles.

Basic machinery repairs will be carried out on-site where practicable, but maintenance and servicing will be undertaken off-site at a licensed facility. Stationary equipment will generally be serviced on-site unless it is practical for the parts to be dismantled and transported off site for repair. Consumables such as tyres, oils and greases will be supplied by visiting contractors and all waste products removed and disposed of offsite in accordance with the requirements of the prevailing legislation and the local authority.

3.3 Hours of Operation

The hours of operation will not exceed 7:00am to 5:00pm Monday to Friday, and Saturday: 7:00am to 12:00pm. There will be no operations on Saturday afternoons, Sundays or public holidays

4 Description of Environmental Values

4.1 Regional context

The subject site is located at 1159 Hales Siding Road, Irvinebank, Queensland 4887, within the Mareeba Shire local government area. Public property records identify the site as a rural residential property containing a dwelling, with a bushfire overlay identified over the much of the property (but not the project site) and no flood or heritage constraints in the overlays of that database.

The site is situated in the broader Irvinebank–Mont Albion–Petford district, west of Herberton on the Atherton Tablelands. Irvinebank is a historic rural project locality within Mareeba Shire. The surrounding landscape is characterised by rugged uplands, rural grazing land, historic project disturbance, seasonal drainage lines, remnant woodland and areas of metalliferous geology.

The locality has a long project history associated with tin extraction and processing. The Irvinebank State Treatment Works processed tin ore from surrounding project fields until the 1990s, and the area contains remnants of processing infrastructure, tailings and rehabilitated project landforms.

4.1.1 Land Use

The surrounding land uses include rural residential occupation, open farmland grazing, tourism/camping activities, historical project features, access tracks and remnant native vegetation. The area is sparsely settled, with sensitive receptors of rural dwellings and camping/tourism users having substantial separation distances to the proposal. Local road users and some heritage/tourism facilities associated with Irvinebank are also present. As shown in Figure 4-3, the separation distances to the nearest occupied dwelling at over 1.5 km and with no drilling or blasting needed, there will be no over-pressure impacts on residents.

Bushfire risk is typically relevant to site access, vegetation management, fuel loads, emergency response, infrastructure siting and rehabilitation planning. A review of the Mareeba Shire Council's interactive mapping tool (Figure 4-1) identified the bushfire hazard of the two quarry sites to be Low. This reflects the location's open grazing land and disturbed mullock heaps where the vegetation, topography and fuel loads indicate a low fire risk to the proposed development. Only Mullock heap 1 is within a Potential Impact Buffer if the bushfire hazard overlay map (Figure 4-2).



Figure 4-1: Potential Bushfire Intensity Area (both site in Low)



Figure 4-2: Bushfire Hazard Overlay Map showing Mullock heap 1 in the Potential Impact Buffer (yellow cross-hatching)

There are no potential local heritage values that affect the proposed quarrying locations as shown on the local and Queensland heritage register sites of the Mareeba Shire Council's interactive mapping tool. There is however some evidence on the property of historical project disturbances. The mullock heaps that are planning to be crushed and screened are the result of historical tailings and alluvial dredging (river rock) which was moved and piled up from projects (generally tin) in the 1970s-1980s. The mullock heaps consist of inert rock, sand and gravel.

Haulage impacts on Hales Siding Road and the Herberton-Petford Road will be minimal as the proposed road truck

configurations for the saleable materials will be combinations of ~28 t and 38 t payload truck and trailers permitted to travel on these roads. Quarrying and trucking will not operate during the wet season. The project only proposes to generate 14-19 truck movements per day at maximum capacity.

4.1.1.2 Nearest Sensitive Receptors

The existing piles of inert mullock sand and gravel are located about 4 km to the north of Irvinebank. The nearest neighbour is an occupied farm residence and ancillary farm buildings on Lot 4387 on CP857705 at a distance of 3.1 km from Mullock Heap 1 and 1.5 km from Mullock Heap 2 (Figure 4-3).



Figure 4-3: Location of proposal with respect to the nearest neighbour

4.1.1.3 Regional Climate

The region's climate is characterised by distinct wet and dry seasons with the majority of precipitation occurring between November and April as a result of monsoonal influences and tropical rainfall systems. The dry season generally extends from May to October and is characterised by lower humidity, reduced rainfall and cooler overnight temperatures.

Long-term climate data were obtained from the Mareeba Aerodrome and showed the average annual rainfall being between 700–900 mm, although significant year-to-year variation occurs depending on seasonal climatic conditions and tropical weather systems. Rainfall events are typically concentrated during the wet season and may occur as short-duration, high-intensity storms. Potential evaporation typically exceeds rainfall during much of the year, particularly during the dry season. Long-term rainfall data are shown in Figure 4-4.

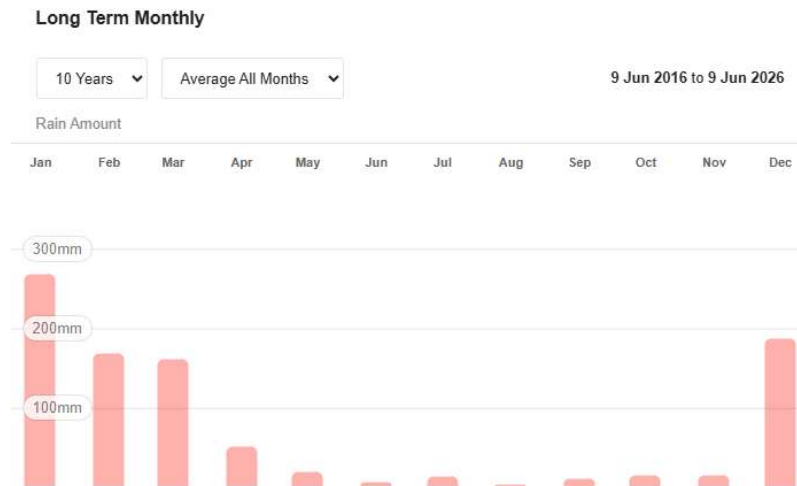


Figure 4-4: Long-term rainfall data for the Mareeba Aerodrome

The district experiences warm summers and mild winters. Summer maximum temperatures commonly exceed 30°C, while winter daytime temperatures are generally between 20°C and 25°C. Due to the elevated topography of the Atherton Tablelands, winter overnight temperatures may fall below 10°C.

Prevailing winds vary seasonally and are influenced by regional topography. The long-term data from the Mareeba Aerodrome indicate the prevailing and predominant winds are from the south-east (Figure 4-5).



Figure 4-5: Long-term annual windrose data from the Mareeba Aerodrome

4.2 Land

4.2.1 Remnant Vegetation

The Irvinebank area is known to support Regional Ecosystem 9.11.10, described by the Queensland Government as *Eucalyptus cloeziana*, *Corymbia citriodora* subsp. *citriodora*, *E. portuensis* and *E. cullenii* mixed woodland on steep dissected hills on highly metalliferous metamorphic rocks. This regional ecosystem has a Vegetation Management Act class of “Least concern” but a biodiversity status of “Of concern”. It is not classified as a wetland.

Regional Ecosystem 9.11.10 is specifically noted as occurring predominantly in the Irvinebank area. It has special values as habitat for geographically restricted and vulnerable flora species, including *Goodenia stirlingii*, *Acacia purpureopetala*, *Grevillea glossadenia* and *Corymbia rhodops*.

The proposal requires no clearing of any vegetation.

4.2.2 Koala Habitat

The subject site is located outside the Southeast Queensland Koala Planning Area. While koalas have been recorded within Far North Queensland, and the region is mapped as Koala district on Queensland Globe (<https://qldglobe.information.qld.gov.au/>) and individuals may occur in suitable woodland habitat within the wider district, desktop assessment has not identified any mapped koala habitat areas applicable to the site. There are no known koala records on the site of the proposed project. Furthermore, the proposal requires no clearing of any vegetation.

4.2.3 Flora Survey Trigger Mapping

The site is not mapped as containing any High-Risk Areas on the Flora Survey Trigger Mapping. Furthermore, the proposal requires no clearing of any vegetation. Accordingly, a flora survey for the purpose of the *Nature Conservation Act 1999* is not triggered or required.

4.2.4 Matters Of State Environmental Significance

Potential Matters of State Environmental Significance (MSES) may include regulated vegetation, essential habitat, protected wildlife habitat, waterways, wetlands or threatened species habitat. A review of the Mareeba Shire Council's interactive mapping tool found that the two mullock heap locations are outside of any mapped MSES (Figure 4-6).

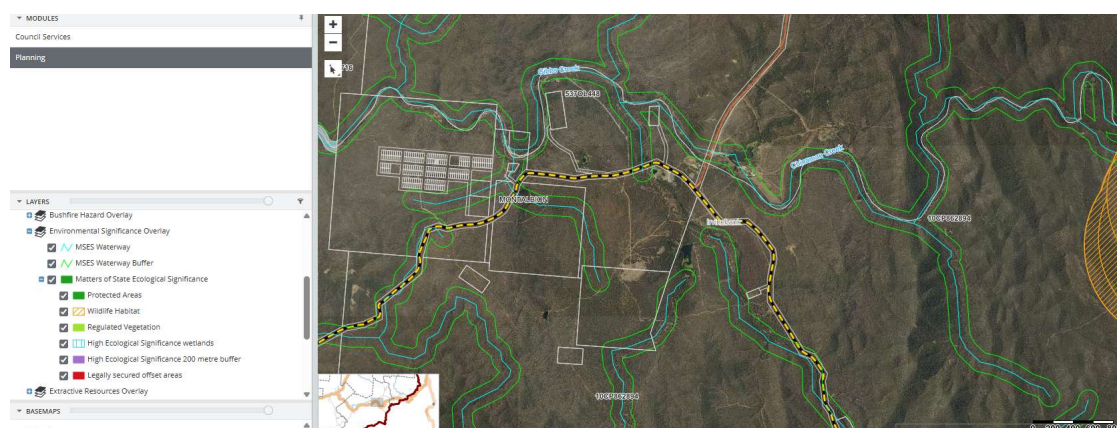


Figure 4-6: Mapped MSES in the area of the proposed project

4.2.5 Topography and Geology

The Mont Albion–Irvinebank district is characterised by dissected uplands, ridgelines, steep hills, drainage gullies and hard-rock terrain. Regional Ecosystem 9.11.10 is associated with steep dissected hills on highly metalliferous metamorphic rocks. The terrain of the actual mullock heaps is flat open grazing land and as the mullock heaps already exist, no vegetation clearing is required. Access roads and level laydown areas are also existing and as such, no cutting, filling or leveling of the topography is needed.

4.2.6 Contaminated Land

The Environmental Management Register (EMR) and the Contaminated Land Register (CLR) are public registers which contain information about contaminated land in Queensland. The EMR also contains information of land which is, or could potentially be, contaminated because it is being used for an activity which may cause contamination. Land is listed on the EMR if certain types of activities (known as notifiable activities) have been, or are being, carried out on the land, or if the land is contaminated land. Contaminated land is land which is affected by a hazardous contaminant. Contaminated land

is moved from the EMR to the CLR where it is necessary to take action to remediate the land to prevent serious environmental harm and protect human health or other aspects of the environment.

On the Mareeba Shire Council interactive mapping tool (Figure 4-7), the mullock heaps are located on "Category N" contaminated land notation which means "Not on the EMR or CLR". In other words, there is no recorded contaminated land status for the parcel of lands based on Queensland's contaminated land registers.



Figure 4-7: Contaminated land records on the proposed project lands

4.3 Water

4.3.1 Watercourses

The project site is within a seasonal upland drainage environment with drainage lines in the area being ephemeral or intermittent, with flow concentrated during the wet season and storm events. Both resources are located away from main creeks and drain into the ephemeral drainage lines. Mullock heap 1 is approximately 200 m north of the nearest mapped creek system (Chinaman Creek) which Mullock heap 2 is approximately 1500 m south of the nearest mapped creek system (Gibbs Creek). Chinaman Creek becomes Gibbs Creek (Figure 4-8).



Figure 4-8: Mapped creek systems in the project area

4.3.2 Water Quality Objectives and Environmental Values

Water Quality Objectives

Water quality objectives are intended to protect the identified environmental values of receiving waters. For the purpose of this assessment, the primary water quality considerations relate to:

- sediment and suspended solids;
- turbidity;

- pH;
- nutrients;
- hydrocarbons and chemicals; and
- dissolved metals where mineralised materials are present.

The proposed quarrying of the existing mullock heaps has been designed to ensure that stormwater runoff from disturbed areas does not adversely affect the environmental values of downstream waterways.

Environmental Values

The subject site is located within the upper Walsh River catchment in the Irvinebank district. Surface water drainage from the site occurs via ephemeral and intermittent drainage lines which ultimately contribute to the Walsh River system.

The *Environmental Protection (Water and Wetland Biodiversity) Policy 2019* identifies environmental values that are to be protected for Queensland waters. Based on the rural setting of the site and surrounding land uses, the relevant downstream environmental values are considered to include:

- aquatic ecosystem health;
- rural water supply and stock watering;
- farm water supply;
- cultural and spiritual values;
- recreation (secondary contact); and
- visual amenity associated with receiving waters.

No major permanent watercourses, wetlands or declared high ecological value waters are known to occur within the proposed disturbance area or downstream of the project site, however seasonal drainage lines may provide ecological functions during and following rainfall events.

Existing Water Quality

The site is situated within a largely rural and historically mined landscape. Existing water quality is expected to be influenced by natural background conditions, seasonal rainfall, grazing activities, historical project disturbance and local erosion processes.

Drainage lines within the area are generally ephemeral and flows occur predominantly during the wet season and following significant rainfall events.

4.3.3 Flooding

A review of the Mareeba Shire Council interactive mapping tool (Figure 4-9) showed flooding as not being a risk to the project. The project locations lie outside of the Modelled flood hazard levels and outside of the Queensland Floodplain Assessment Overlay Mapping.



Figure 4-9: Flood risk to the project locations

4.4 Wetlands

No major permanent watercourses, wetlands or declared high ecological value waters occur within the proposed disturbance areas of the project site; however the mapped ephemeral drainage lines and creeks provide ecological functions during and following rainfall events. These are mapped on the Mareeba Shire Council interactive mapping tool (Figure 4-10). Both Wetland areas and Terrestrial areas mapped are only of “General Significance” and remain offsite and downstream of the two mullock heap locations.

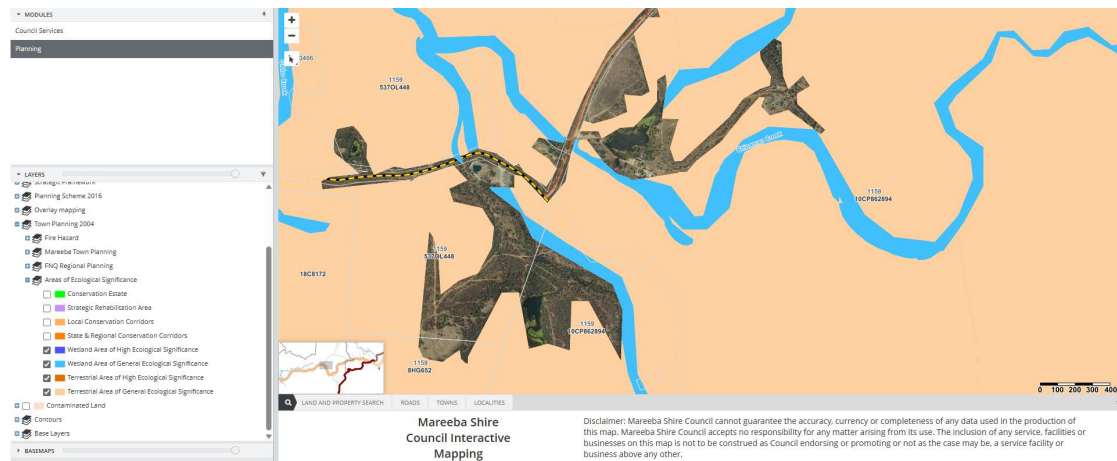


Figure 4-10: Wetland areas and Terrestrial areas of general ecological significance

4.5 Groundwater

The project area is characterised by hard-rock geology associated with granitic and metamorphic formations of the historic Herberton–Irvinebank mineral field. Groundwater within the district is generally expected to occur within fractured bedrock, weathered rock profiles and localised alluvial deposits associated with drainage lines. Unlike major sedimentary basins, groundwater resources are typically discontinuous and controlled by geological structures such as fractures, joints and faults. Groundwater yields within hard-rock terrains are commonly variable and generally lower than those encountered in extensive alluvial aquifers.

Groundwater within the locality may be used for:

- stock watering;
- domestic supply;
- rural residential uses;
- limited agricultural purposes.

As the proposed crushing and screening of existing heaps of gravel and rock are on the surface, there is no interaction with groundwater or the regional groundwater table. As such, significant impacts to groundwater resources are not anticipated.

4.6 Noise Emissions

The project is located within a rural area characterised by low-density development, grazing activities and historical project land uses. The acoustic environment is therefore considered typical of a rural setting. Existing noise sources within the locality are expected to comprise wind, fauna, rural vehicle movements, agricultural activities and occasional traffic on local roads.

As shown in Section 4.1.2, sensitive receptors within the locality comprise rural dwellings, visitors to rural properties and users of local roads. The nearest sensitive receptor is a rural residence located well away from the proposed extraction area. Given the rural setting, large property size and anticipated separation distances between operational areas and sensitive receptors, significant noise impacts are not anticipated. Air blast over pressure and vibration are also not risks as the proposal does not involve drilling or blasting.

4.7 Air Quality

The site is located within a rural area of Mareeba Shire where background air quality is generally high. Existing sources of particulate matter are expected to comprise wind-blown dust from unsealed roads, grazing activities, agricultural operations and natural processes.

5 Potential Environmental Impacts and Risks

5.1 Overview

This chapter assesses the potential environmental impacts associated with the proposed development having regard to the existing environmental values identified in Chapter 4.

The assessment indicates that the site comprises a previously disturbed rural environment and that the proposed development has been designed to avoid impacts on significant environmental values.

No native vegetation clearing is proposed, no drilling or blasting is proposed, and no direct disturbance to mapped waterways, wetlands or environmentally sensitive areas is anticipated.

Accordingly, the potential environmental risks associated with the development (refer Section 5.12) are considered generally low and capable of being effectively managed through standard environmental management measures.

5.2 Land and Soils

Potential impacts to land resources are limited to localised disturbance associated with quarry operations and vehicle movements.

The development footprint will be confined to previously disturbed areas and no significant changes to landform stability are anticipated.

Progressive rehabilitation and erosion management measures will minimise the potential for soil degradation.

Residual Risk: Low.

5.3 Flora and Fauna

No clearing of native vegetation is proposed and no disturbance to identified habitat areas is anticipated.

Given the absence of vegetation clearing and the limited extent of disturbance, impacts to flora, fauna and ecological values are considered negligible.

Residual Risk: Negligible.

5.4 Surface Water

The principal environmental risk associated with the proposed development relates to erosion and sediment transport during rainfall events. Without appropriate management, disturbed soil surfaces have the potential to contribute sediment-laden runoff to downstream drainage lines.

The risk will be managed through:

- minimisation of disturbed areas;
- diversion of clean stormwater around operational areas;
- installation of erosion and sediment controls;
- progressive rehabilitation; and
- routine inspection and maintenance of drainage infrastructure.

Subject to implementation of these measures, impacts on downstream water quality and environmental values are expected to be minor.

Residual Risk: Low.

5.5 Groundwater

The proposed activities will not intercept the groundwater table or alter groundwater flow regimes as the mullock heaps are existing and above-ground already in rock and gravel piles ready for crushing and screening. Groundwater resources are therefore unlikely to be affected by the proposed development.

Residual Risk: Negligible.

5.6 Air Quality

Potential air quality impacts are limited to minor dust generation associated with vehicle movements and handling of quarry materials.

Given the absence of nearby sensitive receptors and the implementation of standard dust suppression measures, adverse air quality impacts are not anticipated.

Residual Risk: Low.

5.7 Noise

Operational noise will be generated by mobile plant and equipment.

The development is located within a large rural property, and substantial separation distances exist between operational areas and nearby receptors.

Consequently, noise impacts are expected to remain low and are unlikely to adversely affect surrounding land uses.

Residual Risk: Low.

5.8 Traffic and Transport

Vehicle movements associated with the development will utilise the existing road network.

Given the expected low traffic volumes of the proposal (~14 trucks per day at maximum capacity) and the rural setting of the site, significant transport impacts are not anticipated.

Residual Risk: Low.

5.9 Bushfire

The greater region is mapped as a bushfire-prone landscape, although the actual project site locations are not at risk being in an already cleared, open grazing land environment with cleared land on and around the two mullock heap resources and their existing access roads.

The development is not expected to materially increase bushfire risk and will be managed through standard fire prevention and emergency response procedures.

Residual Risk: Low.

5.10 Cumulative Impacts

Given the limited scale of environmental impacts identified and the implementation of standard environmental management measures, the development is not expected to contribute significantly to cumulative environmental impacts within the locality.

5.11 Purpose of the Risk Assessment

The purpose of the assessment is to identify all the environmental risk pathways potentially affecting the environmental resources and receptors during the life of the proposed crushing, screening and trucking operations of the proposal. Results of the risk assessment that analyses these risks to derive an inherent risk rating are presented and then applying suitable risk treatments to demonstrate that all residual risks are as low as reasonably practicable (ALARP).

5.12 Risk Assessment Methodology

The environmental risk assessment presented below is based on the risk management process outlined in the Australian Standard AS ISO 31000:2018 Risk Management, which includes the following activities:

- Risk identification: identifying what could prevent us from achieving our objectives.
- Risk analysis: understanding the sources and causes of the identified risks; studying probabilities and consequences given the existing controls, to identify the level of residual risk.
- Risk evaluation: comparing risk analysis results with risk criteria to determine whether the residual risk is tolerable.
- Risk treatment: eliminate or changing the magnitude and likelihood of consequences, both positive and negative, to achieve a net increase in benefit.

Adopting this process ensures a structured approach to the risk assessment.

In identifying the risks, environmental issues pertaining to the proposed Project have been identified using a combination of baseline data review, assessments by environmental professionals who have a good understanding quarrying and resource activities and their potential impacts on the environment during all phases of a project's life, stakeholder engagement and review of site risk assessments or analogous quarries.

The most common approach is to define risk as the combination of the probability (or likelihood) and consequence of an event.

$$\text{Risk} = \text{Probability} \times \text{Consequence}$$

The risk matrix detailed in

Table 5-1 was used to combine the level of likelihood (A to E) and consequence (1 to 5) to determine the associated risk level. A risk priority is assigned to each of the 25 possible outcomes and risks are categorised as Extreme (Red), High (Orange), Medium (Yellow) and Low (Green). Risk levels for identified impacts are evaluated on the basis of the maximum reasonable consequence and the likelihood of that consequence occurring using a qualitative risk assessment method. The likelihood and consequence descriptions are provided in Table 5-2 and

Table 5-3 respectively.

The risk matrix detailed in

Table 5-1 combines the level of likelihood and consequence to determine the associated risk level. A risk priority is assigned to each of the 25 possible outcomes and risks are categorised as Extreme (Red), High (Orange), Medium (Yellow) and Low (Green). As different activities differ in scale and nature of impact, control measures are tailored to ensure they are relevant and effective in mitigating the identified risk. Detailed management plans may be required for Extreme or High-level risks while routine procedures may be considered adequate to manage low level risks.

Table 5-1: Risk matrix

Risk Matrix		Most Credible Consequence Level				
		(1) Insignificant	(2) Minor	(3) Moderate	(4) Major	(5) Severe
Likelihood	(A) Almost Certain	Medium	High	High	Extreme	Extreme
	(B) Likely	Medium	Medium	High	Extreme	Extreme
	(C) Possible	Low	Medium	Medium	High	Extreme
	(D) Unlikely	Low	Low	Medium	High	High
	(E) Rare	Low	Low	Medium	Medium	High

E: Extreme risk; control measures required, must include engineering or above treatment
H: High risk; control measures required
M: Medium risk; control measures required
L: Low risk; manage by routine procedures, no specific control measures required

Table 5-2: Risk assessment likelihood descriptors

Descriptor	Operations		Closure	
	Frequency	Description	Probability	Description
(A) Almost Certain	Once or more per year	The risk event is expected to occur in most circumstances. High number of known incidents across industry.	> 90%	Likely to occur/commence within a 1 year period from closure commencement. AND/OR Occurs 5 to 10 times in 2 years.
(B) Likely	Once in 5 years	The risk event is expected to occur in some common circumstances. Regular incidents known across industry.	70–90%	Likely to occur/commence within a 1–5 year period from closure commencement. AND/OR Occurs 5 to 10 times in 10 years.
(C) Possible	Once in 10 years	The risk event might occur in some circumstances. Incidents known across industry.	30–70%	Likely to occur/commence within a 5–20 year period from closure commencement. AND/OR Occurs 5 to 10 times in 20 years.
(D) Unlikely	Once in 20 years	The risk event could occur in some uncommon circumstances, as this is known to occur at comparable sites. Some occurrences known across industry.	5–30%	Likely to occur/commence within a 20–50 year period from closure commencement. AND/OR Occurs 5 to 10 times in 50 years.
(E) Rare	Once in 50 years	Highly unlikely, but the risk event may occur in exceptional circumstances, as may have occurred at comparable sites. Very few or no known occurrences across industry.	< 5%	Unlikely but possible to occur/commence within a 100 year period from closure commencement. AND/OR Occurs 1 to 5 times in 300 years.

Table 5-3: Risk assessment consequence descriptors

Environmental Indicator	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Severe (5)
Flora and vegetation	No direct loss of native vegetation although increased stress may be incurred through indirect or induced pressures. And/or No direct loss of conservation significant vegetation.	Localised and short-term (<1 year) loss of native vegetation which is widely distributed outside of the activity envelope.	Medium-term (1–5 years) loss of native vegetation which is widely distributed outside of the activity envelope. Project places minimal pressure on continued survival of conservation significant vegetation on a local scale.	Long-term (5–10 years) loss of native vegetation which is not widely disturbed outside the activity envelope. Project places significant pressure on continued survival of conservation significant vegetation on a regional scale.	Permanent loss of native vegetation causing significant pressure or potential extinction of conservation significant vegetation on a regional scale.
Fauna	No decrease in fauna habitat and/ or fauna abundance. And/or No direct loss of conservation significant fauna.	Localised and short term (< 1 year) decrease in fauna habitat and/or fauna abundance.	Medium term (1–5 years) decrease in fauna habitat and/or fauna abundance.	Significant, widespread, and/ or persistent regional decrease in fauna habitat and/or fauna abundance. Long term (5–10 years) decrease in fauna habitat and/or abundance.	Permanent regional loss of fauna habitat and/or loss of conservation significant fauna habitat and/or conservation significant fauna population.
Surface water quality	Negligible changes to local surface water quality that negatively impacts environmental values.	Minor and or short term (< 1 year) change to surface water quality that negatively impacts environmental values.	Moderate and or medium term (1–5 years) change to surface water quality that negatively impacts environmental values.	Long term decline (5–10 years) in surface water quality that negatively impacts environmental values.	Decline in surface water quality that negatively impacts environmental values on a regional scale. Non-recoverable impact.
Surface water quantity	Incidental, short-term changes to local surface water volumes. Negligible impact to environmental values or water users.	Minor, short term changes to local surface water volumes. Recoverable within 1 year and/or localised impact to environmental values or water users.	Medium-term changes to surface water volumes. Recoverable within 1–5 years and/or negative impact to environmental values or water users.	Long-term changes to surface water volumes. Recoverable within 10 years and/or negative impact to environmental values or water users.	Project causes permanent modifications to surface water volumes. Non-recoverable impact/permanent impact to environmental values or water users.
Groundwater quality	Incidental, short-term changes to local groundwater quality. Negligible impact to environmental values.	Short-term (<1 year) localised decline in groundwater quality that negatively impacts environmental values.	Medium-term (1–5 years) localised decline in groundwater quality that negatively impacts environmental values.	Long-term (5–10 years) regional decline in groundwater quality that negatively impacts environmental values.	Permanent decline in groundwater quality that negatively impacts environmental values. Non-recoverable impact.

Environmental Indicator	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Severe (5)
Groundwater quantity	Incidental changes to local groundwater levels/availability. And/or negligible impact to environmental values or water users.	Local changes to groundwater levels/availability. Recoverable within 1 year and/or localised impact to environmental values or water users.	Changes to groundwater levels/availability in the medium-term. Recoverable within 5 years and/or negative impact to environmental values or water users.	Regional changes to groundwater levels/availability in the long term. Recoverable within 10 years and/or negative impact to environmental values or water users.	Regional changes to groundwater levels/availability in the long-term. Non-recoverable impact permanent impact to environmental values or water users.
Air Quality	No measurable deterioration in ambient air quality. Dust and particulate emissions remain at background levels. No sensitive receptors affected and no exceedance of applicable air quality objectives or standards.	Temporary and highly localised dust generation within the operational area. Impacts are readily managed through routine dust suppression measures. No adverse impacts on sensitive receptors and no exceedance of relevant air quality criteria.	Measurable but localised deterioration in air quality beyond the immediate operational area. Occasional nuisance dust may occur at nearby receptors during adverse weather conditions. Impacts are reversible and can be managed through additional mitigation measures. No significant health impacts are anticipated.	Frequent or sustained dust emissions affecting nearby sensitive receptors. Air quality objectives may be exceeded on occasion. Impacts require significant management intervention, operational restrictions or engineering controls to maintain compliance.	Widespread, prolonged or repeated air quality impacts resulting in significant nuisance, health concerns, substantial exceedances of applicable standards, regulatory intervention or long-term adverse effects on sensitive receptors. Impacts cannot be adequately mitigated through reasonable management measures.
Noise	No measurable increase in ambient noise levels above existing background conditions. No sensitive receptors affected and no exceedance of applicable noise criteria.	Temporary and localised increase in noise levels associated with routine operations. Noise remains within applicable criteria and does not result in nuisance or adverse impacts at sensitive receptors. Impacts are readily managed through standard operational controls.	Noticeable increase in noise levels beyond the operational area. Occasional nuisance impacts may occur at nearby sensitive receptors during certain activities or weather conditions. Impacts are reversible and can be managed through additional mitigation measures.	Frequent or sustained noise impacts affecting sensitive receptors. Noise criteria may be exceeded on occasion, resulting in complaints, operational restrictions or the need for substantial mitigation measures.	Significant and ongoing noise impacts resulting in widespread nuisance, repeated exceedance of applicable noise criteria, regulatory intervention or substantial disruption to sensitive receptors. Impacts cannot be adequately mitigated through reasonable management measures.

Environmental Indicator	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Severe (5)
Traffic	No measurable change to existing traffic volumes, road safety or road operating conditions. Existing road infrastructure and access arrangements remain unaffected.	Small increase in vehicle movements with negligible effect on road capacity, safety or level of service. Impacts are localised and readily accommodated by the existing road network without upgrades or management intervention.	Noticeable increase in traffic volumes resulting in occasional delays, increased interaction with other road users or minor road maintenance requirements. Additional traffic management measures may be required to maintain safe operations.	Significant increase in traffic volumes resulting in reduced road performance, safety concerns, accelerated road deterioration or substantial impacts on local road users. Road upgrades, operational restrictions or significant mitigation measures are required.	Major and sustained impacts on road capacity, safety and infrastructure resulting in unacceptable operating conditions, high accident risk, significant road damage or inability of the existing road network to accommodate development-related traffic. Extensive upgrades and regulatory intervention are required.
Bushfire	No increase in bushfire risk. No impact on people, property, infrastructure or environmental values. Existing bushfire management arrangements remain adequate.	Localised increase in bushfire risk with limited potential for fire ignition or spread. Any fire event would be readily controlled using routine management measures and would not result in significant damage to environmental values, property or infrastructure.	Increased bushfire risk resulting in the potential for a fire to spread beyond the immediate operational area. Impacts may include localised damage to vegetation, infrastructure or property. Additional bushfire mitigation measures are required to manage risk.	High bushfire risk with the potential for significant fire spread, substantial damage to vegetation, property or infrastructure, and disruption to surrounding land uses. Significant management intervention and emergency response measures would be required.	Extreme bushfire risk resulting in widespread fire spread, significant threat to life and property, extensive damage to environmental values and infrastructure, and long-term consequences. Impacts cannot be adequately managed through standard mitigation measures.
Contaminated Land	Incidental land contamination within activity envelope, easily treatable in short-term (< 1 week) and does not result in adverse impacts on associated environmental values.	Land contamination localised and treatable in medium-term (< 1 year) and does not result in adverse impacts on associated environmental values.	Localised land contamination. rectifiable within 5 years and results in minor adverse impacts on associated environmental values in the short to medium term.	Land contamination on a regional scale (beyond activity envelope) resulting in adverse impacts on associated environmental values. Results in clean-up requiring specialist remediation within 10 years and/or medium to long term management.	Land contamination on a regional scale (beyond activity envelope) resulting in permanent damage with severe environmental and socioeconomic disruption. Results in clean-up requiring specialist remediation >10 years, and/or permanent residual impact.

A risk assessment has been completed for the proposed activities to identify and manage potential environmental risks associated with all phases of the Project. The risk assessment is based on an understanding of the existing environment through desktop assessments, technical reports and any concerns raised during discussions with relevant stakeholders. The full risk assessment is provided in Table 5-4

Table 5-4: Detailed Risk Assessment

Environmental Aspect	Potential Impact	Likelihood	Consequence	Initial Risk	Mitigation Measures	Residual Risk
Flora and Vegetation	Clearing of vegetation	Rare	Insignificant	Negligible	No vegetation clearing proposed.	Negligible
Fauna	Habitat disturbance	Rare	Insignificant	Negligible	Development confined to previously disturbed areas	Negligible
Surface Water	Sediment runoff during rainfall events	Possible	Minor	Medium	Erosion and sediment controls, clean water diversion, rehabilitation	Low
Groundwater	Groundwater interception	Rare	Insignificant	Negligible	No extraction below natural ground surface, no interference with groundwater table or abstraction of groundwater	Negligible
Air Quality	Dust generation	Possible	Minor	Medium	Watering of haul roads and operational areas, speed limits, rehabilitation, suspension of high dust-generating activities during adverse weather conditions where necessary;	Low
Noise	Operational equipment noise	Unlikely	Minor	Low	No drilling, no blasting, large separation distance from receptors	Low
Traffic	Increased vehicle movements	Unlikely	Minor	Low	Minimal truck movements (14/day using 38t truck and trailer), existing access arrangements, safe exits onto public roads	Low
Bushfire	Ignition from plant and equipment	Unlikely	Minor	Low	Fire management procedures and equipment	Low
Contaminated Land	Fuel and oil spills	Rare	Minor	Low	Spill kits on-site, major servicing and maintenance of vehicles, plant and equipment undertaken off-site.	Negligible
Heritage	Disturbance of heritage values	Rare	Minor	Negligible	No additional ground disturbance required – project area is already cleared and disturbed	Negligible

6 Conclusion

The assessment indicates that the proposed development presents a low environmental risk profile. The primary environmental issues identified are the potential for erosion and sediment transport from disturbed areas during rainfall events, and the potential for increased dust generation from crushing, screening and trucking product.

The risk of erosion and sediment transport will be effectively managed through:

- the minimisation of disturbed areas;
- the diversion of clean stormwater around operational areas;
- the installation of erosion and sediment controls utilising existing sediment ponds on-site;
- progressive rehabilitation; and
- routine inspections and maintenance of drainage infrastructure.

The risk of potential air quality impacts will be effectively managed through:

- watering of haul roads and operational areas;
- application of speed limits;
- progressive rehabilitation of disturbed areas;
- minimisation of exposed surfaces;
- management of stockpile heights and locations;
- suspension of high dust-generating activities during adverse weather conditions where necessary; and
- regular inspection of dust controls.

No significant residual impacts on land, groundwater, flora, fauna, noise or surrounding land uses are anticipated. Following implementation of mitigation measures, all identified environmental risks are considered Low or Negligible.

Accordingly, the proposed development is considered environmentally acceptable.