PLANNING NOTICE

Meander Valley Council
Working Together

An application has been received for a Permit under s.57 of the Land Use Planning Approvals Act 1993:

APPLICANT:	**Cresswells Transport Pty Ltd - PA\25\0122**
PROPERTY ADDRESS:	**611 Porters Bridge Road REEDY MARSH (CT: 185619/2)**
DEVELOPMENT:	**Level 2 Activity - Extractive Industry (Quarry) Intensification, including processing - traffic.**

The above application has been referred to the Board of the Environment Protection Authority (the Board) for assessment under the Environmental Management and Pollution Control Act 1994 (EMPCA). An Environmental Effects Report (EER) has been lodged in support of the application.

A copy of the full development application is available for public inspection during the notification period at:

- Meander Valley Council, 26 Lyall Street, Westbury

Alternatively, the full development application can be viewed at:

- www.meander.tas.gov.au

The EER can also be viewed at: https://epa.tas.gov.au/consultations

For assistance in accessing a copy of the EER, please contact Barry Williams on 0437 394 492 or email barry.williams@ilmp.com.au

Any person may make a representation (public submission) relating to the application from **Saturday 8 November 2025** to **Monday 8 December 2025** by writing to the General Manager, Meander Valley Council, PO Box 102, Westbury TAS 7303 or by email to planning@mvc.tas.gov.au.

A guide for preparing a public submission can be found at:

- https://epa.tas.gov.au/public-submission-guide

Please note that any representations lodged will be available for public viewing.

Dated at Westbury on 8 November 2025.

Jonathan Harmey
GENERAL MANAGER

APPLICATION FORM

PLANNING PERMIT

Land Use Planning and Approvals Act 1993

Meander Valley Council
Working Together

- Application form & details MUST be completed **IN FULL**.
- Incomplete forms will not be accepted and may delay processing and issue of any Permits.

OFFICE USE ONLY

Property No: 21703 **Assessment No:** ____ - ____ - ____

DA 25\0226 **PA** 25\0122 **PC** ____

- Is your application the result of an illegal building work? ☐ Yes ☑ No Indicate by ✓ box
- Have you already received a Planning Review for this proposal? ☐ Yes ☑ No
- Is a new vehicle access or crossover required? ☐ Yes ☑ No

PROPERTY DETAILS:

Address: 611 Porters Bridge Road Certificate of Title: 185619

Suburb: Exton 7303 Lot No: 2

Land area: 22 m^2 / (ha)

Present use of land/building: Extractive Industry *(vacant, residential, rural, industrial, commercial or forestry)*

- Does the application involve Crown Land or Private access via a Crown Access Licence: ☐ Yes ☑ No
- Heritage Listed Property: ☐ Yes ☑ No

DETAILS OF USE OR DEVELOPMENT:

Indicate by ✓ box ☐ Building work ☐ Change of use ☐ Subdivision ☐ Demolition ☐ Forestry ☑ Other Hard rock Quarry

Total cost of development *(inclusive of GST):* $ 50,000 *Includes total cost of building work, landscaping, road works and infrastructure*

Description of work: Expand existing hard rock quarry into new area with a higher rate of annual production

Use of building: No buildings (main use of proposed building – dwelling, garage, farm building, factory, office, shop)

New floor area: N/A m^2 New building height: N/A m

Materials: External walls: N/A Colour: N/A

Roof cladding: N/A Colour: N/A

RESULT OF SEARCH

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980

Tasmanian Government

SEARCH OF TORRENS TITLE

VOLUME	FOLIO
185619	2
EDITION	DATE OF ISSUE
2	20-Dec-2023

SEARCH DATE : 05-Nov-2025
SEARCH TIME : 09.49 AM

DESCRIPTION OF LAND

Parish of WYCOMBE Land District of DEVON
Lot 2 on Plan 185619
Derivation : Part of Lots 3659 & 3661 Gtd. to John Symmons
Prior CT 157328/6

SCHEDULE 1

N168392 TRANSFER to CREZZCO PTY LTD Registered 20-Dec-2023 at 12.02 PM

SCHEDULE 2

Reservations and conditions in the Crown Grant if any
SP25718 BENEFITING EASEMENT: a right of carriageway over the Right of Way 7.00 wide marked BF & DE on Plan 185619
C797552 PRIVATE TIMBER RESERVE pursuant to Section 15(1) of the Forest Practices Act 1985 against part of the land as described therein Registered 02-Nov-2007 at noon

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

OWNER : IAN CARL PORTER

FOLIO
REFERENCE : F.R. 157328/6

GRANTEE : PART OF LOT 3659 & 3661
Gtd TO JOHN SYMMONS

NEW PLAN OF TITLE

COMPILED BY: PDA Surveyors Surveying, Engineering & Planning

LOCATION: LAND DISTRICT OF DEVON
PARISH OF WYCOMBE

FIRST SURVEY PLAN No:

SCALE 1:12500 LENGTHS IN METRES

Registered Number

P 185619

APPROVED
EFFECTIVE FROM 19 SEP 2023

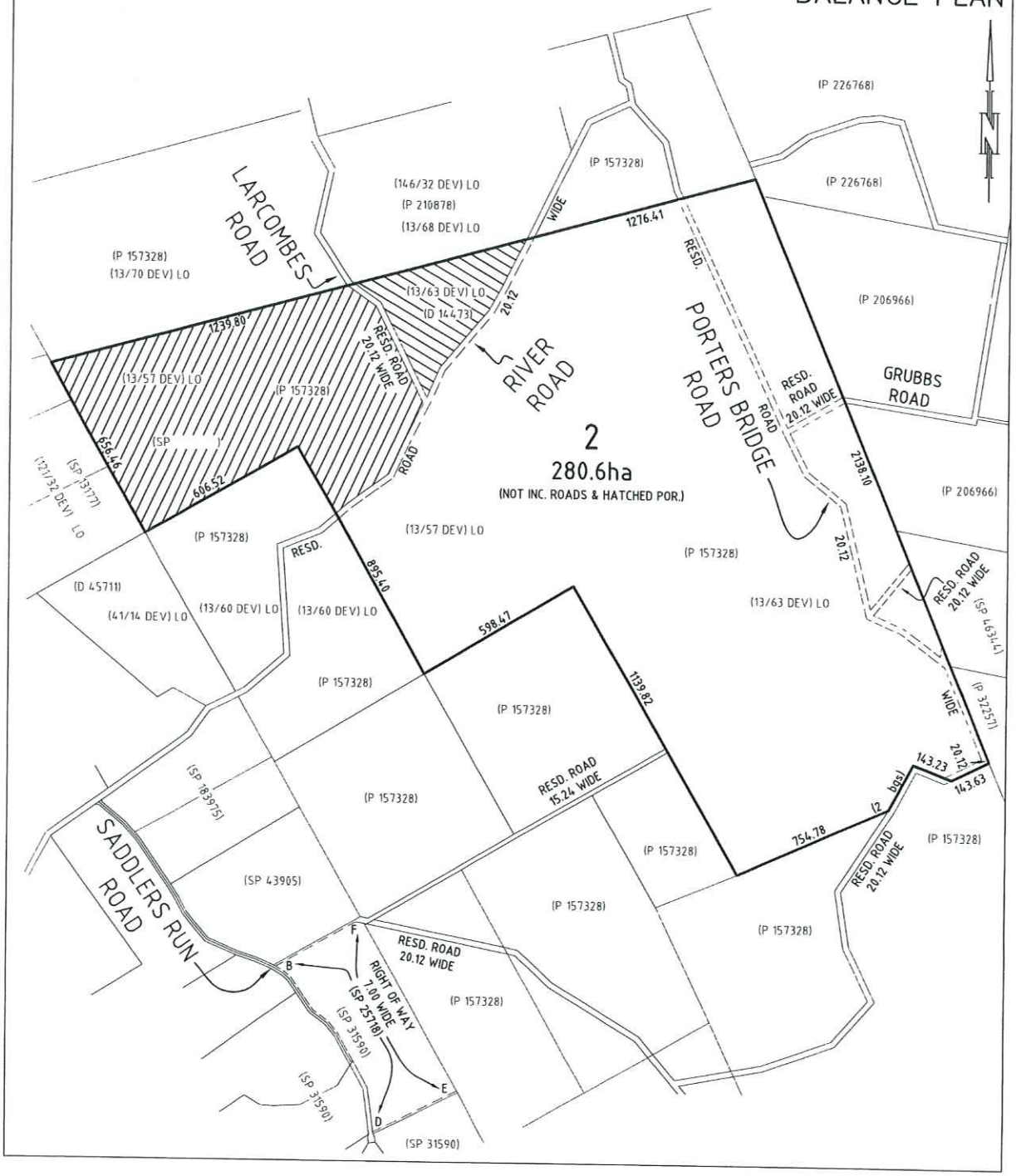
Recorder of Titles

SKETCH BY WAY OF ILLUSTRATION

"EXCEPTED LANDS"
LOT 1 (D 14473) 12.93ha
LOT 1 (SP 185616) 65.37ha

ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN

BALANCE PLAN



Megan Hancock

From: Barry Williams <barry.williams@ilmp.com.au>
Sent: Wednesday, 15 January 2025 1:46 PM
To: Planning - Meander Valley Council
Cc: Leanne Rabjohns; tony.cresswell@bigpond.com
Subject: Exton Quarry - increase in production - case for assessment
Attachments: Exton Quarry - capacity increase EER rev 4.pdf; Appendix 1 Exton Quarry - Planning Authority.pdf; Appendix 5 Application for an Aboriginal Heritage AH Desktop Review.pdf; Appendix 2 T-P.22.1829-ENV-REP-0001-Exton Quarry NIA-Rev00.pdf; Appendix 4 Passive search for masked owls at Exton Quarry_Final.pdf

Categories: Registered

Hi Leanne,

See case of assessment for Exton Quarry attached.
This will encompass a number of emails.
Please call if you have any questions.

Regards,

Barry

mobile: 0437 394 492

email: barry.williams@ilmp.com.au

integrated land management & planning

Exton Quarry – Increase in capacity Environmental Effects Report

Prepared By: Barry Williams

Date: 16 July 2024

Issue	Date	Recipient	Organisation
Revision 0	14 July 2022	Mr Tony Cresswell	Cresswell's Transport Pty Ltd
Revision 1	15 December 2022	Mr Tony Cresswell	Cresswell's Transport Pty Ltd
Revision 1	17 January 2023		Environment Protection Authority
Revision 2	6 December 2023	Mr Tony Cresswell	Cresswell's Transport Pty Ltd
Revision 2	7 December 2023		Environment Protection Authority
Revision 3	5 June 2024		Environment Protection Authority
Revision 4	8 July 2024		Environment Protection Authority

PO Box 1441 Lindisfarne Tasmania 7015 **M** 0437 394 492 **E** barry.williams@ilmp.com.au

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Appendix 1: communication Meander Valley Council, 1 February 2022

Appendix 2: Exton Quarry Noise Impact Assessment, Pitt & Sherry, 8 December 2022

Appendix 3: Natural Values Assessment of Mining lease 1994P/M, ECOtas, 24 October 2022

Appendix 4: Passive 'Observation' for masked owls at Exton Quarry, 21 November 2023

Appendix 5: Advice from Aboriginal Heritage Tasmania, 17 February 2022

PART A – PROPONENT INFORMATION

TABLE 1: PROPONENT DETAILS

Business	Cresswell's Transport Pty Ltd
ACN	009 537 320
Address	PO Box 310 DELORAINE Tasmania 7304
Contact	Mr Tony Cresswell
Email	Tony@cresswellstransport.com.au
Phone	0418 131 342

TABLE 2: CONSULTANT DETAILS

Name	Mr Barry Williams
Business	Integrated Land Management & Planning
ABN	67 057 193 880
Address	331 South Arm Road LAUDERDALE Tasmania 7021
Contact	Barry.williams@ilmp.com.au
Phone	0437 394 492

PART B – PROPOSAL DESCRIPTION

TABLE 3: PROPOSED ACTIVITY

Activity	Exton Quarry is a hard rock quarry which uses drill and blast techniques to extract dolerite rock. The shot rock is processed using mobile crushers and screens to produce aggregates and gravels for sale.

	The activity will be classified under Schedule 2 of EMPC Act 1994 as a materials processing facility by virtue of the use of mechanical crushers.			
New or existing	The Exton Quarry is an existing operational quarry.			
	Mining Lease	1994P/M	Granted	13 Mar 2015
	Council permit	56/95/5	Date issued	8 Aug 1995
	Environment Protection Notice	9502 / 1	Date issued	24 Oct 2016
Product	The site is geologically mapped as Jurassic dolerite, The source rock is reasonably fine-grained dolerite which when crushed produces hard, durable, angular aggregate.			
Current annual extraction capacity	13,235 cubic metres, which on permit 9502/1 is deemed equivalent to 22.500 tonnes.			
Current annual processing capacity	13,235 cubic metres, which on permit 9502/1 is deemed equivalent to 22.500 tonnes.			
Loose bulk density	1.7 tonnes per cubic metre			
Proposed annual extraction capacity	50,000 cubic metres which is deemed equivalent to 80,000 tonnes			
Proposed annual processing capacity	50,000 cubic metres which is deemed equivalent to 80,000 tonnes			
Loose bulk density	1.6 tonnes per cubic metre			
Deemed bulk density	Variations in bulk density occur as different products are derived from the same virgin rock. Rock with the same specific gravity can produce gravels with even particle size distribution or aggregates which are gap graded. An increase in air voids in aggregates results in a lower bulk density.			
Methods	Source rock will be extracted using drill and blast techniques. Shot rock will be processed using mobile crushers and mechanical screens.			
Transport route	Trucks will leave the quarry via the existing access road to the junction with Porters Bridge Road, then travel either north or south depending on the destination for the products.			
Stockpiles	The dolerite is out cropping within the proposed extraction areas. Small quantities of top soil and overburden will be stockpiled adjacent to the footprint of the quarry. Stockpiles of various products will be constructed onsite during an operational campaign and depleted over time.			
Area of disturbance	Current area of disturbance – 2.0 hectares			

	Future area of disturbance – 4.5 hectares				
Major equipment	During an operational campaign the following types of equipment will be utilised:				
	Operation	Equipment	Power (kW)		
	Drilling	Mobile drill rig	120		
	Ripping / excavating	Excavator	120		
	Loading / stockpiling	Wheel loader CAT 950K	157		
	Crushing	Primary crusher: J-1175 Cone crusher: C-1540 VSI: Twister-Trac VS350	257 261 403		
	Screening	Screener: Terex-Finlay 883	72		
	Actual equipment utilised will vary according to what the Operator has available at the time or if contract equipment is hired.				
Infrastructure	Current infrastructure: Relocatable site shed, submersible water pump, portable water pump, access road, top bench access track. New infrastructure: new access road, new top bench access track.				
Proposal timeline	December ‘22	January ‘23	February ‘23	April. ‘23	May ‘22
	Documents	Advertising	EPA assess	MVC assess	Permit
Operating hours	Weekdays	7.00 am to 7.00 pm			
	Saturdays	8.00 am to 4.00 pm			
	Sundays and public holidays	No work.			

TABLE 4: LOCATION AND PLANNING CONTEXT

Location	611 Porters Bridge Road, EXTON, Tas 7303
Property ID	9766314
Certificate of Title	185619/2
Property ID	9766313
Certificate of Title	157328/7
Land tenure	Private freehold
Planning Scheme	Tasmanian Planning Scheme – Meander Valley

Land zoning	Meander Valley Local Provisions Schedule – 20. Rural		
Planning permit	Meander Valley Council advised that a land use planning permit is required, See Appendix 1.		
Use Class	Extractive Industry: use of land for extracting or removing material from the ground, other than Resource Development, and includes the treatment or processing of those materials by crushing, grinding, milling, or screening on, or adjoining the land from which it is extracted. Examples include mining, quarrying, and sand mining.		
Permissibility	Extractive Industry is a 'permitted' use without qualification in the Rural Zone.		
Mining lease	1994P/M	Status	Granted
Mining lease area	22 hectares		

TABLE 5: DESCRIPTION OF SITE AND SURROUNDS

Land use	Exton Quarry is situated in privately owned native forest which has been previously harvested. Further afield land has been cleared for agriculture with occasional residences associated with the agricultural use. Figure 3: General Location Map (Extract from TasMap Topographic) shows the location of Exton Quarry in relation to existing residences.					
Topography	Exton Quarry is situated on the northern face of a sparely forested hillock. This hill is one of a series of low hills rising above mutton plain. The quarry has a northerly aspect and is located on the lower to mid slope hill. The new quarry plan extends the top face to the crest of the hill but not beyond.					
Climate	Deloraine (Athol): 091000 (B.O.M. (a), 2022)					
Mean Maximum Temperature (^{0}C)	February		22.5	July	10.4	
Mean Minimum Temperature (^{0}C)	February		8.7	July	0.9	
Mean monthly rainfall (mm)	Minimum February	45.8	Maximum July	120.2	Annual	945.7
Wind Data	No wind data is available for weather stations within 30 kilometres.					
Geology	Exton Quarry is located within a large area that has been mapped with underlying Jurassic dolerite (Tasmanian dolerite). The site is not close to margins between the intruded dolerite and older sedimentary rock hence the source rock should have consistent properties.					

	It is uncommon for dolerite rock to contain minerals likely to be potentially acid forming.
Soils	Soils in this area are described as 'Kranozems of dolerite'. Slopes are generally moderate to steep and soil is red brown, similar in appearance to kranozems on basalt but are more stony and shallower (Spanswick, 1999). Land capability is classified as 6, Land marginally suited to grazing due to severe limitations (D.N.R.E., 2022).
Hydrology	The closest defined watercourse is off-lease on the eastern side. This watercourse is defined as a minor stream and flows into a series of natural and artificial drains that eventually discharge into the Meander River. The watercourse proximate to the site has an immediate Conservation Management Priority of Moderate and a RS Integrated Conservation Value of High as recorded on the CFEV[1]. Discharge from quarry site enters an ill-defined drainage path with intersects the defined watercourse after travelling through 600 metres of native vegetation.

Natural values

Threatened flora (5000 metres)

	species	Common name	State Listing	National Listing
	Epilobium pallidiflorum	showy willowherb	r-	-
	Glycine microphylla	small-leaf glycine	v	-
	Haloragis heterophylla	variable raspwort	r	-
	Pimelea curviflora	curved riceflower	p	-
	Pimelea curviflora var. gracilis	slender curved riceflower	r	-
	Senecio squarrosus	leafy fireweed	r	

Threatened fauna (5000 metres)

	species	Common name	State Listing	National Listing
	Accipiter novaehollandiae	grey goshawk	e	
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	E
	Dasyurus maculatus subsp. maculatus	spotted-tail quoll	r	V
	Haliaeetus leucogaster	white-bellied sea-eagle	v	

[1] Conservation of Freshwater Ecosystem Values project is a comprehensive audit of freshwater ecosystems.

	Perameles gunnii	eastern barred bandicoot		V
	Sarcophilus harrisii	tasmanian devil	e	E
	Tyto novaehollandiae subsp. castanops	masked owl (Tasmanian)	e	V
Raptor nests (5000 metres)				
	species	Common name	Nest ID	
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	125	
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	1515	
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	1516	
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	193	
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	402	
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	847	
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	960	
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	986	
	Haliaeetus leucogaster	white-bellied sea-eagle	2682	
Declared weeds within 5000 metres				
	species	Common name	WONS	
	Bassia scoparia	copper saltbush		
	Erica lusitanica	spanish heath		
	Ilex aquifolium	holly		
	Onopordum acanthium	scotch thistle		
	Rubus fruticosus	blackberry	yes	
	Senecio jacobaea	ragwort		
	Ulex europaeus	gorse	yes	

1 MAPS AND SITE PLAN

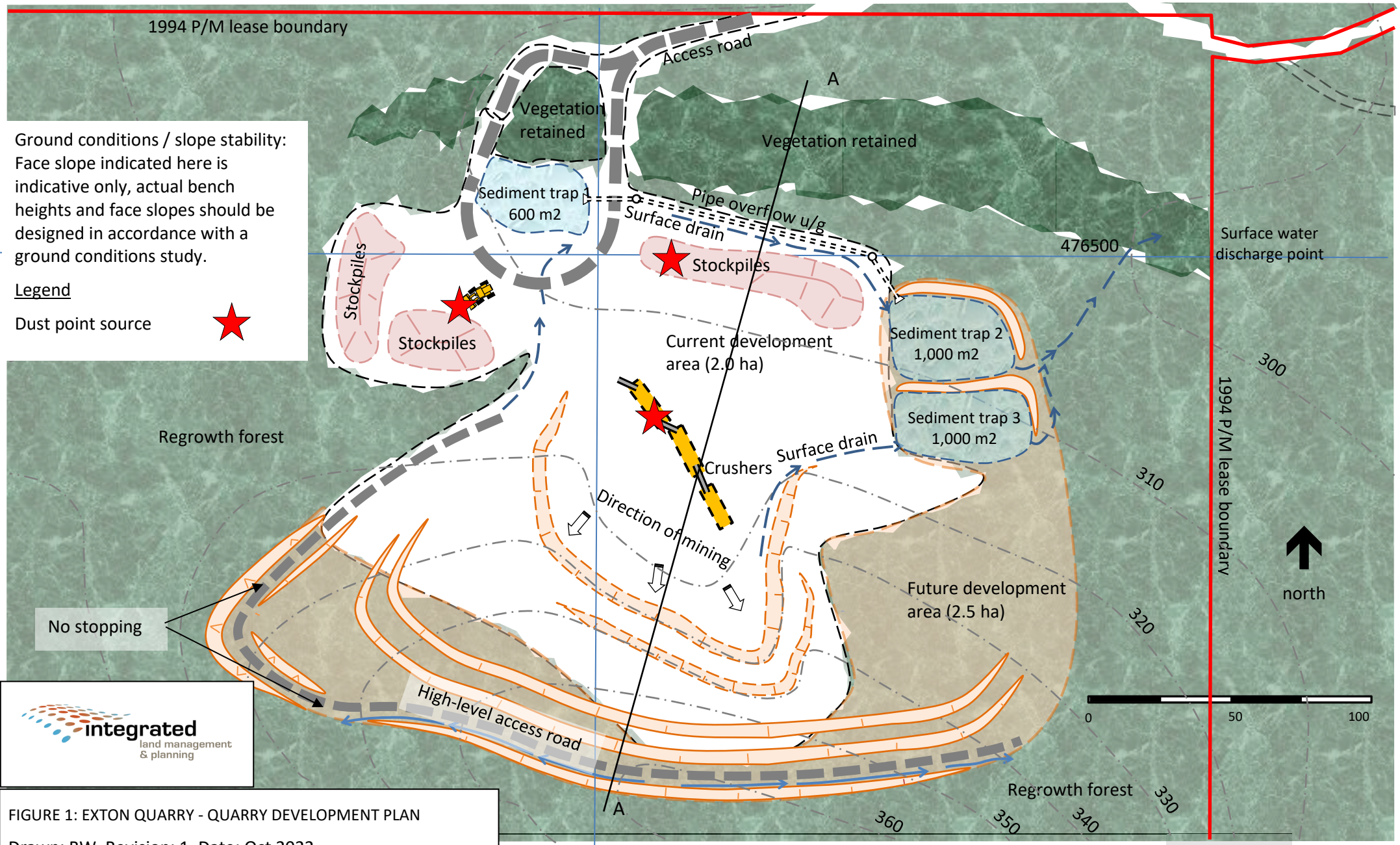

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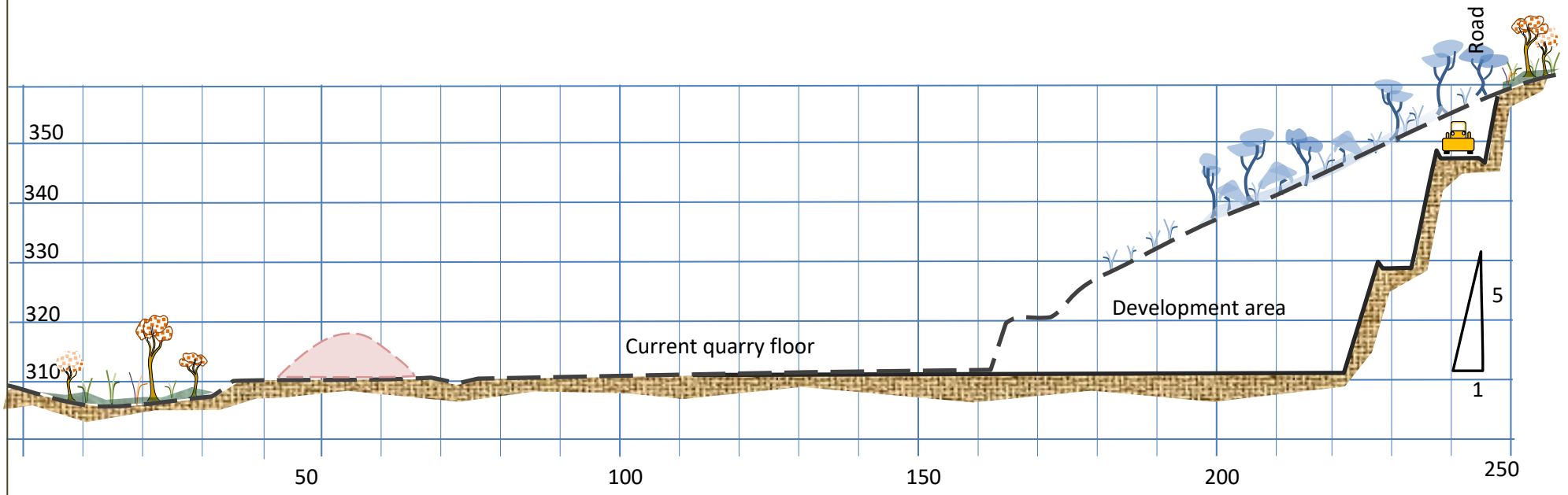
FIGURE 1: EXTON QUARRY - QUARRY DEVELOPMENT PLAN

Drawn: BW, Revision: 1, Date: Oct 2022



Quarry development

- Construct new high-level road to access above top face.
- Cut down road level to provide a 3.0m high face and road side diversion drain.
- Provide berm on outside edge of road to keep vehicles clear of live edge.

FIGURE 2: EXTON QUARRY - SECTION AT A-A

Drawn: BW, Revision: 1, Date: Oct 2022

Ground conditions / slope stability:
Face slope indicated here is indicative only, actual bench heights and face slopes should be designed in accordance with a ground conditions study.

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2 PROPERTY DETAILS

FIGURE 3: GENERAL LOCATION MAP (EXTRACT FROM TASMAP TOPOGRAPHIC)

TABLE 6: PROPERTY DETAILS

Address	661 Porters Bridge Road, EXTON
Property Owner	T & C Cresswell Family Trust
Property ID	9766314
Certificate of Title	185619/2

Property ID	9766313	
Certificate of Title	157328 / 7	
Mining Lease	1994 P/M	
'The Land'	For the purposes of regulation mining lease 1994 P/M is The Land.	
Lessee	Cresswell's Transport and Quarrying Pty. Ltd.	
Operator	Cresswell's Transport Pty Ltd	
Tenure	Private Land	
Tasmanian Planning Scheme	20. Rural	
Land Capability	6	Land marginally suited to grazing due to severe limitations
Mining Lease Area	22 hectares	

3 PROJECT RATIONALE AND ALTERNATIVES

3.1 PROJECT RATIONALE

Exton Quarry has operated successfully for 18 years with a modest annual production capacity. In recent years the demand for construction materials has increased. Quarry operators are asked to tender to supply larger quantities in contracts, if the quarry is unable to supply the entirety of the contract the tender is unlikely to be successful.

Exton quarry targets a substantial dolerite resource which is large enough to support a more intensive operation. The campaign style operation can be more efficient when a production run produces greater volumes. Development and establishment costs can be spread over the greater volume of production making overheads comparatively cheaper.

3.2 ALTERNATIVES

Two alternatives to seeking to increase the capacity of Exton Quarry have been considered:

1. Continue to operate with the current restrictive capacity limit. In this scenario the quarry will not benefit from economies of scale and will be unable to confidently tender for available contracts without risking exceeding the capacity limit.
2. Decommission the quarry. The Exton Quarry provides access to a high grade dolerite source rock which is developed in a tight box type high wall quarry footprint providing maximum product for minimum ground disturbance. If the quarry was decommissioned the region would lose access to a sensitively situated, efficient source of quality products.

4 EXISTING ACTIVITY

- The Operator is not required to undertake environmental monitoring; therefore, no environmental monitoring results are available.
- There have been no public complaints of an environmental nature relating to the operation of the Exton Quarry.
- There has been no breach of the conditions imposed through the current regulatory permits.
- There has been no breach of environmental law in relation to the Exton Quarry operation.

PART C – ENVIRONMENTAL IMPACTS AND MANAGEMENT

1 AIR QUALITY

Quarries generate dust through emissions from mechanical crushers and screens, dropping products from buckets into chutes and trays, dropping product from conveyors to chutes and to ground and through vehicle movements over unmade surfaces. The location of these point source emissions is highlighted on Figure 1: Exton Quarry - quarry development plan but will change according to the varying location of key pieces of equipment.

Dust at any quarry is managed to protect the workforce from any discomfort associated with encountering fine particles. In addition to improving the workplace for employees, quarry operators consider any impact of dust on neighbours either directly from the quarry operation or more remotely from vehicular traffic.

1.1 AIR QUALITY STANDARDS

Environment Protection Policy (Air Quality) 2004

Part 3 - ENVIRONMENTAL VALUES AND STANDARDS

Environmental values

6. (1) Environmental values are the values or uses of the environment that are to be protected.

(2) The environmental values to be protected under this Policy are –

(a) the life, health and well-being of humans at present and in the future;

(b) the life, health and well-being of other forms of life, including the present and future health, wellbeing and integrity of ecosystems and ecological processes;

(c) visual amenity; and

(d) the useful life and aesthetic appearance of buildings, structures, property, and materials.

1.2 DUST EMISSION SOURCES

Exton Quarry will generate dust emissions from;

- traffic traversing gravel hard stand and roads surfaces,
- operating the primary and secondary crushers including screens and conveyors,
- drilling and blasting for short periods, and
- gravel surfaces and stockpiles during high wind conditions.

Vehicular traffic generated by the Exton Quarry will travel on the private access road, which has an unsealed gravel surface and in dry conditions is likely to generate dust emissions.

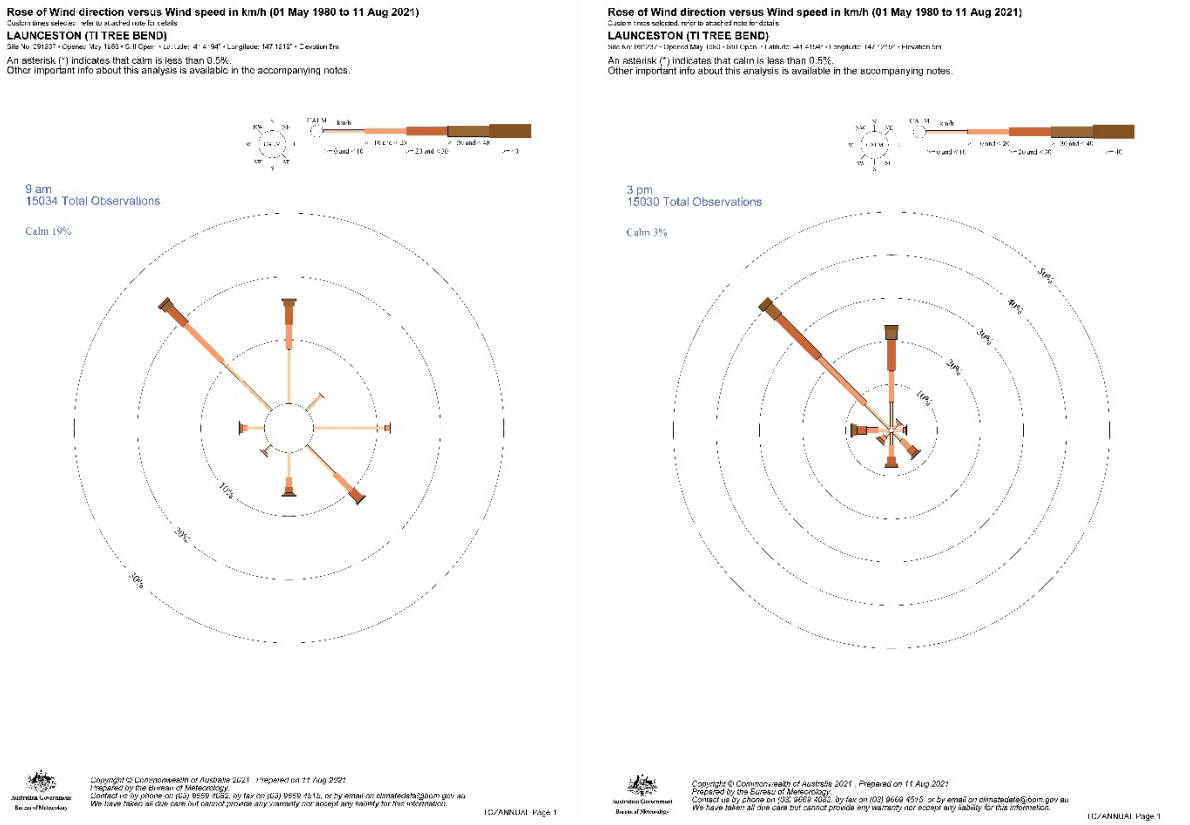
1.3 POTENTIAL FOR ENVIRONMENTAL NUISANCE

The closest residential properties to Exton Quarry are over 1 kilometre distant and the intervening land is forested. The proximity of residences is detailed in Part B, Figure 3: General Location Map (Extract from TasMap Topographic).

1.4 MITIGATING FACTORS

The Bureau of Meteorology data from the closest weather station that gathers wind data (Launceston Ti Tree Bend) shows the predominant wind direction and strongest wind is from the northwest see Table 7: Wind roses (Ti Tree Bend)**.** Dust emissions in these conditions will be carried in a south east direction. Exton Quarry is surrounded by forested land which will reduce wind speed at ground level.

Table 7: Wind roses (Ti Tree Bend)



(B.O.M. (b), 2022)

1.5 MITIGATION MEASURES

The following measures will be employed to help further mitigate the risk of adverse fugitive dust emissions:

- Trafficked surfaces on the quarry floor, benches and haul roads will be maintained in good condition and clean.
- Drop distances between buckets and hoppers and trays and off conveyor chutes will be kept to a minimum.
- Trays carrying product off site will be loaded so the maximum height of the load does not exceed the height of the sides of the tray or alternatively will have covers fitted.

- The operator will deploy a water cart on days where weather conditions are especially dry and windy.

The *Quarry Code of Practice* (EPA Tasmania, May 2017) states that the Operator must take reasonable actions to prevent a visible plume of dust crossing the mining lease boundary.

1.6 Resultant Impacts

Weather and topography reduce the likelihood that dust will cause a nuisance to neighbours and the Exton Quarry operator will actively manage surfaces and operations to minimise the impact of dust. The Operator has access to water from the water storage impoundment, pumps and hoses for use in dust suppression.

A permanent weather station is not appropriate as the site is operated on a campaign style basis, the site therefore is not manned every day.

The *Tasmanian Environment Protection Policy (Air Quality) 2004* (EPP) seeks to further the objectives of the *Environmental Management and Pollution Control Act 1994* set out in Schedule 1 of that Act. In relation to air quality the Act promotes the sustainable development of natural resources in a manner which avoids, remedying or mitigating any adverse effects on the environment.

The Part 5 of the EPP requires the regulatory authority to manage diffuse sources of air pollution that have the potential to cause material or serious environmental harm or an environmental nuisance. To achieve suitable control the EPP states in Part 5;

> *16. (3) Diffuse sources of air pollution should be managed in accordance with any relevant guidelines published, adopted or endorsed by the Board for the purposes of this clause.*

The *Quarry Code of Practice* can be considered a suitable guideline for managing atmospheric dust emissions from a quarry.

MANAGEMENT MEASURE 1: DUST MANAGEMENT

Item	Proposed measure	Timeframe
1.	The quarry operator will introduce active mitigation measures to prevent a visible dust plume crossing the mining lease boundary.	As required

2 Surface water and groundwater quality

2.1 Water quality standards

State Policy on Water Management 1997

> *PART 2 - OBJECTIVES*
>
> *5. Purpose of the Policy*
>
> *5.1 To achieve the sustainable management of Tasmania's surface water and groundwater resources by protecting or enhancing their qualities while allowing for sustainable*

development in accordance with the objectives of Tasmania's Resource Management and Planning System. (Schedule 1 of the State Policies and Projects Act 1993).

2.2 WATER AND OVERLAND FLOW

Exton Quarry is located on the northern face of the foot slopes of a prominent hill. Above the top face the land generally falls either side of the quarry disturbance. The catchment reporting to the quarry disturbance is small (1.7 hectares) and is partly forested but with areas of rock outcropping.

2.2.1 SEDIMENT CONTROL INFRASTRUCTURE

The site currently serviced by a substantial sediment trap / water supply dam (600 square metres in area). The extraction and working areas drain to this impoundment which serves to provide water for dust suppression and mist sprays for crushers, conveyors and hoppers.

A high-level road has been constructed across the top of the face which will intercept and direct overland flow into the surrounding vegetation. The road will be relocated to maintain access to the top of the top face as the benches are advanced.

2.2.2 POTENTIAL FOR ENVIRONMENTAL NUISANCE

An uncontrolled discharge of stormwater runoff from gravel surfaces can cause excess sediment to be deposited onto native vegetation where it can smother native plants, onto agricultural land where pasture and crops can be affected or into a natural watercourse. The excess sediment can smother the bed of the stream killing aquatic flora and fauna and reducing the health of the stream. A substantial 'beach' of sediment can remain in the bed of the stream and be carried downstream with each successive rain event further damaging aquatic habitat.

Exton Quarry targets a fresh dolerite source rock. Weathered dolerite is associated with red / brown clay soil profiles which are not normally dispersive but are prone to water erosion on steep slopes. Fine clay particles liberated from the profile tend to remain in suspension in water bodies for extended periods increasing turbidity.

2.2.3 LIKELIHOOD FOR ENVIRONMENTAL NUISANCE

Best practice sediment control infrastructure has limited effectiveness in preventing pollution of surface water and ground water (NSW Department of Environment and Climate Change, 2008). To minimise the risk of the Exton Quarry operation polluting surface and groundwater, an erosion and sediment control strategy has been applied:

- The initial site planning considered achieving the maximum exposure of source rock with the minimum area of disturbed ground. The site is located on the foot slopes to a steep hill which provides for high wall extraction thereby limiting the plan area of the quarry.
- The flat area in the quarry floor provided for the construction of a substantial sediment retention basin, which in this case doubles as a water supply for processing and dust suppression.
- Topsoil from future land clearing will be stockpiled and stabilised ready to be used in future rehabilitation works.
- A high-level access road intercepts overland flow and diverts it away from the quarry faces and footprint area.
- Future quarry expansion will seek to develop the upper most bench first and work progressively downslope.

2.2.4 MITIGATING FACTORS

The main mitigating factor is the application of the erosion and sediment control strategy and minimising the area of unrehabilitated land. The following sediment control calculations are based on the ultimate footprint of the Exton Quarry.

2.2.5 SEDIMENT CONTROL CALCULATIONS

TABLE 8: TIME OF CONCENTRATION

Formula $Tc = 91L/(A^{0.1} * Se^{0.2})$	**Flow line L (km)**	**Catchment area A (ha)**	**Equal area Slope Se (m/km)**	**Concentration Tc (min)**
Sediment trap 1	0.100	1.65	500	2.5
Sediment trap 2	0.100	0.66	100	3.8
Sediment trap 3	0.100	1.10	500	2.6

TABLE 9: FLOW RATE

Formula $Q = \frac{C \cdot i \cdot A}{360}$	**Coefficient of runoff C (no units)**	**Intensity of rain event i (mm/hr)**	**Catchment area A (ha)**	**Flow rate Q (m^3/s)**
Sediment trap 1	0.35	151	1.65	0.24
Sediment trap 2	0.35	138	0.66	0.09
Sediment trap 3	0.35	151	1.10	0.16

(B.O.M. (c), 2022)

2.2.5.1 Size of sediment traps

The water storage pond / sediment trap is 600 square metres in area. The storage capacity of the impoundment is estimated to be 325 cubic metres.

The impoundment has spilt inlets and an elongated shape enhancing the settling characteristics. Assign ʎ value 0.7 therefore n value 3.3.

TABLE 10: SEDIMENT TRAP CAPACITIES

	Surface area (m^2)	Volume (m^3)	Storage capacity (m^3)	Hydraulic efficiency (n)
Sediment trap 1	600	225	112	3.3
Sediment trap 2	1,000	375	187	1.69

Sediment trap 3	1,000	375	187	1.69

Sediment trap 1:

Depth of pond (d_p) = 1.5 m, extended depth (d_e) = 0.1 m and retention depth (d*) = 1.0 m.

Sediment trap 2:

Depth of pond (d_p) = 1.5 m, extended depth (d_e) = 0.1 m and retention depth (d*) = 1.0 m.

Sediment trap 3:

Depth of pond (d_p) = 1.5 m, extended depth (d_e) = 0.1 m and retention depth (d*) = 1.0 m.

TABLE 11: CAPTURE EFFICIENCY

Formula $R = 1 - (1 + \frac{1}{n} \times \frac{v_s}{Q/a} \times (\frac{d_e + d_p}{d_e + d^*}))^{-n}$	**Settling velocity (fine silt) v_s (m/s)**	**Surface area a (m2)**	**Flow rate Q (m^3/s)**
Sediment trap 1	0.0018	600	0.24
Sediment trap 2	0.0018	1000	0.09
Sediment trap 2	0.0018	1000	0.16

Sediment trap1 capture efficiency $R = 1 - (1.303 \times 4.5 \times 1.454)^{-3.3} = 0.99$

Sediment trap 2 capture efficiency $R = 1 - (1.5917 \times 20 \times 1.454)^{-1.69} = 0.99$

Sediment trap 3 capture efficiency $R = 1 - (1.5917 \times 20 \times 1.454)^{-1.69} = 0.99$

	Flow rate Q (m3/s)	**Retention basin area from WSUD Figure 4.2 for 90% capture (m^2)** (EPA division, 2012)	**Actual basin surface area (m^2)**
Sediment trap 1	0.24	100	600
Sediment trap 2	0.09	40	1,000
Sediment trap 3	0.16	75	1,000

Assume sediment storage of 50% total capacity (m^3) see Table 10: Sediment trap capacities

TABLE 12: CLEAN OUT FREQUENCY

Formula $F_r = S_t / (A \times R \times L_o)$	**Capture efficiency (R)**	**Contributing catchment, A (ha)**	**Storage volume S_t (m^3)**	**Sediment loading rate L_o (m^3/ha/yr)**	**Desired Cleanout frequency F_r (yrs)**
Sediment trap 1	0.99	1.65	112	10	6.8
Sediment trap 2	0.99	0.66	375	10	57
Sediment trap 2	0.99	1.1	375	10	34

The calculated clean out frequency is 6.8 years for the current sediment trap.

2.1 NET ENVIRONMENTAL IMPACT

The above calculations show the existing water impoundment has sufficient capacity to retain the projected sediment derived from the ultimate area of unrehabilitated land.

However, as stated previously weathered dolerite is associated with fine clays, hence runoff from areas of exposed subsoil will be turbid which will increase turbidity in the sediment traps.

The proposed development of Exton Quarry will split the un-vegetated catchment into three and dramatically increase the sediment storage capacity.

2.3 GROUNDWATER

Groundwater levels and flows commonly appear as a subdued representation of the surface topography. No constructed water bores have been installed close to the Exton Quarry site.

The closest is (Feature ID 42092) at a lower elevation (230 metres AHD) and was sunk to depth of 54 metres but in an entirely different geological formation. This bore encountered groundwater at 45 metres depth. Water bore (Feature ID 42344) was sunk in similar geology to the Exton Quarry and is situated at a high elevation (270 metres AHD). The bore encountered groundwater at 32 metres depth.

The Exton Quarry has not encountered groundwater in the excavation to date and by retaining the floor level and advancing the existing faces back it is unlikely that groundwater will be encountered.

3 NOISE EMISSIONS AND BLASTING

3.1 NOISE FROM OPERATIONS

The proponent engaged a noise consultant to investigate noise emissions from Exton Quarry using the equipment currently used on site and including periodic drilling and blasting as an extractive method. The study culminated in a report *Exton Quarry - Noise Assessment* (Pitt & Sherry, Dec 2022). The entire report is included in this document as Appendix 2.

3.1.1 NOISE PRODUCING EQUIPMENT

The investigation included measurements of the noise produced by the existing equipment on site for normal operations.

TABLE 13: MOBILE EQUIPMENT ON SITE

Equipment	Make	Model	Sound Power Level dB(A)
Wheel loader	CAT	950K	106.1
Excavator	CAT	342DL	107.4
Mobile jaw crusher	Terex Finlay	J1175	115.2
Mobile screen	Terex Finlay	883+	118.6
Rock breaker			120.2
Crusher screen & excavator operating			106.1
Road truck	various		104.0

3.1.2 NEAREST SENSITIVE USES

Existing land uses on surrounding land is represented in Figure 3: General Location Map (Extract from TasMap Topographic) The closest sensitive premises to the Exton quarry is identified as 620 Porters Bridge Road.

Different operations and combinations were modelled resulting in a table (Table 2 – SoundPLAN results for existing and expanded operations on page 6 of (Pitt & Sherry, Dec 2022). The worst effects were modelled as occurring at 620 Porters Bridge Road at a sound power level of 38.4 dB(A).

Limits on noise from quarry operations are set in the *Quarry Code of Practice* which states:

- *45 dB(A) from 0700 to 1900 hours (daytime)*
- *40 dB(A) from 1900 to 2200 hours (evening), and*
- *35 dB(A) from 2200 to 0700 hours the following day (night time)*

When measured as a 10 minute L_{eq}

Exton Quarry is restricted to the *Quarry Code of Practice* preferred operating hours which are from 7:00 am to 7:00 pm. Operations will occur fully in the daytime and a limit of 45 dB(A) applies.

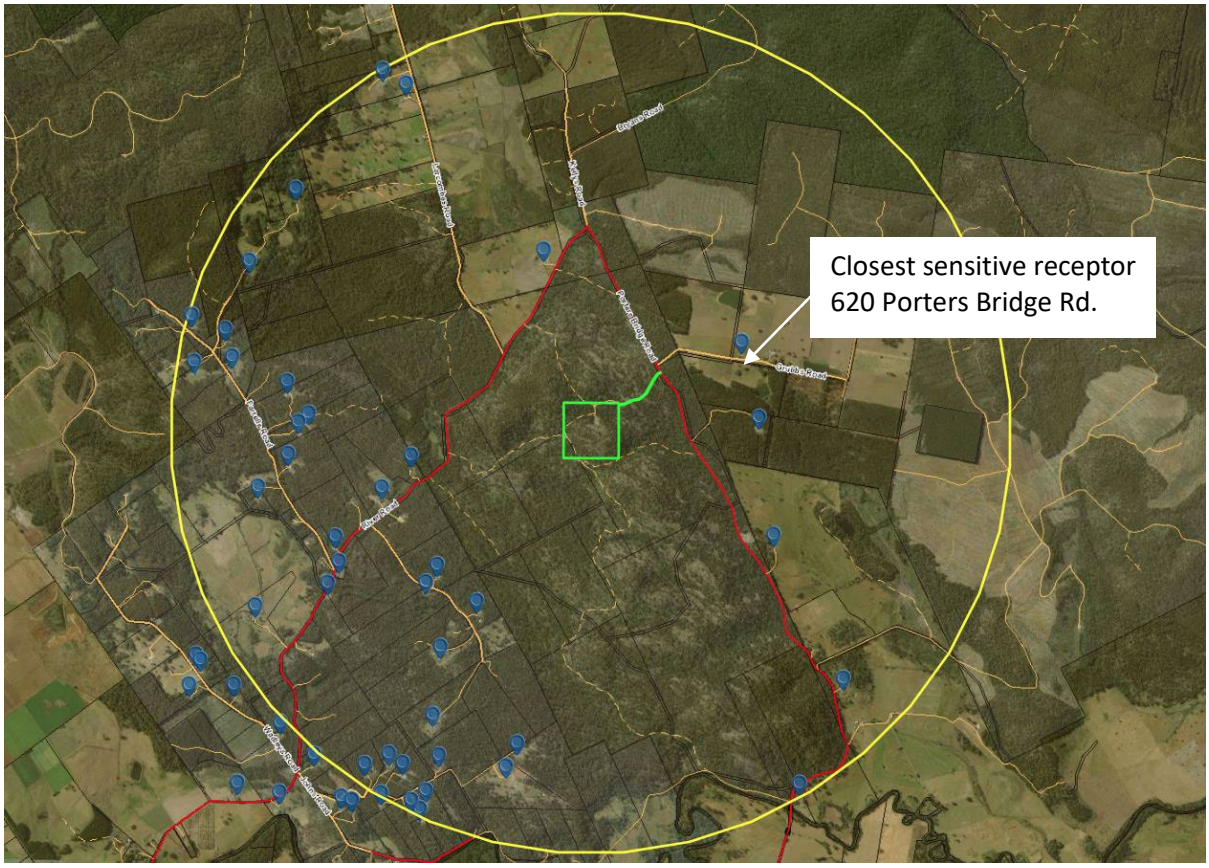


FIGURE 4: SENSITIVE RECEPTORS WITHIN 3 KILOMETRES (EXTRACT FROM P&S REPORT)

3.1.3 Noise mitigation measures

The noise report did not recommend any management measures to mitigate noise emissions:

3.2 Drilling and blasting operations

3.2.1 Blasting emission limits

Limits for blasting on quarry operations are stipulated in the *Quarry Code of Practice:*

Acceptable standard

a) for 95% of blasts, air blast overpressure must not exceed 115 dB (Lin Peak);

b) air blast overpressure must not exceed 120 dB (Lin Peak) at all;

c) for 95% of blasts, ground vibration must not exceed 5 mm/s peak particle velocity; and

d) ground vibration must not exceed 10 mm/s peak particle velocity at all.

Blasting currently occurs at Exton Quarry. Space limitations will restrict the amount of shot rock and processed product that can be stockpiled at any time. The maximum quantity of shot rock that can be accommodated will be around 10,000 cubic metres. The frequency of blasting will increase to between 5 and 10 per year and will be distributed evenly throughout the year. The P&S report uses typical blast plan data to calculate the resultant emissions:

- Ground vibration was modelled at less than 0.1 mm/s and
- Air-blast overpressure was modelled at 106dB

The calculated results show that blasting will result in emissions within the Quarry Code of Practice limits.

MANAGEMENT MEASURE 2: BLAST MANAGEMENT

Item	Proposed measure	Timeframe
2.	A fully certified professional drilling and blasting contractors will be utilised for all blasting. All blasts will be monitored and any exceedance will be reported to the EPA.	During blasting

4 NATURAL VALUES

4.1 NATURAL VALUES ASSESSMENT

The natural values assessment commissioned for this application included a field survey of the mining lease area. The final report, *Natural Values Assessment of Mining Lease 1994P/M, 190 Porters Bridge Road, Exton, Tasmania* (ECOtas, Oct 2022) was finalised on 24 October 2022 and is included in this document as Appendix 3.

4.2 FIELD ASSESSMENT

The field assessment was conducted on 12 October 2022, and covered the entire mining lease area.

4.3 KEY FINDINGS

A summary of the key findings is as follows:

4.3.1 THREATENED FLORA

No individuals or populations of species or communities listed under state or federal legislation were detected.

4.3.2 THREATENED FAUNA

No fauna species listed as threatened under state or federal legislation were detected.

Potential habitat for some listed species was observed, as follows;

- marsupial carnivores (Tasmanian devil, spotted tailed quoll eastern quoll)
- eastern-barred bandicoot
- swift parrot
- grey goshawk
- masked owl
- white-bellied sea-eagle
- wedge-tailed eagle.

4.3.3 VEGETATION TYPES

The site area supports the following vegetation types;

- *Eucalyptus amygdalina* forest and woodland on dolerite (DAD)
- *Eucalyptus obliqua* forest and woodland (DOB)
- *Eucalyptus ovata* forest and woodland (DOV)
- *Eucalyptus amygdalina - Eucalyptus obliqua* forest damp sclerophyll forest (DSC)
- *Eucalyptus obliqua* dry forest with broad-leafed shrubs (WOB)
- rockplate grassland (GRP)
- extra-urban miscellaneous (FUM)
- water, sea (OAQ).

Eucalyptus ovata forest and woodland equates to a native vegetation community listed on Schedule 3A of the Tasmanian *Nature Conservation Act 2002.*

Occurrences of *Eucalyptus ovata* forest and woodland can equate to Tasmanian Forests and Woodlands dominated by Black Gum or Brookers Gum which is identified as a threatened ecological community listed on schedules of the E*nvironment Protection and Biodiversity Conservation Act 1999* (Com).

4.4 PROPOSED CLEARING

Over the life of Exton Quarry, it is proposed that an additional area of 2.52 hectares will be cleared to facilitate development of top benches and intercept drains and two large sediment traps that will double as water storages. The locations of these areas are detailed on Figure 1: Exton Quarry - quarry development plan.

The areas of disturbance have been altered from that originally proposed because of the findings of the Ecological Study. The proposal to develop a large hardstand area between the existing quarry floor and the access road has been abandoned. Instead, the quarry benches and footprint extend further east.

The areas of proposed clearing in different vegetation types (taken from the ecological study) are detailed below:

TABLE 14: AREAS OF CLEARING BY VEG TYPE

Vegetation community	Area cleared for ultimate development
DAD *Eucalyptus amygdalina* forest and woodland on dolerite	1.45 hectares
DOB *Eucalyptus obliqua* forest and woodland	0.11 hectares
DSC *Eucalyptus amygdalina - Eucalyptus obliqua* forest damp sclerophyll forest	0.04 hectares
FUM extra-urban miscellaneous	0.89 hectares

4.5 RECOMMENDATIONS

Below is a summary of the report recommendations:

- Vegetation types – Areas mapped as Eucalyptus ovata forest and woodland must be excluded from future expansion and managed to minimise the risk of degradation.
- Threatened flora – no special management recommended.
- Threatened fauna – refer to management of areas mapped as DOV as also preserving habitat for swift parrot.
- Weed and disease management – The site is largely weed free; it is recommended that the few plants of gorse be appropriately managed with application of herbicide. Any disturbance to the areas where gorse is currently present shall be avoided to prevent spreading the weed seed present under these plants further.
- Protocols to manage hygiene on vehicles and machinery shall be employed to minimise the risk of importing weeds and disease to the site.
- Specific weed management actions should be incorporated into future management of the mining lease area.

4.6 POTENTIAL IMPACTS

4.6.1 FLORA AND FAUNA

The ecological report suggests that impacts on threatened flora and fauna is unlikely.

4.6.2 VEGETATION COMMUNITIES

The ecological report suggests that the only potential impact of the proposal came because of the development of the hard stand area which would have caused loss of an important vegetation community. The alternative proposal restricts loss of this community to an absolute minimum, see Table 14: areas of clearing by Veg type.

4.6.3 ROADKILL (MARSUPIAL CARNIVORES)

The ecological study found that an increase in road kill because of this proposal is unlikely. The Operator will apply a maximum speed limit of 40 km/hr on the access road from the quarry to Porters Bridge Road.

MANAGEMENT MEASURE 3: ROAD KILL MANAGEMENT

Item	Proposed measure	Timeframe
3.	A 40 km/hr speed limit will be imposed on the quarry access road to mitigate the risk of increased road kill on this road.	On issue of a permit
4.	The high-level access road will be constructed outside the wedge-tailed eagle breeding season (July to February).	On issue of a permit
5.	Vehicles, equipment and pedestrians will not stop on the section of high-level access road near to the tight bend at any time.	On issue of a permit

4.6.4 RAPTORS

The ecological study found that nest 125 has the highest potential for disturbance because of expanded quarrying activities. This nest site is located 450 metres away from the quarry. Figure 1: Exton Quarry - quarry development plan shows the quarry development will stop at a point below the crest of an existing ridgeline on the southwestern side. This is the alignment of the high-level access road. By maintaining the ridgeline quarry operations will remain screened by topography as well as vegetation from all vantage point south west of the site. The high-level access road will be constructed to allow access for equipment for drilling and to load holes with explosives. The construction of this road will occur outside the normal wedge-tailed eagle breeding season (July to February). The exposed portion of the access road is proximate to the tight bend and no vehicles, equipment or pedestrians will stop on this section of road.

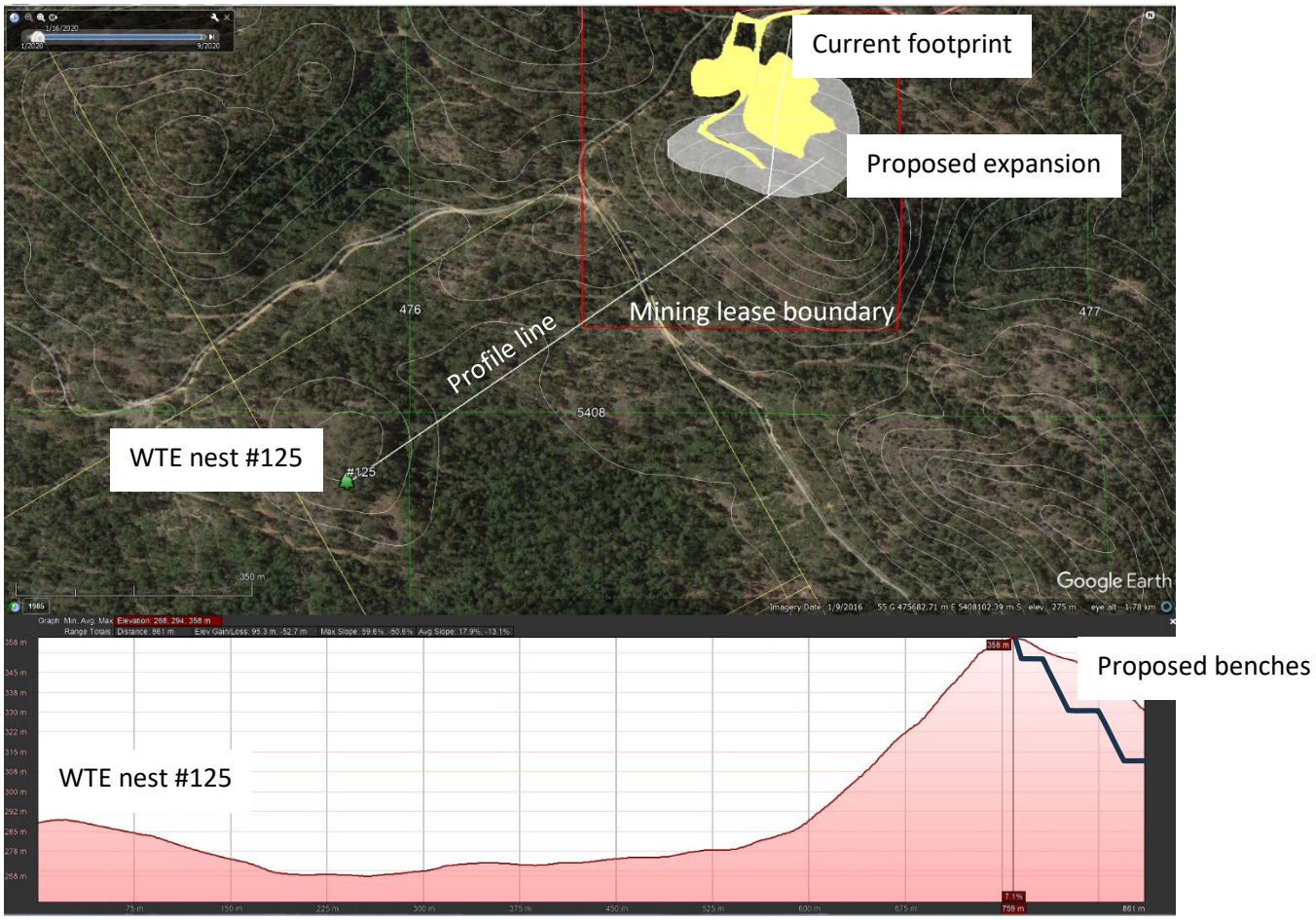


FIGURE 5: ELEVATION PROFILE #125 TO QUARRY (EXTRACT - GOOGLE EARTH)

The elevation profile Figure 5 shows the terrain surface profile on a direct line between the quarry and the site of wedge-tailed eagle nest #125. Superimposed on the profile is the planned extent of the extraction under this proposed expansion. As stated above the design retains the crest of the ridge providing a 'topographic' screen between the quarry and the nest without relying on vegetation.

Figure 6 shows the view for a point 18 metres above the location point recorded for wedge-tailed eagle nest #125 looking towards Exton Quarry. The topographic information is derived from Google

Earth (terrain), the nest location is derived from the latest observation dated 23 November 2023 which is still recorded as having a horizontal accuracy of 1,000 metres.

Using this information the limit of the extent of clearing for the proposed expansion is just visible (yellow) on the ridgeline but this analysis does not include any vegetation whereas it is known that undisturbed side of the ridge has tall forest ground cover, as can be seen in the photograph on the front page of this document.

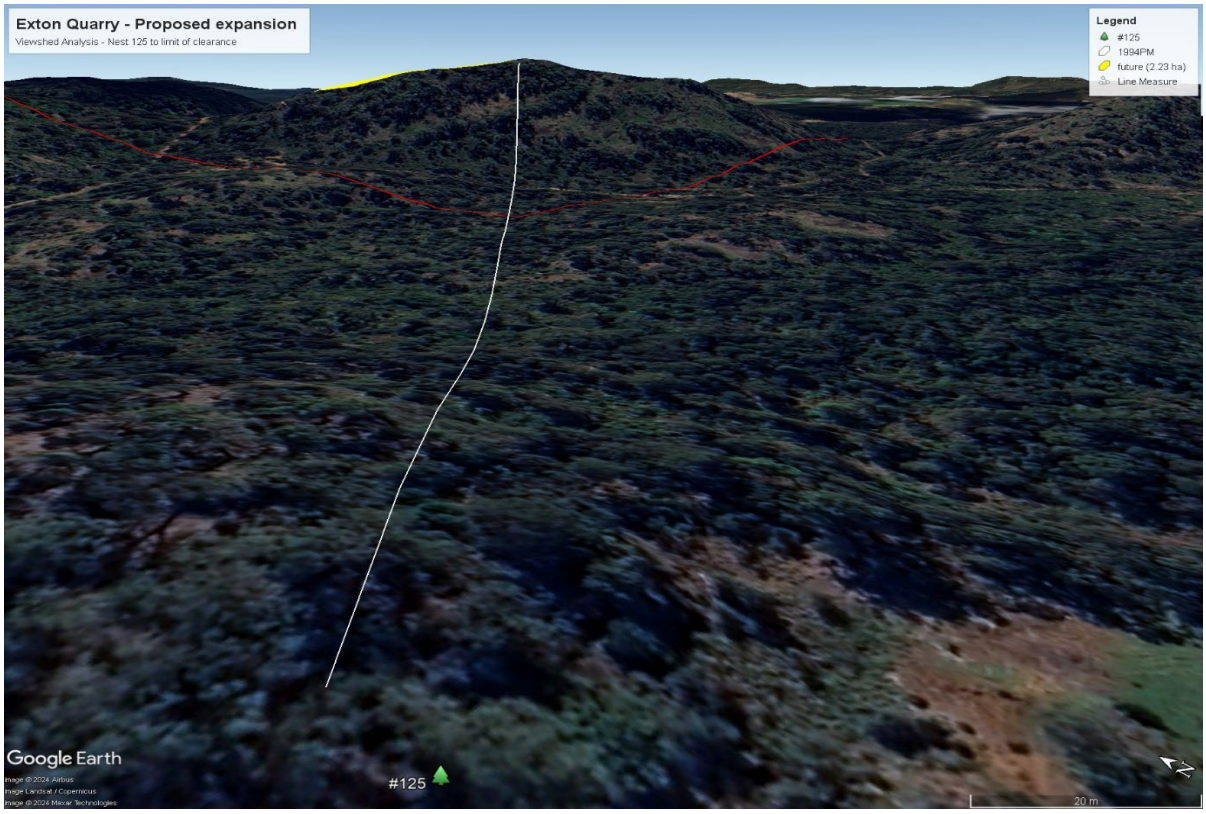


FIGURE 6: NEST 125 TO EXTON QUARRY (GOOGLE EARTH)

Observations during the ground survey for threatened species and vegetation mapping indicates that the nest is not active. The report suggests that if the proposed development does not occur within 2 years of the current study a new search will be required.

The ecological report stated that there is potential habitat for masked owl within *Eucalyptus obliqua* forest near the quarry. The Operator engaged a zoological consultant to conduct a passive observation survey around the perimeter of the quarry to identify any actual evidence of masked owl activity. The findings and conclusions of the report of the masked owl survey are summarised below, the report is included as Appendix 4.

- The survey was conducted on a night when conditions for observation of masked owl were ideal.
- The area of observation was small in a much larger area which is superficially suitable for masked owl breeding.
- Based on the results of the survey it is unlikely that masked owls are breeding in the area surveyed.

(Mooney, Nov 2023)

4.6.5 OTHER VALUES

There are no geo-conservation sites listed in proximity to the Exton Quarry. Mapping indicates the substrata is generally Jurassic dolerite and hence is unlikely to contain karst. The closest listed watercourse is off site and a considerable distance (over 600 metres through dense vegetation) from the discharge point of the quarry's proposed surface water management system.

2.2 LEGISLATIVE AND POLICY

A referral to the commonwealth government in relation to the *Environment Protection and Biodiversity Conservation Act 1999* is not required if the DOV community can be excluded from disturbance and appropriately managed.

No permit is required under the *Threatened Species Protection Act 1995*.

5 WEEDS, PESTS AND PATHOGENS

The following weeds have been observed within 5 kilometres of the site:

TABLE 15: WEED SPECIES WITHIN 5 KILOMETRES (NVA)

Species	Common name	WMA 1999	WONS
Bassia scoparia	copper saltbush	Yes (zone A)	no
Erica lusitanica	spanish heath	yes	no
Ilex aquifolium	holly	yes	no
Onopordum acanthium	scotch thistle	Yes (zone A)	no
Prunus laurocerasus	cherry laurel	no	no
Rubus echinatus	blackberry	Yes (zone B)	yes
Rubus fruticosus	blackberry	yes (zone B)	yes
Senecio jacobaea	ragwort	Yes (zone B)	no
Ulex europaeus	gorse	Yes (zone B)	yes

The Ecologist incorporated observations for weed species on the site as part of the ecological study. The results of that investigation follow:

5.1.1 WEEDS

One weed species classified as declared weeds under the Weed Management Act 1999 was detected within the study area;

- *Ulex europaeus* (gorse)

The few gorse plants detected in the survey have been removed. Any further germination of gorse plants particularly in the location they were detected but more generally around the site will be treated by either foliar spray or cut and paint methods as appropriate.

5.1.2 Plant disease

The site presented no evidence of the following plant diseases;

- *Phytophthora cinnamomi* (root rot),
- myrtle wilt, or
- myrtle rust.

5.1.3 Animal disease

The study area is not known to support frog chytrid disease but does contain localised habitat suitable for amphibian species.

6 Waste

6.1 Waste from extraction

The new area for development for the Exton Quarry has a sparce vegetation with large areas of exposed rock outcrops. Extractive operations will generate a small amount of stripping, topsoil and overburden which will be used to provide an even gradient on the top bench access track.

The source rock is igneous and unlikely to contain pyrite or any other potentially acid forming mineral.

6.2 Spares and litter

Machinery will be taken off site to the Operator's workshops for servicing and maintenance. Spares or waste generated through breakdowns or routine lubrication will be retained in workers utilities and taken off-site at the end of each working day.

Litter emanating from lunches and other amenities will be retained in enclosed containers and periodically disposed of to an approved disposal site.

7 Environmentally hazardous substances

7.1 Hydrocarbons

Mobile equipment will be refuelled using a utility mounted refuelling facility. Lubricants, engine oil and hydraulic fluid for daily maintenance will be stored on a bunded pallet within a storage shed

7.2 Leak and spills

The Operator will retain a hydrocarbon spill kit onsite ready for immediate deployment if a hydrocarbon leak or spill occurs. A hydrocarbon boom will be retained onsite for deployment across the surface of the sediment trap should a hydrocarbon spill or leak enter the sediment control infrastructure.

7.3 OTHER HAZARDOUS SUBSTANCES

Explosives will not be stored onsite. The Blasting Contractor will retain responsibility for explosives and will bring to site only those required for the planned shot. The Blasting Contractor will be fully accredited and insured for the transport and handling of explosives.

MANAGEMENT MEASURE 4: HYDROCARBON MANAGEMENT

Item	Proposed measure	Timeframe
6.	A hydrocarbon spill kit and a hydrocarbon boom will be retained on-site ready for immediate deployment in the event of a leak or spill.	At all times

8 SITE CONTAMINATION

Exton Quarry has been operated by the current operator continuously on this site for 18 years. Prior to development as a quarry the site was native forest which was subjected to periodic selective logging. The Operator is not aware of any event that may have led to site contamination.

9 OTHER OFF-SITE IMPACTS

The increase in annual capacity of the Exton Quarry will increase the volume of traffic including heavy vehicle traffic on Porters Bridge Road. The impact of the additional traffic on Porters Bridge Road will be considered as part of a Development Application which will be lodged during this approval process.

10 MONITORING

No routine monitoring will be undertaken during operations. Extraordinary monitoring will be undertaken to observe the condition of stormwater runoff control infrastructure, prevailing air quality conditions and the presence of weeds.

10.1 SEDIMENT TRAP / WATER STORAGE IMPOUNDMENT

The Operator will observe the level of accumulated sediment in the water impoundment ponds and drainage channels. Once the level of accumulated sediment in the traps or drains has risen to half the full water level, the sediment trap or drain will be cleaned out.

10.2 DUST IMPACTS

The quarry operator will observe dust conditions in dry and windy conditions. If dust is observed within the quarry operations area, a series of dust suppression activities will be implemented including:

- Sprinklers on the product stockpiles will be deployed.

10.1 WEEDS

During normal operations the operator, employees and contractors will observe the quarry stockpiles and surrounding areas for emergent weeds and if present initiate controls as required.

11 DECOMMISSIONING AND REHABILITATION

11.1 PROGRESSIVE REHABILITATION

Exton Quarry will continue to be developed as an intermittent operation. The increased production will be realised by more intensive and longer duration productive campaigns. The product produced in these campaigns will be stored on-site in stockpiles. The need for hard stand areas for stockpiles will constrain the area available for progressive rehabilitation.

The base area of a 1,000 cubic metres of product in stockpile is approximately 625 square metres. A substantial hard stand area is required to stockpile aggregates with traffic manoeuvring areas from a single production campaign.

11.2 DECOMMISSIONING

When quarry closure is pending the Operator will introduce an intermediate bench into any operating quarry face higher than 5 metres or overburden will be placed against the toe of the face to reduce the height to 5 metres and provide a growing medium.

Once all remaining marketable materials have been recovered;

- all machinery, sheds and equipment will be removed from the site.
- remaining overburden and topsoil stockpiles will be spread across the floor of the quarry,
- the impoundment pond will be cleaned out and the spoil used in rehabilitation works,
- quarry access road and any side tracks and hard stands will be ripped to facilitate infiltration,
- any seed slash resulting from clearing for the final shot will be spread over the floor surface, and
- the access will be secured against unauthorised entry.

12 MONITORING

Inspection	Action
Emerging weeds	Weed control using herbicide spray or cut and paint
Water impoundment will be inspected for capacity	Clean out if accumulated sediment has reduced trap effectiveness.
Planting and natural recruitment revegetation	Broadcast native seed mix if revegetation is not successful. In fill planting if losses exceed 50 %.

13 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Greenhouse gas emissions associated with the quarrying are attributable to diesel fuel used to energise mobile equipment and machinery and transport of materials to project sites. Normally transport emissions are registered against the construction project rather than the quarry.

Fixed plant crusher / screener plants are commonly energised with electrical power, which in Tasmania is predominantly generated using renewable energy. The fixed plant quarries have an advantage in terms of greenhouse gas emissions over mobile crushers and screens.

The greenhouse gas deficit as a result of using fossil fuel to energise the plant is offset by overall efficiency of supplying regional project locally significantly reducing greenhouse gas emissions associated with transport.

PART D SUMMARY OF PROPOSED MANAGEMENT MEASURES

Item	Proposed measure	Timeframe
1.	The quarry operator will introduce active mitigation measures to prevent a visible dust plume crossing the mining lease boundary.	
2.	A fully certified professional drilling and blasting contractors will be utilised for all blasting. All blasts will be monitored and any exceedance will be reported to the EPA.	
3.	A 40 km/hr speed limit will be imposed on the quarry access road to mitigate the risk of increased road kill on this road.	During blasting
4.	The high-level access road will be constructed outside the wedge-tailed eagle breeding season (July to February).	On issue of a permit
5.	Vehicles, equipment and pedestrians will not stop on the section of high-level access road near to the tight bend at any time.	On issue of a permit
6.	A hydrocarbon spill kit and a hydrocarbon boom will be retained on-site ready for immediate deployment in the event of a leak or spill.	At all times

PART E PUBLIC AND STAKEHOLDER CONSULTATION

The Meander Valley local government area uses the Tasmanian Planning Scheme (TPS) with the Meander Valley Local Provisions. In Table 6.2 Use Classes of the TPS, quarries are included in the Extractive Industries category. The land on which the proposal is based is mapped as being within the 20. Rural Zone by the TPS. Use Table 20.2 includes Extractive Industry in the Permitted class, therefore a permit from the Meander Valley Council is required.

The Exton Quarry has a permit issued by the Meander Valley Council, Planning Application number 56/95/5. Condition 2. of that permit states that the "*development shall be in accordance with the application and generally consistent with the conditions imposed by the Department of Environment and Land Management, Division of Environmental Management."*

The conditions referred to above were varied by the Environment Protection Notice No. 9502/1. Condition Q1 Regulatory Limits requires that an annual limit on processing rocks and minerals is restricted to 13,235 cubic metres. This application seeks to vary that limit to 50,000 cubic metres of rock processed per year. A quarry processing rock at a rate greater than 1,000 cubic metres per year is classified under Schedule 2 of the *Environmental Management and Pollution Control Act 1995* (EMPC Act) as Level 2. Under EMPC Act Section 25. an application for a permissible Level 2 Activity must be delt with under Section 57 of the *Land Use Planning and Approvals Act 1993* (LUPA Act).

This section requires that the application is treated as discretionary and hence the planning authority must advertise the application and call for representations. The application is also directed to the Board of the Environment Protection Authority for consideration.

Stakeholders that have been consulted through this process include the following:

- Meander Valley Council has been consulted regarding the status of the existing quarry permit and consideration of the Development Application.
- The Board of the Environment Protection Authority (EPA) through this Environment Effects Report.
- Mineral Resources Tasmania has been consulted through the assigned Leasing Officer.
- Aboriginal Heritage Tasmania was asked to consider the heritage significance of the site, and replied with advice that disturbance was unlikely see Appendix 5.

During the subsequent application assessment process these additional stakeholders will be consulted:

- Meander Valley Council regarding traffic implications on Porters Bridge Road.
- Policy and Conservation Advice Branch of DPIPWE about potential impacts on native vegetation.
- Any property owners that share a boundary with the development site through a direct notice from the Planning Authority.

14 REFERENCES

B.O.M. (a). (2022, July 18). *Climate statistics for Australian locations.* Retrieved from Bureau of Meteorology: http://www.bom.gov.au/climate/averages/tables/cw_091000.shtml

B.O.M. (b). (2022, July 27). *Climate Staistics for Australian Locations.* Retrieved from Bureau of Meteorology: http://www.bom.gov.au/climate/data/

B.O.M. (c). (2022, November 11). *Design Rainfall Data System (2016)*. Retrieved from Australian Bureau of Meteorology: http://www.bom.gov.au/water/designRainfalls/revised-ifd/?multipoint

D.N.R.E. (2022, July 18). *The LIST Map , Land Capability.* Retrieved from Land Information System Tasmania: https://maps.thelist.tas.gov.au/listmap/app/list/map?bookmarkId=680603

ECOtas. (Oct 2022). *Natural Values Assessment of Mining Lease 1994P/M, Exton, Tasmania.* Lenah Valley: unpublished.

EPA division. (2012). *Water Sensitive Urban Design - Engineering Procedures for Stormwater Management in Tasmania.* Hobart: Department of Primary Industrie, Water and Environment.

EPA Tasmania. (May 2017). *Quarry Code of Practice 3rd Edition.* Hobart: EPA.

Mooney, N. (Nov 2023). *Passive 'Observation' for Masked Owls at Exton Quarry.* unpublished.

NSW Department of Environment and Climate Change. (2008). *Managing Urban Stormwater Soils and Construction Volume 2E - Mines and Quarries.* Sydney: NSW Department of Environment and Climate Change.

Pitt & Sherry. (Dec 2022). *Exton Quarry - Noise Assessment.* Launceston: unpublished.

Spanswick, Z. &. (1999). *Quamby Report.* Hobart: Department of Primary Industries, Water & Environment.

From: Planning @ Meander Valley Council
To: Tony@cresswellstransport.com.au
Cc: Brenton Josey; Barry Williams; Natasha Whiteley
Subject: Exton Quarry - Planning Authority
Date: 1 February 2022 8:45:07 AM

Hi Tony,

Barry Williams has been in contact with me regarding the proposed intensification of mining lease 1994P/M.

Based on the following details provided by Barry, a Planning Permit is most likely required for the proposed intensification.

Mining lease area 22ha
Existing operation:

- *13,235m^3 volume per annum*
- *2ha disturbance*

Proposed operation:

- *50,000m^3 volume per annum*
- *4ha disturbance*

Please be in touch if any further information is required.

Kind regards,
Brenton

Meander Valley Council
Working Together

Brenton Josey, Town Planner
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From: aboriginal@heritage.tas.gov.au
To: Barry Williams
Subject: Application for an Aboriginal Heritage AH Desktop Review
Date: 17 February 2022 3:18:00 PM
Attachments: Unanticipated Discovery Plan.pdf

RE: ABORIGINAL HERITAGE DESKTOP REVIEW

Capacity increase, Exton Quarry - AHDR5200

Dear Barry,

Aboriginal Heritage Tasmania (AHT) has completed a search of the Aboriginal Heritage Register regarding the proposed capacity increase at Exton Quarry (ML1994 P/M). AHT can advise that there is no known Aboriginal heritage recorded within or close to the works area. Due to a review of previous reports and the area being highly disturbed, it is believed that the area has a low likelihood of Aboriginal heritage being present.

Accordingly, AHT advise that the works should be guided by the attached Unanticipated Discovery Plan.

Please be aware that all Aboriginal heritage is protected under the *Aboriginal Heritage Act 1975*. If at any time during works Aboriginal heritage is suspected, the process outlined in the Unanticipated Discovery Plan should be immediately implemented. We recommend that a copy of the Unanticipated Discovery Plan is kept on hand during any ground disturbing works.

If you have any queries, please do not hesitate to contact AHT.

Kind regards,

Paul Parker

r

Aboriginal Heritage Tasmania
Heritage and Land Tasmania
Natural Resources and Environment
Level 6, 134 Macquarie Street, Hobart
GPO Box 44, Hobart, TAS, 7001

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pitt&sherry

Exton Quarry

Noise Impact Assessment

Prepared for

Cresswell's Transport Pty Ltd

Client representative

Tony Cresswell

Date

8 December 2022

Rev00

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Appendices

Appendix A — One Third Octave Spectra – Noise Sources

Prepared by — Alexander Seen/ Douglas Ford		**Date — 8/12/2022**
Reviewed by — Douglas Ford		**Date — 8/12/2022**
Authorised by — Andy Turner		**Date — 8/12/2022**

Revision History

Rev No.	Description	Prepared by	Reviewed by	Authorised by	Date

Executive Summary

This noise assessment has been prepared to support an Environmental Effects Report (EER), for the Exton Quarry (mining Lease 1994P/M), operated by Cresswell's Transport Pty. Ltd., located north of Exton. The quarry operates using drill and blast techniques to extract material from a quarrying face on the southern side of the site, with processing and stockpiling of material for dispatch to customers also carried out on site.

The EER is required to justify a proposed increase in the current annual production limit from 13,325m^3 to 50,000m^3 of processed product. No changes are proposed to the current operating methods or allowed operating hours. The increased output will be achieved by working more days per week.

Noise measurements were undertaken onsite to assess the level of noise emissions from the equipment in use. Noise levels at nearby residences, were modelled using SoundPLAN 8.2 environmental noise modelling software. The level of predicted noise emissions from the quarries meets the Quarry Code noise limits.

The likely level of ground vibration and air-blast overpressure from blasting at the quarry was estimated using the methodology in AS2187.2 (2006) using typical geology and blast set up parameters. The predicted levels meet the Quarry Code limits. This confirms that if appropriate detailed blasting design and implementation is carried out, then acceptable levels will be achieved.

On this basis it is concluded that noise, ground vibration and air blast over-pressure will meet the Quarry Code limits and that operation of the quarries will not adversely impact the amenity of nearby residents.

1. Introduction

This noise assessment has been prepared to support an Environmental Effects Report for the Exton Quarry operated by Cresswell's Transport Pty. Ltd. located on Porters Bridge Road, Exton as shown in Figure 1.

Exton Quarry (Mining Lease 1994P/M) is currently restricted to an annual production limit of 13,235m^3 of processed product. An increased annual limit of 50,000m^3 is proposed in order to meet local market requirements for the quarried products.

The site is located on Porters Bridge Road, approximately 5 to 6 kilometres North of the Bass Highway and the township of Exton. The Quarry is located within a Eucalyptus plantation surrounded by bush and farmland. The nearest sensitive receiver is a rural residence located approximately 1.1km to the NE of the site. Other residences are located further away to the North, East and Southwest of the quarry. The surrounding area, including all residences within a nominal 3km radius is shown in Figure 1 below.

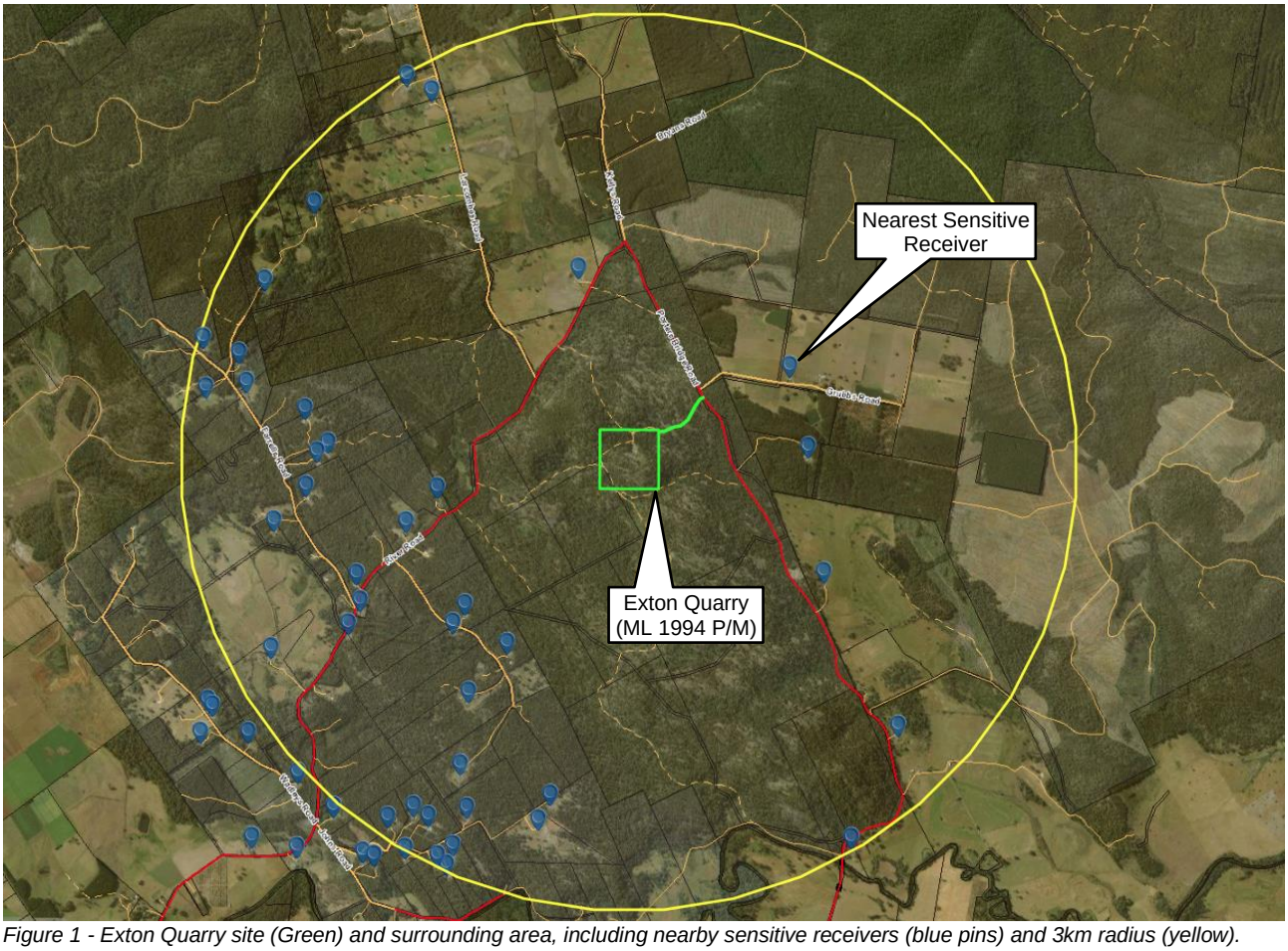

Figure 1 - Exton Quarry site (Green) and surrounding area, including nearby sensitive receivers (blue pins) and 3km radius (yellow). Basemap source: theList.

2. Description of Operations

The Exton Quarry is a hard rock quarry. Dolerite from the face on the southern side of the quarry is extracted using drill and blast techniques, with an excavator mounted rock breaker used to break up the blasted material. Material is crushed and screened near to the extracted location using mobile equipment and deposited into stockpiles by a wheel loader. Truck access to the site is via Porters Bridge Road.

The site is currently permitted to operate between 7AM and 7PM on weekdays and 8AM and 4PM on Saturdays with no operation occurring on Sundays. Currently quarrying works are only carried out as required to meet demand and do not utilise the full extent of these hours. Blasting is usually carried out approximately every 4 to 6 months, resulting in approximately 2 to 3 blasts per year.

To meet the ongoing incremental increase in demand, quarrying works would operate more frequently within the currently permitted operating hours. No changes are proposed to the existing methods used for extracting or processing of material. It is expected that 8 to 12 blasts per year would be required to meet the proposed new annual production limit.

The topography of the area and the dense vegetation provide extensive noise attenuation between the quarry and nearby residences. There is an elevation difference of approximately 50 metres between the quarry floor and the top of the hill immediately south of the quarrying face. The quarrying face itself is approximately 21 metres tall. The site layout is shown in Figure 2 below, including the proposed directions of future expansion.

The proposed increased production, would result in a proportional increase in traffic movements. At a nominal truck/trailer load of 32 tonnes there would be a maximum of about 2,500 loads of 5000 traffic movements per annum. These would all occur during daytime working hours so would have a minimal effect on the existing levels of traffic noise.

Figure 2 - Exton Quarry Site layout, showing proposed quarrying face expansion directions.

3. Noise Assessment

3.1 Noise Criteria

The Tasmanian *Quarry Code of Practise* provides criteria for assessing noise emissions from quarrying operations at nearby sensitive receivers. Noise from quarrying and associated activities, when measured at any neighbouring sensitive receiver must not exceed the greater of:

- the $L_{A90,10min}$ plus 5 dB(A) excluding noise from the quarry, or
- 45 dB(A) during the daytime (0700 to 1900), when measured as an $L_{Aeq,10min}$.

No evening or night-time operations are proposed under the quarry expansion. These criteria are consistent with acoustic indicator levels in the Tasmanian *Environmental Protection Policy (Noise)*, 2009 for various daytime residential activities. Night-time criteria are not relevant to this assessment as night operation will not be undertaken at the quarry.

3.2 Noise Sources

The most significant noise source at the Exton Quarry is the main crushing and screening plant which consists a mobile Terex Finlay diesel-powered jaw crusher and screen. A CAT 342DL excavator is used to feed unprocessed material into the crusher. This plant is typically located close to the blasted material along the southern quarrying face. This location provides some degree of acoustic shielding, in all directions, but especially towards the south. Also operating at the quarry is a CAT 950K wheel loader and road trucks used to despatch product to customers.

A rock breaker mounted on a second, smaller, CAT excavator is used to break up larger pieces of blasted material on the quarry floor.

A contractor is engaged to drill and blast the dolerite deposit when required. The main crushing and screening plant will not be in operation when drilling or blasting is being undertaken.

Table 1 below shows details of the sound power levels used to characterise the noise sources. The sound power levels are based on noise measurements made on site on November 22nd, 2022, for all equipment except the drill rig for which values measured at another site has been used (The drill rig was measured at Leslie Vale Quarry on 16th September, 2022). In addition, a 10 minute measurement was made of combined operations involving the excavator, loader, crusher and screen.

Noise measurements were made using a Rion NL-42 sound pressure meter, mounted on a tripod. One third octave levels were recorded to enable tonality and low frequency content of the modelled results to be evaluated in accordance with the Tasmanian DEPHA *Noise Measurement Procedures Manual*, 2008.

Table 1 - Measured sound power levels of equipment at Exton Quarry.

Noise Source	***Nominal Height Above Ground – m***	***Sound Power Level – dB(A)***
CAT 950K Wheel Loader	*1.5*	*106.1*
CAT 342DL Excavator	*3.2*	*107.4*
TEREX FINLAY J1175 Mobile Jaw Crusher	*2*	*115.2*
TEREX FINALY 883+ Mobile Screen	*2*	*118.6*
Rock breaker	*1.5*	*114.3*
Sandvic Drilling Rig	*0.5*	*120.2*
Crusher, Screen & Excavator Operating	*2.5*	*106.1*
Road Truck	*1.5*	*104.0*

3.3 Intrusive or Dominant Noise Characteristics

Various characteristics of noise can increase the level of annoyance that is caused. These include Tonality, Impulsiveness, Modulation and Low Frequency content. Tonality is where particular frequency bands or “Tones” are present within the noise, such as the “whine” of a circular saw. Impulsiveness is where noise has rapid large changes in amplitude such as gunshots or jackhammers. Modulation is where the noise level cycles up and down rapidly. Low frequency noise is considered a problem when there is significant energy in the 20Hz to 250Hz frequency range.

When quarrying operations are in progress the noise generated contributes to some portion of the ambient noise at nearby residences, with traffic and natural noise making up the remainder. Traffic noise is relatively free from these characteristics, although low levels of tonality and low frequency noise are usually present. Whilst some impulsiveness was detected from the crusher and screen when measured onsite, these affects are well attenuated over distance and are minimal at the nearest residences.

The one third octave spectrum calculated at the nearest sensitive receiver identified several tonal bands. Adopting the methodology of the Tasmanian *Noise Measurement Guidelines*, 2008, a 0.1 dB(A) penalty is applied for the combined operation of the crusher, screen and excavator and a 1.4dB(A) penalty for the drill rig. No correction for low frequency is required.

4. Noise Modelling

4.1 Methodology and Assumptions

Noise modelling was carried out in accordance with the Tasmanian DEPHA *Noise Measurement Procedures Manual*, 2008. Noise level calculations were implemented using SoundPLAN 8.2 environmental noise modelling software. Modelling assumptions and settings include:

- The ISO 9613-2 noise calculation standard was used within SoundPLAN. This standard incorporates “worst case” meteorological conditions for noise propagation.
- Terrain topography was obtained from 2 metre elevation data sourced from the ELVIS online elevation database. No modifications to the digital ground model have been made to account for additional quarrying or variation in stockpiles since the elevation survey. (This is a conservative assumption, as the deeper the quarry progresses, the more shielding is provided to noise sources on the quarry floor.)
- Ground absorption factors were set to 70% soft for areas surrounding the site, with 80% hard used for the quarry site.
- The crusher and screen and excavator have been modelled as a single point source, located 2.5 metres above ground level, based on the sound levels measured onsite during general operation.
- Loader and truck movements onsite have been represented by line source (1.5m above ground level) representing typical travel paths around the site.
- Two scenarios have been modelled:
    - One for normal operation of the site, with the screen, crusher and excavator operating and one loader and one truck moving at any given time. This is representative of normal daytime noise levels during operation.
    - A second situation was modelled with only the drill rig operating above the quarrying wall, without the crusher, screen, excavator or loader operating.

Figure 3, below shows the layout of the SoundPLAN noise model, including the location of the equipment modelled (shown as red dots / lines) and the receivers (shown as yellow dots).

Figure 3 - SoundPLAN Noise Model with a closeup of the quarry area (right).

4.2 Noise Modelling Results

The SoundPLAN noise modelling results for the two scenarios at a number of the nearest residential premises are shown below in Table 2. All of these results are below the 45dB(A) Quarry Code guideline level for daytime operation for both normal (crushing and screening) and drilling operations. Figure 4 below shows noise grid maps for the two modelled scenarios. The results include the required penalties for tonality.

Table 2 - SoundPLAN Results for existing and expanded quarrying operations.

Location	***Distance from Site m***	***Normal Operations dB(A)***	***Drilling dB(A)***
Tonality Correction	-	*0.1*	*1.4*
216 Farrells Rd	3100	*26.9*	*16.9*
304 Porters Bridge Rd	3020	*17.4*	*16.7*
420 Porters Bridge Rd	1800	*17.3*	*12.9*
550 Porters Bridge Rd	1360	*34.2*	*34.7*
620 Porters Bridge Rd	1350	*38.4*	*34.6*
649 River Rd	1580	*26.0*	*28.0*
875 River Rd	1400	*32.1*	*30.5*
75 Saddlers Run Rd	1820	*19.1*	*23.6*
115 Saddlers Run Rd	1840	*17.6*	*24.5*
180 Silver Wattle Dr	3020	*8.4*	*8.7*

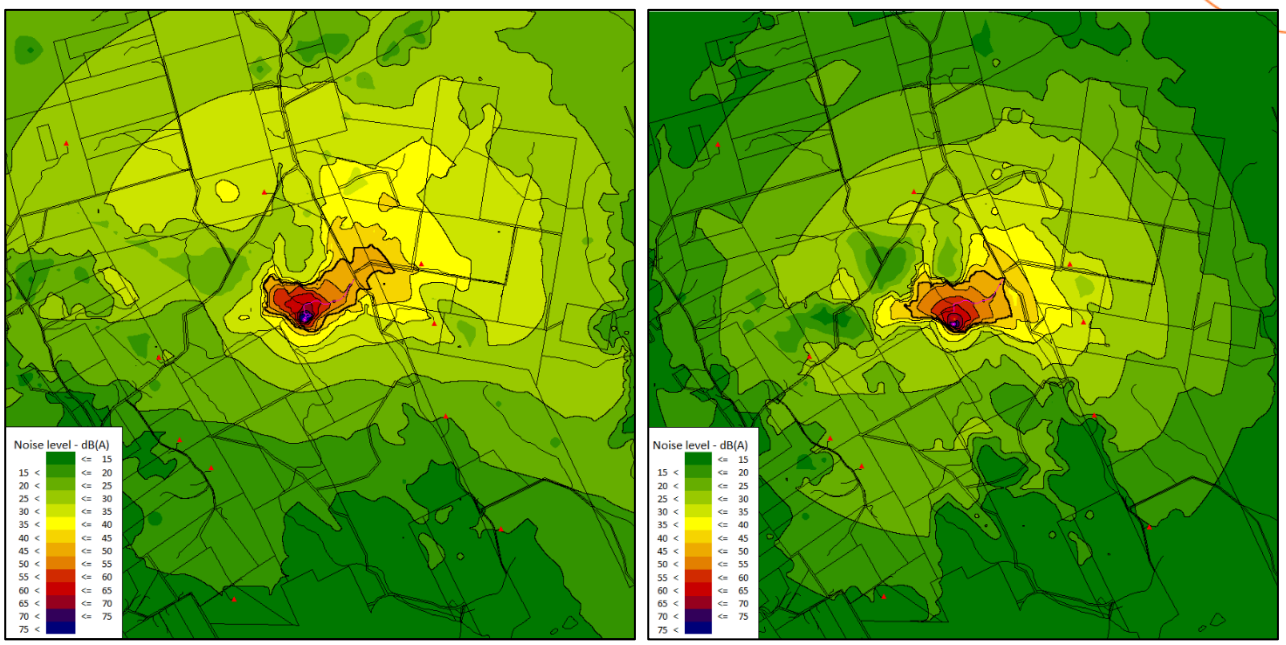

Figure 4 - SoundPLAN Noise Grid maps at height of 1.5m. Left: Normal operations (with crusher, screen and excavator), Right: Drilling operations. 45dB(A) limit, including tonality penalties, shown in bold.

5. Blasting and Drilling Operations

Forze Explosive Services are currently engaged to undertake all blasting required at the quarry. This normally occurs every 4 to 6 months, with a likely increase in frequency, to every 1 to 2 months, required to reach the proposed increased annual production limit. The blasts are designed to generate the required fragmentation, while meeting the requirements of the Tasmanian *Quarry Code of Practice* (2017) which includes the following limitations on air blast overpressure and ground vibration at nearby sensitive receivers:

- For 95% of blasts, air blast overpressure must not exceed 115 dB (L_{in} Peak);
- air blast overpressure must not exceed 120 dB (L_{in} Peak) at all;
- for 95% of blasts, ground vibration must not exceed 5 mm/s peak particle velocity; and
- ground vibration must not exceed 10 mm/s peak particle velocity at all. (A long-term regulatory ground vibration goal of 2 mm/s is additionally recommended within the code.)

To demonstrate compliance with the Quarry Code limits, air-blast over pressure and ground vibration levels have been estimated at the boundary of the nearest residence, 1350m from the quarry, using the estimation methods in Appendix J of AS2187.2 (2006) and assuming blast design and geology parameters typical of similar quarries.

Typically blasts consist of 100 to 150 holes drilled to between 9.5 and 12.5 metres deep, to create the required bench heights. This results in instantaneous charge masses of between 70 and 100kg.

5.1 Ground Vibration

Ground vibration is estimated using the equation.

$$V = K_g \left(\frac{\sqrt{Q}}{R} \right)^B$$

where: Q has been set to 100kg (the maximum instantaneous charge mass, kg)
K_g =115, B = 1.45 (constants relating to site geology)
R = 1350m (distance of blast to the nearest receiver)
V is the estimated ground vibration peak particle velocity in mm/s.

The estimated peak particle velocity is less than 0.1mm/s which meets the Quarry Code limits for ground vibration by a significant margin.

5.2 Air-Blast Overpressure

Air blast overpressure is estimated using the equation.

$$P = K_a \left(\frac{\sqrt[3]{Q}}{R} \right)^a$$

Where: Q has been set to 100kg (the maximum instantaneous charge mass, kg)
a = 1.45 (a constant relating to site geology)
K_a = 15 (a constant relating to the degreed of confinement of the charge in the drill hole)
R = 1350m (distance of blast to the nearest receiver)
P is the estimated air blast overpressure in Pa

Converted to dB(linear) the estimated air-blast overpressure is 106dBL which meets the Quarry Code limits.

6. Conclusions

Based on the measurements and SoundPLAN noise modelling conducted, noise emissions from the Exton Quarry will meet the Quarry Code noise limits and therefore not adversely impact the amenity of nearby residents.

Ongoing drilling and blasting operations are able to meet the Quarry Code limits for air-blast overpressure and ground vibration, if the blasting is designed and implemented appropriately.

Appendix A – One Third Octave Spectra – Noise Sources

Table 3 - Noise Source Spectra, Sound Power Level - dB(A).

Band	CAT 950K Wheel Loader	CAT 342DL Excavator	TEREX|FINLAY J1175 Mobile Crusher	TEREX|FINALY 883+ Mobile Screen	Rock Breaker	Combined Crusher, Screen & Excavator	Sandvic Drilling Rig	Road Truck
Total	106.1	107.4	115.2	118.6	114.3	120.2	117	104.3
12.5 Hz	105.2	91.4	97.4	96.8	116.8	100.1	30.8	39.9
16 Hz	102.4	89.4	95.0	105.2	114.9	105.6	43.1	43.8
20 Hz	100.0	87.7	91.6	98.5	106.6	99.3	60	47.6
25 Hz	99.8	90.9	94.6	96.9	106.3	98.9	59.6	53.2
31.5 Hz	103.2	100.4	102.9	100.3	98.5	104.8	66.4	61.9
40 Hz	112.0	105.8	106.3	98.9	101.1	107.0	72	75.5
50 Hz	104.7	99.7	106.5	109.4	102.1	111.2	78.4	72.6
63 Hz	106.8	105.9	110.2	114.3	106.5	115.7	84.4	78.7
80 Hz	109.9	103.8	110.7	114.9	107.5	116.3	90	85.5
100 Hz	107.3	100.5	114.4	118.1	107.1	119.6	98.7	86.3
125 Hz	106.0	100.5	109.5	114.1	105.5	115.4	94.7	88.0
160 Hz	105.7	101.9	113.5	103.6	114.2	113.9	97	90.4
200 Hz	105.7	98.4	108.1	112.0	104.5	113.5	97.1	92.9
250 Hz	99.0	99.2	104.8	109.7	105.5	110.9	98.8	88.5
315 Hz	99.6	97.0	102.6	106.3	106.5	107.8	102.4	91.1
400 Hz	100.3	96.2	107.2	108.3	104.2	110.8	101.8	93.6
500 Hz	98.6	99.3	106.8	110.6	107.0	112.1	100.4	93.5
630 Hz	97.8	100.7	108.6	112.5	103.0	114.0	102.8	94.0
800 Hz	95.0	99.7	107.3	109.9	105.5	111.8	105.5	92.3
1 kHz	94.5	96.3	105.7	107.7	107.2	109.8	107.3	92.6
1.25 kHz	96.4	97.6	105.1	107.4	105.0	109.4	108.1	95.1
1.6 kHz	94.3	96.1	104.3	107.7	103.2	109.3	107.8	93.4
2 kHz	92.5	94.4	102.3	106.4	103.1	107.8	106.4	91.8
2.5 kHz	90.5	95.9	101.0	106.0	105.4	107.2	106.8	89.9
3.15 kHz	89.7	93.7	99.2	104.7	103.8	105.8	106.3	89.0
4 kHz	87.0	90.1	96.5	103.0	103.9	103.9	104.4	86.1
5 kHz	84.1	85.6	93.8	100.5	103.5	101.3	103	82.7
6.3 kHz	81.5	81.2	90.1	97.6	100.5	98.3	99.6	79.5
8 kHz	80.0	77.9	88.0	94.5	100.0	95.4	94.5	77.0
10 kHz	75.9	74.6	85.5	91.3	96.6	92.3	88.9	71.5
12.5 kHz	72.5	70.7	80.7	87.5	92.7	88.3	82.9	66.3
16 kHz	68.5	65.6	75.5	83.5	89.0	84.1	75	60.0
20 kHz	60.5	56.9	66.8	75.2	86.2	75.8	62.2	49.3

pitt&sherry

Exton Quarry
Noise Impact Assessment

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Newcastle
Devonport

Megan Hancock

From: Barry Williams <barry.williams@ilmp.com.au>
Sent: Wednesday, 15 January 2025 1:49 PM
To: Planning - Meander Valley Council
Cc: Leanne Rabjohns
Subject: Exton Quarry - increase in production - case for assessment
Attachments: ECOtas_Cresswell_ExtonQuarry_Appendix-NVR.pdf; ECOtas_Cresswell_ExtonQuarry_Appendix-PMST.pdf; Appendix 3 ECOtas_Cresswell_ExtonQuarry_Report.pdf; ECOtas_Cresswell_ExtonQuarry_Appendix-BVD.pdf

Part of case for assessment

mobile: 0437 394 492

email: barry.williams@ilmp.com.au

Natural Values Atlas Report

Authoritative, comprehensive information on Tasmania's natural values.

Reference:	ECOtas_Cresswell_Exton
Requested For:	Brian French
Report Type:	Summary Report
Timestamp:	02:11:41 PM Wednesday 12 October 2022
Threatened Flora:	buffers Min: 500m Max: 5000m
Threatened Fauna:	buffers Min: 500m Max: 5000m
Raptors:	buffers Min: 500m Max: 5000m
Tasmanian Weed Management Act Weeds:	buffers Min: 500m Max: 5000m
Priority Weeds:	buffers Min: 500m Max: 5000m
Geoconservation:	buffer 1000m
Acid Sulfate Soils:	buffer 1000m
TASVEG:	buffer 1000m
Threatened Communities:	buffer 1000m
Fire History:	buffer 1000m
Tasmanian Reserve Estate:	buffer 1000m
Biosecurity Risks:	buffer 1000m

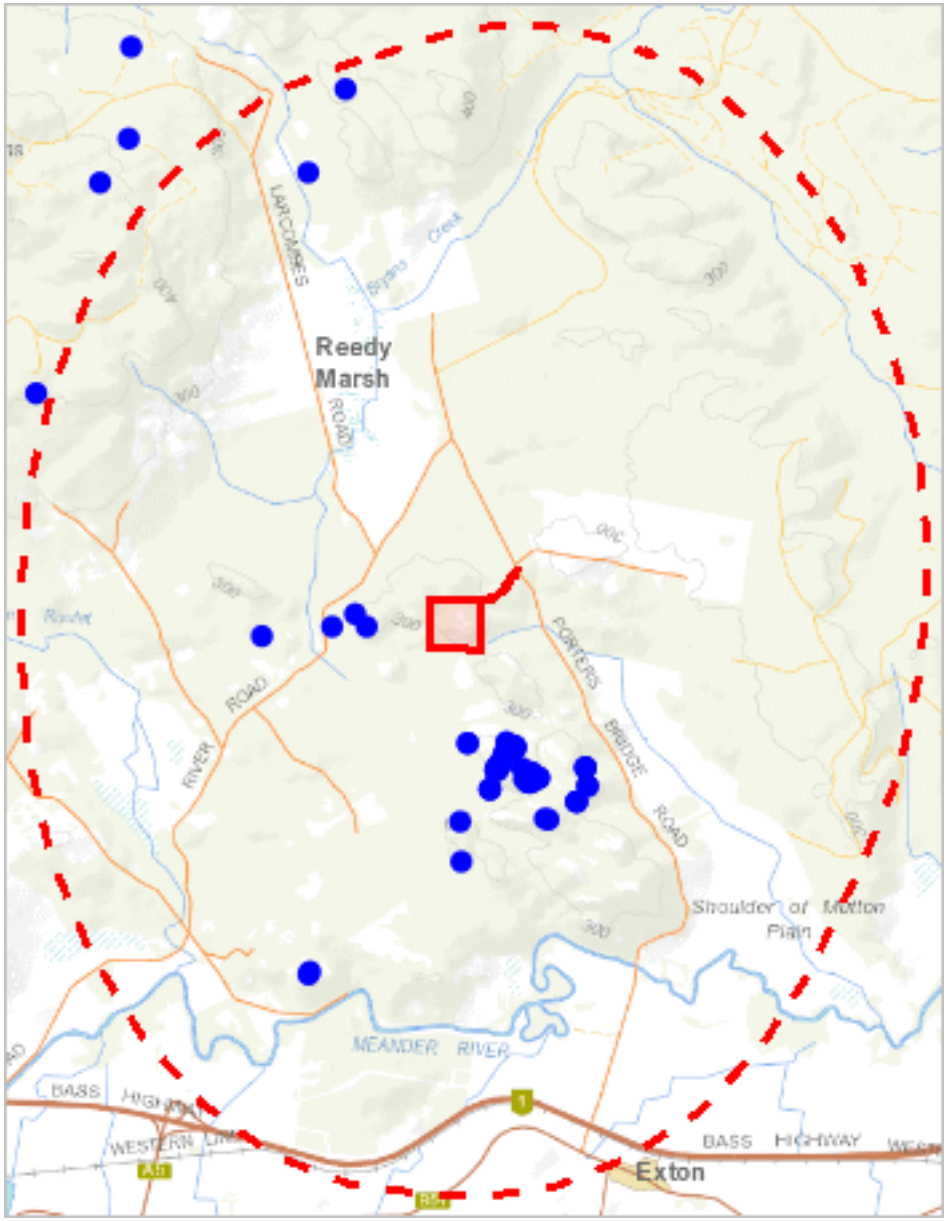
The centroid for this query GDA94: 476488.0, 5408358.0 falls within:

Property: 3517478

*** No threatened flora found within 500 metres ***

Threatened flora within 5000 metres

480985, 5414037



472323, 5402912

Please note that some layers may not display at all requested map scales

Threatened flora within 5000 metres

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Threatened flora within 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Brunonia australis	blue pincushion	r		n	3	17-Mar-2021
Glycine microphylla	small-leaf glycine	v		n	2	30-Nov-2012
Gratiola pubescens	hairy brooklime	r		n	2	30-Nov-2012
Haloragis heterophylla	variable raspwort	r		n	1	17-Nov-2017
Pimelea curviflora	curved riceflower	p		n	3	17-Mar-2009
Pimelea curviflora var. gracilis	slender curved riceflower	r		n	66	09-Mar-2022
Senecio squarrosus	leafy fireweed	r		n	3	01-Jan-1978

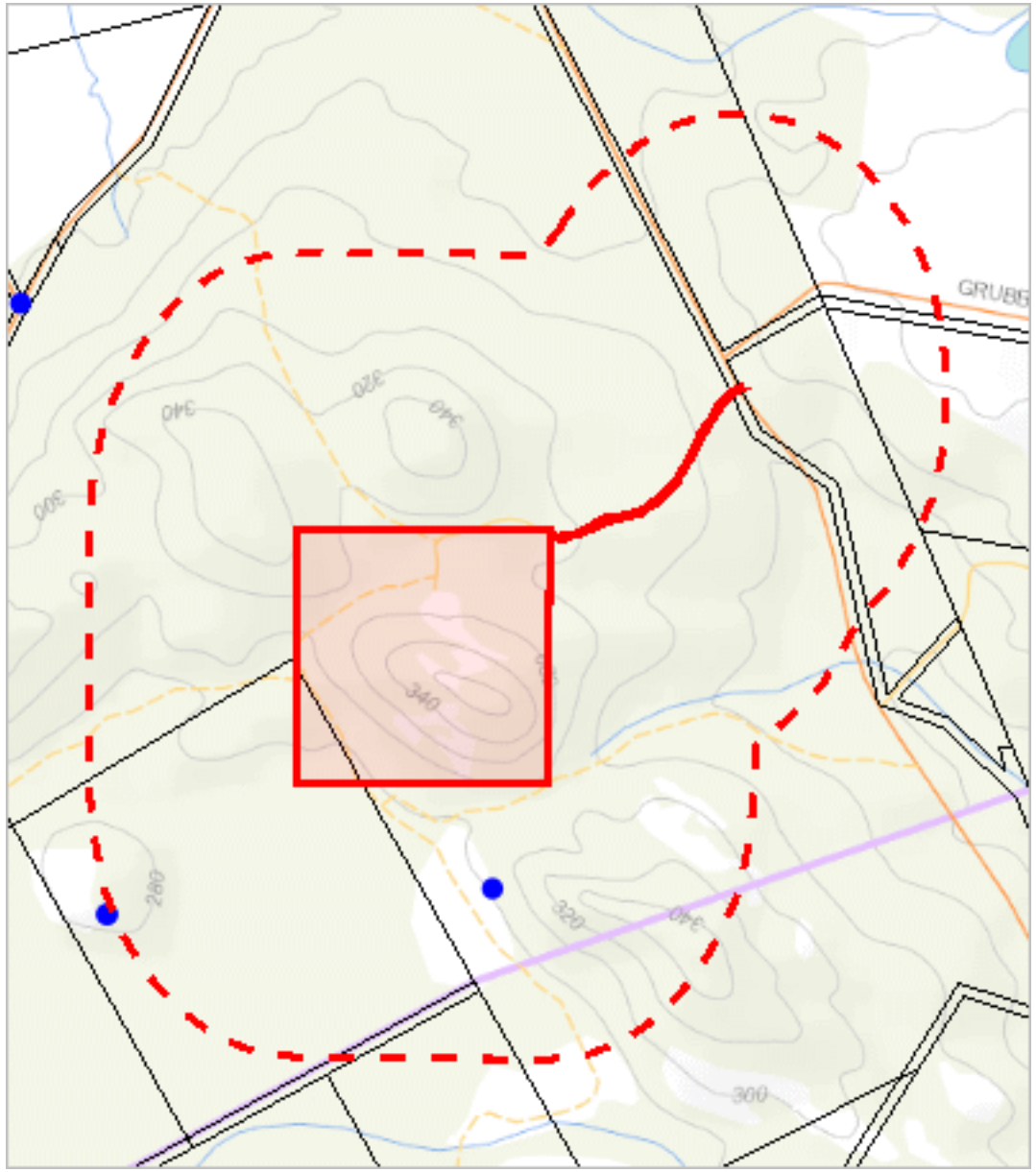
Unverified Records

No unverified records were found!

For more information about threatened species, please contact Threatened Species Enquiries.
Telephone: 1300 368 550
Email: ThreatenedSpecies.Enquiries@nre.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Threatened fauna within 500 metres

477592, 5409539



475723, 5407422

Please note that some layers may not display at all requested map scales

Threatened fauna within 500 metres

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Threatened fauna within 500 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Aquila audax	wedge-tailed eagle	pe	PEN	n	1	19-Sep-2008
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	1	01-Jan-1985
Perameles gunnii	eastern barred bandicoot		VU	n	1	04-Dec-1985

Unverified Records

No unverified records were found!

Threatened fauna within 500 metres

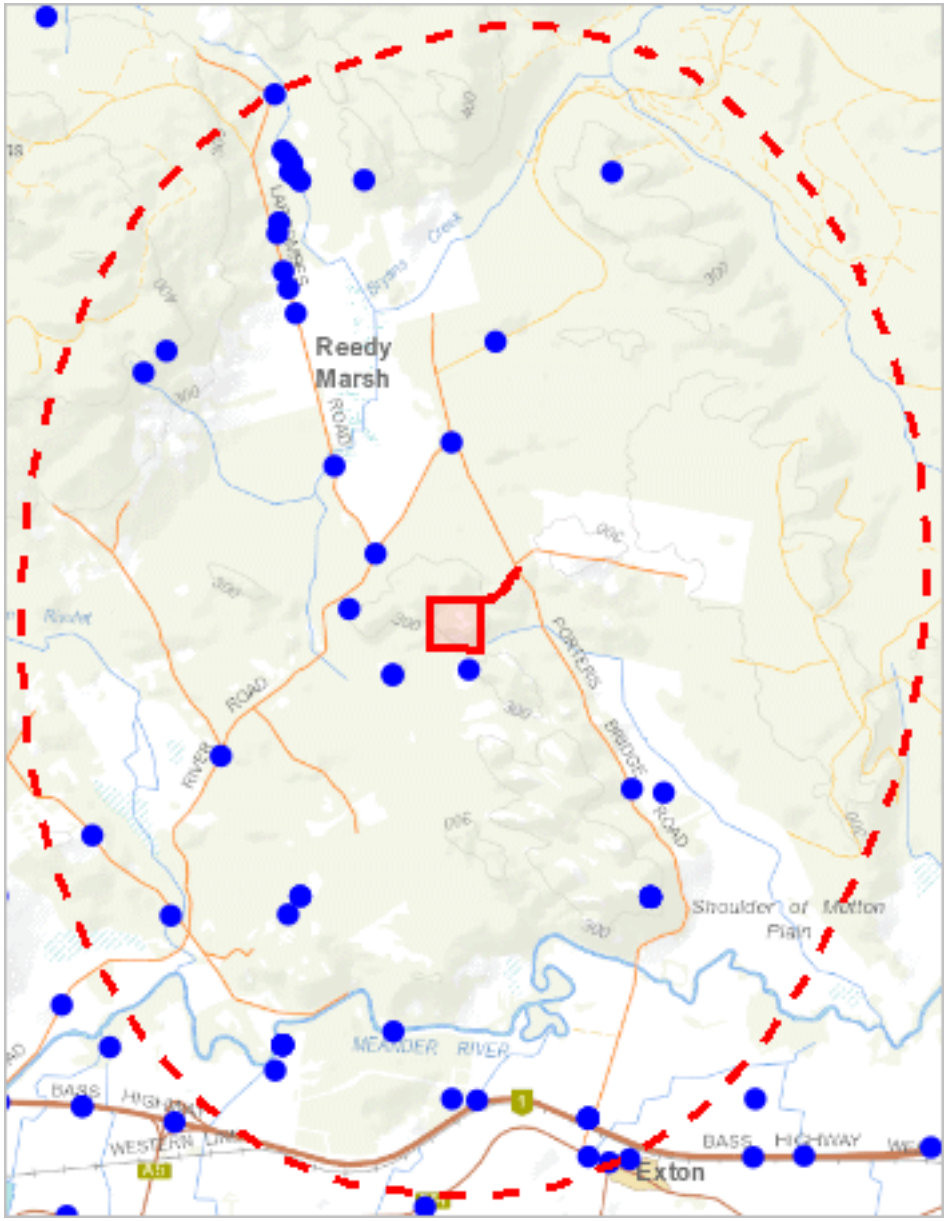
(based on Range Boundaries)

Species	Common Name	SS	NS	BO	Potential	Known	Core
Litoria raniformis	green and gold frog	v	VU	n	1	0	0
Lathamus discolor	swift parrot	e	CR	mbe	1	0	0
Dasyurus maculatus subsp. maculatus	spotted-tail quoll	r	VU	n	1	0	0
Prototroctes maraena	australian grayling	v	VU	ae	1	0	0
Pseudemoia pagenstecheri	tussock skink	v		n	1	0	0
Galaxias fontanus	swan galaxias	e	EN	e	1	0	0
Tyto novaehollandiae subsp. castanops	masked owl (Tasmanian)	e	VU	e	1	0	1
Haliaeetus leucogaster	white-bellied sea-eagle	v		n	1	0	0
Catadromus lacordairei	Green-lined ground beetle	v		n	1	0	0
Sarcophilus harrisii	tasmanian devil	e	EN	e	1	0	0
Accipiter novaehollandiae	grey goshawk	e		n	1	0	0
Perameles gunnii	eastern barred bandicoot		VU	n	1	0	1
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	1	0	0
Dasyurus viverrinus	eastern quoll		EN	n	0	0	1

For more information about threatened species, please contact Threatened Species Enquiries.
Telephone: 1300 368 550
Email: ThreatenedSpecies.Enquiries@nre.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Threatened fauna within 5000 metres

480985, 5414037



472323, 5402912

Please note that some layers may not display at all requested map scales

Threatened fauna within 5000 metres

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Threatened fauna within 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Accipiter novaehollandiae	grey goshawk	e		n	5	22-May-2022
Aquila audax	wedge-tailed eagle	pe	PEN	n	6	20-Mar-2018
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	48	02-Jun-2021
Dasyurus maculatus	spotted-tail quoll	r	VU	n	8	26-May-2021
Dasyurus maculatus subsp. maculatus	spotted-tail quoll	r	VU	n	6	16-Aug-1996
Dasyurus viverrinus	eastern quoll		EN	n	2	05-Apr-2018
Eagle sp.	Eagle	e	EN	n	1	27-Jun-2019
Haliaeetus leucogaster	white-bellied sea-eagle	v		n	9	04-Apr-2022
Hirundapus caudacutus	white-throated needletail		VU	n	1	01-Jan-1900
Litoria raniformis	green and gold frog	v	VU	n	1	04-Jan-2018
Perameles gunnii	eastern barred bandicoot		VU	n	10	21-Jun-2019
Sarcophilus harrisii	tasmanian devil	e	EN	e	32	26-Mar-2019
Tyto novaehollandiae	masked owl	pe	PVU	n	2	01-Feb-1980
Tyto novaehollandiae subsp. castanops	masked owl (Tasmanian)	e	VU	e	2	29-Oct-2019

Unverified Records

No unverified records were found!

Threatened fauna within 5000 metres

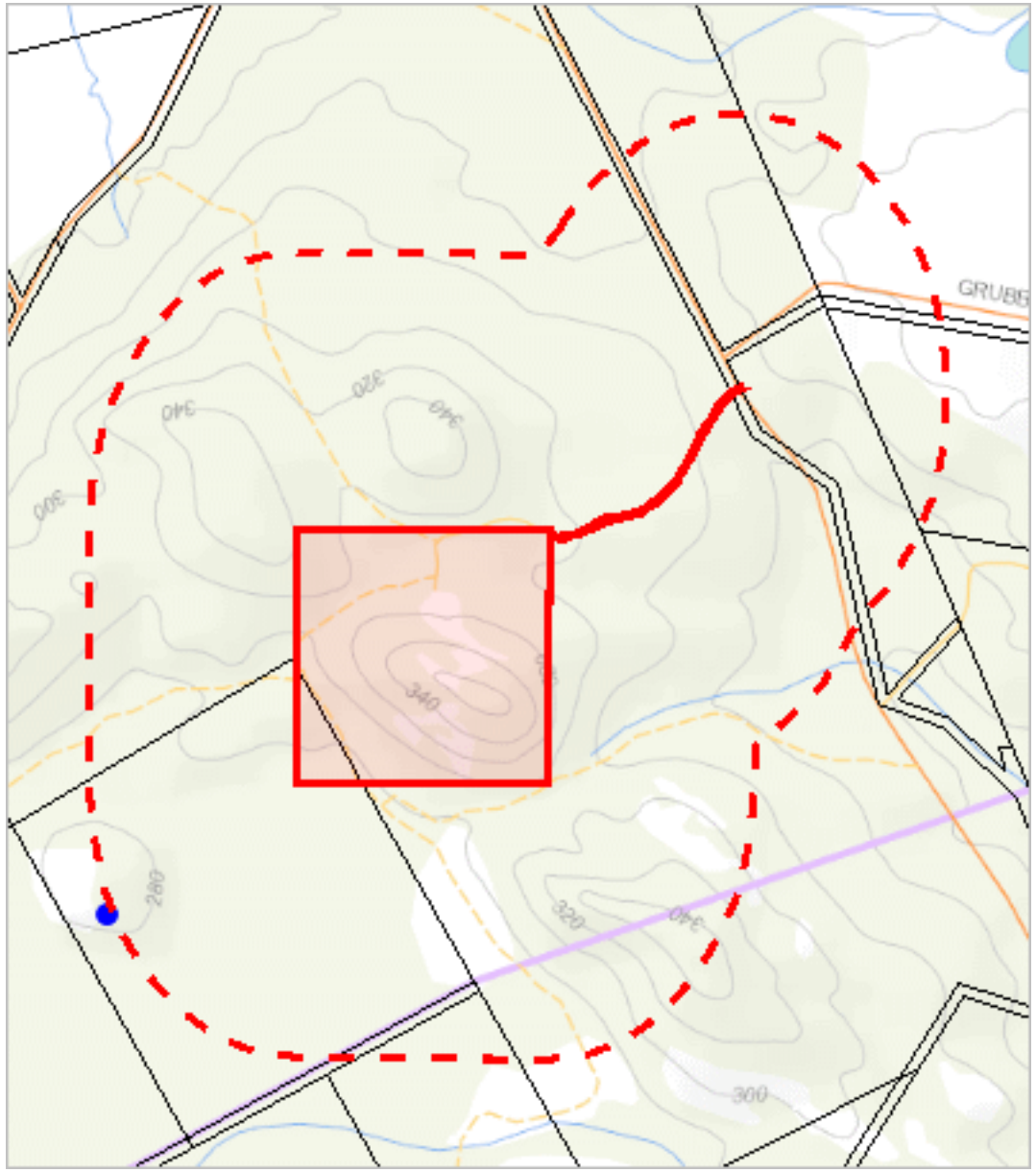
(based on Range Boundaries)

Species	Common Name	SS	NS	BO	Potential	Known	Core
Litoria raniformis	green and gold frog	v	VU	n	1	0	1
Dasyurus maculatus subsp. maculatus	spotted-tail quoll	r	VU	n	1	0	2
Lathamus discolor	swift parrot	e	CR	mbe	1	0	0
Prototroctes maraena	australian grayling	v	VU	ae	1	0	0
Pseudemoia pagenstecheri	tussock skink	v		n	1	0	0
Galaxias fontanus	swan galaxias	e	EN	e	1	0	0
Haliaeetus leucogaster	white-bellied sea-eagle	v		n	3	0	0
Tyto novaehollandiae subsp. castanops	masked owl (Tasmanian)	e	VU	e	1	0	1
Catadromus lacordairei	Green-lined ground beetle	v		n	1	0	0
Accipiter novaehollandiae	grey goshawk	e		n	1	0	1
Sarcophilus harrisii	tasmanian devil	e	EN	e	1	0	0
Perameles gunnii	eastern barred bandicoot		VU	n	1	0	1
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	1	0	0
Dasyurus viverrinus	eastern quoll		EN	n	0	0	1

For more information about threatened species, please contact Threatened Species Enquiries.
Telephone: 1300 368 550
Email: ThreatenedSpecies.Enquiries@nre.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Raptor nests and sightings within 500 metres

477592, 5409539



475723, 5407422

Please note that some layers may not display at all requested map scales

Raptor nests and sightings within 500 metres

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Raptor nests and sightings within 500 metres

Verified Records

Nest Id/Location Foreign Id	Species	Common Name	Obs Type	Observation Count	Last Recorded
125	Aquila audax	wedge-tailed eagle	Nest	1	19-Sep-2008
125	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	1	01-Jan-1985

Unverified Records

No unverified records were found!

Raptor nests and sightings within 500 metres

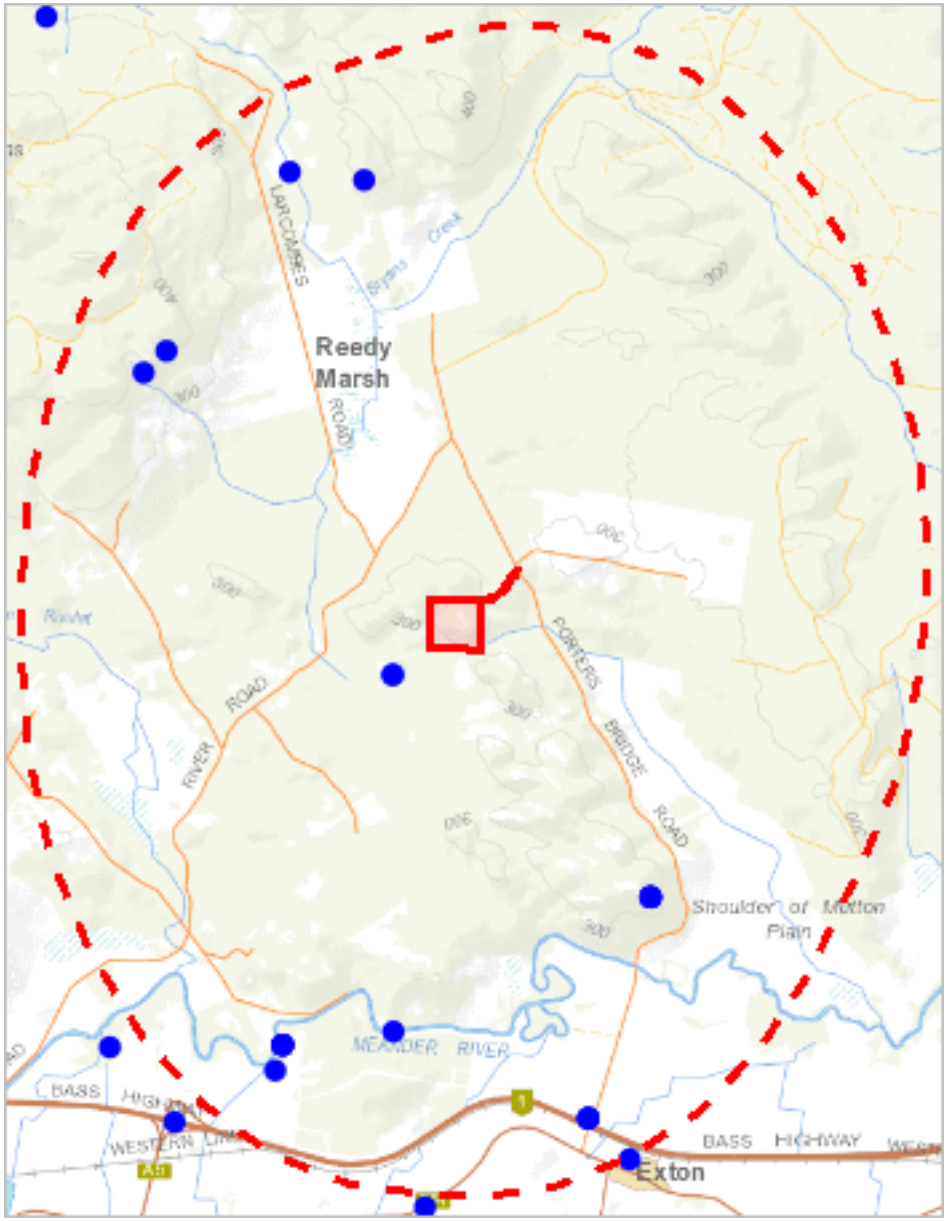
(based on Range Boundaries)

Species	Common Name	SS	NS	Potential	Known	Core
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	1	0	0
Accipiter novaehollandiae	grey goshawk	e		1	0	0
Haliaeetus leucogaster	white-bellied sea-eagle	v		1	0	0

For more information about raptor nests, please contact Threatened Species Enquiries.
Telephone: 1300 368 550
Email: ThreatenedSpecies.Enquiries@nre.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Raptor nests and sightings within 5000 metres

480985, 5414037



472323, 5402912

Please note that some layers may not display at all requested map scales

Raptor nests and sightings within 5000 metres

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Raptor nests and sightings within 5000 metres

Verified Records

Nest Id/Location Foreign Id	Species	Common Name	Obs Type	Observation Count	Last Recorded
125	Aquila audax	wedge-tailed eagle	Nest	1	19-Sep-2008
125	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	1	01-Jan-1985
139	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	7	02-Dec-2013
1515	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	1	15-Mar-2007
1516	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	1	01-Jan-2007
16	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	7	15-Jul-2013
193	Aquila audax	wedge-tailed eagle	Nest	2	22-Sep-2010
193	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	3	19-Oct-2001
2682	Eagle sp.	Eagle	Nest	1	27-Jun-2019
2682	Haliaeetus leucogaster	white-bellied sea-eagle	Nest	3	04-Apr-2022
402	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	5	12-Dec-2001
847	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	6	02-Dec-2013
960	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	8	02-Dec-2013
986	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	3	19-Sep-2006
	Accipiter novaehollandiae	grey goshawk	Not Recorded	1	16-Feb-1964
	Accipiter novaehollandiae	grey goshawk	Sighting	4	22-May-2022
	Aquila audax	wedge-tailed eagle	Not Recorded	1	20-Mar-2018
	Aquila audax	wedge-tailed eagle	Sighting	2	12-Feb-1998
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Sighting	6	02-Jun-2021
	Haliaeetus leucogaster	white-bellied sea-eagle	Not Recorded	4	30-Apr-2017
	Haliaeetus leucogaster	white-bellied sea-eagle	Sighting	2	02-Jun-2021
	Tyto novaehollandiae	masked owl	Not Recorded	1	01-Feb-1980
	Tyto novaehollandiae	masked owl	Sighting	1	01-Feb-1980

Unverified Records

No unverified records were found!

Raptor nests and sightings within 5000 metres

(based on Range Boundaries)

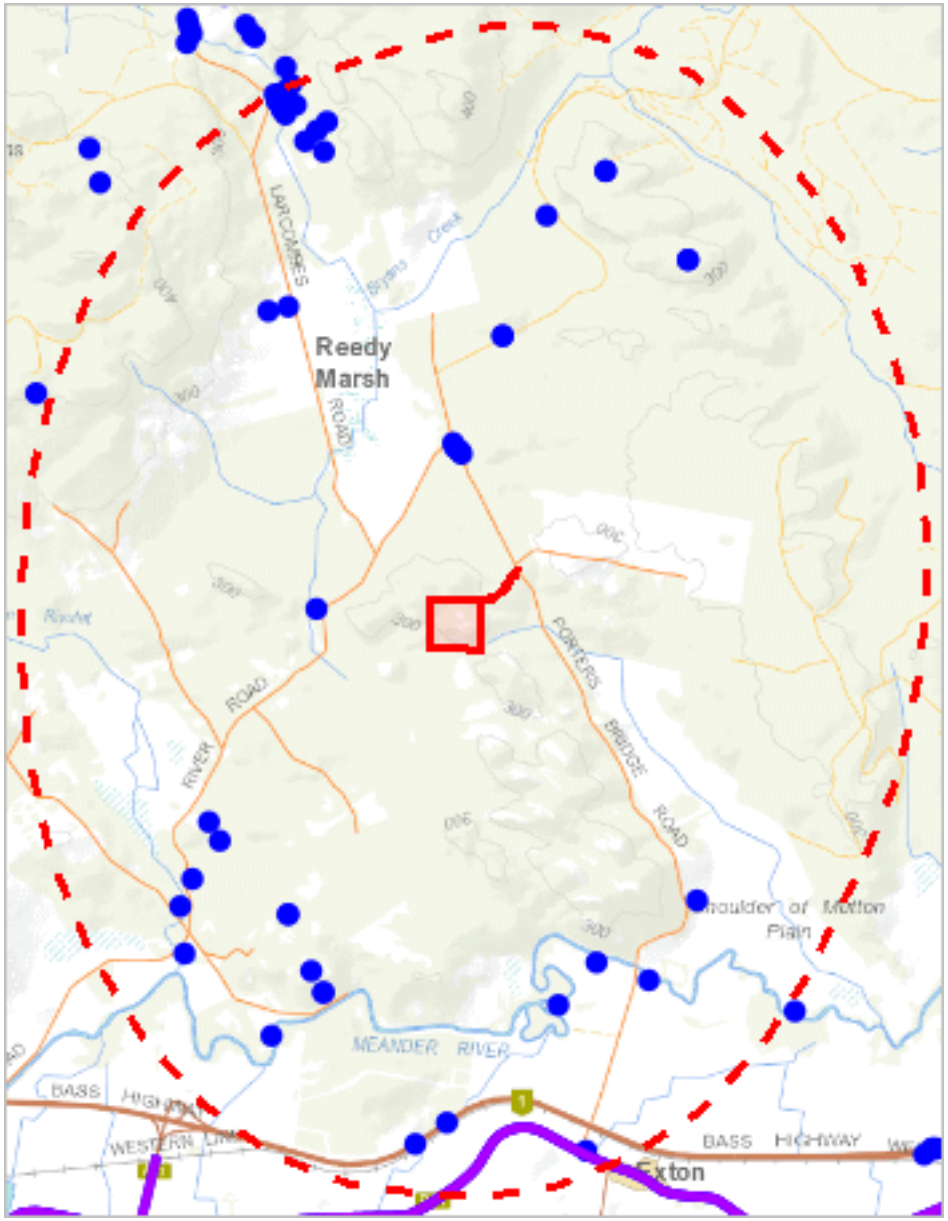
Species	Common Name	SS	NS	Potential	Known	Core
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	1	0	0
Accipiter novaehollandiae	grey goshawk	e		1	0	1
Haliaeetus leucogaster	white-bellied sea-eagle	v		3	0	0

For more information about raptor nests, please contact Threatened Species Enquiries.
Telephone: 1300 368 550
Email: ThreatenedSpecies.Enquiries@nre.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

*** No Tas Management Act Weeds found within 500 metres ***

Tas Management Act Weeds within 5000 m

480985, 5414037



472323, 5402912

Please note that some layers may not display at all requested map scales

Tas Management Act Weeds within 5000 m

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Tas Management Act Weeds within 5000 m

Verified Records

Species	Common Name	Observation Count	Last Recorded
Bassia scoparia	copper saltbush	2	22-Feb-1995
Erica lusitanica	spanish heath	16	26-May-2016
Ilex aquifolium	holly	2	16-Dec-2014
Onopordum acanthium	scotch thistle	1	01-Jan-1978
Rubus echinatus	blackberry	1	12-Feb-2004
Rubus fruticosus	blackberry	7	18-Oct-2006
Senecio jacobaea	ragwort	22	21-Feb-2011
Ulex europaeus	gorse	30	16-Dec-2014

Unverified Records

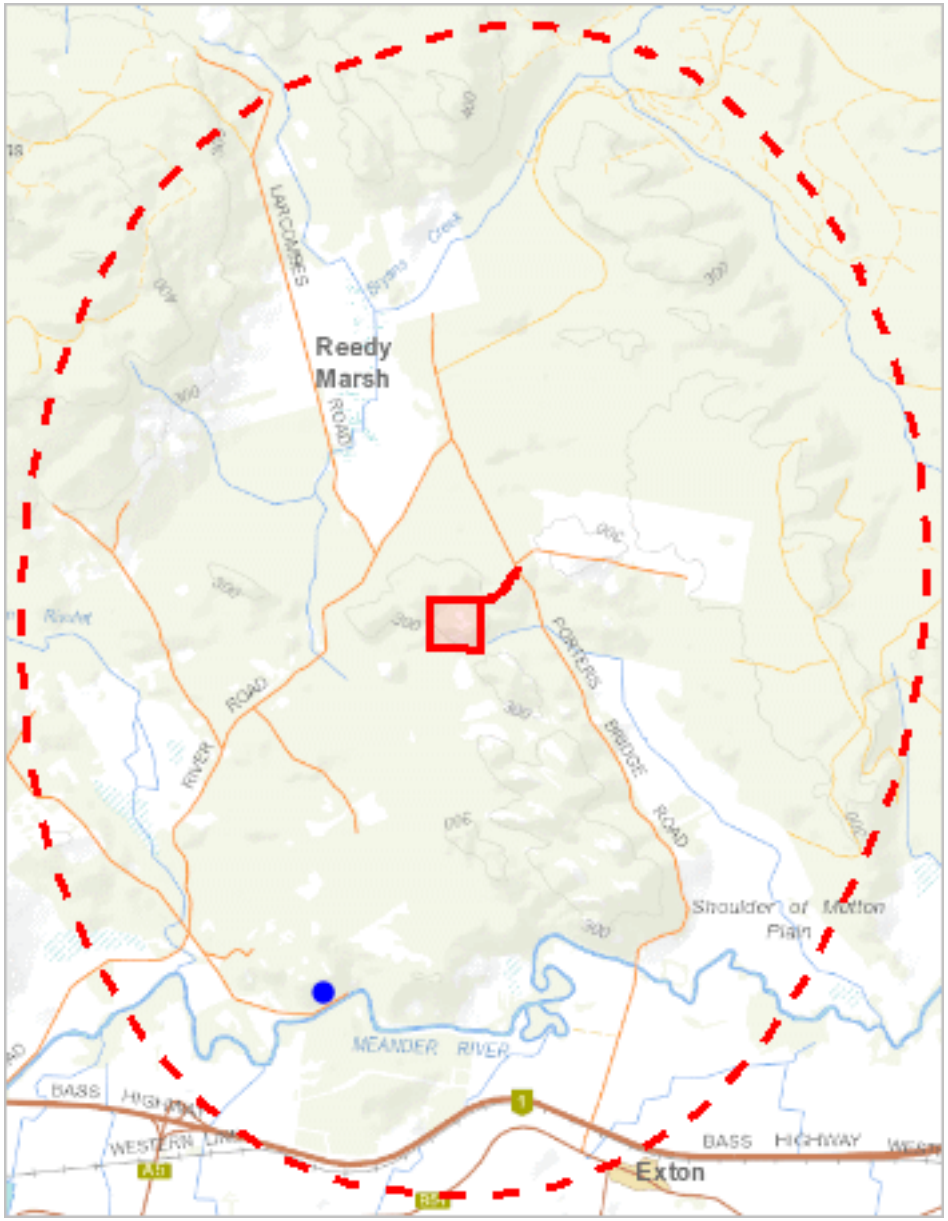
For more information about introduced weed species, please visit the following URL for contact details in your area:

https://www.nre.tas.gov.au/invasive-species/weeds

*** No Priority Weeds found within 500 metres ***

Priority Weeds within 5000 m

480985, 5414037



472323, 5402912

Please note that some layers may not display at all requested map scales

Priority Weeds within 5000 m

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Priority Weeds within 5000 m

Verified Records

Species	Common Name	Observation Count	Last Recorded
Prunus laurocerasus	cherry laurel	1	16-Dec-2014

Unverified Records

For more information about introduced weed species, please visit the following URL for contact details in your area:

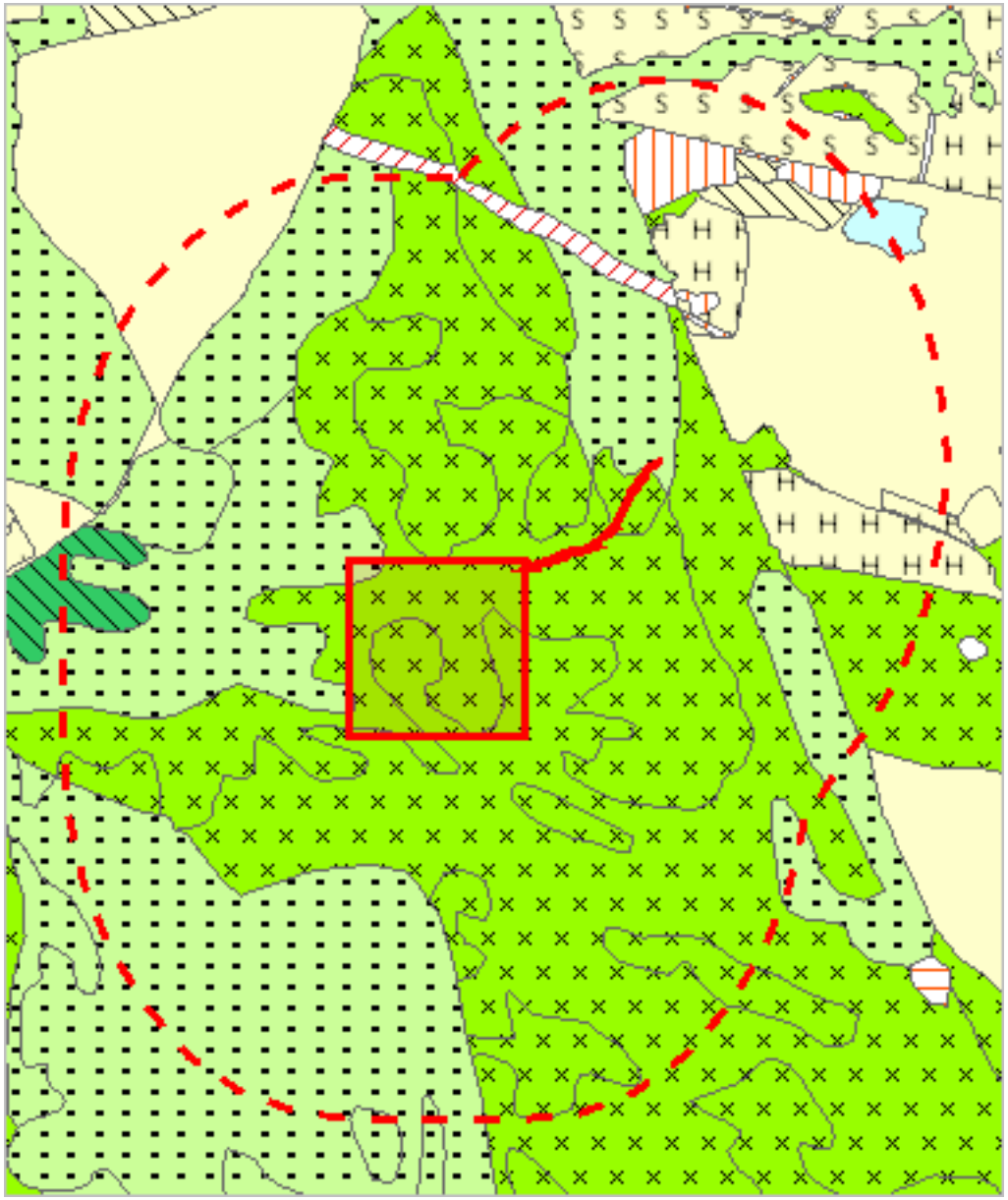
https://www.nre.tas.gov.au/invasive-species/weeds

*** No Geoconservation sites found within 1000 metres. ***

*** No Acid Sulfate Soils found within 1000 metres ***

TASVEG 4.0 Communities within 1000 metres

477969, 5410039



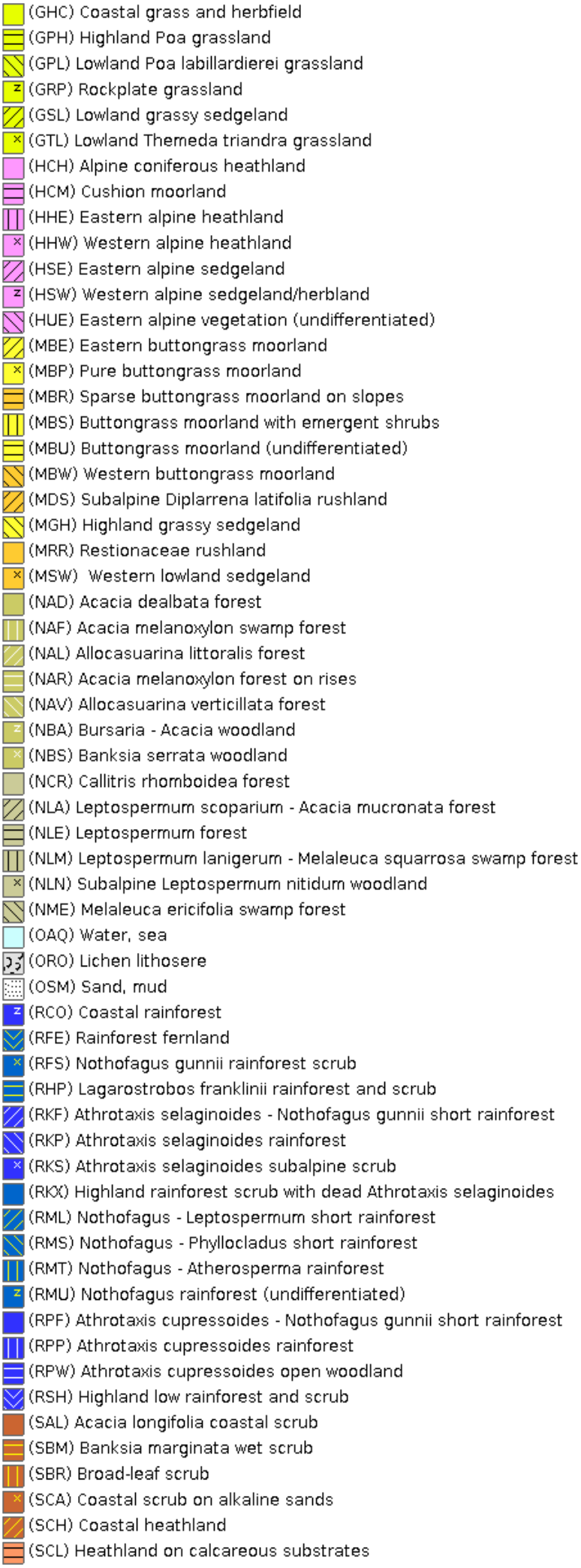
475346, 5406921

Please note that some layers may not display at all requested map scales

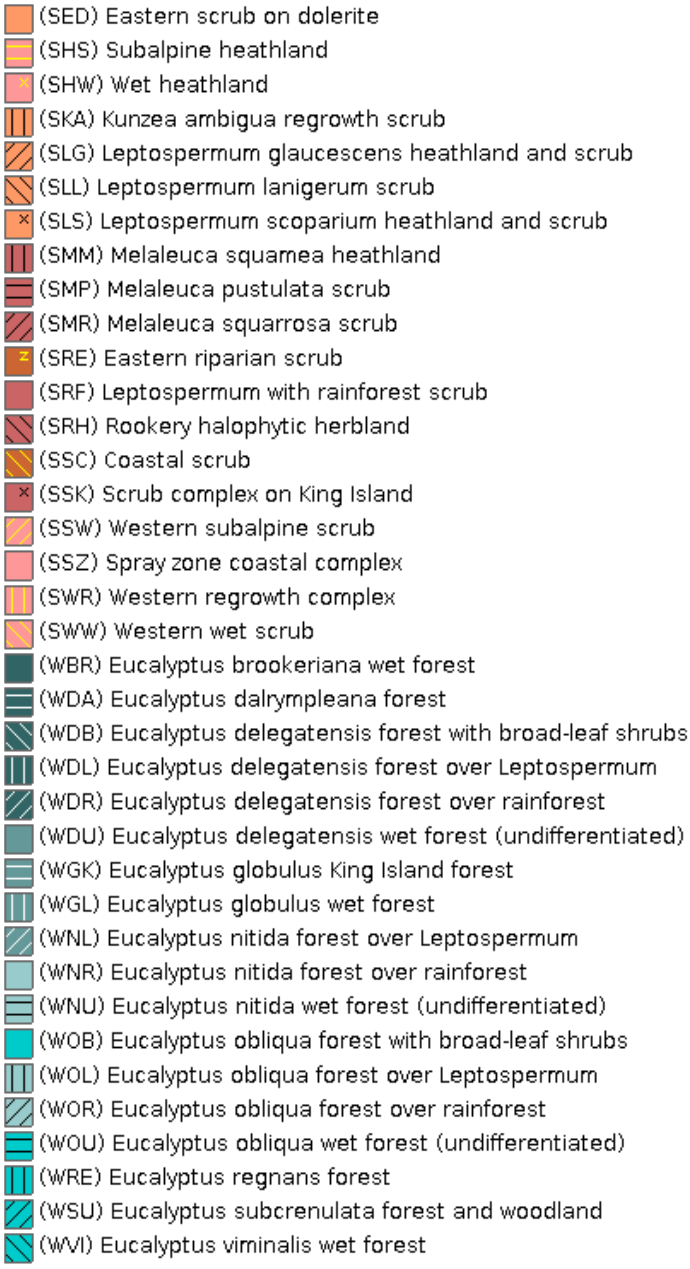
TASVEG 4.0 Communities within 1000 metres

Legend: TASVEG 4.0

TASVEG 4.0 Communities within 1000 metres



TASVEG 4.0 Communities within 1000 metres



Legend: Cadastral Parcels

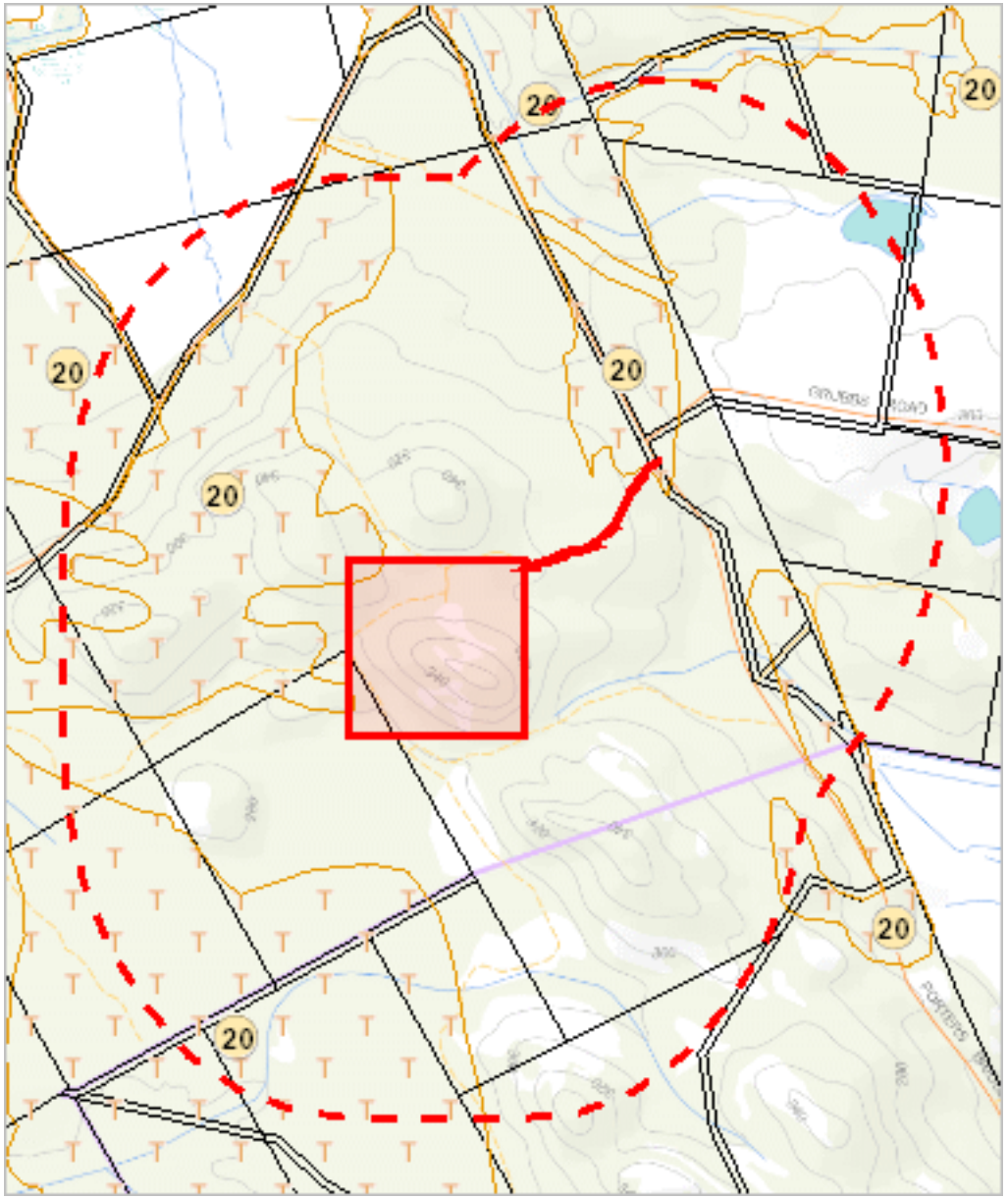
TASVEG 4.0 Communities within 1000 metres

Code	Community	Canopy Tree
DOV	(DOV) Eucalyptus ovata forest and woodland	
DSC	(DSC) Eucalyptus amygdalina - Eucalyptus obliqua damp sclerophyll forest	
DVG	(DVG) Eucalyptus viminalis grassy forest and woodland	
FAG	(FAG) Agricultural land	
FPE	(FPE) Permanent easements	
FPH	(FPH) Plantations for silviculture - hardwood	
FPS	(FPS) Plantations for silviculture - softwood	
FPU	(FPU) Unverified plantations for silviculture	
FRG	(FRG) Regenerating cleared land	
OAQ	(OAQ) Water, sea	

For more information contact: Coordinator, Tasmanian Vegetation Monitoring and Mapping Program.
Telephone: (03) 6165 4320
Email: TVMMPSupport@nre.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Threatened Communities (TNVC 2020) within 1000 metres

477969, 5410039



475346, 5406921

Please note that some layers may not display at all requested map scales

Threatened Communities (TNVC 2020) within 1000 metres

Legend: Threatened Communities

- 1 - Alkaline pans
- 2 - Allocasuarina littoralis forest
- 3 - Athrotaxis cupressoides/Nothofagus gunnii short rainforest
- 4 - Athrotaxis cupressoides open woodland
- 5 - Athrotaxis cupressoides rainforest
- 6 - Athrotaxis selaginoides/Nothofagus gunnii short rainforest
- 7 - Athrotaxis selaginoides rainforest
- 8 - Athrotaxis selaginoides subalpine scrub
- 9 - Banksia marginata wet scrub
- 10 - Banksia serrata woodland
- 11 - Callitris rhomboidea forest
- 13 - Cushion moorland
- 14 -Eucalyptus amygdalina forest and woodland on sandstone
- 15 - Eucalyptus amygdalina inland forest and woodland on cainozoic deposits
- 16 - Eucalyptus brookeriana wet forest
- 17 - Eucalyptus globulus dry forest and woodland
- 18 - Eucalyptus globulus King Island forest
- 19 - Eucalyptus morrisbyi forest and woodland
- 20 - Eucalyptus ovata forest and woodland
- 21 - Eucalyptus risdonii forest and woodland
- 22 - Eucalyptus tenuiramis forest and woodland on sediments
- 23 - Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland
- 24 - Eucalyptus viminalis Furneaux forest and woodland
- 25 - Eucalyptus viminalis wet forest
- 26 - Heathland on calcareous substrates
- 27 - Heathland scrub complex at Wingaroo
- 28 - Highland grassy sedgeland
- 29 - Highland Poa grassland
- 30 - Melaleuca ericifolia swamp forest
- 31 - Melaleuca pustulata scrub
- 32 - Notelaea - Pomaderris - Beyeria forest
- 33 - Rainforest fernland
- 34 - Riparian scrub
- 35 - Seabird rookery complex
- 36 - Sphagnum peatland
- 36A - Spray zone coastal complex
- 37 - Subalpine Diplarrena latifolia rushland
- 38 - Subalpine Leptospermum nitidum woodland
- 39 - Wetlands

Legend: Cadastral Parcels

Threatened Communities (TNVC 2020) within 1000 metres

Scheduled Community Id	Scheduled Community Name
20	Eucalyptus ovata forest and woodland

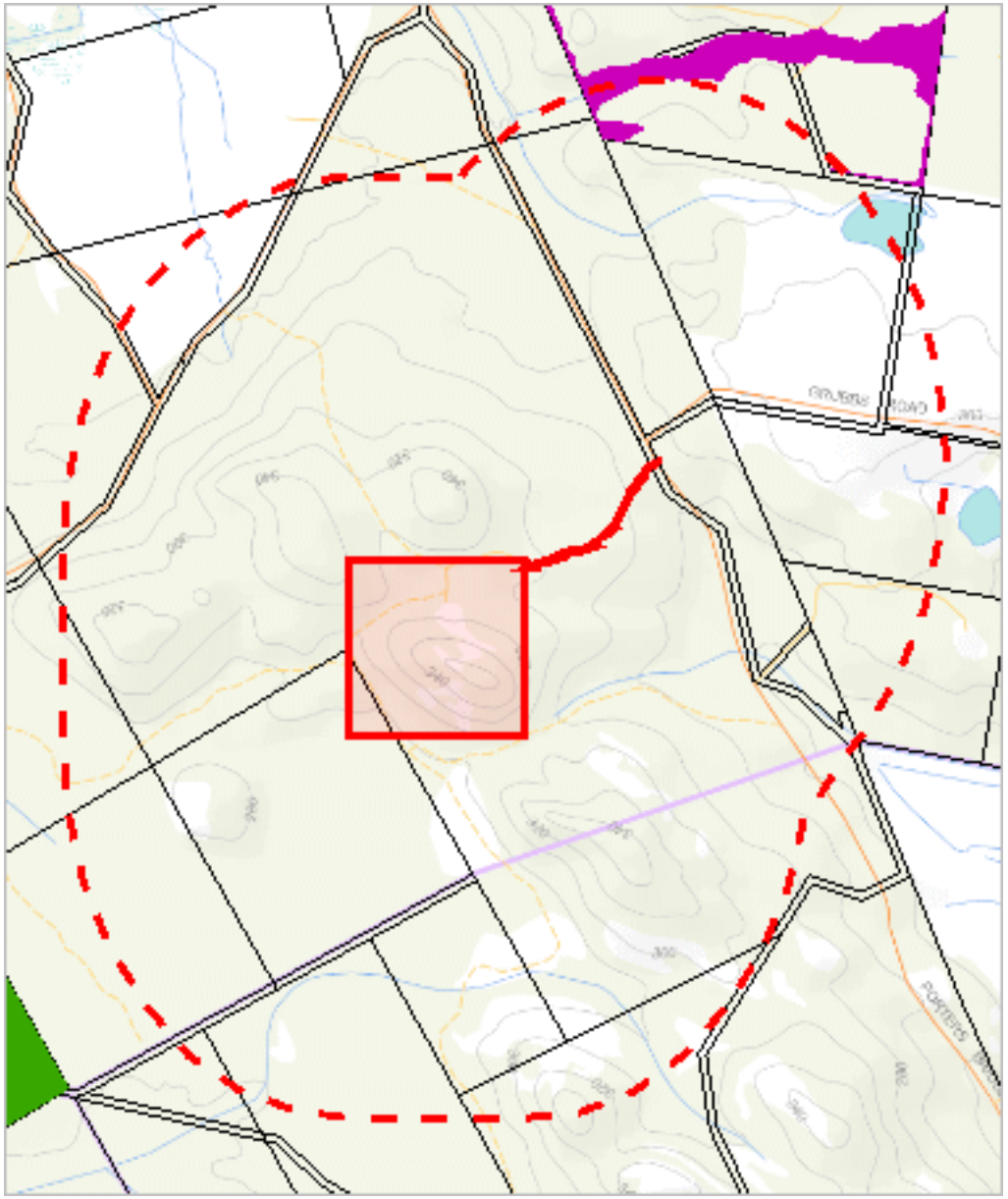
For more information contact: Coordinator, Tasmanian Vegetation Monitoring and Mapping Program.
Telephone: (03) 6165 4320
Email: TVMMPSupport@nre.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

*** No Fire History (All) found within 1000 metres ***

*** No Fire History (Last Burnt) found within 1000 metres ***

Reserves within 1000 metres

477969, 5410039



475346, 5406921

Please note that some layers may not display at all requested map scales

Reserves within 1000 metres

Legend: Tasmanian Reserve Estate

- Conservation Area
- Conservation Area and Conservation Covenant (NCA)
- Game Reserve
- Historic Site
- Indigenous Protected Area
- National Park
- Nature Reserve
- Nature Recreation Area
- Regional Reserve
- State Reserve
- Wellington Park
- Public authority land within WHA
- Future Potential Production Forest
- Informal Reserve on Permanent Timber Production Zone Land or STT managed land
- Informal Reserve on other public land
- Roadside Conservation Site
- Conservation Covenant (NCA)
- Private Nature Reserve and Conservation Covenant (NCA)
- Private Sanctuary and Conservation Covenant (NCA)
- Private Sanctuary
- Private land within WHA
- Management Agreement
- Stewardship Agreement
- Part 5 Agreement (Meander Dam Offset)
- Other Private Reserve

Legend: Cadastral Parcels

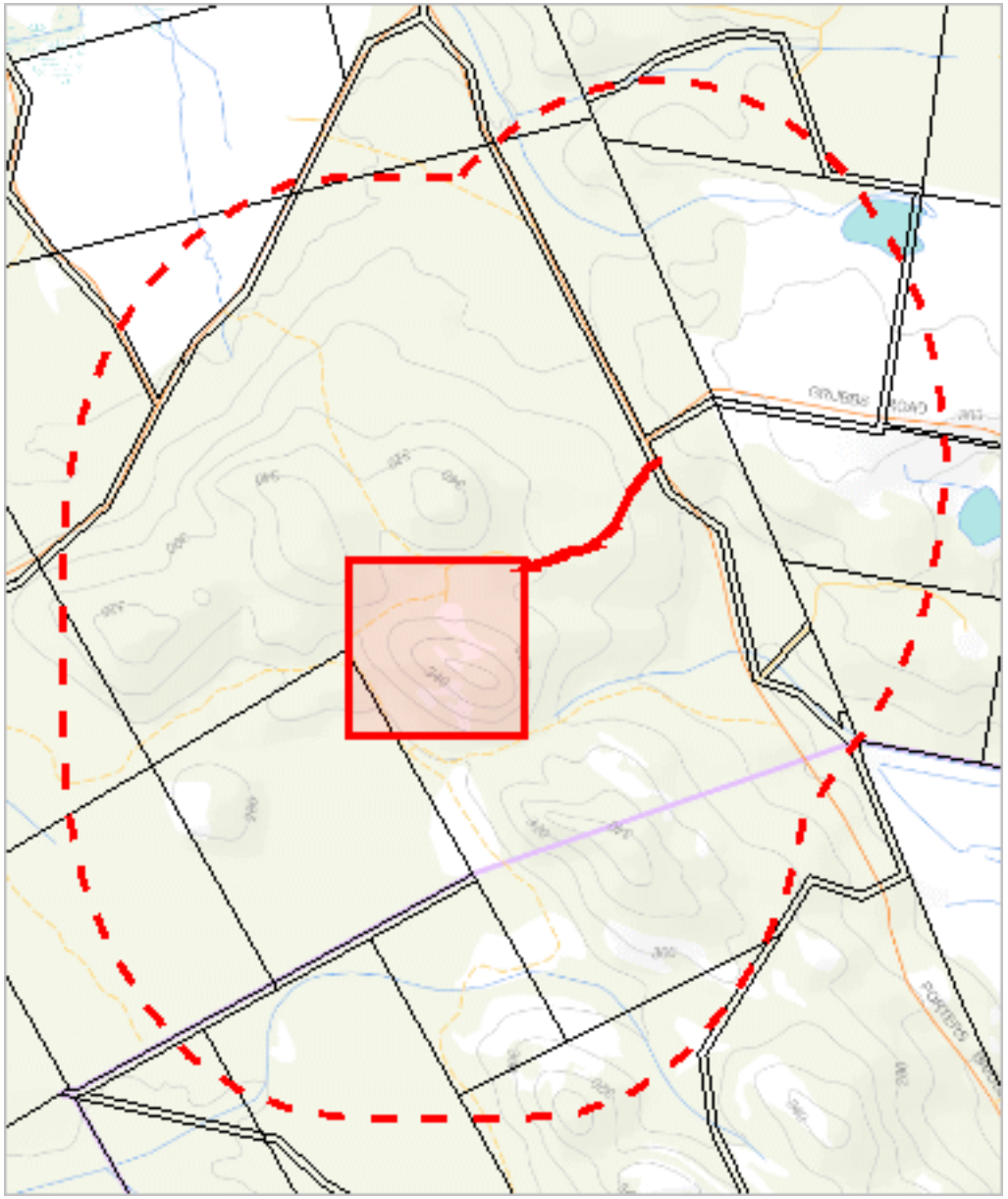
Reserves within 1000 metres

Name	Classification	Status	Area (HA)
	Other Private Reserve	Private Reserve (Variable Term)	9.27841632

For more information about the Tasmanian Reserve Estate, please contact the Natural Values Science Services Branch.
Email: LandManagement.Enquiries@nre.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Known biosecurity risks within 1000 meters

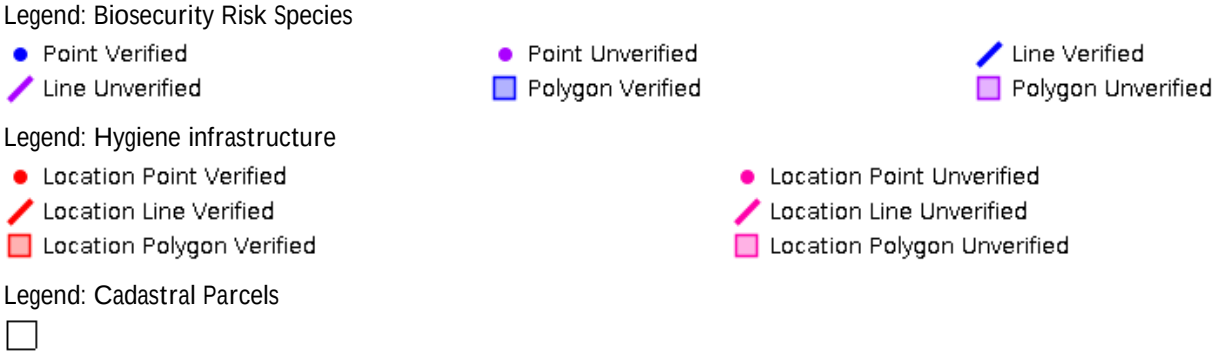
477969, 5410039



475346, 5406921

Please note that some layers may not display at all requested map scales

Known biosecurity risks within 1000 meters



Known biosecurity risks within 1000 meters

Verified Species of biosecurity risk

No verified species of biosecurity risk found within 1000 metres

Unverified Species of biosecurity risk

No unverified species of biosecurity risk found within 1000 metres

Generic Biosecurity Guidelines

The level and type of hygiene protocols required will vary depending on the tenure, activity and land use of the area. In all cases adhere to the land manager's biosecurity (hygiene) protocols. As a minimum always Check / Clean / Dry (Disinfect) clothing and equipment before trips and between sites within a trip as needed https://www.nre.tas.gov.au/invasive-species/weeds/weed-hygiene/keeping-it-clean-a-tasmanian-field-hygiene-manual

On Reserved land, the more remote, infrequently visited and undisturbed areas require tighter biosecurity measures.

In addition, where susceptible species and communities are known to occur, tighter biosecurity measures are required.

Apply controls relevant to the area / activity:

- Don't access sites infested with pathogen or weed species unless absolutely necessary. If it is necessary to visit, adopt high level hygiene protocols.
- Consider not accessing non-infested sites containing known susceptible species / communities. If it is necessary to visit, adopt high level hygiene protocols.
- Don't undertake activities that might spread pest / pathogen / weed species such as deliberately moving soil or water between areas.
- Modify / restrict activities to reduce the chance of spreading pest / pathogen / weed species e.g. avoid periods when weeds are seeding, avoid clothing/equipment that excessively collects soil and plant material e.g. Velcro, excessive tread on boots.
- Plan routes to visit clean (uninfested) sites prior to dirty (infested) sites. Do not travel through infested areas when moving between sites.
- Minimise the movement of soil, water, plant material and hitchhiking wildlife between areas by using the Check / Clean / Dry (Disinfect when drying is not possible) procedure for all clothing, footwear, equipment, hand tools and vehicles https://www.nre.tas.gov.au/invasive-species/weeds/weed-hygiene
- Neoprene and netting can take 48 hours to dry, use non-porous gear wherever possible.
- Use walking track boot wash stations where available.
- Keep a hygiene kit in the vehicle that includes a scrubbing brush, boot pick, and disinfectant https://www.nre.tas.gov.au/invasive-species/weeds/weed-hygiene/keeping-it-clean-a-tasmanian-field-hygiene-manual
- Dispose of all freshwater away from natural water bodies e.g. do not empty water into streams or ponds.
- Dispose of used disinfectant ideally in town though a treatment or septic system. Always keep disinfectant well away from natural water systems.
- Securely contain any high risk pest / pathogen / weed species that must be collected and moved e.g. biological samples.

Hygiene Infrastructure

No known hygiene infrastructure found within 1000 metres

Australian Government
Department of Agriculture, Water and the Environment

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 12-Oct-2022

Summary
Details
- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat
Acknowledgements

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	26
Listed Migratory Species:	10

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at http://www.environment.gov.au/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	14
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	11
Regional Forest Agreements:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	3
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area	In feature area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Aquila audax fleayi			
Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Breeding likely to occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Ceyx azureus diemenensis			
Tasmanian Azure Kingfisher [25977]	Endangered	Species or species habitat may occur within area	In feature area
Hirundapus caudacutus			
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor			
Swift Parrot [744]	Critically Endangered	Breeding likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Numenius madagascariensis](#)			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Pterodroma leucoptera leucoptera](#)			
Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
[Tyto novaehollandiae castanops (Tasmanian population)](#)			
Masked Owl (Tasmanian) [67051]	Vulnerable	Breeding known to occur within area	In feature area
CRUSTACEAN			
[Astacopsis gouldi](#)			
Giant Freshwater Crayfish, Tasmanian Giant Freshwater Lobster [64415]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Engaeus granulatus](#)			
Central North Burrowing Crayfish [78959]	Endangered	Species or species habitat may occur within area	In buffer area only
FISH			
[Galaxiella pusilla](#)			
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat may occur within area	In feature area
[Prototroctes maraena](#)			
Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In feature area
FROG			
[Litoria raniformis](#)			
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area	In feature area
MAMMAL			
[Dasyurus maculatus maculatus (Tasmanian population)](#)			
Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Dasyurus viverrinus](#)			
Eastern Quoll, Luaner [333]	Endangered	Species or species habitat likely to occur within area	In buffer area only
[Perameles gunnii gunnii](#)			
Eastern Barred Bandicoot (Tasmania) [66651]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Sarcophilus harrisii](#) Tasmanian Devil [299]	Endangered	Species or species habitat likely to occur within area	In feature area
PLANT			
[Acacia axillaris](#) Midlands Mimosa, Midlands Wattle [13563]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Barbarea australis](#) Native Wintercress, Riverbed Wintercress [12540]	Endangered	Species or species habitat likely to occur within area	In feature area
[Colobanthus curtisiae](#) Curtis' Colobanth [23961]	Vulnerable	Species or species habitat may occur within area	In feature area
[Glycine latrobeana](#) Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Lepidium hyssopifolium](#) Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat may occur within area	In buffer area only
[Leucochrysum albicans subsp. tricolor](#) Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat may occur within area	In feature area
[Prasophyllum stellatum](#) Ben Lomond Leek-orchid [64955]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
[Senecio psilocarpus](#) Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Xerochrysum palustre](#) Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Apus pacificus](#) Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Breeding known to occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area	In feature area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat may occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Unknown		
Commonwealth Land - [60203]	TAS	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis			
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Gallinago hardwickii			
Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding likely to occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]		Species or species habitat likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat may occur within area overfly marine area	In buffer area only

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Acacia Park & Wombat Park	Conservation Covenant	TAS	In buffer area only
Aeolia	Conservation Covenant	TAS	In buffer area only
Brushy Rivulet	Conservation Area	TAS	In buffer area only
Hollybank Goolagong Ruby Rise	Conservation Covenant	TAS	In buffer area only
Jandawira	Conservation Covenant	TAS	In buffer area only
Pennicottage	Conservation Covenant	TAS	In buffer area only

Protected Area Name	Reserve Type	State	Buffer Status
Reedy Marsh	Conservation Area	TAS	In buffer area only
Reedy Marsh #1	Conservation Covenant	TAS	In buffer area only
Reedy Marsh #2	Conservation Covenant	TAS	In buffer area only
Reedy Marsh - Larcombes Road	Conservation Covenant	TAS	In buffer area only
Ruby Rise Coservation Covenant	Conservation Covenant	TAS	In buffer area only

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included.

RFA Name	State	Buffer Status
Tasmania RFA	Tasmania	In feature area

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Tasmania Natural Gas Project - Stage 2	2001/211	Controlled Action	Post-Approval	In feature area
Not controlled action				
2-D seismic data survey	2001/135	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact Us page.

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Threatened Fauna Range Boundaries Boundaries

Search Point 476488E,5408358N is within the following fauna range boundaries as at Wed Oct 12 2022 14:16:03 GMT+1100 (Australian Eastern Daylight Time)

Common name	Species name	Range Class	Habitat Description
grey goshawk	Accipiter novaehollandiae	Potential Range	Potential habitat for the grey goshawk is native forest with mature elements below 600 m altitude, particularly along watercourses. FPA's Fauna Technical Note 12 can be used as a guide in the identification of grey goshawk habitat. Significant habitat for the grey goshawk may be summarised as areas of wet forest, rainforest and damp forest patches in dry forest, with a relatively closed mature canopy, low stem density, and open understorey in close proximity to foraging habitat and a freshwater body (i.e. stream, river, lake, swamp, etc.). FPA's Fauna Technical Note 12 can be used as a guide in the identification of grey goshawk habitat.
wedge-tailed eagle	Aquila audax subsp. fleayi	Potential Range	Potential habitat for the wedge-tailed eagle comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is a wide variety of forest (including areas subject to native forest silviculture) and non-forest habitats. Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10 ha) of eucalypt or mixed forest. Nest trees are usually amongst the largest in a locality. They are generally in sheltered positions on leeward slopes, between the lower and mid sections of a slope and with the top of the tree usually lower than the ground level of the top of the ridge, although in some parts of the State topographic shelter is not always a significant factor (e.g. parts of the northwest and Central Highlands). Nests are usually not constructed close to sources of disturbance and nests close to disturbance are less productive. More than one nest may occur within a territory but only one is used for breeding in any one year. Breeding failure often promotes a change of nest in the next year. [see FPA's Fauna Technical Note 1 and FPA's Fauna Technical Note 6 for more information] Significant habitat for the wedge-tailed eagle is all native forest and native non-forest vegetation within 500 m or 1 km line-of-sight of known nest sites (where the nest tree is still present).
Green Lined Ground	Catadromus lacordairei	Potential Range	Potential habitat for the Green-lined Ground Beetle is open, grassy/sedgy, low altitude grasslands and woodlands associated with wetlands and low-lying plains or flats adjacent to rivers/streams. Key habitat elements that need to be present include sheltering sites such as patches of stones, coarse woody debris and/or cracked soils. The species is a highly active and mobile flyer that often comes to ground close to water sources and is rarely found further than 250 m from such a source.
spotted-tailed quoll	Dasyurus maculatus	Core Range	Potential habitat for the spotted-tailed quoll is coastal scrub, riparian areas, rainforest, wet forest, damp forest, dry forest and blackwood swamp forest (mature and regrowth), particularly where structurally complex areas are present, and includes remnant patches in cleared agricultural land or plantation areas. Significant habitat for the spotted-tailed quoll is all potential denning habitat within the core range of the species. Potential denning habitat for the spotted-tailed quoll includes 1) any forest remnant (>0.5ha) in a cleared or plantation landscape that is structurally complex (high canopy, with dense understorey and ground vegetation cover), free from the risk of inundation, or 2) a rock outcrop, rock crevice, rock pile, burrow with a small entrance, hollow logs, large piles of coarse woody debris and caves. FPA's Fauna Technical Note 10 can be used as a guide in the identification of potential denning habitat.
eastern quoll	Dasyurus viverrinus	Core Range	Potential habitat for the Eastern quoll includes rainforest, heathland, alpine areas and scrub. However, it seems to prefer dry forest and native grassland mosaics which are bounded by agricultural land. Potential range for the Eastern Quoll is the whole of mainland Tasmania and Bruny Island. Core range for the Eastern Quoll is a specialist-defined area based primarily on modelling work published in Fancourt et al 2015 and additional expert advice.
Swan galaxias	Galaxias fontanus	Potential Range	Potential habitat for the Swan Galaxias is slow to moderately fast flowing streams containing permanent water (even when not flowing), which have good instream cover from overhanging banks and/or logs, and shade from overhanging vegetation. A population can only be maintained where barriers have prevented establishment of trout and redfin perch. The nature of these barriers is variable and can include permanent natural structures such as waterfalls and chutes and also low flow-dependent features such as marshes, ephemeral water-losing and remnant channels, braided channel floodplain features. Significant habitat for the Swan galaxias is all potential habitat and a 30m stream-side reserve within the core range. This includes the Wildlife Priority Areas (Fauna Special Management Zones) on the upper Swan River, Tater Garden Creek and upper Blue Tier Creek, and other upper catchments of tributaries of the Macquarie, Blackman and Isis Rivers.
white-bellied sea-eagle	Haliaeetus leucogaster	Potential Range	Potential habitat for the White-Bellied Sea-eagle species comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is any large waterbody (including sea coasts, estuaries, wide rivers, lakes, impoundments and even large farm dams) supporting prey items (fish). Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10 ha) of eucalypt or mixed forest within 5 km of the coast (nearest coast including shores, bays, inlets and peninsulas), large rivers (Class 1), lakes or complexes of large farm dams. Scattered trees along river banks or pasture land may also be used. Significant habitat for the white-bellied sea-eagle is all native forest and native non-forest vegetation within 500 m or 1 km line-of-sight of known nest sites (where nest tree still present).

Common name	Species name	Range Class	Habitat Description
swift parrot	Lathamus discolor	N and W Potential range	Potential breeding habitat for the Swift Parrot comprises potential foraging habitat and potential nesting habitat, and is based on definitions of foraging and nesting trees (see Table A in swift parrot habitat assessment Technical Note). Potential foraging habitat comprises E. globulus or E. ovata trees that are old enough to flower. In the Eastern Tiers, potential foraging habitat also includes E. brookeriana where it has the potential to contribute a substantial foraging resource. The occurrence of foraging-habitat can be remotely assessed, although only to a limited extent, by using mapping layers such as GlobMap (DPIPWE 2010). Due to the scale and inadequacies in current foraging-habitat mapping, potential foraging-habitat density within operational areas be largely identified by ground-based surveys as per Table B in the swift parrot habitat assessment Technical Note. For management purposes potential nesting habitat is considered to comprise eucalypt forests that contain hollow-bearing trees. The FPA mature habitat availability map (see Technical Note 2) predicts the availability of hollow-bearing trees using the relevant definitions of habitat provided in Table C of the swift parrot habitat assessment Technical Note. The mature habitat availability map is designed to be used to make landscape-scale assessments and may not be reliable for stand-level assessments required during the development of a Forest Practices Plan. At the stand-level the availability and distribution of hollow-bearing trees across a coupe or operation area is best determined from a ground-based assessment (see Table C in the swift parrot habitat assessment Technical Note). Significant habitat is all potential breeding habitat within the SE potential breeding range and the NW breeding areas.
green and golden frog	Litoria raniformis	Potential Range	Potential habitat for the green and gold frog is permanent and temporary waterbodies, usually with vegetation in or around them. Potential habitat includes features such as natural lagoons, permanently or seasonally inundated swamps and wetlands, farm dams, irrigation channels, artificial water-holding sites such as old quarries, slow-flowing stretches of streams and rivers and drainage features. Significant habitat for the green and gold frog is still or very slow flowing water bodies, with at least some vegetation, and a lack of obvious pollutants (oils, chemicals, etc). See FPA Fauna Technical Note 18 for further guidance on assessing significant habitat for the green and gold frog.
eastern barred bandicoot	Perameles gunnii	Core Range	Potential habitat for the eastern barred bandicoot is open vegetation types including woodlands and open forests with a grassy understorey, native and exotic grasslands, particularly in landscapes with a mosaic of agricultural land and remnant bushland. Significant habitat for the Eastern Barred Bandicoot is dense tussock grass-sagg-sedge swards, piles of coarse woody debris and denser patches of low shrubs (especially those that are densely branched close to the ground providing shelter) within the core range of the species.
glossy grass skink	Pseudemoia rawlinsoni	Potential Range	Potential habitat for the Glossy Grass Skink is wetlands and swampy sites (including grassy wetlands, teatree swamps and grassy sedgelands), and margins of such habitats.
tasmanian devil	Sarcophilus harrisii	Potential Range	Potential habitat for the Tasmanian devil is all terrestrial native habitats, forestry plantations and pasture. Devils require shelter (e.g. dense vegetation, hollow logs, burrows or caves) and hunting habitat (open understorey mixed with patches of dense vegetation) within their home range (4-27 km^2). Significant habitat for the Tasmanian devil is a patch of potential denning habitat where three or more entrances (large enough for a devil to pass through) may be found within 100 m of one another, and where no other potential denning habitat with three or more entrances may be found within a 1 km radius, being the approximate area of the smallest recorded devil home range (Pemberton 1990). Potential denning habitat for the Tasmanian devil is areas of burrowable, well-drained soil, log piles or sheltered overhangs such as cliffs, rocky outcrops, knolls, caves and earth banks, free from risk of inundation and with at least one entrance through which a devil could pass. FPA's Fauna Technical Note 10 can be used as a guide in the identification of potential denning habitat
masked owl	Tyto novaehollandiae	Core Range	Potential habitat for the masked owl is all areas with trees with large hollows (≥15 cm entrance diameter). Remnants and paddock trees (in any dry or wet forest type) in agricultural areas may also constitute potential habitat. Significant habitat for the masked owl is any area of native dry forest, within the core range, with trees with large hollows (≥15 cm entrance diameter). Remnants and paddock trees (in any dry or wet forest type) in agricultural areas may also constitute significant habitat. See FPA Fauna Technical Note 17 for guidance on assessing masked owl habitat using 'on-ground' and remote methods.

Showing 1 to 13 of 13 entries

Threatened Fauna Records

Fauna Records within 5000m of 476488E,5408358N at Wed Oct 12 2022 14:16:03 GMT+1100 (Australian Eastern Daylight Time)

Records with the project code 'rnd' and same foreign ID (nest ID) have been simplified to only show the newest observation.

Species name	Common name	Reported Position accuracy (m)	X	Y	Distance (m)	Obs. type	Obs. date	Date accuracy	Obs. state	Project code + Foreign id	NVA id
Perameles gunnii	eastern barred bandicoot	5000	476612	5407933	443	Sighting	1985-12-04	Unknown	Present	spotlight spotlight:spotlight:594/2	NVA
Perameles gunnii	eastern barred bandicoot	1850	476470	5404013	4345	Sighting	1979-08-25	Unknown	Present	tpo tpo:tpo:3349/1	NVA
Perameles gunnii	eastern barred bandicoot	1850	475073	5405859	2872	Sighting	1977-12-18	Unknown	Present	tpo tpo:tpo:3405/1	NVA
Perameles gunnii	eastern barred bandicoot	1850	475073	5405859	2872	Sighting	1976-02-22	Unknown	Present	tpo tpo:tpo:3406/1	NVA
Perameles gunnii	eastern barred bandicoot	18500	472290	5405849	4891	Sighting	1979-06-22	Unknown	Present	tpo tpo:tpo:6030/1	NVA
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	10	473827	5410835	3635	Nest	2007-03-15	Day	Present	rnd 1515	NVA
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	10	473618	5410636	3664	Nest	2007-01-01	Day	Present	rnd 1516	NVA
Aquila audax	wedge-tailed eagle	50	478285	5405861	3076	Nest	2010-09-22	Day	Present	rnd 193	NVA
Aquila audax	wedge-tailed eagle	1000	475913	5407884	745	Nest	2008-09-19	Day	Present	rnd 125	NVA
Dasyurus maculatus	spotted-tail quoll	10	474855	5412013	4003	Camera Trap	2016-04-21	Day	Present	dpiw-fauna	NVA
Sarcophilus harrisii	tasmanian devil	10	475001	5412441	4345	Camera Trap	2016-04-11	Day	Present	dpiw-fauna Tasmanian Devil	NVA
Sarcophilus harrisii	tasmanian devil	10	474885	5412671	4601	Camera Trap	2016-04-10	Day	Present	dpiw-fauna	NVA
Perameles gunnii	eastern barred bandicoot	10	474930	5412623	4541	Camera Trap	2016-03-08	Day	Present	dpiw-fauna	NVA
Dasyurus maculatus	spotted-tail quoll	10	474975	5412552	4459	Camera Trap	2016-04-10	Day	Present	dpiw-fauna	NVA
Perameles gunnii	eastern barred bandicoot	10	474943	5411410	3421	Sighting	2016-12-22	Day	Present	dpiw-fauna	NVA
Dasyurus maculatus	spotted-tail quoll	10	475372	5409789	1815	Sighting	2016-02-21	Day	Present	dpiw-fauna	NVA
Dasyurus maculatus	spotted-tail quoll	10	474897	5411566	3581	Sighting	2017-07-01	Day	Present	dpiw-fauna	NVA
Sarcophilus harrisii	tasmanian devil	10	475049	5412392	4283	Camera Trap	2016-03-22	Day	Present	dpiw-fauna	NVA
Haliaeetus leucogaster	white-bellied sea-eagle	-1	477720	5403840	4683	Not Recorded	2017-03-17	Day	Present	dr2009	NVA
Haliaeetus leucogaster	white-bellied sea-eagle	-1	477720	5403840	4683	Not Recorded	2017-03-17	Day	Present	dr2009	NVA
Haliaeetus leucogaster	white-bellied sea-eagle	-1	477720	5403840	4683	Not Recorded	2017-04-30	Day	Present	dr2009	NVA

Species name	Common name	Reported Position accuracy (m)	X	Y	Distance (m)	Obs. type	Obs. date	Date accuracy	Obs. state	Project code + Foreign id	NVA id
Haliaeetus leucogaster	white-bellied sea-eagle	-1	477720	5403840	4683	Not Recorded	2017-04-30	Day	Present	dr2009	NVA
Litoria raniformis	green and gold frog	9	474961	5405692	3072	Audible	2018-01-04	Day	Present	am_fidu EventID 28056	NVA
Haliaeetus leucogaster	white-bellied sea-eagle	10	474914	5404500	4167	Nest	2022-04-04	Day	Present	rnd 2682	NVA

Showing 1 to 24 of 24 entries

Threatened Flora Records

Flora Records within 2000m of 476488E, 5408358N at Wed Oct 12 2022 14:16:03 GMT+1100 (Australian Eastern Daylight Time)

Species name	Common name	Reported Position accuracy (m)	X	Y	Distance (m)	Obs. type	Obs. date	Date accuracy	Obs. state	NVA id
Pimelea curviflora var. gracilis	slender curved riceflower	100	474712	5408233	1780	Sighting	2001-06-08	Day	Present	NVA
Glycine microphylla	small-leaf glycine	5	475673	5408323	816	Sighting	2009-03-17	Day	Present	NVA
Pimelea curviflora	curved riceflower	5	475566	5408438	925	Sighting	2009-03-17	Day	Present	NVA
Pimelea curviflora	curved riceflower	5	475356	5408322	1133	Sighting	2009-03-17	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476537	5406545	1814	Sighting	2008-03-28	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477237	5406945	1599	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477248	5406945	1604	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477248	5406947	1603	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477256	5406945	1608	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477258	5406948	1607	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476858	5407016	1392	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476864	5407026	1384	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476881	5407047	1369	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477000	5407190	1275	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477015	5407195	1277	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477015	5407196	1276	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477007	5407185	1283	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477004	5407180	1286	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476878	5407012	1401	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476896	5407048	1372	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476889	5407059	1359	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476903	5407059	1364	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476891	5407075	1345	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476932	5407157	1280	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477031	5407223	1258	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477036	5407234	1250	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477025	5407239	1241	Sighting	2022-03-09	Day	Present	NVA

Species name	Common name	Reported Position accuracy (m)	X	Y	Distance (m)	Obs. type	Obs. date	Date accuracy	Obs. state	NVA id
Pimelea curviflora var. gracilis	slender curved riceflower	5	477019	5407239	1239	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477046	5407223	1265	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477119	5406938	1554	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477146	5406942	1561	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477145	5406910	1590	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477172	5406900	1610	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477190	5406907	1612	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476603	5407260	1104	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476603	5407261	1103	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476861	5407018	1391	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476867	5407024	1387	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476880	5407029	1386	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477159	5406905	1600	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476858	5407016	1392	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476864	5407026	1384	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476881	5407047	1369	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477000	5407190	1275	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477015	5407195	1277	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477015	5407196	1276	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477007	5407185	1283	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477004	5407180	1286	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477313	5406574	1966	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477346	5406566	1987	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477600	5406731	1971	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477602	5406729	1973	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477607	5406728	1977	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477708	5406870	1924	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477699	5406878	1912	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477685	5407040	1780	Sighting	2022-03-09	Day	Present	NVA

Species name	Common name	Reported Position accuracy (m)	X	Y	Distance (m)	Obs. type	Obs. date	Date accuracy	Obs. state	NVA id
Pimelea curviflora var. gracilis	slender curved riceflower	5	477685	5407041	1780	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477682	5407042	1777	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476805	5406840	1551	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476808	5406844	1547	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476812	5406840	1552	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476948	5407187	1258	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	476957	5407273	1182	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477029	5407225	1256	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477104	5407034	1460	Sighting	2022-03-09	Day	Present	NVA
Pimelea curviflora var. gracilis	slender curved riceflower	5	477192	5406998	1531	Sighting	2022-03-09	Day	Present	NVA

Showing 1 to 66 of 66 entries

Threatened Flora Survey Notes

SURVEY SKILL LEVEL

Refer to Threatened Flora Species Survey Notes (FPA 2016) for more information.

Survey skill level:

1: highly distinctive species – an FPO or forest planner can undertake surveys

2: distinctive species – a flora-competent forest planner can undertake surveys

3: non-distinctive species and species occupying specialised niches – only experienced field botanists can undertake surveys

PC Susceptibility Rating

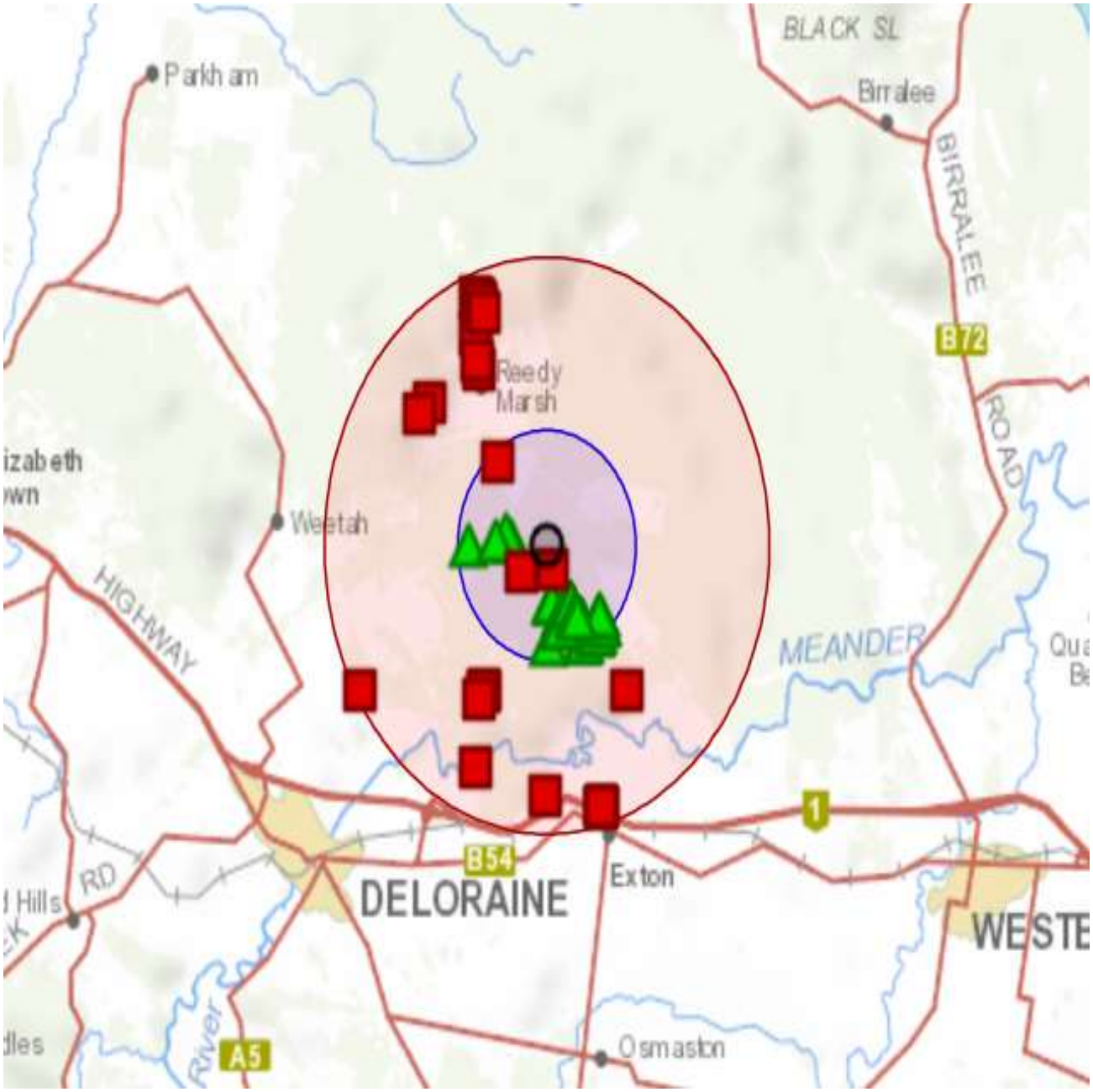
Code	Description
Hs	Highly susceptible: expect >75% mortality of infected plants to be killed
Ms	Moderately susceptible: expect 25-75% mortality of infected plants
Prb	Probably highly or moderately susceptible but no records of Phytophthora infection
Ss	Slightly susceptible: symptomless but reduced vigour
S	Susceptible but unable to make a rating
Rh	Resistant host: Phytophthora persists but host shows no symptoms.
In	Susceptible habitat which may have flow on effect for species, and therefore species indirectly susceptible
Nc	Susceptible species, but habitat not conducive to disease

HABITAT DESCRIPTION

Refer to Habitat Descriptions of Threatened Flora in Tasmania (FPA 2016) for more information.

Species name	Common name	Life form	Status TSPA, EPBCA	Habitat description	Survey guidelines	Survey skill level	TPA Grouping	PC Susceptibility Rating
Glycine microphylla	small-leaf glycine	herb	v, -	Glycine microphylla occurs in dry to dampish sclerophyll forest and woodland in the north and east of the State, with outlying sites at Woolnorth.	This twining herb can be identified (with experience) from its trifoliate leaves, but the presence of flowers (September to November) or seedpods is useful.	3	Group 1	
Pimelea curviflora var. gracilis	slender curved riceflower	shrub	r, -	Pimelea curviflora var. gracilis occurs in a range of vegetation types from wet and dry sclerophyll forest to hardwood plantations. Understories vary from open and grassy to densely shrubby. It can densely colonise disturbed sites such as firebreaks, log landings and tracks.	This slender much-branched shrub may be detected at any time of year, though the presence of flowers aid in the identification and detection of the species. Flowering is from September to February.	2	Island Species	

Showing 1 to 2 of 2 entries


BLACK SL
Parkham
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BIRRALEE
B72
ROAD
Reedy
Marsh
izabeth
wn
Weetah
HIGHWAY
MEANDER
Qua
Be
1
B54
DELORAINE
Exton
WESTE
Hills
RD
River
A5
Osmaston
dles

TRAFFIC IMPACT ASSESSMENT REPORT

Report prepared for:

Crezzco Pty Ltd
Exton Quarry
Porters Bridge Road
Reedy Marsh TAS 7304

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Document History

Version	Effective Date	Description of Revision	Prepared by:	Reviewed by:
V1	12/03/2025	Amendment to daily load	Risden Knightley	Cheryl Banks
V2	02/05/2025	Addition of junction assessment for Meander Valley Rd/Porters Bridge Rd	Risden Knightley	Cheryl Banks
V3	30/06/2025	Response to council RFI	Risden Knightley	Cheryl Banks
V4	23/09/2025	Response to Council further RFI – section 3.3 and performance solution	Risden Knightley	Cheryl Banks

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1. Introduction

1.1 Overview

RJK Consulting Engineers has been commissioned by Crezzco Pty Ltd to undertake a Traffic Impact Assessment (TIA) relating to a proposal to increase capacity at Exton Quarry, 611 Porters Bridge Road, Reedy Marsh. Specifically, this TIA addresses the safety and efficiency of the road network in addressing Codes C2 and C3 of the State Planning Provisions.

The proposed development is located within the Meander Valley Council Local Government Area (LGA) and is subject to their planning regulations along with Tasmanian Planning Scheme – State Planning Provisions. This TIA will form part of the Development Application and be submitted for proposal to the relevant council. It has been prepared in accordance with the Department of State Growth (DSG) guidelines.

Additionally, in an email dated 4th June 2025, Meander Valley Council have requested further clarification and comment on Porter Bridge Road following on from a peer review commissioned by council in response to the Bauxite quarry application proposed on Porters Bridge Road. Whilst the Planning scheme does not call for assessment of any roads as per the codes, Council have requested such noting they have identified existing deficiencies and liabilities carried by Council under current operations experienced by the road.

1.2 Scope of Works

This assessment will consider the impact of the proposed increase in capacity on Porters Bridge Road. It will also demonstrate:

- Review of the existing road environment in the vicinity of the site and the traffic conditions on the road network;
- Provision of information on the proposed development with regards to traffic movements and activity;
- Identification of the traffic generation potential of the proposal with respect to the surrounding road network in terms of road network capacity;
- Traffic implications of the proposal with respect to the external road network in terms of traffic efficiency and road safety.

1.3 Report Objectives

The objective of this report is to evaluate the impact of traffic generated by the project. It will also aid in the planning and design of sustainable development proposals by taking into consideration:

- Safety and capacity;
- Equity and social justice;
- Efficiency and the environment and;

RJK's objectives for this study include:

- Review and collate background documents in relation to the development;
- Assessing access performance in accordance with section C3.5.1 of Code C3;
- Identify any mitigating measures required as a result of the proposal.

1.4 Reference Documents & Data Sources

RJK Consulting Engineers have been provided by the client relevant information on the proposal. These detail an outline of the work which generally proposes no significant change to the existing traffic arrangements.

The following documents have been referenced as part of this study:

- www.THELIST.tas.gov.au;
- DSG 'Traffic Impact Assessment (TIA) Guidelines";
- DSG Tasmanian State Road Hierarchy;
- Tasmanian Planning Scheme – State Planning Provisions;
- DSG traffic and crash data;
- Transport NSW Guide to Transport Impact Assessment 2024;
- Transport and Main Roads Road Planning and Design Manual – Edition 2; Vol 3;
- Various Austroads publications;
- State Growth – Truck and Dog Trailer Combination Network;
- Local Government Highways Act.

2. Site Description

This chapter reviews the existing road network and transport conditions surrounding the proposed intensification site.

2.1 Site Location & Description

The site is located on the western side of Porters Bridge Road, Reedy Marsh close to the junction with Grubbs Road. The entry to the quarry is located approx. 6.5km to the north of the junction with Meander Valley Road. The subject site is zoned Rural under the Meander Valley Local Provisions Schedule and is surrounded by forest.

The site access road is concrete for approx. 7.5 metres then gravel for the remainder of the 771m length. It is approx. 22m wide at the mouth entrance on Porters Bridge Road narrowing to approx. 8.5m.

The quarry site is approx. 22 hectares with the current area of disturbance being 2ha. Council permit (56/95/5) was issued in August 1995 with a mining lease (no. 1994P/M) granted to Cresswells Transport and Quarrying Pty Ltd in March 2015. See ***Figure 1*** for site location.

Figure 1 - Site location – Mining Lease 1994P/M

2.2 Current operation

Exton Quarry is a Level 2 operation extracting material (dolerite), stockpiling it with the processed product then carted from the quarry using on-road truck and trailer combinations. The operation produces various products including aggregates and gravel for use in concrete and asphalt industries.

External delivery of quarry products as currently operating is as follows:

Quantity extracted and processed:	13,235 cubic metres, which on permit 9502/1 which is deemed equivalent to 22,500 tonnes per annum.
Typical delivery unit:	Truck and dog trailer combination
Payload (average):	Approx. 32 - 39 tonnes transported by 19m truck and trailer combinations
Cartage task (per day):	3 truckloads based on 19m truck and trailer combinations which are currently utilised. If we said min 32t load operating 6 days a year for 40 weeks this equals 3 one way cartage (22,500/ 240 = 83t day/32 per load = 3)
Operating hours:	7am – 7pm weekdays 8am – 4pm Saturdays
Truck movements:	Approx 5 per day (allows for a truck only in consideration)
Operating days:	6 per week
Light vehicle movements:	4 per day

The quarry infrastructure includes:

- Entrance from Porters Bridge Road;
- Top bench access road;
- Lockable gate and signage at the quarry entrance
- Relocatable site shed;
- Submersible water pump;
- Portable water pump;
- Hard stand areas for product stockpiles.

Site equipment consists of the following:

- Excavator;
- Wheel loader (CAT 950K)
- Mobile drill rig;
- Primary crusher (J-1175), Cone crusher (C-1540) and VSI: Twister-Trac (VS350)
- Screener (Terex-Finlay 883).

*Actual equipment utilised as part of the operation campaign will vary according to what the operator has available at the time or if contract equipment is hired.

3. Proposed Development & Planning Scheme

3.1 Development Details

The development as proposed provides for an increase in capacity of extraction and processing of dolerite from the current production limit of 22,500 tonnes* (13,235m³) to a production limit of 80,000 tonnes+ (50,000m³). The increase will see the future area of disturbance to 4.5ha.

* Based on 1.7 tonnes per cubic metre loose bulk density (Reference ILMP Environmental Effects Report dated 5 June 2024).

\+ Based on 1.6 tonnes per cubic metre loose bulk density (Reference ILMP Environmental Effects Report dated 5 June 2024).

New infrastructure will consist of a new access road and new top bench access road. The equipment utilised and the hours of operation will be as per current operation. Refer to Appendix for site plan and site infrastructure.

3.2 Council & Tasmanian Planning Scheme

The proposed development involves land currently zoned Rural in accordance with the Meander Valley Local Provisions Schedule. The development is also required to meet the Tasmanian Planning Scheme – State Planning Provisions with the applicable codes within the Schedule being C2.0 & C3.0. *Refer to Section 6 for response to Code*.

3.3 Traffic Generation

In order to access the requirements of loads, Cresswells Transport and Quarrying have indicated that the payload from the site will be on average 32 to 39 tonnes. This will therefore see the utilisation of the following truck combinations:

Truck name	Truck size (m)	Empty weight (T)	Cartage Weight (T)	Cartage volume (m3)
Truck and stag	25	20.3	37.2	23.25
Truck and dog (TRI)	18	16.64	31.86	19.9125
12 yrd and dog (TRI)	19	16.94	37.06	23.1625
Truck and quad	19	20.24	37.26	23.2875

3.3.1 Current situation: 22,500 TPA

Based on the current scenario of 22,500 tonnes processed annually and a conservative cartage rate of 32 tonnes, the quarry's current production accounts for 35 loads or 3 loaded movements from the quarry per day (less than 1 VPH) based on operating 6 days a week for 40 weeks per year.

3.3.2 Proposed operation: 80,000 TPA

The quarry proposes the annual production will be 80,000 tonnes (50,000m³) processed annually. Truck movements will continue to operate as per current operating times. It is envisaged the movements from the quarry will be 100% to the south.

Using a conservative payload of 32 tonnes for a truck and trailer, the quarry's increase in production will account for (80,000 / 240 = 333t day/32 per load) 10.61 all up loads additional loads which equates to 7 additional movements per day, or less than 1 vehicle increase per hour beyond current hours of operation generation.

The maximum number of the employees on site at any one time is 2 which accounts for 2 single way vehicle movements per day. Additionally, the quarry generates additional light vehicle movements based on visitors

to the site. This is estimated at 2 per day which overall will equate to approx. 4 single way vehicle movements per day. This is already established and will not vary from the existing requirements. Quarry machinery will be serviced on-site, which will be accounted for in these movements per year.

The total traffic generation for the site is approx. 5280 vehicles per year (two way) or an average daily 2640 two way movements per year based on a 240 day operating year. This is compared to current 3360 vehicles per year (two way) or an average of 1680 two way movements.

4. Existing Conditions

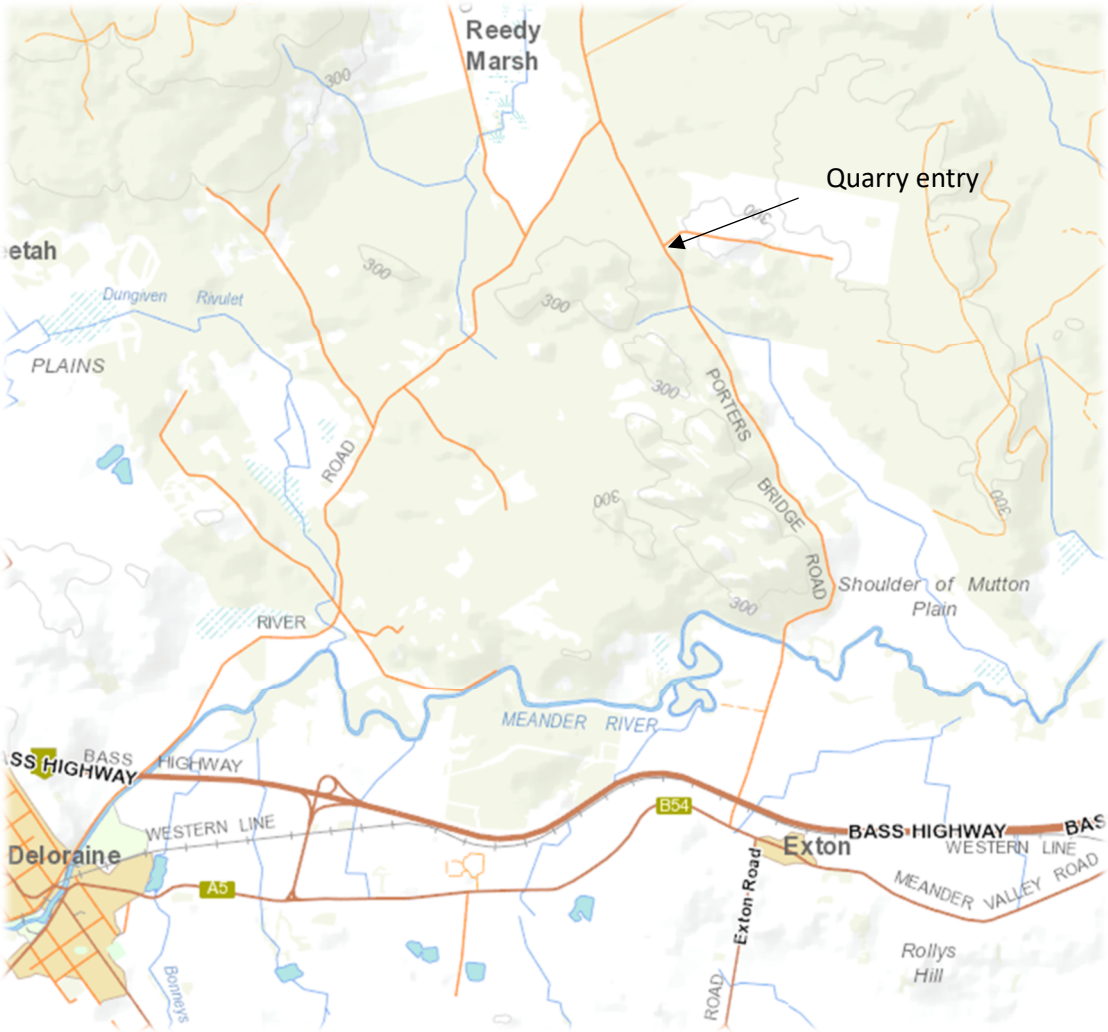
4.1 General Transport Network

The transport system consists of the following roads:

- Porters Bridge Road
- Meander Valley Road

These roads are discussed in detail in the following sections.

Figure 2 - Local road network



4.1.1 Porters Bridge Road

Porters Bridge Road is a Meander Valley Council owned road that runs in a north-south direction from the junction with Meander Valley Road in the south to the junction with River Road in the north. The road services private landowners, 2 other quarries (Walters and ABx4 Pty Ltd) along with forestry operations.

Porters Bridge Road has an AADT of approx. 110 vehicles per day with the percentage of heavy vehicles being 17%. (Information based on traffic count data from 2015 with a compounding growth rate of 1.9% discerned from historic traffic growth at Station 2025255 and estimated daily increase in traffic from the Traffic Impact Assessment for Porters Bridge Quarry – ref: T-P.22.0828-TRREP-001-Rev04/NA/aw).

In a Request for Further Information dated 26th May 2025 Meander Valley Council advised April 2025 traffic count data for Porters Bridge Road which recorded the following traffic count information:

Figure 3 – Traffic count data for Porters Bridge Rd dated April 2025

KEY: AADT - Average Annual Daily Traffic
AADTT - Average Annual Daily Truck Traffic EHV - Equivalent Heavy Vehicle
EHV - Equivalent Heavy Vehicle

Traffic Information Overview, ARX Classification Scheme

Road Name	State Road No	Start	Finish	Location of Counter	Date (mm/yy	AADT	AADTT	EHV	85%ile Spee	Direction
Porters Bridge Road		Meander Valley Road	River Road	700m north of Meander Valley Road	Apr-25	172	70	40.7%	93.4	Combined
Porters Bridge Road		Meander Valley Road	River Road	700m north of Meander Valley Road	Apr-25	82	37	45.1%	93.98	Northbound
Porters Bridge Road		Meander Valley Road	River Road	700m north of Meander Valley Road	Apr-25	90	33	36.7%	91.95	Southbound
Porters Bridge Road		Meander Valley Road	River Road	3.2km north of Meander Valley Rd intersection	Apr-25	71	10	14.1%	85.14	Combined
Porters Bridge Road		Meander Valley Road	River Road	3.2km north of Meander Valley Rd intersection	Apr-25	31	4	12.9%	81.64	Northbound
Porters Bridge Road		Meander Valley Road	River Road	3.2km north of Meander Valley Rd intersection	Apr-25	40	6	15.0%	87.83	Southbound

The road is sealed with varying widths from 7.2m at the junction with Meander Valley Road to the narrowest section being Porters Bridge over the Meander River which is approx. 4.8m wide. There are 4 bridges located on Porters Bridge Road with the northernmost bridge being Porters Bridge which is a one-way arrangement.

There are no line markings with the exception of a section from the junction of Meander Valley Road extending for approx. 545m to just north of the overpass over the Bass Highway.

The majority of the road has dense vegetation on both sides of the road which limits the existence of shoulders and verges. The verges that are present are approx. 0.5m in width and whilst not suitable for continual driving over, they are suitable to drive slowly on to allow a vehicle to pass coming in the opposite direction.

Generally, the road width does not comply with LGAT Standard Drawings (TSD-R02-v3) in terms of requirements for vehicle volumes and heavy vehicle percentage, however the road is operating efficiently and safely given the minimal crash history for the last 5 years. Refer to section 4.2 for Crash History.

Given the potential increase in traffic due to the quarry operations in the area and the fact that Council have already been advised that the road is deficient and it should be upgraded from a safety point of view, the following are recommended:

- The sections of road deficient in width be upgraded to comply with LGAT Standard Drawings (TSD-R02-v3).
- Road signage in the form of regulatory and warning signs advising road users of potential truck operations.
- Road delineation in the form of guide posts and line marking.
- Upgrade sections of the road pavement.

These upgrades are irrelevant to any future operations and highlight deficiencies that council has recognised exist on this road, and the potential openness to litigation by acknowledging a deficient road network system under a misfeasance claim, as they have acknowledged the limitation the road currently has.

Porters Road in the vicinity of the site access is relatively straight with the access located just below a crest curve. The road is approx. 4.5m wide with open swale drains on both sides of the road. There is a down grade of approx. 5% to the junction with the quarry access road from the north.

There is line marking present at the junction with Meander Valley Road along with a give-way sign. Default speed limit of 100km/hr applies to Porters Bridge Road.

Figure 4 - Looking south from the quarry access along Porters Bridge Rd.

Figure 5 – Looking north from the quarry access along Porters Bridge Rd.

Figure 6 – Gate entry to quarry taken from Porters Bridge Rd.

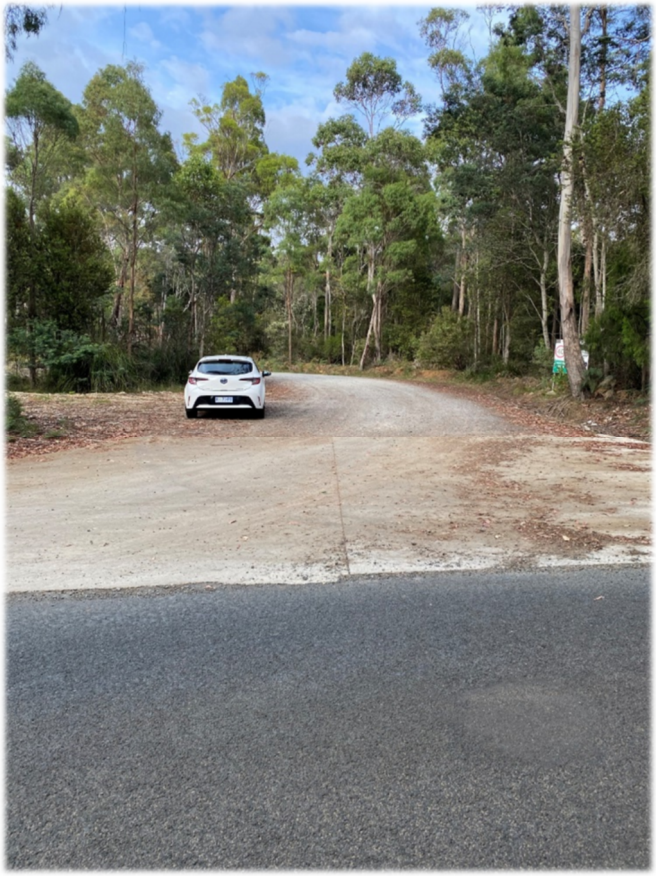


Figure 7 – Road condition on Porters Bridge Rd near quarry access.

4.1.2 Meander Valley Road

Meander Valley Road is a State Growth owned road traversing from the junction with East Parade, Deloraine in the west to the junction with Westbury Road, Prospect Vale in the east. As it traverses it passes through the townships of Exton, Westbury.

Meander Valley Road is rural in nature, single lane each way and has an average road width of approx. 6.5 metres. Line marking is present in the form of a centre divided line and a solid white line on each side of the carriage way. The shoulders are gravel/grass with an average width of 0.5m and there are swale drains on both sides of the road.

As of 2021 it was anticipated that Meander Valley Road would carry approx. 1,897 vehicles per day with the percentage of heavy vehicles being 11.4%. (Information based on traffic count data from State Growth website – Station A2025255). This counter is a short term classified counter located at a two way road (E/W) 498m east of Lake SR roundabout.

Meander Valley Road in the vicinity of the junction with Porters Bridge Road is approved for use by Truck and Dog Trailer Combinations noting the combination is maximum length of 25m, maximum height of 4.3m and gross mass of 60.5 tonnes.

Meander Valley Road in the vicinity of the junction with Porter Bridge Road has a default speed limit of 60km/hr, changing to 100km/hr approx. 115m to the west of the junction.

Figure 8 -Meander Valley Road/Porters Bridge Road T junction noting give-way on Porters Bridge Rd (image from Google Earth)

Figure 9 - Looking west from the intersection of Porters Bridge Road and Meander Valley Road.

Figure 10 - Looking east from the intersection of Porters Bridge Road and Meander Valley Road.

Figure 11 - Looking onto the intersection of Porters Bridge Road and Meander Valley Road

4.2 Summary of Traffic Activity

4.2.1 Meander Valley Road

- AADT: 1897 (year 2021)
- Compound Growth: 1.9%
- Estimated AADT: 2034 (year 2035)
- Peak Hour Traffic: 2021
  - AM Peak
    - West Bound: 73 vph
    - East Bound: 80 vph
  - PM Peak
    - West Bound: 73 vph
    - East Bound: 80 vph
- Estimated Peak Hour Traffic: 2035 (due to background growth of 1.9%)
  - AM Peak
    - West Bound: 78 vph
    - East Bound: 86 vph
  - PM Peak
    - West Bound: 121 vph
    - East Bound: 94 vph

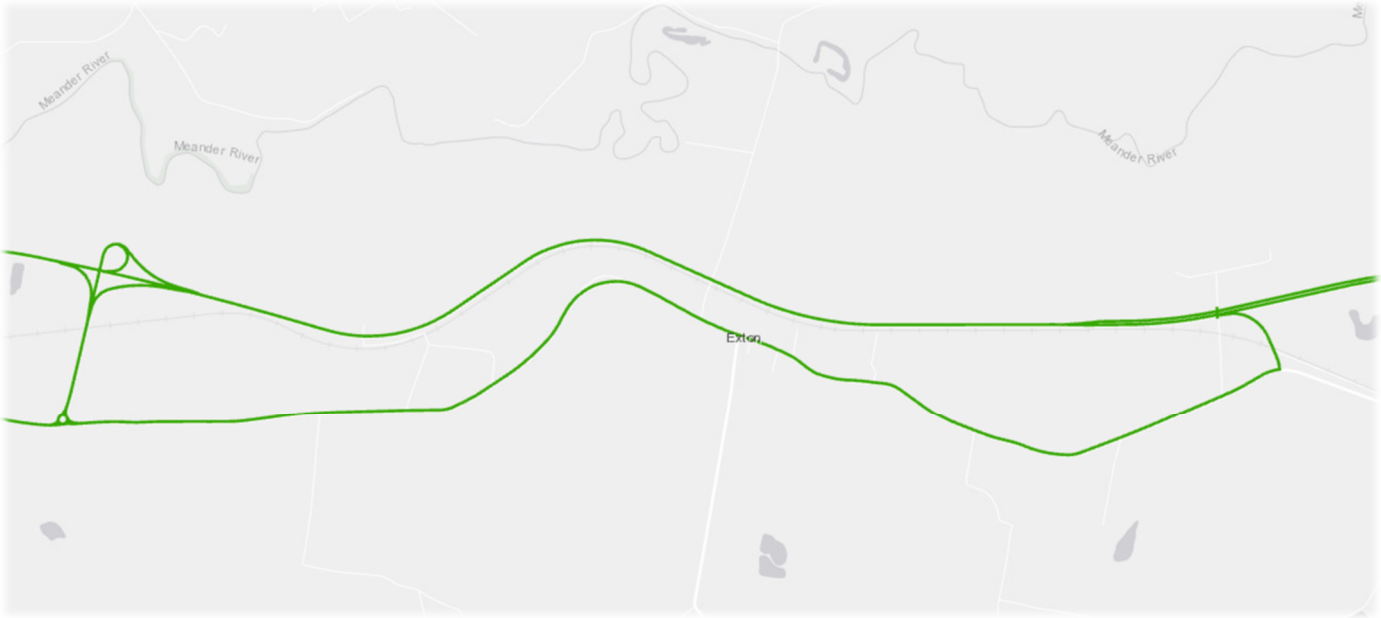
4.2.2 Porters Bridge Road

- AADT: 82 (year 2015)
- Compound Growth: 1.9%
- Estimated AADT: 120 (year 2035)

4.3 Heavy Vehicle Routes

As discussed in the previous section, Meander Valley Road is approved for a truck and dog combination along with the Bass Highway as per the Tasmanian Truck & Dog Trailer Combination Network.

Figure 12 – State Growth Truck & Dog Trailer Combination Network in vicinity of the quarry site



4.4 Traffic Volumes

4.4.1 Existing Traffic volumes

As discussed in the previous sections Porters Bridge Road has an AADT of approx. 120 vehicles per day with the percentage of heavy vehicles being 17%. Meander Valley Road as of 2021 was assessed to be carrying 1897 vehicles per day with the percentage of heavy vehicles being 11%, factor up to 2025 of 2043 vpd. On this basis and with the weekday peak hours being 8am-9am & 3pm-4pm and with a split of vehicles travelling in both directions along Meander Valley Rd to and from Porters Bridge Road, the following is expected traffic volumes:

Figure 13 – Meander Valley Road / Porters Bridge Road junction estimated traffic volumes 2025 – am

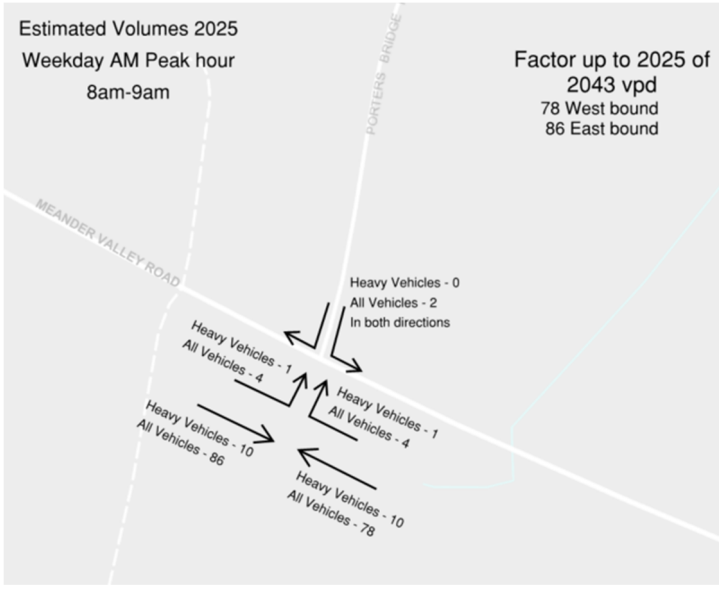
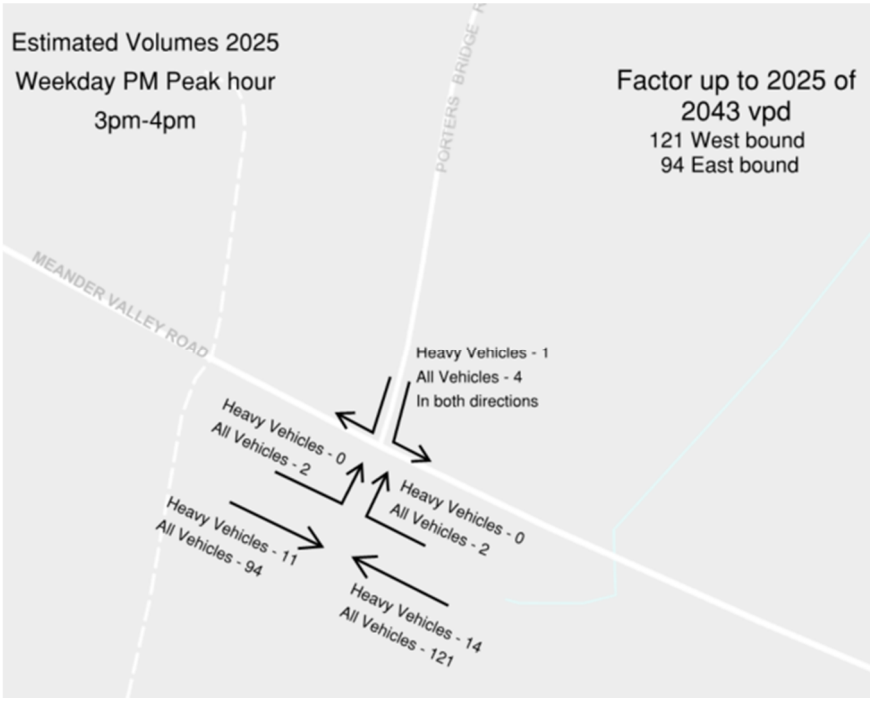


Figure 14 – Meander Valley Road / Porters Bridge Road junction estimated traffic volumes 2025 – pm



4.5 Road Safety Performance

Crash data provides valuable road safety performance information for the road network. This information can assist with identifying any possible safety deficiencies. Crash data was obtained from DSG for the last 5 years for Porters Bridge Road and showed there were no crashes in the vicinity of the access to the quarry. Refer email from DSG at appendix.

5. Traffic Impacts

This section of the report describes how traffic generated by the proposal is distributed within the adjacent road network.

5.1 Traffic generation

The generated traffic has been calculated based on the increased quarry production that will see an increase in heavy vehicle movement on a typical day of operation as per the scenarios below. As there is no increase to the staff on-site an increase in the light vehicle movements will not increase from the current volumes.

Scenario	Heavy Vehicles
Scenario 1 (Existing case): 13,235 m^2 or 22,500 TPA (current Notice of Intent)	Min 3 allow 5 HV/per day
Scenario 2: 50,000 m^2 or 22,500 TPA	Min 7 allow 10 HV/per day

The existing traffic volumes (from 2015) have been calculated using a growth rate of 1.9% to obtain 2025 peak traffic volumes. The growth has been minimal as demonstrated by the AADT chart.

There is anticipated to be additional service vehicle movements to the Quarry such as fuel tankers, and machinery/equipment repair contractors. Based on the existing operation there is likely to be an increase of 10% of the daily vehicle generation, however these are not likely to increase traffic during peak hours.

Overall traffic volumes on Porters Bridge Road and the wider road network are expected to increase by 10 vehicles per day. This increase does not include the proposed Bauxite facility operations. There is sufficient capacity for the additional traffic generated from the proposed development when operating at predicted maximum capacity on the surround road network.

5.2 Traffic distribution

As previously mentioned, it is anticipated that light vehicles will access the Quarry prior to the am peak time of 7am and leave the site after the pm peak time of 5pm. It is assumed that the heavy vehicle movements will commence at 7am and continue throughout the day until 5pm.

5.3 Post Quarry Production Increase Traffic Volumes

The anticipated traffic volume increase during the AM and PM peak house are shown in Figure 14 & 15.

Figure 15 – Meander Valley Road / Porters Bridge Road junction estimated traffic volumes 2035 – am

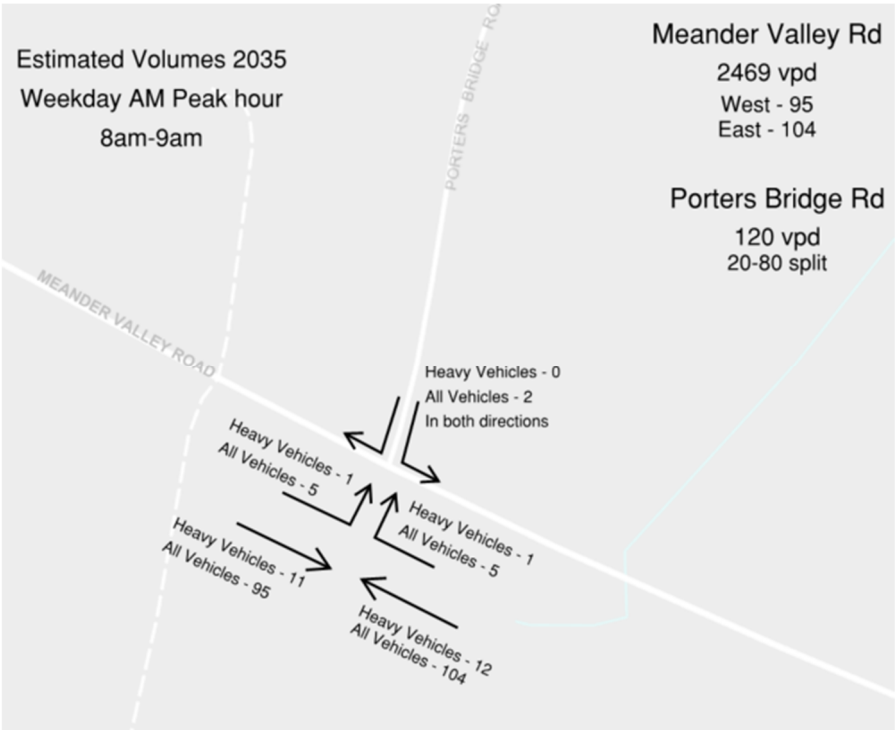
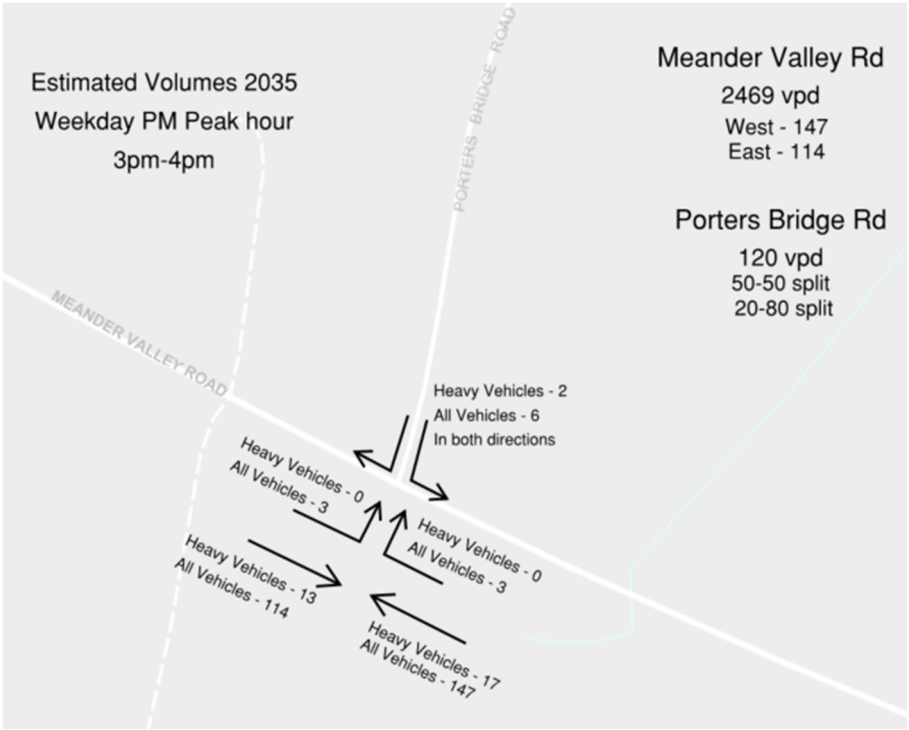


Figure 16 – Meander Valley Road / Porters Bridge Road junction estimated traffic volumes 2035 – pm



5.4 Sight Distance Assessment

Sight distance is defined as the distance, measured along the carriageway, over which visibility occurs between a driver and an object (single vehicle sight distance) or between two drivers at specific heights above the carriageway in their lane of travel.

There are four basic criteria of sight distance, appropriate to different scenarios.

- Stopping Sight Distance (SSD)

- Approach Sight Distance (ASD)
- Safe Intersection Sight Distance (SISD)
- Minimum Gap Sight Distance (MGSD)

It is desirable that sight distances at property access onto roads should comply with the sight distance requirements for intersections. That is, that the standard design of ASD, SISD and MGSD be achieved. However, Section 3.4 of *Austroads GTRD Part 4A:2010* recognises that this is not always possible, and suggests that the "minimum" sight distances at accesses should comply with the following:

- minimum gap sight distance; and
- safe intersection sight distance using values given under the extended design domain (EDD criteria for sight distance at intersections).

That is, the minimum standards for property accesses may be lower than for road intersections.

In assessing sight distance Austroads identifies that appropriate reaction times need to be selected. Overall, it is desirable for designers to adopt a reaction time of 2.5 seconds for the geometric design of all roads. Where a lesser value is contemplated, designers need to consider the appropriateness of that value, however given the nature of heavy vehicles accessing the development, it is considered more appropriate to be conservative. Therefore, minimum reaction time of 2.5 seconds is acceptable in this case.

It is also important that the longitudinal friction between vehicle tyres and the road surface is considered. Therefore, based on Table 5.3 adopt a longitudinal coefficient of deceleration,

Cars: d = 0.36 Trucks: d = 0.29.

A sight specific assessment on the junction of the quarry entrance and Porters Bridge Road was undertaken to review sight distance with consideration in accordance with *Austroads Guide to Road Design Part 3: Geometric Design and Part 4A: Unsignalised and Signalised Intersections*.

Sight distance is measured along the carriageway from the approaching vehicle to the conflict point.

5.4.1 Assessment of Stopping Sight Distance (SSD)

SSD is the distance required for a normally alert driver, travelling at the design speed on wet pavement, to perceive, react and brake to a stop before reaching a hazard on the road ahead.

Relevant case for this assessment will be based on trucks which have a reduced speed limit as opposed to passenger vehicles.

Austroads GTRD Part 4 A: Unsignalised and Signalised Intersections provides at observed vehicle speed:

Location	SSD arriving traffic	Comment
Porters Bridge Road	In excess of 175m (north bound) with reaction time of 2.5 seconds	Based on grade profile and speed of 100km/hr
	In excess of 300m (south bound) with a reaction time of 2.5 seconds	Based on grade profile and speed of 100km/hr
Meander Valley Road/ Porters Bridge Road	In excess of 200m (north bound) with reaction time of 2.5 seconds	Based on grade profile and speed of 60km/hr
	In excess of 200m (north bound) with reaction time of 2.5 seconds	Based on grade profile and speed of 60km/hr

Assessed: Stopping Sight Distance is achieved for the site egress onto to Porters Bridge Road.

5.4.2 Approach Sight Distance (ASD)

ASD is the distance required by the driver on a minor road on the approach to an intersection, so that they are aware of the presence of the intersection.

Austroads GTRD Part 4A:2010 Section 3.2.1 describes that the "Approach sight distances for trucks are numerically the same as the SSD values for trucks provided in the *Guide to Road Design – Part 3: Geometric Design (Austroads 2009a)*".

Equation (1) of cl.5.3 of Austroads GTRD Part 3:2010 provides:

At observed vehicle speed: Truck ASD = 145m with corrections for slope applied.

5.4.3 Approach Safe Intersection Sight Distance (SISD)

SISD is the sight distance required by the driver on a major road to observe a driver moving from a minor road into a collision situation, and to decelerate and stop before reaching the conflict point.

Figure 17 – Austroads extract for SISD with corresponding min crest vertical curve size.

Table 3.2: Safe intersection sight distance (SISD) and corresponding minimum crest vertical curve size for sealed roads (S < L)

Design speed (km/h)	Based on safe intersection sight distance for cars(1) h_1 = 1.1; h_2 = 1.25, d = 0.36(2); Observation time = 3 sec					
	RT = 1.5 sec(3)		RT = 2.0 sec		RT = 2.5 sec	
	SISD (m)	K	SISD (m)	K	SISD (m)	K
40	67	4.9	73	6	–	–
50	90	8.6	97	10	–	–
60	114	14	123	16	–	–
70	141	22	151	25	–	–
80	170	31	181	35	–	–
90	201	43	214	49	226	55
100	234	59	248	66	262	74
110	–	–	285	87	300	97
120	–	–	324	112	341	124
130	–	–	365	143	383	157

The relevant (and conservative) case is for trucks, with standard design domain criteria of:

Driver reaction time, RT = 2.5 sec.

Coefficient of deceleration, d = 0.24

Operating speed: V = 100 km/h (side road from quarry)

SISD = 262 m

Following the equations *Austroads GTRD Part 4A:2010* the available sight distance along Porters Bridge Road from north to south was measured in at:

SISD Left	SISD Right
Limited to 175m	In excess of 300m

Assessed: Safe Intersection Sight Distance is achieved for vehicles including trucks on Porters Bridge Road travelling from the south direction. SISD is limited to the north and is deficient by 87m. It is the authors understanding that Council Engineering Officers have previously agreed to this location and as such accepted the deficiency in distance. As part of additional mitigation measures, it is noted that truck warning signs on the road approaches to the quarry are installed.

5.4.4 Minimum Gap Sight Distance (MGSD)

MGSD is the sight distance required by a driver stopped on a minor road to be able to observe and assess the available gaps within the traffic on the major road, in order to safely enter to the major road.

MGSD at junction of Quarry and Porters Bridge Road must consider the three relevant manoeuvres, these being:

- Right hand turn from Quarry on to Porters Bridge Road;
- Left hand turn from Quarry onto Porters Bridge Road; and
- Right hand turn from Porters Bridge Road into the Quarry.

Which require critical gap acceptance times:

- Right hand turn from Quarry on to Porters Bridge Road – 14 to 40 seconds not interfering with Porters Bridge Road or 5 secs with interference;
- Left hand turn from Quarry onto Porters Bridge Road – 14 – 40 seconds (requires no interference Porters Bridge Road traffic) or 5 secs with interference; and
- Right hand turn from Porters Bridge Road into the Quarry – 4 seconds;

From Table 3.5 of Austroads:

Vehicles exiting Porters Bridge Road: MGSD, either direction = 111m

Vehicles entering Porters Bridge Road: MGSD = 139m

The available sight distance along Porters Bridge Road as measured from access point is in excess of these distances both to the left and right.

5.5 Road Safety Impacts

No significant road safety impacts are foreseen for the proposed expansion scenarios at the access to the quarry from Porters Bridge Road with regards to distances.

Council has already acknowledge through its traffic study that road is currently deficient to motorists and have identified in a previous planning permit that will complete upgrades in 2 years noting the potential liability they are facing.

6. Planning Scheme Response

The Tasmanian Planning Scheme - State Planning Provisions codes C2 & C3 require addressing for the development. Based on the above the following responses are offered:

6.1 C2.0 Parking and Sustainable Transport Code

6.1.1 C2.5 Use Standards

C2.5.1 Car Parking numbers

Objective	That an appropriate level of car parking spaces are provided to meet the needs of the use.

Acceptable Solutions	**Performance Criteria**
A1 The number of on-site car parking spaces must be no less than the number specified in Table 2.1, less the number of car parking spaces that cannot be provided due to the site including container refund scheme space, excluding if: (a) the site is subject to a parking plan for the area adopted by council, in which case parking provision (spaces or cash-in-lieu) must be in accordance with that plan; (b) the site is contained within a parking precinct plan and subject to Clause C2.7; (c) the site is subject to Clause C2.5.5; or (d) it relates to an intensification of an existing use or development or a change of use where: (i) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is greater than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case no additional on-site car parking is required; or (ii) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is less than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case on-site car parking must be calculated as follows: N = A + (C- B) N = Number of on-site car parking spaces required A = Number of existing on site car parking spaces B = Number of on-site car parking spaces required for the existing use or development specified in Table C2.1 C= Number of on-site car parking spaces required for the proposed use or development specified in Table C2.1	**P1.1** The number of on-site car parking spaces for uses, excluding dwellings, must meet the reasonable needs of the use, having regard to: (a) the availability of off-street public car parking spaces within reasonable walking distance of the site; (b) the ability of multiple users to share spaces because of: (i) variations in car parking demand over time; or (ii) efficiencies gained by consolidation of car parking spaces; (c) the availability and frequency of public transport within reasonable walking distance of the site; (d) the availability and frequency of other transport alternatives; (e) any site constraints such as existing buildings, slope, drainage, vegetation and landscaping; (f) the availability, accessibility and safety of on-street parking, having regard to the nature of the roads, traffic management and other uses in the vicinity; (g) the effect on streetscape; and (h) any assessment by a suitably qualified person of the actual car parking demand determined having regard to the scale and nature of the use and development. **P1.2** The number of car parking spaces for dwellings must meet the reasonable needs of the use, having regard to: (a) the nature and intensity of the use and car parking required; (b) the size of the dwelling and the number of bedrooms; and (c) the pattern of parking in the surrounding area.

Response:

The subject site is an extractive industry (quarry). It is limited to parking and will not see any increase in workers on site. From table C2.1 Extractive Industry requirements is 1 car parking space per 2 employees with no requirement for bicycles. As no increase is noted for employees, as such adequate parking is available and therefore meets **acceptable solution A1**.

C2.5.2 Bicycle parking numbers

Objective	That an appropriate level of bicycle parking spaces are provided to meet the needs of the use.
Acceptable Solutions	**Performance Criteria**
A1 Bicycle parking spaces must: (a) be provided on the site or within 50m of the site; and (b) be no less than the number specified in Table C2.1.	**P1** Bicycle parking spaces must be provided to meet the reasonable needs of the use, having regard to: (a) the likely number of users of the site and their opportunities and likely need to travel by bicycle; and (b) the availability and accessibility of existing and any planned parking facilities for bicycles in the surrounding area.
Response: **Not applicable** as an extractive industry (quarry) and no requirement exists.	

C2.5.3 Motorcycle parking numbers

Objective	That an appropriate level of motorcycle parking is provided to meet the needs of the use.
Acceptable Solutions	**Performance Criteria**
A1 The number of on-site motorcycle parking spaces for all uses must: (a) be no less than the number specified in Table C2.4; and (b) if an existing use or development is extended or intensified, the number of on-site motorcycle parking spaces must be based on the proposed extension or intensification, provided the existing number of motorcycle parking spaces is maintained.	**P1** Motorcycle parking spaces for all uses must be provided to meet the reasonable needs of the use, having regard to: (a) the nature of the proposed use and development; (b) the topography of the site; (c) the location of existing buldings on the site; (d) any constraints imposed by existing development; and (e) the availability and accessibility of motorcycle parking spaces on the street or in the surrounding area.
Response: Table C2.4 has no requirement where the number of car parking spaces required is 0 - 20. As less than 20 parking spaces are required, no motorcycle parking spaces are required. **A1 is satisfied.**	

C2.5.4 Loading Bays

Objective	That adequate access for goods delivery and collection is provided, and to avoid unreasonable loss of amenity and adverse impacts on traffic flows
Acceptable Solutions	**Performance Criteria**
A1 A loading bay must be provided for uses with a floor area of more than 1000m² in a single occupancy.	**P1** Adequate space for loading and unloading of vehicles must be provided, having regard to: (a) the type of vehicles associated with the use; (b) the nature of the use; (c) the frequency of loading and unloading; (d) the location of the site; (e) the nature of traffic in the surrounding area; (f) the area and dimensions of the site; and (g) the topography of the site; (h) the location of existing buildings on the site; and

	(i) any constraints imposed by existing development.

Response:

The quarry operates with loading areas for quarry products, and all buildings on site are simple site offices with areas less than 1000m2. **A1 is not applicable**.

6.1.2 C2.6 Development Standards for Buildings and Works

C2.6.1 Construction of parking areas

Objective	That parking areas are constructed to an appropriate standard

Acceptable Solutions	**Performance Criteria**
A1 All parking, access ways, manoeuvring and circulation spaces must: (a) be constructed with a durable all weather pavement; (b) be drained to the public stormwater system, or contain stormwater on the site; and (c) excluding all uses in the Rural Zone, Agriculture Zone, Landscape Conservation Zone, Environmental Management Zone, Recreation Zone and Open Space Zone, be surfaced by a spray seal, asphalt, concrete, pavers or equivalent material to restrict abrasion from traffic and minimise entry of water to the pavement.	**P1** All parking, access ways, manoeuvring and circulation spaces must be readily identifiable and constructed so that they are useable in all weather conditions, having regard to: (a) the nature of the use; (b) the topography of the land; (c) the drainage system available; (d) the likelihood of transporting sediment or debris from the site onto a road or public place; (e) the likelihood of generating dust; and (f) the nature of the proposed surfacing.

Response:

As an extractive industry (quarry) an unsealed permeable crushed rock pavement, which is fit for purpose for quarry operations, is in place and is in agreement with a rural setting and drains to designated capture points. **A1 is satisfied**.

C2.6.2 Design and layout of parking areas

Objective:	That parking areas are designed and laid out to provide convenient, safe and efficient parking.

Acceptable Solutions	**Performance Criteria**
A1.1 Parking, access ways, manoeuvring and circulation spaces must either: (a) Comply with the following: (i) Have a gradient in accordance with *Australian Standard AS2890 – Parking facilities, Parts 1-6*; (ii) provide for vehicles to enter and exit the site in a forward direction where providing for more than 4 parking spaces; (iii) have an access width not less than the requirements in Table C2.2; (iv) have car parking space dimensions which satisfy the requirements in Table C2.3; (v) have a combined access and manoeuvring width adjacent to parking spaces not less than the requirements in Table C2.3 where there are 3 or more car parking spaces; (vi) have a vertical clearance of not less than 2.1m above the parking surface level; and	**P1** All parking, access ways, manoeuvring and circulation spaces must be designed an readily identifiable to provide convenient, safe and efficient parking, having regard to: (a) The characteristics of the site; (b) The proposed slope, dimensions and layout; (c) Useability in all weather conditions; (d) Vehicle and pedestrian traffic safety; (e) The nature and use of the development; (f) The expected number and type of vehicles; (g) The likely use of the parking areas by person with a disability; (h) The nature of traffic in the surrounding area; (i) The proposed means of parking delineation; and

(vii) excluding a single dwelling, be delineated by line marking or other clear physical means; or (b) Comply with *Australian Standard AS2890 – Parking facilities Parts 1-6.*	(j) The provision of Australian Standard As2890.1:2004 – Parking facilities, Part 1: Off-street car parking and AS2890.2:2002 Parking facilities, part 2: Off-street commercial vehicle facilities.
A1.2 Parking spaces provided for use by persons with a disability must satisfy the following: (a) Be located as close as practicable to the main entry point to the building; (b) To incorporated into the overall car park design; and Be designed and constructed in accordance with *Australian/New Zealand Standard AS/NZS2890.6:2009 parking facilities, Off-street parking for people with disabilities*. No more than the existing number of accesses, whichever is the greater.	
Response: **A1 is satisfied**. **A1.2 Not applicable.**	

C2.6.3 Number of accesses for vehicles

Objective:	That: (a) Access to land is provided which is safe and efficient for users of the land and all road network users, including but not limited to drivers, passengers, pedestrians and cyclists by minimising the number to vehicle accesses. (b) Accesses do not cause an unreasonable loss of amenity of adjoining uses; and (c) The number of accesses minimise impacts on the streetscape.
Acceptable Solutions	**Performance Criteria**
A1 The number of accesses provided for each frontage must: (a) Be no more than 1; (b) No more than the existing number of accesses, whichever is the greater.	**P1** The number of accesses for each frontage must be minimised, having regard to: (a) Any loss of on-street parking; and (b) Pedestrian safety and amenity; (c) Traffic safety; (d) Residential amenity on adjoining land; and (e) The impact on the streetscape.
Response: Existing access is to be utilised. **A1 is satisfied**.	

C2.6.5 Pedestrian access

Objective:	That pedestrian access within parking areas is provided in a safe and convenient manner.

Acceptable Solutions	**Performance Criteria**
A1.1 Uses that require 10 or more car parking spaces must: (a) Have a 1m wide footpath that is separated from the access ways or parking aisles, excluding where crossing access ways or parking aisles, by: (i) A horizontal distance of 2.5m between the edge of the foot-path and the access way or parking aisle; or (ii) Protective devices such as bollards, guard rails or planters between the footpath and the access way or parking aisle; and (b) Be signed and line marked at points where pedestrians cross access ways or parking aisles.	**P1** Safe and convenient pedestrian access must be provided within parking areas, having regard to: (a) The characteristics of the site; (b) The nature of the use; (c) The number of parking spaces; (d) The frequency of vehicle movements; (e) The needs of persons with a disability; (f) The location and number of footpath crossings; (g) Vehicle and pedestrian traffic safety; (h) The location of any access ways or parking aisles; and (i) And protective devices proposed for pedestrian safety.
A1.2 In parking areas containing accessible car parking spaces for use by persons with a disability, a footpath having a width not less than 1.5m and a gradient not steeper than 1 in 14 is required from those spaces to the main entry point to the building.	

Response:

A1.1 Not applicable. **A1.2 Not applicable**.

C2.6.6 Loading bays

Objective:	That the area and dimensions of loading bays are adequate to provide safe and efficient delivery and collection of goods.

Acceptable Solutions	**Performance Criteria**
A1. The area and dimensions of loading bays and access way areas must be designed in accordance with *Australian Standard AS2890.2:2002, parking facilities, part 2: Off-street commercial vehicle facilities*, for the type of vehicles likely to use the site.	**P1** Loading bays must have an area and dimensions suitable for the use, having regard to: (a) The types of vehicles likely to use the site; (b) the nature of the use; (c) the frequency of loading and unloading; (d) the area and dimension of the site; (e) the topography; (f) Vehicle and pedestrian traffic safety; (g) The location of any access ways or parking aisles; and (h) And protective devices proposed for pedestrian safety.
A2 The type of commercial vehicles likely to use the site must be able to enter, park and exit the site in a forward direction in accordance with *Australian Standard AS2890.2:2002, parking facilities, part 2: Off-street commercial vehicle facilities.*	**P2** Access for commercial vehicle to and from the site must be safe, having regard to: (a) the types of vehicles associated with the use; (b) the nature of the use; (c) the frequency of loading and unloading;

	(d) the area and dimensions of the site; (e) the location of the site and nature of traffic in the area of the site; (f) the effectiveness or efficiency of surrounding road network; and (g) site constraints such as existing buildings, slope, drainage, vegetation, parking and landscaping.

Response:

Quarry product loading areas comply with AS 2890.2 – 2002. **A1 is satisfied**.

Loading areas access comply with AS 2890.2 – 2002. **A2 is satisfied**.

C3.0 Road and Railway Assets Code

C3.5 Use Standards

C3.5.1 – Traffic Generation at a vehicle crossing, level crossing or new junction

Objective	To minimise any adverse effects on the safety and efficiency of the road or rail network from vehicular traffic generated from the site at an existing or new vehicle crossing or level crossing or new junction.

Performance Criteria	**Performance Criteria**
A1.1 For a category 1 road or a limited access road, vehicular traffic to and from the site will not require: (a) A new junction; (b) A new vehicle crossing; or (c) A new level crossing. **A1.2** For a road, excluding a category 1 road or a limited access road, written consent for a new junction, vehicle crossing, or level crossing to serve the use and development has been issued by the road authority. **A1.3** For the rail network, written consent for a new private level crossing to serve the use and development has been issued by the rail authority. **A1.4** Vehicular traffic to and from the site, using an existing vehicle crossing or private level crossing, will not increase by more than: (a) The amounts in Table C3.1; or (b) Allowed by a licence issued under Part IVA of the Roads and Jetties Act 1935 in respect to a limited access road. **A1.5** Vehicular traffic must be able to enter and leave a major road in a forward direction.	**P1** Vehicular traffic to and from the site must minimise any adverse effects on the safety of a junction, vehicle crossing or level crossing or safety or efficiency of the road or rail network, having regard to: (a) any increase in traffic caused by the use; (b) the nature of the traffic generated by the use; (c) the nature of the road; (d) the speed limit and traffic flow of the road; (e) any alternative access to a road; (f) the need for the use; (g) any traffic impact assessment; and (h) any advice received from the rail or road authority.

Response:

A1.1 is satisfied. **A1.2 Not applicable**. **A1.3 Not applicable**.

Complies as increase is less than 40 movements per day for vehicles less than 5.5m and is less than an increase of 5 movements per day for vehicles longer than 5.5m.

Based on Council provided traffic counts the 20% AADT is equal to 17.8.

Currently the increase for the operation will see an average additional increase of 7 vehicles longer than 5.5m per day. This is less than the 17.8 AADT figure. That is the increase will see 7 movements of a vehicle that arrive, load and depart the site.

As the quarry is restricted by license agreements no alternative access is available and the need for use is quantified by the license agreement. As noted, the increase is within the acceptable level of movements per day, and the increase of extra vehicles does not impact the traffic flow.

No noted crash history exists at the intersection and additional warning signs are in place which minimises the risk. The intersection has also been upgraded and meets the required warrant requirements.

A1.4 is satisfied.

All vehicles will be entering and existing in a forward motion. **A1.5 is satisfied**.

Table C3.1 Acceptable increase in average annual daily traffic to and from the site (total ingress and egress)

Location of vehicular traffic	**Amount of acceptable increase in annual average daily traffic to and from the site (total ingress and egress)**	
	Vehicles up to 5.5m	**Vehicle longer than 5.5m long**
Vehicle crossing on major roads and private level crossings	10% or 10 vehicle movements per day, whichever is the greater	10%
Vehicle crossings on other roads	20% or 40 vehicle movements per day, whichever is the greater	20% or 5 vehicle movements per day, whichever is the greater

7. Other Impacts

7.1 Environmental

No environmental impacts were identified in relation to the expansion of the quarry regarding the impacts on traffic.

8. Regulatory Feedback

8.1 Council Feedback

Meander Valley Council require a Traffic Impact Assessment by a suitably qualified person to address the requirements of C2 & C3 codes. Traffic count data was provided via email on 13 February 2025 and additional count data provided on 26 May 2025.

8.2 DSG Feedback

DSG provided crash statistics via email on 31 January 2025.

Traffic report emailed to DSG for feedback.

9. Conclusion

This Traffic Impact Assessment (TIA) has been prepared by Risden Knightley of RJK Consulting Engineers on behalf of Crezzco Pty Ltd. for Exton Quarry, Porters Bridge Road, Exton, within the Meander Valley Council, Tasmania. The intention of the Traffic Impact Assessment is to support a Development Application and provide improved facilities for users of the development.

This TIA has investigated the potential impacts for the proposed quarry expansion.

Key conclusions are:

- SISD is acceptable to the right turning both from and on to Porters Bridge Road.
- SISD is deficient to the left turning on to Porters Bridge Road.
- The intersection has been upgraded and sealed previously and accepted by Council for truck movements recognising the deficient left SISD.
- Truck turning signage is to be placed on Porters Bridge Road advising of truck intersection and access.
- Council have noted in a traffic impact study they have undertaken that the road network is deficient, and they are working towards correcting it.

It is therefore concluded that the proposed quarry expansion scenarios are supportable on traffic planning grounds and the proposal will operate satisfactorily. This report demonstrates that the increase in capacity can be satisfactorily accommodated within the existing road network and the future road hierarchy adopted for the area and that no upgrades are required.

Overall, it has been concluded that the proposed development should operate safely and efficiently at the quarry access and the junction with Porters Bridge Road.

Based on the findings of this report the proposed development is supported on traffic grounds.

I, Risden Knightley as a qualified chartered engineer and Fellow of Engineers Australia conclude based on the assessment of information available, that the traffic aspects associated with the development are adequate and meet the requirements for traffic, safety, and service. I also note that there appears to be no other potential adverse effects on existing traffic situations, subject to the recommendations and conclusions noted.

Risden Knightley

BE (Civil), Ass Dip Civil Eng, FIEAust, CC 2539X

Megan Hancock

From: Risden Knightley RJK <tech@rjkconsultants.com.au>
Sent: Wednesday, 8 October 2025 3:05 PM
To: Leanne Rabjohns
Cc: Cheryl - RJK Mail; Cheryl Cresswell
Subject: Creswells Quarry
Attachments: PA.25.0122 - s.54 letter.pdf

Good Afternoon Leanne,

In regards to the attached email we note that there is often confusion as the scheme is rather poorly written in regards to AADT of the existing road.

The increase in traffic is associated with the safety and efficiency of the road and an acceptable level of risk to motorists. Therefore the following is offered as a way of explanation.

How we have calculated this is from Councils traffic data provided that indicated the AADT was 89.

We then calculated that the total 5.5m long vehicles leaving the site would be 3 loaded movements per day based on current use (22,500 T)
We then worked out the future use would be 10.6 loaded movements (50,000T)

The increase in movements is the difference between them, that is 7 movements

As the scheme talks in movements, and a movement being the action of a truck entering and exiting the site we found that this is less than the 17.8 AADT figure. That is the increase will see 7 movements of a vehicle that arrive, load and depart the site as defined by **Table C3.1 which states Acceptable increase in average annual daily traffic to and from the site (total ingress and egress).**

In regards to the road bridge as the TIA demonstrates all acceptable solutions are addressed by the planning scheme provisions, And considering the most recent advertised application of the walters quarry which adjoins this site, we find that and agree with based on a very minimal increase in traffic that the surrounding road network includes Porters Bridge Road, which is a local access road, constructed to a rural standard, with sealed road surface suitable to accommodate two-way traffic flow. The section between the development access and Meander Valley Road is suitable to accommodate both heavy and light vehicles of the minor increase noted by the report. This traffic assessment found the standard of the surrounding roads between the development site and Bass Highway is sufficient to facilitate safe and efficient vehicle movements for both heavy and light vehicles. There is suitable sight distance at the development access for the prevailing operating speed of approaching vehicles, to allow for vehicles to enter and leave in a safe and efficient manner.

Noting the above I would welcome a telecon discussion should it be required, however we feel that as the TIA has addressed all issues and demonstrated compliance to the planning scheme it should progress.

Kind Regards

Risden Knightley
Director & Principal Engineer
BE (Civil), Ass Dip Civil Eng, FIEAust, CC 2539X

M: *0400 642 469*

CONSULTING ENGINEERS

ABN 71 162 701 528

From: Cheryl Cresswell <cheryl@cresswellstransport.com.au>
Sent: Wednesday, 8 October 2025 1:35 PM
To: Risden Knightley RJK <tech@rjkconsultants.com.au>
Subject:

Hi Risden I believe we might need a meeting with yourself, Tony and Leanne so we can resolve these ongoing issues? Kind regards Cheryl

Sent from my iPhone

Megan Hancock

From: Tony Cresswell <crezzco@icloud.com>
Sent: Thursday, 30 October 2025 11:02 AM
To: Leanne Rabjohns; Planning - Meander Valley Council; Cheryl Cresswell
Subject: Cresswell's Quarry
Attachments: Exton Quarry - site plan rev. 1.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Leanne,
Please find car park and portable toilet site plan.
Toilet will be pumped out periodically and waste disposed of off site be suitably qualified company.

Regards,

Tony Cresswell
Managing Director
CREZZCO
Cresswell's Transport Pty. Ltd.
0418 131 342

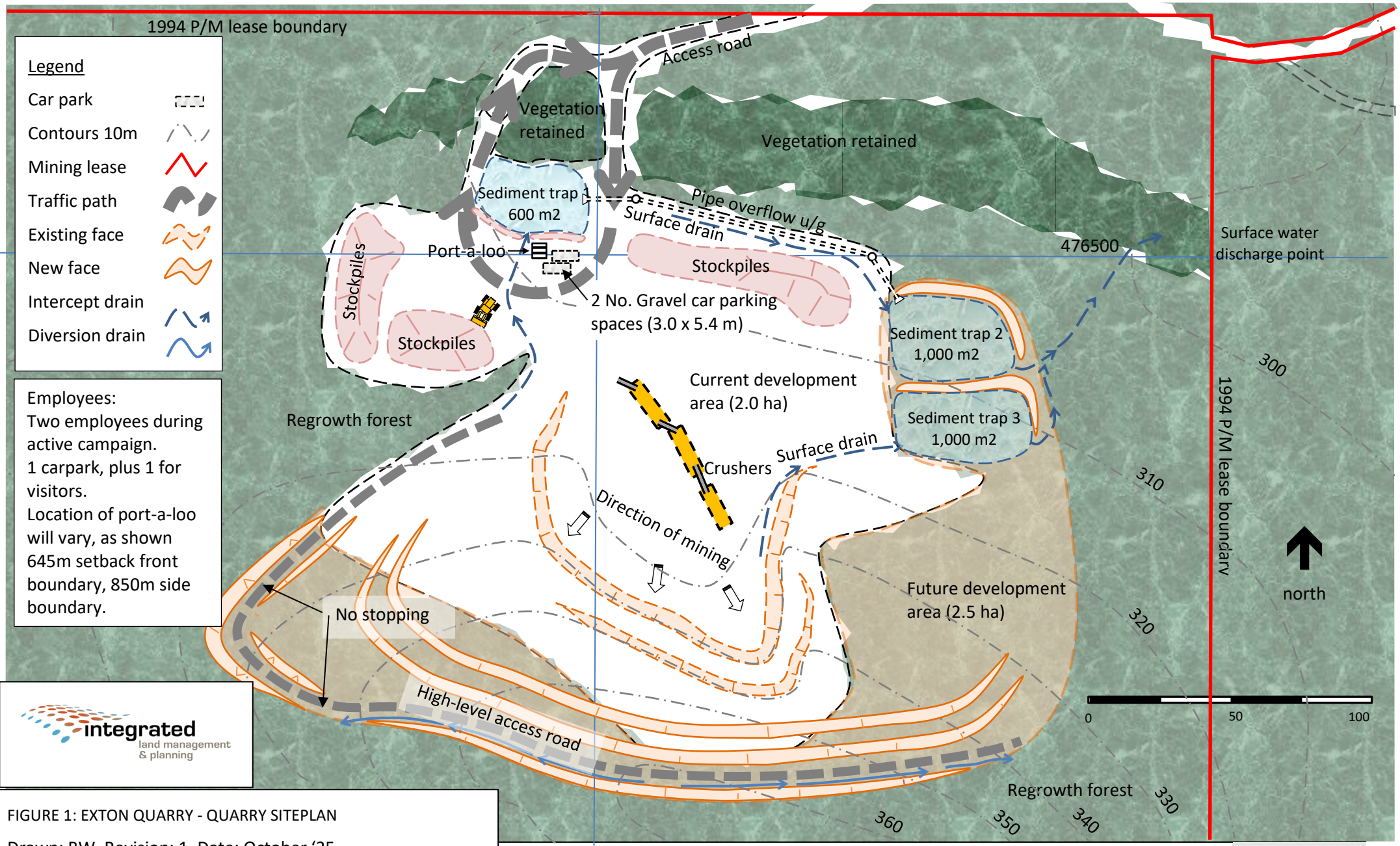


FIGURE 1: EXTON QUARRY - QUARRY SITEPLAN

Drawn: BW, Revision: 1, Date: October '25

Megan Hancock

From: Cheryl Cresswell <cheryl@cresswellstransport.com.au>
Sent: Thursday, 23 October 2025 2:37 PM
To: Risden Knightley; Leanne Rabjohns

Follow Up Flag: Follow up
Flag Status: Flagged

[You don't often get email from cheryl@cresswellstransport.com.au. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

Good afternoon I am writing to inform you that the transportable small shed has been removed from the mining site At porters bridge quarry today , kind regards Cheryl Sent from my iPhone


CT&Q