

SOUTHERN
MIDLANDS
COUNCIL



PUBLIC COPY ATTACHMENTS ORDINARY COUNCIL MEETING

Tuesday, 23rd February 2021
Tunbridge Hall, 99 Main Road, Tunbridge
10.00 a.m.

Item 4.1	Draft Council Meeting Minutes (Open) – 27 th January 2021
Item 4.2.1	Lake Dulverton & Callington Park Management Committee Minutes – 15 th February 2021
Item 4.3.2	Southern Tasmanian Councils Authority – Quarterly Report, December 2020
Item 11.1.1	Attachment 1 – Gadtech Materials Pty Ltd, Big Blue Quarry, Runnymede, Environmental Impact Statement Attachment 2 – EPA, Environmental Assessment Report Attachment 3 – EPA, Permit

SOUTHERN
MIDLANDS
COUNCIL



MINUTES

ORDINARY COUNCIL MEETING

Wednesday, 27th January 2021
10.00 a.m.

Bagdad Community Club
1661 Midland Highway, Bagdad

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OPEN COUNCIL MINUTES

MINUTES OF AN ORDINARY MEETING OF THE SOUTHERN MIDLANDS COUNCIL
HELD ON WEDNESDAY, 27TH JANUARY 2021 AT THE BAGDAD COMMUNITY CLUB
COMMENCING AT 10:00 A.M.

1. PRAYERS

Rev. Dennis Cousens recited prayers.

2. ATTENDANCE

Mayor A O Green, Deputy Mayor E Batt, Clr A Bantick, Clr A Bisdee OAM, Clr K Dudgeon, Clr D Fish, Clr R McDougall.

Mr T Kirkwood (General Manager), Mr Andrew Benson (Deputy General Manager), Mr J Lyall (Manager, Infrastructure & Works), Ms W Young (Manager, Community & Corporate Development), Mrs A Burbury (A/Executive Assistant)

3. APOLOGIES

Nil

4. MINUTES

4.1 COUNCIL MEETING MINUTES

4.1.1 ORDINARY COUNCIL MEETING

The Minutes (Open Council Minutes) of the previous meeting of Council held on the 9th December 2020, as circulated, are submitted for confirmation.

DECISION

Moved by Clr A Bisdee OAM, seconded by Clr R McDougall

THAT the Minutes (Open Council Minutes) of the previous meeting of Council held on the 9th December 2020, as circulated, be confirmed.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

4.1.2 SPECIAL COUNCIL MEETING

The Minutes of the Special meeting of Council held on the 13th January 2021, as circulated, are submitted for confirmation.

DECISION

Moved by Clr R McDougall, seconded by Clr K Dudgeon

THAT the Minutes of the Special Council Meeting held on the 13th January 2021, as circulated, be confirmed.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

4.1.3 ANNUAL GENERAL MEETING

The Minutes of the Annual General Meeting of Council held on the 9th December 2020, as circulated, are submitted for confirmation.

DECISION

Moved by Clr D Fish, seconded by Clr K Dudgeon

THAT the Minutes of the Annual General Meeting of Council held on the 9th December 2020, as circulated, be confirmed.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

4.2 SPECIAL COMMITTEES OF COUNCIL MINUTES

4.2.1 SPECIAL COMMITTEES OF COUNCIL - RECEIPT OF MINUTES

The Minutes of the following Special Committee of Council, as circulated, are submitted for receipt:

- Nil.

DECISION NOT REQUIRED

4.2.2 SPECIAL COMMITTEES OF COUNCIL - ENDORSEMENT OF RECOMMENDATIONS

The recommendations contained within the minutes of the following Special Committee of Council are submitted for endorsement.

- Nil.

DECISION NOT REQUIRED

4.3 JOINT AUTHORITIES (ESTABLISHED UNDER DIVISION 4 OF THE LOCAL GOVERNMENT ACT 1993)

4.3.1 JOINT AUTHORITIES - RECEIPT OF MINUTES

The Minutes of the following Joint Authority Meetings, as circulated, are submitted for receipt:

- Southern Tasmanian Councils Authority – Minutes of the Meeting held 23rd November 2020
- Southern Tasmanian Councils Authority – Minutes of the Annual General Meeting held 23rd November 2020

RECOMMENDATION

THAT the minutes of the above Joint Authority be received.

DECISION

Moved by Clr A Bisdee OAM , seconded by Clr R McDougall

THAT the minutes of the above Joint Authority be received.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

4.3.2 JOINT AUTHORITIES - RECEIPT OF REPORTS (ANNUAL & QUARTERLY)

Reports prepared by the following Joint Authorities, as circulated, are submitted for receipt:

- Southern Tasmanian Councils Authority – Nil.
- Southern Tasmanian Councils Authority – Nil.

DECISION NOT REQUIRED

5. NOTIFICATION OF COUNCIL WORKSHOPS

DECISION

Moved by Cllr K Dudgeon, seconded by Cllr D Fish

THAT the information be received.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Cllr A Bantick	✓	
Cllr A E Bisdee OAM	✓	
Cllr K Dudgeon	✓	
Cllr D F Fish	✓	
Cllr R McDougall	✓	

6. COUNCILLORS – QUESTION TIME

6.1 QUESTIONS (ON NOTICE)

Regulation 30 of the *Local Government (Meeting Procedures) Regulations 2015* relates to Questions on notice. It states:

- (1) *A councillor, at least 7 days before an ordinary council meeting or a council committee meeting, may give written notice to the general manager of a question in respect of which the councillor seeks an answer at that meeting.*
- (2) *An answer to a question on notice must be in writing.*

Nil.

6.2 QUESTIONS WITHOUT NOTICE

Section 29 of the *Local Government (Meeting Procedures) Regulations 2015* relates to Questions without notice.

An opportunity was provided for Councillors to ask questions relating to Council business, previous Agenda items or issues of a general nature.

Deputy Mayor Batt – following installation of solar panels at the Oatlands Works Depot, has a similar assessment be undertaken for the Kempton Depot.

The General Manager advised that no assessment has been undertaken, noting that Council has only recently taken ownership of the property, however the viability may be marginal as the Depot is vacant for a large portion of the day. To investigate viability.

Deputy Mayor Batt – question as to whether any of the materials from the demolished CT Fish building have any salvage value.

General Manager advised that the only material of value is the roof structure which has been moved to the Oatlands Works Depot.

Deputy Mayor Batt – question regarding budgeted works to the Clock Tower clock at Kempton.

General Manager advised that as far as he is aware work has been done and clock is fully functional, but will check and advise.

Clr Dudgeon – request for an update on the progress of the Kempton Medical Centre.

General Manager advised that contractors are to return this week to complete entrance and footpath. The fence line can then be reinstated and landscaping undertaken. A presentation will then be made to the 'Community Health Networking Group' with the aim of promoting use of the facility and securing service providers.

The Mayor and General Manager have recently met with South East Community Care in to discuss potential use.

The Building works are complete with furniture fit-out to follow in the short-term.

Clr Dudgeon – questions regarding signage in Oatlands. The large sign at the Historical Society was removed and hasn't been reinstated as yet and the sign for the Community Centre.

Deputy General Manager will follow up on progress of both signs..

Clr Dudgeon – question regarding progress of constitution for the combined Woodsdale Hall / Recreation Ground. A meeting is scheduled for this coming Monday night.

Deputy General Manager to provide Clr Dudgeon with an update.

Clr Dudgeon – enquired when Councillors will resume workshops.

It was agreed that Workshops would recommence in February. Workshops will ordinarily be held at Oatlands on the second Monday of each Month, unless this coincides with a public holiday (or other unforeseen event/activity).

Next workshop to be held on Wednesday 10th February 2021 at Oatlands.

Clr Bantick – requested that the Aquatic Centre financial report be a stand-alone item on the Council agenda rather than be included in the Financial Report.

General Manager acknowledged the request and the report will be provided in that format in the future.

Clr Bantick – enquired whether Council could assist the Broadmarsh Community with their ongoing problems regarding lack of telecommunications in the area. The problem was flagged at a recent Broadmarsh Progress Association Meeting.

The General Manager suggested that it should be a topic for discussion at a Councillors' Workshop in order to determine appropriate action(s). Correspondence will be sent direct to Telstra.

Clr McDougall – questions from a member of the community regarding safety issues during the demolition of the CT Fish building with regard to the wearing of PPE during removal of asbestos, the wearing of harnesses while working at heights, and clear marking of walkways for the protection of the public.

The General Manager advised that at the start of the project samples were sent for asbestos testing. As soon as results were received, a qualified contractor was organised for the removal of the asbestos. The only close neighbour was advised as part of the process. As a part of the routine risk assessment it was determined that it was safer to do some of the work at height without a harness as it provided greater freedom of movement. There was a security fence present. All work was done within safety guidelines.

Clr McDougall – enquired as to whether we could recycle the bricks and windows.

Mayor Green advised that any materials suitable for reuse are usually picked up by community members from the Waste Transfer Station.

Clr McDougall – advised that during the Oatlands Structure Plan Meeting last week the noise of starlings in the roof of the Oatlands Community Hall made hearing very difficult. There are other pressing maintenance requirements at the Hall and as it is a heritage building owned by council it needs a maintenance plan.

To be further discussed in 'Consideration of Items Supplementary to the Agenda' – letter to be tabled.

Clr Bisdee OAM – enquired about the removal of Christmas decorations in Oatlands.

The General Manager advised that they had been removed and will check to ensure that all have been taken down.

Clr Bisdee OAM – requested that Council write to the Department of State Growth seeking an upgrade to the Colebrook Road/Tea Tree Road intersection. It is a high traffic intersection without any acceleration / deceleration lanes.

The General Manager advised that this matter was raised with the Department approximately two years ago, however the traffic volumes didn't warrant any further upgrade(s) at that time. Further correspondence to be sent.

The Mayor also suggested that the Department of State Growth be requested to install an overhead light at the intersection as it is particularly dangerous at night.

DECISION

Moved by Deputy Mayor Batt, seconded by Clr K Dudgeon

THAT the information be received.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

7. DECLARATIONS OF PECUNIARY INTEREST

Nil.

8. CONSIDERATION OF SUPPLEMENTARY ITEMS TO THE AGENDA

The General Manager reported that the following items need to be included on the Agenda. The matters are urgent, and the necessary advice is provided where applicable:-

1. OATLANDS GAY STREET COMMUNITY HALL - LETTER FROM JENNIFER JOHNSTON
2. KEMPTON COUNCIL CHAMBERS (GAOL BUILDING) - PROPOSAL FOR USE BY GREEN PONDS PROGRESS ASSOCIATION INC. – LETTER DATED 17TH JANUARY 2021

DECISION

Moved by Deputy Mayor E Batt, seconded by Cllr R McDougall

THAT the Council resolve by absolute majority to deal with the above listed supplementary items not appearing on the agenda, as reported by the General Manager in accordance with the provisions of the *Local Government (Meeting Procedures) Regulations 2015*.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Cllr A Bantick	✓	
Cllr A E Bisdee OAM	✓	
Cllr K Dudgeon	✓	
Cllr D F Fish	✓	
Cllr R McDougall	✓	

9. PUBLIC QUESTION TIME (SCHEDULED FOR 10.30 A.M.)

In accordance with the requirements of Part 2 Regulation 8 of the *Local Government (Meeting Procedures) Regulations 2015*, the agenda is to make provision for public question time.

Councillors were advised that, at the time of issuing the Agenda, no questions on notice had been received from members of the public.

There were six (6), members of the public in attendance.

STEVE OLLINGTON – BAGDAD

Mr Ollington enquired as to when works on the East Bagdad Road footpath would commence.

The Deputy General Manager advised that the work in East Bagdad Road will be split into two sections. Work on the first section is to commence on about the second week of February, 2021. Changes to driveways will be required for some properties. Those property owners have been advised.

Mr Ollington also questioned the ‘health’ of the Bagdad Rivulet adjoining their property. The water is murky and breeding mosquitoes.

Council’s Environmental Health Officer to attend Mr Ollington’s property and investigate.

PETER LE FEVRE – OATLANDS

Mr Le Fevre asked about the future use of the Commissariat property (79 High Street, Oatlands) – is anything planned?

The General Manager advised that Council advertised for interested parties to express their interest in utilising the building. Council considered a range of options at the November 2020 Council Meeting. It was decided that it would be used for the Artist in Residence program, providing a residence for the artist and a shop-front for community access to the artist. Covid-19 has delayed the placement of an artist.

Mr Le Fevre enquired about affordable housing at the December Council Meeting and asked for an update.

Agreed that affordable housing will be discussed in detail at a Councillors’ Workshop

JULIA JABOUR (Southern Midlands Regional News) – OATLANDS

Question regarding whether Council has considered providing a green waste collection service?

Agreed that the provision of green waste collection should be discussed at a Councillors’ Workshop.

9.1 Permission to Address Council

Permission has been granted for the following person(s) to address Council:

- Chris Cartledge, representing the Bagdad Community Club Inc. Management Committee at 12.30 p.m.

DECISION

Moved by Deputy Mayor E Batt, seconded by Clr A Bisdee OAM

THAT:

1. the information be noted;
2. Council work with the Club Management Committee to assist and provide advice where possible; and
3. Council arrange a meeting with the Minister for Infrastructure and Transport to highlight the issues being experienced and seek remedial action.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

**10. MOTIONS OF WHICH NOTICE HAS BEEN GIVEN UNDER
REGULATION 16 (5) OF THE LOCAL GOVERNMENT
(MEETING PROCEDURES) REGULATIONS 2015**

10.1 Emergency Management (Vulnerable Persons Register)

DECISION

Moved by Deputy Mayor E Batt, seconded by Cllr R McDougall

THAT in partnership with appropriate organisations Council investigate creating a Vulnerable Persons Register for the Southern Midlands to be compiled and maintained by the Southern Midlands Council with input from other organisations.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Cllr A Bantick	✓	
Cllr A E Bisdee OAM	✓	
Cllr K Dudgeon	✓	
Cllr D F Fish	✓	
Cllr R McDougall	✓	

DECISION

Moved by Clr A Bisdee OAM, seconded by Clr K Dudgeon

THAT the meeting be adjourned for morning tea at 10.55 a.m.

CARRIED

Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D Fish	✓	
Clr R McDougall	✓	

DECISION

Moved by Clr D Fish, seconded by Clr R McDougall

THAT the meeting reconvene at 11.10 a.m.

CARRIED

Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D Fish	✓	
Clr R McDougall	✓	

11. COUNCIL ACTING AS A PLANNING AUTHORITY PURSUANT TO THE LAND USE PLANNING AND APPROVALS ACT 1993 AND COUNCIL'S STATUTORY LAND USE PLANNING SCHEME

Session of Council sitting as a Planning Authority pursuant to the Land Use Planning and Approvals Act 1993 and Council's statutory land use planning schemes.

11.1 DEVELOPMENT APPLICATIONS

Nil.

11.2 SUBDIVISIONS

Nil.

11.3 MUNICIPAL SEAL (Planning Authority)

Nil.

11.4 PLANNING (OTHER)

Nil.

**[THIS CONCLUDES THE SESSION OF COUNCIL
ACTING AS A PLANNING AUTHORITY]**

12. OPERATIONAL MATTERS ARISING (STRATEGIC THEME – INFRASTRUCTURE)

12.1 Roads

Strategic Plan Reference 1.1

Maintenance and improvement of the standard and safety of roads in the municipal area.

Nil.

12.2 Bridges

Strategic Plan Reference 1.2

Maintenance and improvement of the standard and safety of bridges in the municipality.

Nil.

12.3 Walkways, Cycle ways and Trails

Strategic Plan Reference 1.3

Maintenance and improvement of the standard and safety of walkways, cycle ways and pedestrian areas to provide consistent accessibility.

Nil.

12.4 Lighting

Strategic Plan Reference 1.4

Ensure adequate lighting based on demonstrated need / Contestability of energy supply.

Nil.

12.5 Buildings

Strategic Plan Reference 1.5

Maintenance and improvement of the standard and safety of public buildings in the municipality.

12.6 Sewers / Water

Strategic Plan Reference(s) 1.6

Increase the capacity of access to reticulated sewerage services / Increase the capacity and ability to access water to satisfy development and Community to have access to reticulated water.

Nil.

12.7 Drainage

Strategic Plan Reference 1.7

Maintenance and improvement of the town storm-water drainage systems.

Nil.

12.8 Waste

Strategic Plan Reference 1.8

Maintenance and improvement of the provision of waste management services to the Community.

Nil.

12.9 Information, Communication Technology

Strategic Plan Reference 1.9

Improve access to modern communications infrastructure.

Nil.

12.10 Officer Reports – Infrastructure & Works

12.10.1 MANAGER – INFRASTRUCTURE & WORKS REPORT

Author: MANAGER INFRASTRUCTURE & WORKS (JACK LYALL)

Date: 21 JANUARY 2021

QUESTIONS WITHOUT NOTICE TO MANAGER, INFRASTRUCTURE & WORKS

Clr Fish – question regarding removal of Cape Weed in lawn at Callington Park. *To be followed up by our Weeds Officer.*

Clr Dudgeon – advice that large potholes are developing on Inglewood Road and shoulders are crumbling. *To be investigated/actioned.*

Clr Dudgeon – large burnt log on side of Woodsdale Road that needs to be removed. *To be actioned.*

Clr Bantick – sign at Elderslie Road/Blackbrush Road intersection is tied up with string and needs to be repaired. *To be actioned.*

Clr Bantick – Midland Highway verge is overgrown and is a fire hazard. *Council to contact the Department of State Growth to request action.*

Clr McDougall – Tunnack Road verges in the Glenelg Street area in Oatlands have not been mown back far enough. *Maintenance of the verges on Tunnack Road in that area is the responsibility of Department of State Growth.*

Clr McDougall – thanked the Manager (Works and Services) for footpath repair works.

Clr Bisdee – recently visited the Dysart WTS and complimented the staff at the Transfer Station for being helpful and pleasant and keeping the site in good order. Clr Dudgeon paid the same compliment to staff from the other transfer stations. *To be passed on to WTS staff.*

Mayor Green – requested that we contact Tom McConnon to thank him for his assistance with the maintenance of the Levendale Community Centre by mowing oval. *Letter to be sent.*

Mayor Green – advised that members of the Rhyndaston community are concerned that the speed limit will increase from 80 to 100km/h once sealing is completed on Rhyndaston Road. They would like it to be 60 through the township. *The General Manager is to liaise with Department of State Growth regarding the speed limit.*

Questions regarding the Capital Works Program 20/21 Projected Timeline.

Clr Bantick- questioned delays in carrying out capital works projects, asked when drainage works will be completed on Blackbrush Road, Hall Lane and Roberts Road as while they remain prone to flooding and the Council may be liable for damages. What happens to the projects if grant applications aren't approved. *The General Manager advised that the focus for the next few months is on capital projects. If grant applications aren't successful it will be a decision for Councillors whether projects go ahead and how they will funded. Some delays are to be expected as additional grant funding made available for major works during Covid-19 have our resources stretched*

to capacity. It was mentioned that contracting out certain projects can result in additional costs associated with preparation of detailed project specifications. The Deputy General Manager advised that work in Roberts Road has been delayed as we need to enter private land to gain access to the work site. Once a current crop is harvested we are able to gain access to the work site through that property.

Capital Works program to be further discussed at a Councillor's Workshop.

Clr Bantick – stated that Council should not take on any further large-scale capital works until we complete our current schedule.

DECISION

Moved by Clr D Fish, seconded by Clr A Bisdee OAM

THAT the Infrastructure & Works Report be received and the information noted.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

13. OPERATIONAL MATTERS ARISING (STRATEGIC THEME – GROWTH)

13.1 Residential

Strategic Plan Reference 2.1
Increase the resident, rate-paying population in the municipality.

Nil.

13.2 Tourism

Strategic Plan Reference 2.2
Increase the number of tourists visiting and spending money in the municipality.

Nil.

13.3 Business

Strategic Plan Reference 2.3
Increase the number and diversity of businesses in the Southern Midlands / Increase employment within the municipality / Increase Council revenue to facilitate business and development activities (social enterprise).

Nil.

13.4 Industry

Strategic Plan Reference 2.4
Retain and enhance the development of the rural sector as a key economic driver in the Southern Midlands / Increase access to irrigation water within the municipality.

Nil.

14. OPERATIONAL MATTERS ARISING (STRATEGIC THEME – LANDSCAPES)

14.1 Heritage

Strategic Plan Reference 3.1

Maintenance and restoration of significant public heritage assets / Act as an advocate for heritage and provide support to heritage property owners / Investigate document, understand and promote the heritage values of the Southern Midlands.

Nil.

14.2 Natural

Strategic Plan Reference 3.2

Identify and protect areas that are of high conservation value / Encourage the adoption of best practice land care techniques.

14.2.1 NRM UNIT – GENERAL REPORT

Author: NRM PROGRAMS MANAGER (MARIA WEEDING)

Date: 19 JANUARY 2021

DECISION

Moved by Cllr D Fish, seconded by Cllr A Bisdee OAM

THAT the Landcare Unit Report be received and the information noted.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Cllr A Bantick	✓	
Cllr A E Bisdee OAM	✓	
Cllr K Dudgeon	✓	
Cllr D F Fish	✓	
Cllr R McDougall	✓	

14.3 Cultural

Strategic Plan Reference 3.3

Ensure that the cultural diversity of the Southern Midlands is maximised.

Nil.

14.4 Regulatory (Development)

Strategic Plan Reference 3.4

A regulatory environment that is supportive of and enables appropriate development.

Nil.

14.5 Regulatory (Public Health)

Strategic Plan Reference 3.5

Monitor and maintain a safe and healthy public environment.

14.5.1 WOODSDALE CEMETERY (2003 WOODSDALE ROAD, WOODSDALE – PID 5840316) – ESTABLISHMENT OF SPECIAL MANAGEMENT COMMITTEE

Author: GENERAL MANAGER

Date: 15 JANUARY 2021

DECISION

Moved by Deputy Mayor Batt, seconded by Clr R McDougall

THAT Council:

- a) in accordance with Section 24 of the *Local Government Act 1993* approve the establishment of the Woodsdale Cemetery Special Management Committee;**
- b) endorse the Constitution / Terms of Reference drafted for the Special Management Committee;**
- c) note the planned process (i.e. Community Meeting) to identify potential members of the community that are willing to participate on the Special Management Committee; and**
- d) appoint Clr K Dudgeon (Deputy Mayor E Batt as proxy) as its representative on the Management Committee.**

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

14.6 Regulatory (Animals)

Strategic Plan Reference 3.6

Create an environment where animals are treated with respect and do not create a nuisance for the community

14.6.1 ANIMAL MANAGEMENT REPORT

Author: ANIMAL MANAGEMENT OFFICER (RACHEL COLLIS)

DECISION

Moved by Clr A Bisdee OAM, seconded by Clr K Dudgeon

THAT the Animal Management report be received and the information noted.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	
	✓	

14.7 Environmental Sustainability

Strategic Plan Reference 3.7

Implement strategies to address the issue of environmental sustainability in relation to its impact on Councils corporate functions and on the Community.

Nil.

15. OPERATIONAL MATTERS ARISING (STRATEGIC THEME – COMMUNITY)

15.1 Community Health and Wellbeing

Strategic Plan Reference 4.1

Support and improve the independence, health and wellbeing of the Community.

Nil.

15.2 Recreation

Strategic Plan Reference 4.2

Provide a range of recreational activities and services that meet the reasonable needs of the community.

Nil.

15.3 Access

Strategic Plan Reference 4.3

Continue to explore transport options for the Southern Midlands community / Continue to meet the requirements of the Disability Discrimination Act.

Nil.

15.4 Volunteers

Strategic Plan Reference 4.4

Encourage community members to volunteer.

Nil.

15.5 Families

Strategic Plan Reference 4.5

Ensure that appropriate childcare services as well as other family related services are facilitated within the community / Increase the retention of young people in the municipality / Improve the ability of seniors to stay in their communities.

Nil.

15.6 Education

Strategic Plan Reference 4.6

Increase the educational and employment opportunities available within the Southern Midlands

Nil.

15.7 Capacity & Sustainability

Strategic Plan Reference 4.7

Build, maintain and strengthen the capacity of the community to help itself whilst embracing social inclusion to achieve sustainability.

Nil.

15.8 Safety

Strategic Plan Reference 4.8

Increase the level of safety of the community and those visiting or passing through the municipality.

Nil.

15.9 Consultation & Communication

Strategic Plan Reference 4.8

Improve the effectiveness of consultation & communication with the community.

Nil.

16. OPERATIONAL MATTERS ARISING (STRATEGIC THEME – ORGANISATION)

16.1 Improvement

Strategic Plan Reference 5.1

Improve the level of responsiveness to Community & Developer needs / Improve communication within Council / Improve the accuracy, comprehensiveness and user friendliness of the Council asset management system / Increase the effectiveness, efficiency and use-ability of Council ICT systems / Maintain the Business Process Improvement & Continuous Improvement framework

16.1.1 POLICY REVIEW – DEVELOPMENT ASSESSMENT COMMITTEE POLICY 2020

Author: MANAGER, DEVELOPMENT & ENVIRONMENTAL SERVICES (DAVID CUNDALL)

DECISION

Moved by Clr K Dudgeon, seconded by Clr A Bisdee OAM

THAT Council:

1. Receive and note the report; and
2. Formally adopt the Development Assessment Committee Policy.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

16.1.2 POLICY REVIEW – BULLYING, HARASSMENT & VIOLENCE POLICY

Author: MANAGER, COMMUNITY AND CORPORATE DEVELOPMENT (WENDY YOUNG)

Date: 20 JANUARY 2021

DECISION

Moved by Clr R McDougall, seconded by Clr K Dudgeon

THAT Council:

- 1. Receive and note the report; and**
- 2. Formally adopt the Bullying, Harassment & Violence Policy.**

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

16.1.3 POLICY REVIEW – UNIFORM & PROTECTIVE CLOTHING POLICY

Author: GENERAL MANAGER (TIM KIRKWOOD)

Date: 20 JANUARY 2021

DECISION

Moved by Clr A Bisdee OAM, seconded by Clr R McDougall

THAT Council:

- 1. Receive and note the report; and**
- 2. Formally adopt the Uniform and Protective Clothing Policy.**

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

16.1.4 LOCAL GOVERNMENT ASSOCIATION OF TASMANIA – ELECTED MEMBERS – PROFESSIONAL DEVELOPMENT WEEKEND

Author: GENERAL MANAGER

Date: 22 JANUARY 2021

DECISION

Moved by Deputy Mayor E Batt, seconded by Clr R McDougall

THAT Councillors express their interest to attend the Professional Development Weekend.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

16.2 Sustainability

Strategic Plan Reference 5.2

Retain corporate and operational knowledge within Council / Provide a safe and healthy working environment / Ensure that staff and elected members have the training and skills they need to undertake their roles / Increase the cost effectiveness of Council operations through resource sharing with other organisations / Continue to manage and improve the level of statutory compliance of Council operations / Ensure that suitably qualified and sufficient staff are available to meet the Communities need / Work co-operatively with State and Regional organisations / Minimise Councils exposure to risk / Ensure that exceptional customer service continues to be a hallmark of Southern Midlands Council

16.2.1 SMC EXTERNAL GRANT PROJECTS – QUARTERLY UPDATE

Author: GENERAL MANAGER (TIM KIRKWOOD)

Date: 22 JANUARY 2021

DECISION

Moved by Clr A Bisdee OAM, seconded by Clr K Dudgeon

THAT Council receive and note the report.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

16.2.2 LOCAL GOVERNMENT SHARED SERVICES – QUARTERLY UPDATE – INFORMATION ONLY

Author: FINANCE OFFICER (MANDY BURBURY)

DECISION

Moved by Deputy Mayor E Batt, seconded by Cllr D Fish

THAT the Local Government Shared Services – Quarterly Report be received and the information noted.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Cllr A Bantick	✓	
Cllr A E Bisdee OAM	✓	
Cllr K Dudgeon	✓	
Cllr D F Fish	✓	
Cllr R McDougall	✓	

16.2.3 TABLING OF DOCUMENTS

Nil.

16.2.4 ELECTED MEMBER STATEMENTS

An opportunity is provided for elected members to brief fellow Councillors on issues not requiring a decision.

Clr K Dudgeon

- Commended Maria Weeding and Helen Geard for the excellent work they have done with the upgrade to the Mount Pleasant Recreation Ground toilets. *To be passed on to Maria and Helen.*
- Advised that our Australia Day Ambassador, Dr Christina Henri, called into the Bargain Centre in Oatlands on Friday morning following the awards evening and conveyed that she enjoyed the Australia Day Presentations and thought that Oatlands was a beautiful town.
- Noted that Jason Robins from Oatlands received an Australia Day honour (Emergency Service Medal) for his service to the SES. He was an inaugural member of the Southern Midlands SES with 25 years' service. He uses his experience to provide training to other SES units and is also a volunteer member of the Oatlands Fire Brigade. *Letter of congratulations to be sent on behalf of the Mayor.*

Mayor A Green

- Commented that our Australia Day Presentations on the evening of Thursday 21st January were well attended at Callington Park, with many younger members of the community attending.

Clr Bisdee

- Received feedback from the public regarding holding the event on the Thursday prior to Australia Day. *This was a decision of the Australia Day Awards Committee. It was recognised that the Australia Day public holiday (being a Tuesday) and many people would use the opportunity to organise an extended weekend and be absent for the event.*

16.3 Finances

Strategic Plan Reference 5.3

Community's finances will be managed responsibly to enhance the wellbeing of residents / Council will maintain community wealth to ensure that the wealth enjoyed by today's generation may also be enjoyed by tomorrow's generation / Council's financial position will be robust enough to recover from unanticipated events, and absorb the volatility inherent in revenues and expenses.

16.3.1 MONTHLY FINANCIAL STATEMENT (PERIOD ENDING 31 DECEMBER 2020)

Author: FINANCE OFFICER (MANDY BURBURY)

Date: 8 January 2021

DECISION

Moved by Clr A Bisdee OAM, seconded by Clr D Fish

THAT the Financial Report be received and the information noted.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

17. MUNICIPAL SEAL

Nil.

18. CONSIDERATION OF SUPPLEMENTARY ITEMS TO THE AGENDA

Council to address urgent business items previously accepted into the agenda.

18.1 KEMTON COUNCIL CHAMBERS (GAOL BUILDING) – PROPOSAL FOR USE BY GREEN PONDS PROGRESS ASSOCIATION INC. – LETTER DATED 17TH JANUARY 2021

Enclosure:

Letter from Green Ponds Progress Association Inc. dated 17th January 2021

ISSUE

A proposal has been received from the Green Ponds Progress Association to use the Kempton Council Chambers Gaol Annex for the ongoing operation of an internet/computing facility. It would have limited operating hours and access to the public, and use their own internet and telecommunication systems.

The Progress Association will also submit a proposal for the use of the Coach House in Kempton when it becomes available.

DECISION

Moved by Clr A Bisdee OAM, seconded by Clr K Dudgeon

THAT:

1. The information be received; and
2. Council proceed to draft a Memorandum of Understanding with the Green Ponds Progress Association for use of the Goal Annex. The MOU to be based on a three year term; allow for a peppercorn rent; and address apportionment of costs and insurance requirements.

CARRIED

Councillor	Vote FOR	Vote AGAINST
Mayor A Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D Fish	✓	
Clr R McDougall	✓	

ENCLOSURE(S)
Agenda Item 18.1

GREEN PONDS PROGRESS ASSOCIATION INC.
ABN: 64 103 389 932



Mrs Gabrielle Watkins
President
Green Ponds Progress Association Inc
Main Street
KEMPTON TAS 7030

17th January 2021

Southern Midlands Council
85 Main Street
KEMPTON TAS 7030

Attention: Mr Andrew Benson

Dear Andrew,

Subject: Proposal by GPPA Inc for Southern Midlands Council Asset Use

Firstly, a Happy New Year to you and SMC staff from the Green Ponds Progress Association. We trust you enjoyed your well-earned annual leave.

I am writing to you on behalf of GPPA Inc in connection with recent telephone and e-mail conversations you have had with Philip Morrell. These correspondences were in relation to further development and facility location of, (1) our new internet facility project (Kempton Community Connect) in the Kempton council chambers gaol annex. Council supported our funding grant application, and the application was successful, and (2) proposed use by GPPA Inc of the old carriage house facility. We understand this building will become vacant once the new Oatlands Distillery is completed sometime during March/April.

The Proposal

GPPA Inc are seeking council approval for the permanent use of the Council Chambers Gaol Annex room and the vacated old carriage house on the gymkhana paddock.

Our proposal is for GPPA Inc to enter into a lease agreement with the SMC for an agreed period with terms satisfactory to both parties.

We request that any fee charges be minimal.

As you would be aware, we are a not-for-profit organisation run by our expanding membership of 18 nonpaid volunteers. We have little earnings opportunity for at least this year (2021) due to Kempton Festival cancellation. We have however, despite COVID-19, managed to continue with our recent

charitable works in the community, i.e., swing purchase donation, school donations, Emergency Service donations and operation of the Community bus.

Our new ventures for 2021 commencement and ongoing operations include the PA system at the recreation ground and internet facility. The additional costs associated with these new community-based projects and the ever-increasing cost imposts for insurances and vehicle operations will certainly put a strain on our finances.

Gaol Annexe

We would undertake to utilise the gaol annexe for establishment and ongoing operations of an internet facility/computing facility. It would have limited hours of operation and access to the public and be stand alone in terms of internet access use via mobile telecom systems. It would share and we would continue to run both it and the existing heritage advice facilities. Power consumption would be minimal. We understand council are in the process of bird proofing the facility and cleaning it up. Should our proposal be acceptable we would request that council fit an improved deadlock to the door and allow us to place a small sign-in in an appropriate location. Installation timing of this project is anticipated for early March 2021.

Coach House

Our plan for ongoing usage of the old coach house is not yet sufficiently mature in a detailed sense and will remain so until such time as we can access grant monies to allow further development of the facility to achieve our stage II vision.

In the first instance (stage I) we propose to use the facility as our meeting room/headquarters and store all our festival assets, and the bus.

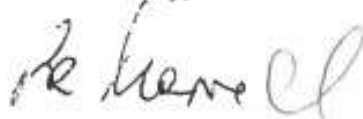
Our stage II vision is to turn the building and surrounds into a venue where local arts and crafts can be undertaken. Additionally, it is envisaged that Community events such as exhibitions can be held and local products sold and displayed on a periodic basis (i.e., produce markets, bric-a-brac sale etc.) It is this second stage of the works which will need the building infrastructure and area to be improved to a suitable and safe standard requiring GPPA Inc. to access grant monies and donations.

Andrew, I would welcome the opportunity to discuss these matters with you in more detail should this initial proposal be viewed favourably by council.

Please do not hesitate to contact me or Phil Morrell if you have any questions.

We thank you for your consideration and continuing support of our organisation.

Yours sincerely,



Gabrielle Watkins
President

Green Ponds Progress Association Inc.

18.2 OATLANDS GAY STREET COMMUNITY HALL – LETTER FROM JENNIFER JOHNSON

Enclosure:

Letter from Jennifer Johnston.

ISSUE

Correspondence received from Jennifer Johnson regarding the condition and maintenance requirements for the Oatlands Community Hall in Gay Street, Oatlands.

DECISION

Moved by Clr R McDougall, seconded by Deputy Mayor E Batt

THAT:

1. The information be received;
2. The General Manager provide a report to the next Council meeting regarding the maintenance requirements for the Oatlands Community Hall, including an assessment of the need for a Conservation Management Plan. Report to include an estimate for a budget allocation in 2021/2022.

CARRIED

Councillor	Vote FOR	Vote AGAINST
Mayor A Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D Fish	✓	
Clr R McDougall	✓	

ENCLOSURE(S)
Agenda Item 18.2

For Council to be tabled, re Gay Street Hall.

First of all, for people wanting to hire somewhere for an event, the state of the hall is disgusting. This has nothing to do with Jenny Wilson, she does a great job looking after it with what she has. I don't know if you can get a grant for this but it sure needs something done soon. The floor is great.

1/ On entering the Hall, the "first impression" is the front doors, paint peeling off and just an awful colour, it looks like it is just the undercoat, door handle loose too, terrible. We have had lots of comments about the doors over time.

2/ Go inside and the first thing that hits you is the smell, mainly in the kitchen area.

3/ Third thing is the dreadful condition of the walls with peeling paint and part in the far right corner started and never finished, it has been like that for a few years now. The ceiling is wonderful and is spoiled by the rest of the room. Window ledges, the paint dreadful too.

4/ The roof needs fixing to keep out the rain and the birds, bird droppings on the far wall.

5/ The back room used to fill up with water when we had heavy rain so that you were literally paddling in it, not sure if that has been fixed. Because of that, the kitchen cupboards and everything in there smells dreadfully of mould, very musty. We used to hire the Hall every Monday for the Oatlands Art Group so I have paddled in the back room many times.

6/ We hired the Hall on Sunday 24th January from 4pm and the kitchen was very hard to work in, we had quite a few people to feed and found it very frustrating. All cutlery and crockery and glass wear had to be pre washed because of the musty smell.

7/ No first aid kit, one of the ladies cut her finger and we couldn't even find a band aid...

8/ Air-conditioning would have been wonderful as the temp was 29c outside. The heaters on the walls must use a lot of electricity as they are so old now, new air-conditioners would be much more economical. We couldn't open the windows of course because of the flies, no fly wire on the back door (which needs replacing) or a security fly door either.

I know to do this will cost a lot of money but whoever has been looking after this historic hall, is not doing it justice, it has just been left to rot. If nobody tells you about this, you don't know, so I am the one.

I hope something can be done soon.

Kind regards, Jennifer Johnston.

OATLANDS RECHABITE HALL.

[FROM OUR OWN CORRESPONDENT.]

The first day of May, 1889, will in future be looked upon and remembered as the red letter day of Oatlands, particularly among the Rechabites of the Heart and Hand Tent, as it was the day fixed, for laying the foundation stone of the new, hall about to be

erected for the Order. Some months ago, owing to the limited and uncomfortable accommodation, it was found necessary to look

around for another place of meeting, and it was determined by the members that they would erect a hall of their own, and after some little delay in getting the ground, tenders were called to erect a building, suitable for their purposes. The tender of Messrs. N. Fish and Brothers, residents of Oatlands, was accepted, the price being £427, and it was determined to make the day for laying the foundation stone a gala day for Oatlands, to have the ceremony held in the afternoon, a tea meeting in the evening, and a public meeting later in the evening to strengthen the cause of abstinence and Rechabitism in the district.

Mr. William Burbury, the, Warden of Oatlands, had been asked to perform the ceremony of . laying the foundation stone, to which he had kindly assented. Soon after 3 o'clock the township of Oatlands was quite alive, many strangers having arrived by the train, some to take part and some to look on. Four o'clock was the time appointed for laying the stone, and a little time before, the Rechabites, headed by the Oatlands Band, under the leadership of Mr. Percy McLaren, marched from the

Town Hall to the place where the hall is to be erected in Gay Street, also followed by the Juvenile Tent of Rechabites, to the number of between 40 and 50. Arrived at the place, there being present then besides the officers of the Oatlands tent, Messrs. H., Rodd, D.C.R.; W. C. Grubb, P.D.CR; Alderman Hiddlestone, District, Treasurer : Bros. Crawford and Alderman Crouch, from Hobart; Mr. R. Kermode, from Ross; and from 250 to 300 of the residents of the district. The ceremony commenced by the secretary to the local tent, Mr. Thomas Woods, reading the report of the past year, and a copy of which, with the day's Mercury, Launceston papers, and People's Friend, having been placed in a bottle and put under the stone the Warden was then called upon to perform the ceremony of laying the stone. The stone being placed in position a beautiful, silver trowel, was handed to the Warden, who then performed his part of the ceremony, and declared the stone to be well and truly laid and three cheers were then given, the band playing an appropriate air.

The sum of £22 was then laid upon the stone by some generous givers as a contribution to the Building fund.

In the evening a tea meeting was held in the large room of the Town Hall, and was a great success. The tables were very tastefully laid out, and about 300 persons sat down and enjoyed themselves thoroughly. A public meeting was held afterwards under the presidency of the Warden of the district, and addresses were delivered by Brothers H. Rodd. D.C.R.; W. C. Grubb,

DECISION

Moved by Clr R McDougall, seconded by Clr K Dudgeon

THAT the meeting be adjourned for lunch at 12.49 p.m.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

DECISION

Moved by Clr D Fish, seconded by Clr R McDougall

THAT the meeting reconvene at 1.18 p.m.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

DECISION

Moved by Clr A Bisdee OAM, seconded by Clr R McDougall

THAT in accordance with Regulation 15 of the Local Government (Meeting Procedures) Regulations 2015, the following items are to be dealt with in Closed Session.

Matter	Local Government (Meeting Procedures) Regulations 2015 Reference
<i>Closed Council Minutes - Confirmation</i>	15(2)
<i>Applications for Leave of Absence</i>	15(2)(h)
<i>Property Matter - Oatlands</i>	15(2)(f)
<i>Tender(s) – 2021 Statutory Valuation Services</i>	15(2)(d)
<i>Tender(s) – Annual Reseal and Road Reconstruction Program</i>	15(2)(2)
<i>Property Matter - Oatlands</i>	15(2)(f)

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

DECISION

Moved by Clr R McDougall, seconded by Clr K Dudgeon

THAT in accordance with Regulation 15(2) of the Local Government (Meeting Procedures) Regulations 2015, Council move into Closed Session and the meeting be closed to members of the public.

CARRIED

DECISION (MUST BE BY ABSOLUTE MAJORITY)		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr D F Fish	✓	
Clr K Dudgeon	✓	
Clr R McDougall	✓	

CLOSED COUNCIL MINUTES

19. BUSINESS IN “CLOSED SESSION”

In accordance with the Local Government (Meeting Procedures) Regulations 2015, the details of the decision in respect to this item are to be kept confidential and are not to be communicated, reproduced or published unless authorised by Council.

19.1 CLOSED COUNCIL MINUTES - CONFIRMATION

Item considered in Closed Session in accordance with Regulation 15 (2) of the Local Government (Meeting Procedures) Regulations 2015.

19.2 APPLICATIONS FOR LEAVE OF ABSENCE

Item considered in Closed Session in accordance with Regulation 15 (2) of the Local Government (Meeting Procedures) Regulations 2015.

19.3 PROPERTY MATTER – OATLANDS

Item considered in Closed Session in accordance with Regulation 15 (2) of the Local Government (Meeting Procedures) Regulations 2015.

19.4 TENDER(S) – 2021 STATUTORY VALUATION SERVICES

DECISION

Moved by Deputy Mayor E Batt, seconded by Clr R McDougall

THAT:

- a) the information be received noting the Tender Committee’s recommendation to the Treasurer to accept the Tender submitted by LG Valuation Services Pty Ltd for an amount of \$161,000.
- b) In accordance with the Local Government (Meeting Procedures) Regulations 2015, Council authorises the release of this decision in respect to this item to the general public and for communication to relevant parties.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

19.5 TENDER(S) – ANNUAL RESEAL AND ROAD RECONSTRUCTION PROGRAM

DECISION

Moved by Clr A Bisdee OAM, seconded by Clr K Dudgeon

THAT Council accept the following tenders:

- 1. Road Reconstruction / Stabilisation Program (Tender 06/2020) – Tender submitted by Stabilised Pavements of Australia (SPA) for an amount of \$514,753.64 (GST excl.);**
- 2. Road Reseal (Tender 07/2020) – Tender submitted by Fulton Hogan for an amount of \$299,843.30 (GST excl.); and**
- 3. In accordance with the Local Government (Meeting Procedures) Regulations 2015, Council authorises the release of this decision in respect to this item to the general public and for communication to relevant parties.**

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Clr A Bantick	✓	
Clr A E Bisdee OAM	✓	
Clr K Dudgeon	✓	
Clr D F Fish	✓	
Clr R McDougall	✓	

19.6 PROPERTY MATTER - OATLANDS

Item considered in Closed Session in accordance with Regulation 15 (2) of the Local Government (Meeting Procedures) Regulations 2015.

DECISION

Moved by Cllr R McDougall, seconded by Cllr K Dudgeon

THAT Council move out of “Closed Session”.

CARRIED

DECISION		
Councillor	Vote FOR	Vote AGAINST
Mayor A O Green	✓	
Deputy Mayor E Batt	✓	
Cllr A Bantick	✓	
Cllr A E Bisdee OAM	✓	
Cllr K Dudgeon	✓	
Cllr D F Fish	✓	
Cllr R McDougall	✓	

OPEN COUNCIL MINUTES

20. CLOSURE

The meeting closed at 1.55 p.m.

LAKE DULVERTON & CALLINGTON PARK MANAGEMENT COMMITTEE

MINUTES

Monday 15th February 2021

Council Chambers, Oatlands 6.30 p.m.

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LAKE DULVERTON & CALLINGTON PARK MANAGEMENT COMMITTEE

MINUTES

Monday 15th February 2021

6.30 p.m. Council Chambers
Oatlands

MEMBERS:

Chairman:

Councillor Don Fish (Proxy: Cllr R McDougall)

Parks & Wildlife Rep:

Matthew Lindus (Proxy rep: t.b.c)

Resident Representatives:

Mrs Maria Weeding, Mr Athol Bennett, Dr Robert Simpson, Mr Robert Foster, K Dudgeon, Ms Helen Geard, Mrs Jenni Muxlow

The meeting opened at 6.30p.m.

1. ATTENDANCE

Councillor Don Fish, Athol Bennett, Maria Weeding, Helen Geard, Matthew Lindus, Cllr Rowena McDougall, Karen Dudgeon, Jenni Muxlow, Dr Robert Simpson.

2. APOLOGIES

Nil

3. CONFIRMATION OF MINUTES

The Committee to confirm the 14th September 2020 minutes.

RECOMMENDATION

That the Committee confirm the minutes of the Lake Dulverton & Callington Park Management Committee meeting held on 14th September 2020.

SUB COMMITTEE RECOMMENDATION TO COUNCIL:

MOVED Mr Matthew Lindus

SECONDED Mr Athol Bennett

THAT the Committee confirm the minutes of the Lake Dulverton & Callington Park Management Committee meeting, held on 14th September noting that the financial statement (FY year to date) was missed from the minutes and will be an attachment to the minutes of the 15th Feb 2021 meeting.

CARRIED

4. BUSINESS ARISING FROM PREVIOUS MEETING

4.1 MACROCARPA TREE AREA BESIDE MAHERS POINT

For information and noting. The works to cover the tree stumps and level out the soil placed on the site back in spring 2018 was completed in September 2020.

RECOMMENDATION

That the information be noted.

SUB COMMITTEE RECOMMENDATION TO COUNCIL:

RESOLVED

THAT the information be noted.

4.2 LAKE DULVERTON WATER LEVELS

The Lake Committee has expressed concern over the Lake Dulverton water levels at previous meetings.

At the last meeting it was decided that it would be good to speak with TasWater to confirm that water is made available to the Lake at every opportunity given that there is a dedicated pipe line from the town water supply dam on Interlaken Road. Attempting to arrange a meeting with TasWater has been difficult to arrange.

Since the last meeting of the Committee, the local TasWater field officer has been spoken to (Darren Robson). Apparently, there is a small split in the lake line pipe, at one of the joins, near the connection point at the water treatment plant. It is not significant, but Darren continues to monitor it and if it gets worse, will need fixing. Darren said he would endeavour to fix the problem at some stage. Committee / general public would not be permitted to assist (as per TasWater guidelines). Darren confirmed that he is willing to continue putting water into the Lake as conditions at the supply point permit. On 22nd September 2020 Darren called to say that he had turned on the line for the Lake, flowing at 4L/sec while the plant is on and 4.5 L/sec when the plant is not taking water for the town domestic supply.

In October 2020 Oatlands had a significant amount of rain and there was a lot of flooding in the first 10 days of October. The back part of the Lake received a lot of water from the two natural creek inflows and the canal/drain running through the Weedington property. There was a query as to the difference in water levels on the Lake between the back and the front section at the large bund wall, in respect to bringing water from the back part to add to the front section of the Lake to increase the levels there. On 26th October 2020 the levels were measured. The difference in levels showed that the back (Natural Zone) water level was 26cm lower than the front (Recreation Zone) water level.

From the last meeting of the Committee, an enquiry was made as to what water, if any would be available to purchase from the Midlands Water Scheme. Results indicate that there is some water that could be purchased **if the purchase funds could be obtained and the ongoing costs of owning and using the water could be met.** Based on work recording the water levels over the last few years (report provided to Council for November 2019 meeting), close to 200ML of extra water is required to ensure that the Lake retains water in the long term in the Recreation Zone. This extra water required is due to the trend of lower than the long-term average rainfall

being recorded frequently for Oatlands in the last few decades. The original water volume calculated for the site seems to be inadequate.

On 17th November 2020 a meeting between an inland (trout) fishing representative, Parks & Wildlife and some business interests in Oatlands was held with some officers from Council, two Councillors and some Committee Members who are all involved with the Lake Dulverton Committee. The meeting had been initiated through individuals with business interests in Oatlands. The purpose of the meeting was to discuss the Lake, in the context of being able to better understand the water level situation in Lake Dulverton. Ken Orr representing the Tasmanian trout fishing industry outlined support for retaining good water levels in the Lake and offered to help in any way he could to achieve positive outcomes. Maria Weeding outlined the history of the Lake levels and the current situation, and then explained possible solutions to keeping water in the Lake in the long term. The final result of the meeting was to seek information as to what it may cost to purchase water from the Midlands Water Scheme, noting that it was close to having all been 100% sold, after which obtaining a secure supply of water from the scheme in the future would likely be quite difficult, may be impossible to achieve. Results of any information obtained would be conveyed back to the Lake Dulverton Committee in the first instance.

The Committee were also informed of a further discussion by one of the Committee members with held with a state government politician at a recent community sports club event. It was indicated that they would investigate and alert the Committee to any opportunities that may arise to assist in obtaining more water for the lake.

Two graphs of the water levels in the lake were presented to the committee for noting.

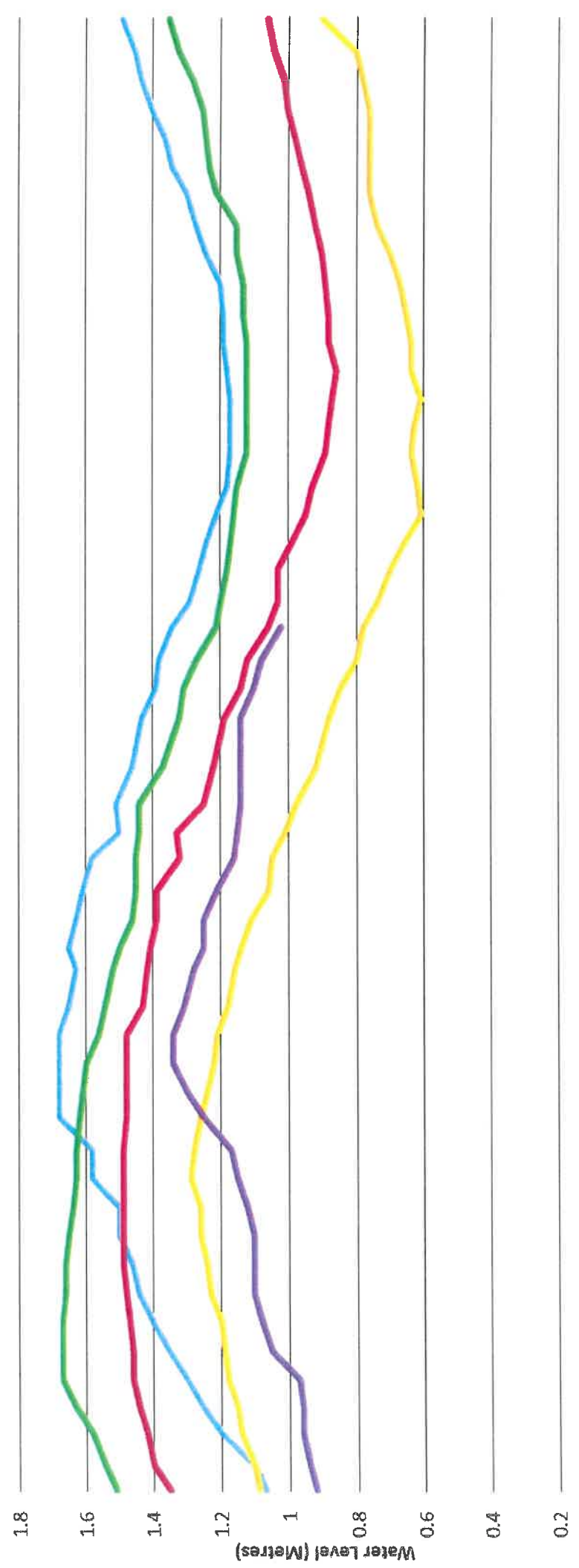
Some members suggested that the Committee also review alternative options for getting water to the Lake, and maybe this could be done at the next meeting of the Committee. It was noted that the past options explored would likely all be much more expensive than the current preferred option. For further discussion at a later date.

SUB COMMITTEE RECOMMENDATION TO COUNCIL:

RESOLVED

THAT the information be noted.

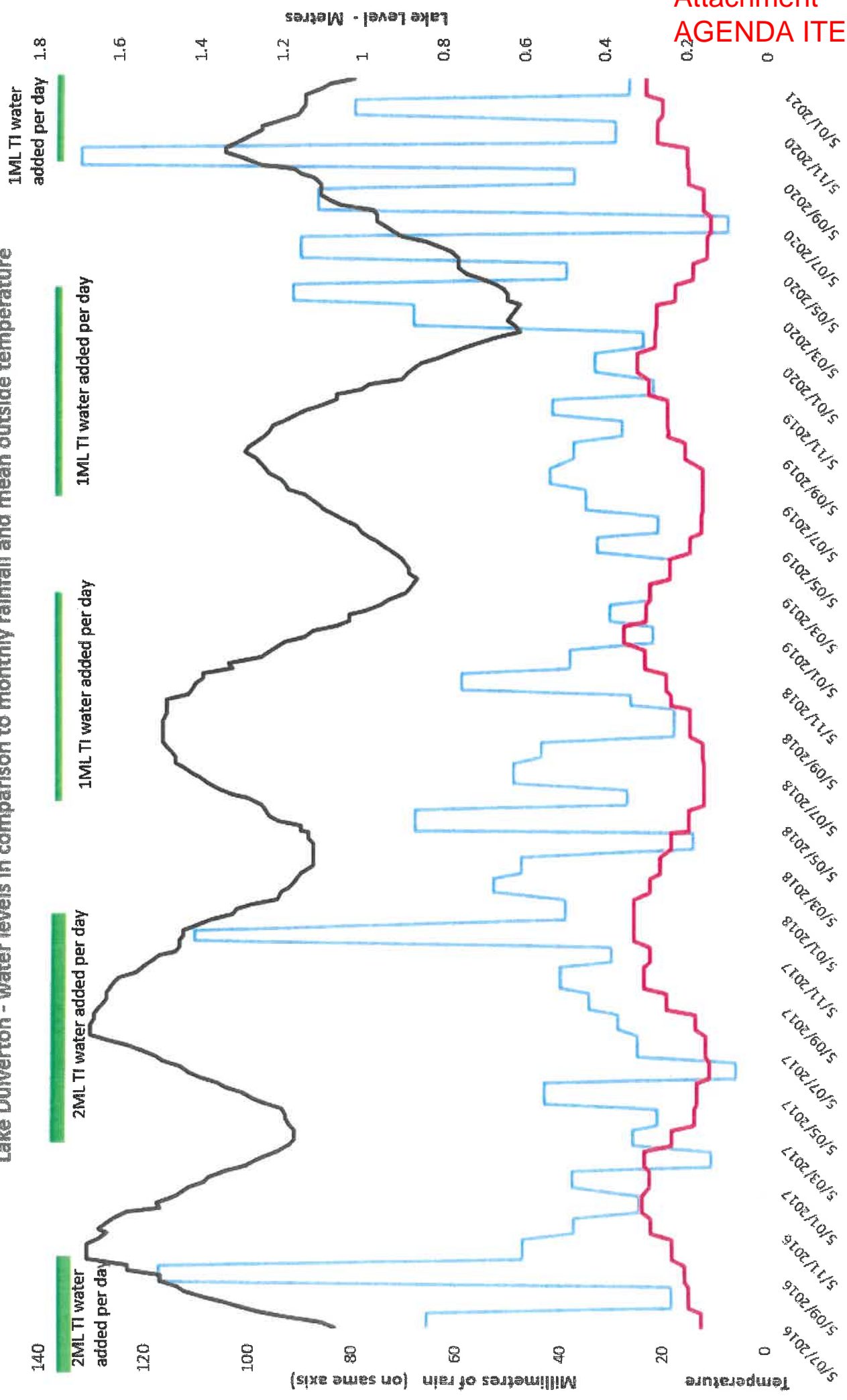
Lake Dulverton 51Ha bund wall area - 16/17, 17/18, 18/19, 19/20 & 20/21 water levels



Rainfall (financial year) 20/21 to date - 396mm
 16/17 - 452mm 18/19 - 354mm
 17/18 - 512mm 19/20 - 518mm

Rainfall (calendar year) 2019 - 303mm
 2017 - 403mm 2018 - 492mm 2020 - 713mm

Lake Dulverton - water levels in comparison to monthly rainfall and mean outside temperature



Rainfall (calendar year)

2017 - 403mm	2019 - 303mm
2018 - 492mm	2020 - 713mm

4.3 CALLINGTON PARK PLAYGROUND UPGRADE

Since the last meeting the following has occurred:

A working bee was held to replace a number of old posts and restore / replace a number of the rails in the sheep sale yards. Athol Bennett, Don Fish and Maria Weeding undertook the work.

The Kompan playground equipment installation works were completed by the Ultimate Play staff – Kim and Michael. Two seats are still to be installed but the play equipment was all in place by late September. The equipment was made available for use by the general public on Friday 25th September 2020, with the balance of the park area remaining of limits while the turf works continued.

David Palmer was contracted to re gravel and roll the paths to the BBQ hut. He also placed three new rubbish bins that had been made especially by Ian Wheelan for the site. (Bins that would sit alongside the stone wall – not out from it).

Turf and irrigation works were completed by Hobart Irrigation & Turf Specialists (Craig & Michael Dean). The works included follow up weed control for re-emerging weeds in some areas.

Two picnic tables with the concrete bases still attached were placed on site (original tables from the site were repositioned). This work was undertaken by John and Maria Weeding using a front end loader tractor.

A large log seat was moved from the camping side of the Callington Park to the playground area compliments of a large telehandler machine associated with the whiskey distillery building site works, that was able to move heavy weights.

Two seats are in proposed for two separate locations for people to get some shade. Important on the hot days.

An official opening of the Destination Playground – Callington Park area was held on Monday 14th December 2020 at 10.30 am. Senator Claire Chandler and the Mayor Alex Green together with 28 school students from the Oatlands School officially opened the playground. Many of the students had been involved with helping to determine (through votes) as to the items of play equipment that were eventually installed at the playground. Approximately 50 people attended the event.

Surveillance cameras and a light pole for the area are being investigated.

A drinking fountain for the area has been ordered and should arrive ready to be installed in the next two weeks.

Some longer term shade trees are to be planted at the site in the autumn of 2021.

The final project report is due with the Aust Govt at the end of March 2021, one month after the designated finish date.

Feedback continues to be very positive from the community both local and afar in regard to the venue. It seems that it has become a destination hotspot for many, particularly those with

children. People are now coming to the area specifically to stay overnight to use the playground/ park area as part of their visitor experience.

RECOMMENDATION

That the information be noted.

SUB COMMITTEE RECOMMENDATION TO COUNCIL:

MOVED Karen Dudgeon

SECONDED Athol Bennett

THAT the Committee note the information.

That a vote of thanks be recorded to both Maria Weeding and Helen Geard for all the work involved in the rollout of the above project to date.

CARRIED

4.4 FORESHORE PATHWAY - NEW PLUS EXISTING PATH UPGRADE (SECTION)

Following the last meeting of the committee the following has occurred:

- Planning approval has been granted by the Southern Midlands Council.
- A contractor has been engaged to undertake the Dirt Glue component of the pathway works.

It is anticipated that the path works will commence sometime in April. .

M Lindus asked that a copy of the Council's Development Application approval be sent to Parks & Wildlife.

RECOMMENDATION

That the information be noted and new path and the upgrade of the existing path continued to be pursued.

SUB COMMITTEE RECOMMENDATION TO COUNCIL:

RESOLVED

THAT the information be noted.

4.5 DULVERTON WALKWAY – PEOPLE COUNTERS

Two counters for the walking track were installed on 25th August 2020. An update was provided to the meeting. A graph (see attached) was circulated. The biggest event to date was a bicycle race event - 435 was the number counted on the day. Initially it was thought this figure was an error so was left off the graph. It seems this was likely correct as it was a big event, held on 12th December 2020. The other major figure was the 22nd September 2020 (220 recorded on the counter), when a school event was held on the track. The graph

indicates a fairly consistent use of the track week by week at both the Oatlands and the Hawthorn Bay area which is where the counters are located.

RECOMMENDATION

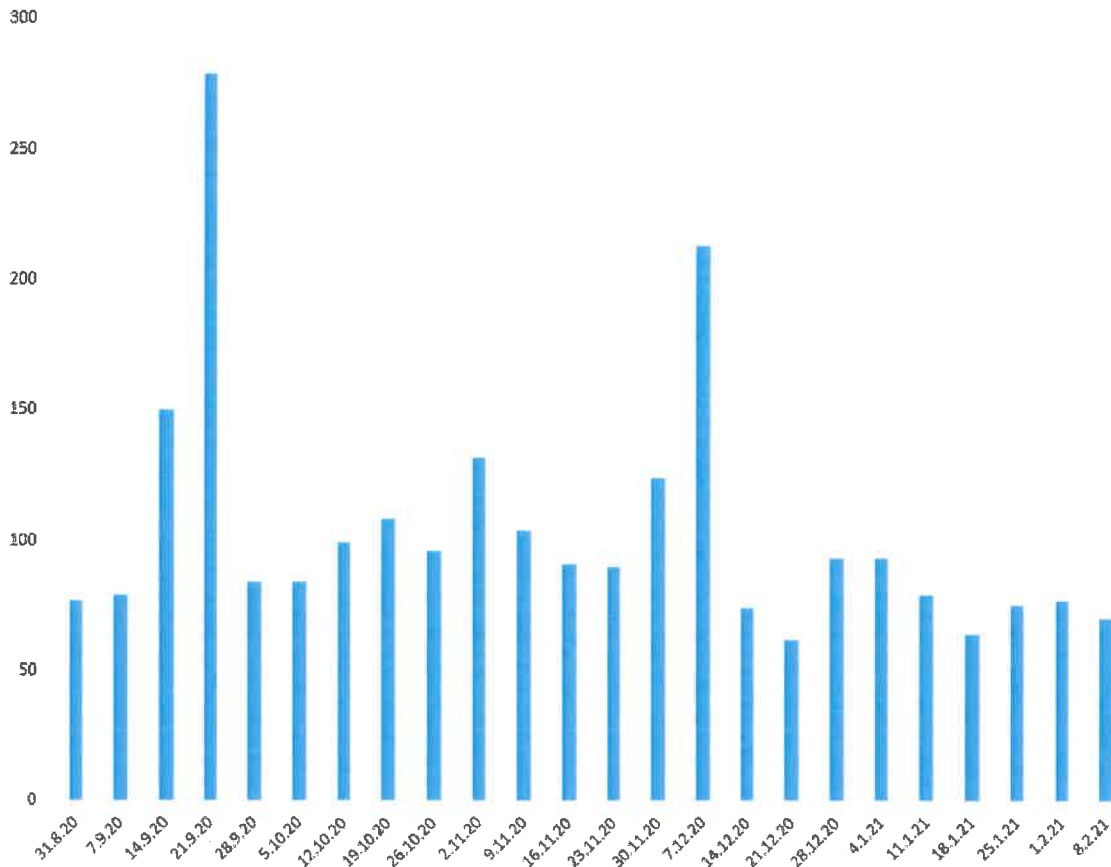
That the information be noted.

SUB COMMITTEE RECOMMENDATION TO COUNCIL:

RESOLVED

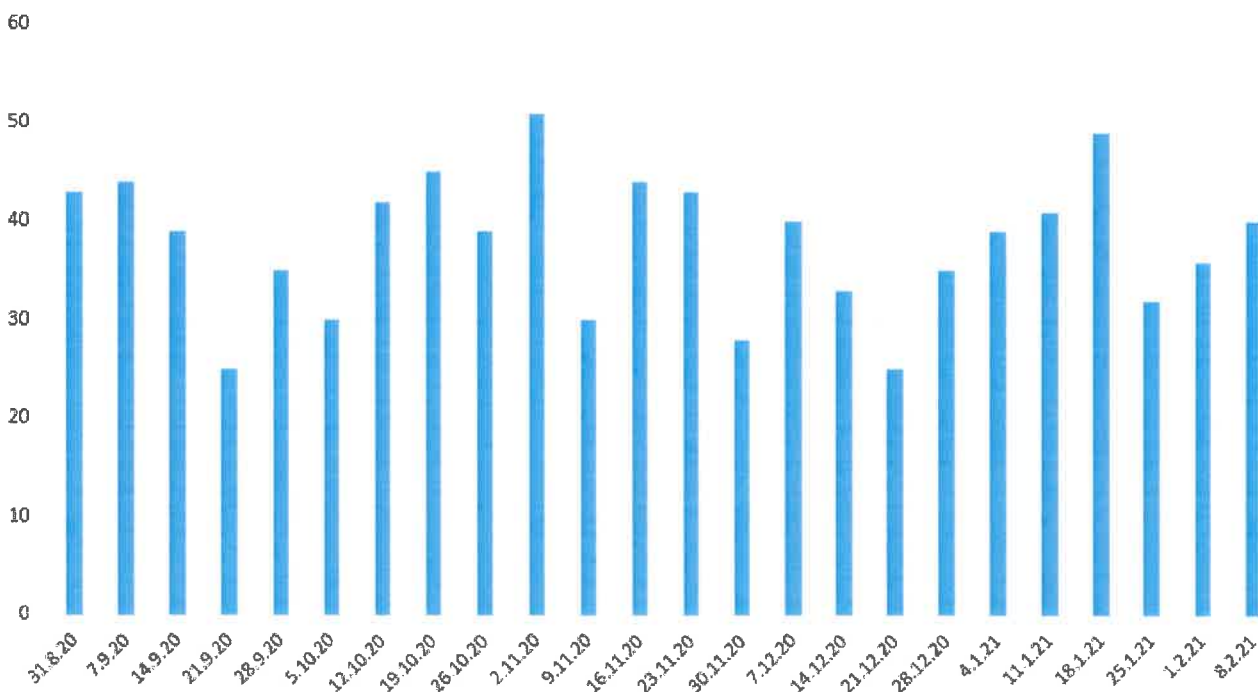
THAT the information be noted.

Dulverton Walking Track - Oatlands



There was an event on 22 September (not excluded) and 12 December 2020 (435 counted – excluded)

Hawthorn Bay counter



4.6 OATLANDS STRUCTURE PLAN

The draft Oatlands' Structure Plan was considered at the meeting. Comments were made and recorded at the meeting, ready to submit to the Council's Development and Environmental Services Dept. This Department is over-seeing the development of the plan.

SUB COMMITTEE RECOMMENDATION TO COUNCIL:

RESOLVED

THAT the information be noted and the comments from the committee be forward on by Friday 19th February 2021, the closing date nominated for submissions regarding the draft Oatlands Structure Plan.

5.0 TREASURER'S REPORT

A statement detailing Receipts and Expenditure for the financial year to date was tabled at the meeting.

RECOMMENDATION

That the statement detailing Receipts and Expenditure for the financial year to date be received and noted.

SUB COMMITTEE RECOMMENDATION TO COUNCIL:

MOVED Karen Dudgeon

SECONDED Athol Bennett

THAT the statement detailing Receipts and Expenditure for the financial year to date be received and noted.

CARRIED

SOUTHERN MIDLANDS COUNCIL
LAKE DULVERTON / CALLINGTON PARK MANAGEMENT COMMITTEE

STATEMENT OF RECEIPTS AND PAYMENTS
FOR THE PERIOD 1 JULY 2020 TO 12 FEBRUARY 2021

RECEIPTS		PAYMENTS
Opening Balance 01.07.20 Commonwealth Bank Account	\$ 15,537.69	
Callington Park - Surface Upgrade	\$ 40,000.00	Project G4070040 (Playground) \$ 500,591.39 WIP 30.06.20 \$282,200.25
Callington Park - Playground (Election Commitment)	\$ 460,000.00	
Lake Dulverton - Foreshore Improvements New	\$ 85,000.00	Project G3020006 (Lake Dulverton Pathway) \$ 8,618.13 WIP 30.06.20 \$6,198.70
Lake Dulverton - Foreshore Improvements Upgrade	\$ 135,000.00	
Mahers Point Landscape Plan	\$ 22,505.00	Project C3020008 (Mahers Point) \$ 9,891.57
Lake Dulverton - Committee Budget	\$ 2,000.00	Project 302 - 7053 (Lake Dulverton) \$ -
		Project 302- 5015 (Dulverton Corridor) \$ 847.62 Dog Bag Dispenser, Animal Equip Dog, 9.0t gravel, cement etc (Mitre 10), Plants
		Project 407 - 7057 (Callington Park) \$ 1,219.95 Steel posts (Roberts), pine, various screws & bolts and padlock(Burnings), Bome (Komplan)
Tas Irrigation - Water Operational Costs	\$ 28,125.00	Operational Charge (Oct/Nov) \$ 15,271.45 \$7,641.10 20/21
		Asset Renewal Levy (Oct/Nov) \$ 4,082.85 \$7,630.35 19/20
		Water Usage (Dec) \$ 13,485.85 \$2,061.85 20/21
Interest	\$ -	\$2,021.00 19/20
Donations	\$ 130.00	Winter allocation
		Bank Charges \$ -
	<u>\$ 788,297.69</u>	
		Total Expense to date <u>\$ 554,008.81</u>
		Balance to Next Account \$ 234,288.88
		<u>\$ 788,297.69</u>

Funds on hand are represented by:	
Comm. Bank Account No.06 7004 28003859 - 01.07.20	\$ 15,537.69
Special Projects - Unexpended Budget	\$ 218,751.19
	<u>\$ 234,288.88</u>

6.0 OTHER MATTERS

6.1 LAKE BIRD WATCHING AND INTERPRETATION OF THE NATURAL ENVIRONS

There was some discussion on the notion of furthering opportunities to view and appreciate the wildlife and the natural environment associated with the Lake. Photos of the Tamar Wetlands area at Launceston were provided to the meeting. It was generally agreed that this type of development could possibly be pursued into the future. It was also noted that the current Action Plan outlines a proposal for a bridge to Marys Island, and that this was not dissimilar to the board walk in the Tamar Estuary, that also goes to islands within the water way. No decision for further action was made at the meeting – only to note the information at this stage.

6.2 COMMUNITY GROUPS – LAKE DULVERTON ISSUES

It was noted that there was quite a lot of community interest in Lake Dulverton at the current time, and that it was important to provide information on the background of the Lake in terms of history, water and other aspects. The background information assists to enhance community understanding of the complexity of the Lake system. A recently formed community group is seeking to better understand the Lake, with a view to proposing some ideas to the Committee / Council in the future. Further liaison with the group will occur via Maria Weeding and Matthew Lindus at this stage.

7.0 NEXT MEETING

It was decided that the next meeting be held on Monday May 10th at 6.30 p.m.

The meeting closed at 8.57p.m.

* * * * *

CONFIRMED THIS DAY OF....., 2021

.....CHAIRMAN

Statement relating to 14th Sept 2020
meeting: (missed out
of minutes)

SOUTHERN MIDLANDS COUNCIL
LAKE DULVERTON / CALLINGTON PARK MANAGEMENT COMMITTEE

STATEMENT OF RECEIPTS AND PAYMENTS
FOR THE PERIOD 1 JULY 2020 TO 31 AUGUST 2020

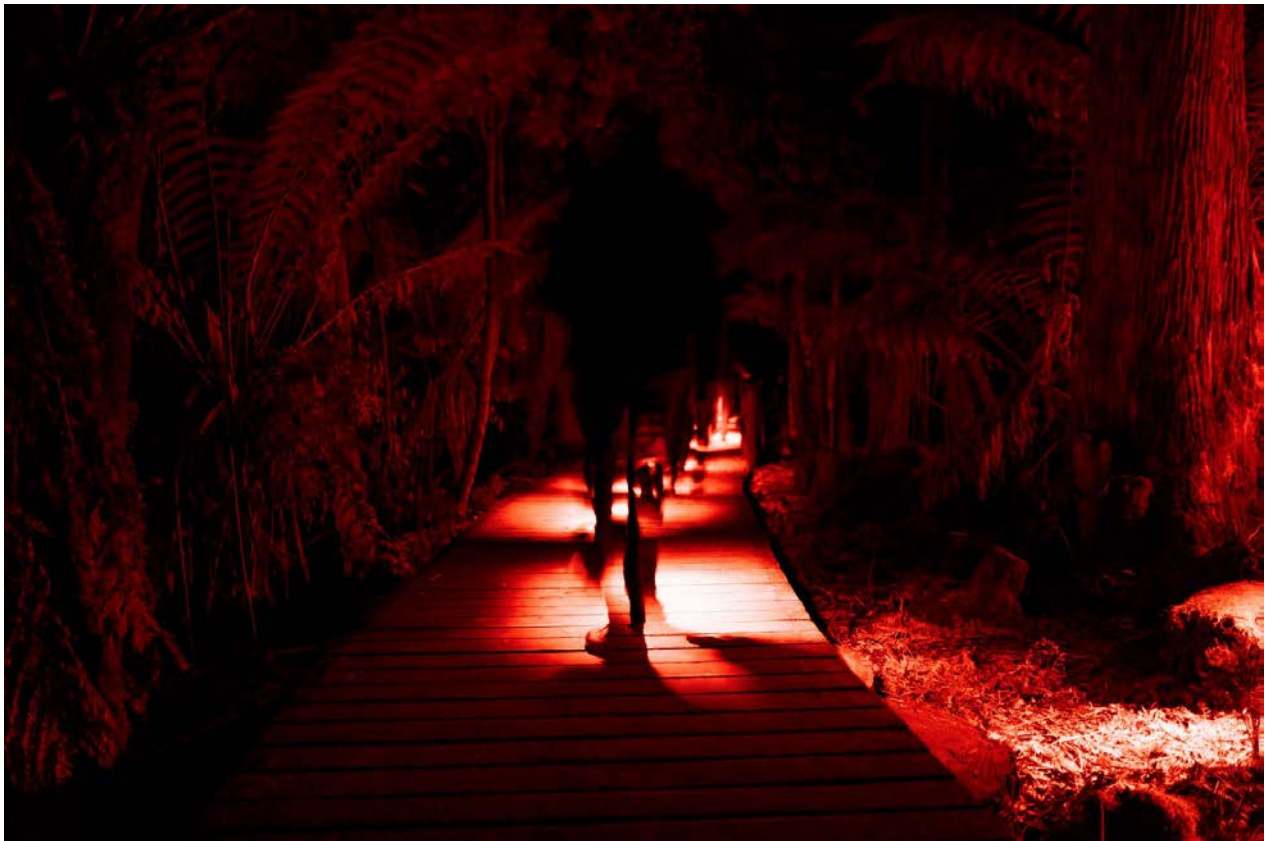
RECEIPTS				
PAYMENTS				
Opening Balance 01.07.20 Commonwealth Bank Account	\$	15,537.69		
Callington Park - Surface Upgrade	\$	40,000.00	Project G4070040 (Playground)	\$ 282,972.58 WIP 30.06.20 \$282,200.25
Callington Park - Playground (Election Commitment)	\$	460,000.00		
Lake Dulverton - Foreshore Improvements New	\$	85,000.00	Project G3020006 (Lake Dulverton Pathway)	\$ 8,286.88 WIP 30.06.20 \$6,198.70
Lake Dulverton - Foreshore Improvements Upgrade	\$	135,000.00		
Mahers Point Landscape Plan	\$	22,505.00	Project C3020008 (Mahers Point)	\$ -
Lake Dulverton - Committee Budget	\$	2,000.00	Project 302 - 7053 (Lake Dulverton)	\$ -
			Project 302- 5015 (Dulverton Corridor)	\$ -
			Project 407 - 7055 (Aquatic Centre)	\$ -
			Project 407 - 7057 (Callington Park)	\$ -
Tas Irrigation - Water Operational Costs	\$	28,125.00	Operational Charge (February)	\$ -
			Asset Renewal Levy (February)	\$ -
			Water Usage	\$ -
Interest	\$	-	Bank Charges	\$ -
Donations	\$	-		
			Total Expense to date	<u>\$ 291,259.46</u>
			Balance to Next Account	\$ 496,908.23
				<u>\$ 788,167.69</u>
				<u>\$ 788,167.69</u>
				\$ 15,537.69
				<u>\$ 481,370.54</u>
				<u>\$ 496,908.23</u>

Funds on hand are represented by:
Comm. Bank Account No.06 7004 28003859 - 01.07.20
Special Projects - Unexpended Budget

Southern Tasmanian Councils Authority

Quarterly Report to Members

December 2020



Each Joint Authority is required under Section 36B of the *Local Government Act 1993* to provide to its members a quarterly report that includes a statement of general performance and a statement of its financial performance

This report covers the three month period ending 31 December 2020. This report with all previous quarterly reports is published on the Authority's website: www.stca.tas.gov.au

The Southern Tasmanian Councils Authority commenced on 1 July 2006

Image Credit: Project X – Hrafn: Conversations with Odin – Osborne Images

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ANNUAL GENERAL MEETING – 23 NOVEMBER 2020 3



Image Credits: Cape Hauy – Luke Tscharke

ORDINARY BOARD MEETING – 23 NOVEMBER 2020

A meeting of the STCA Board took place on 23 November 2020, the following matters were discussed:

Regional Climate Change

Dr Jason Byrne, Professor of Human Geography and Planning at UTAS and Katrina Graham, Environmental and Climate Change Projects Officer at the City of Hobart, provided an update on a grant application which has been made to the Australian Research Council (ARC). The grant application has seen the STCA partner with UTAS and the Tasmanian Government to identify the barriers and enablers to local government climate action. The project builds on an earlier STCA project that developed a regional climate change strategy and climate change adaptation plans to increase the capacity of councils to manage climate risks and hazards. ARC Linkage Grants are very competitive, however, if the application is successful the project will undertake innovative research with a practical, outcomes-focus that will help position Tasmania as a global leader in climate change adaptation.

The STCA Board supported the review of the *Climate Change Adaptation Strategies 2012-2019* for each council. The review will be supported by the expertise of UTAS and the City of Hobart's Environmental and Climate Change Projects Officer.

Regional Economic Development Strategy Workshop

The STCA agreed to convene a workshop of council officers to explore the development of a regional economic development strategy. Regional Development Australia Tasmania will assist with the facilitation of the workshop which is scheduled to take place in the first part of 2021.

Southern Tasmania Cat Management Strategy

The Board received an update on the development of a Southern Tasmania Cat Management Strategy. The draft Strategy currently being developed will include low cost, quick win actions that can be delivered by individual councils and other stakeholders. A draft Strategy will be presented to General Managers in early 2021.

Other updates

Updates were also provided on waste management; the activities of Destination Southern Tasmania; the Local Government Association of Tasmania and the South Eastern Regional Development Authority.

Financial Report

The Board noted the 30 September 2020 draft Financial Report. A copy is included with this Quarterly Report.

Next Meeting

The next Board meeting will be hosted by Derwent Valley Council and will be held on 22 February 2021.

ANNUAL GENERAL MEETING – 23 NOVEMBER 2020

The STCA held their Annual General Meeting on 23 November 2020 whereat the Board adopted the 2019/20 Annual Report including the audited financial statements, the report of the Comptroller and resolved to appoint the Auditor General as the auditor of the STCA's General Purpose Financial Statements.

Attachment

AGENDA ITEM 4.3.2



STCA - FINANCIAL STATEMENT - SEPTEMBER 2020	YTD ACTUAL	YTD BUDGET	YTD VARIANCE	YTD VARIANCE %	FULL YEAR BUDGET
Administration					
Expenses					
Licences - ICT	-	1,200	1,200	100.0%	4,800
Catering	-	-	-	0.0%	1,500
Contractor Services - General	-	-	-	0.0%	3,700
Consultancy - Business Management	-	2,500	2,500	100.0%	10,000
Contractors - Auditors	-	-	-	0.0%	6,075
Subtotal EXPENSES	-	3,700	3,700	100.0%	26,075
Revenue					
Unspent Grants/Opening Funds B/F	(271,293)	(271,293)	-	0.0%	(271,293)
Subtotal REVENUE	(271,293)	(271,293)	-	0.0%	(271,293)
Subtotal Administration	(271,293)	(267,593)	3,700	(1.4 %)	(245,218)
Climate Change Communication Project					
Expenses					
Contractor Services - General	-	5,773	5,773	100.0%	23,090
Subtotal EXPENSES	-	5,773	5,773	100.0%	23,090
Revenue					
Unspent Grants/Opening Funds B/F	(23,090)	(23,090)	-	0.0%	(23,090)
Subtotal REVENUE	(23,090)	(23,090)	-	0.0%	(23,090)
Subtotal Climate Change Communication Project	(23,090)	(17,317)	5,773	(33.3 %)	-
Waste Strategy South					
Expenses					
Promotions	-	-	-	0.0%	30,000
Subtotal EXPENSES	-	-	-	0.0%	30,000
Subtotal Waste Strategy South	-	-	-	0.0%	30,000
Regional Planning Initiative					
Expenses					
Contractor Services - General	1,427	-	(1,427)	0.0%	24,435
Subtotal EXPENSES	1,427	-	(1,427)	0.0%	24,435
Revenue					
Unspent Grants/Opening Funds B/F	(24,434)	(24,434)	-	-	(24,434)
Subtotal REVENUE	(24,434)	(24,434)	-	0.0%	(24,434)
Subtotal Regional Planning Initiative	(23,007)	(24,434)	(1,427)	5.8%	1
Total Operating					
Expenditure	1,427	9,473	8,046	84.9%	103,600
Income	(318,817)	(318,817)	-	-	(318,817)
Net Operating	(317,390)	(309,344)	8,046	(2.6 %)	(215,217)

Note: This report is for management reporting purposes only. YTD actual and budget income include carry forward unspent grant funds which have been received and were unspent in prior reporting periods.

STCA September Financial Statement Summary

Expenditure:

- With 25% of the financial year elapsed, \$1,427 has been spent, this represents 1.38% of the annual budget.

Income:

- With 25% of the financial year elapsed, \$318,817 has been carried forward from unspent funds in prior periods, this represents 100% of the annual budget.

**GADTECH MATERIALS PTY LTD
BIG BLUE QUARRY, RUNNYMEDE**

ENVIRONMENTAL IMPACT STATEMENT



Van Diemen Consulting Pty Ltd

PO Box 1
 New Town, Tasmania

T: 0438 588 695 E: rwbarnes73@gmail.com

This document has been prepared in accordance with the scope of services agreed upon between Van Diemen Consulting (VDC) and the Client.

To the best of VDC’s knowledge, the report presented herein represents the Client’s intentions at the time of completing the document. However, the passage of time, manifestation of latent conditions or impacts of future events may result in changes to matters that are otherwise described in this document. In preparing this document VDC has relied upon data, surveys, analysis, designs, plans and other information provided by the client, and other individuals and organisations referenced herein. Except as otherwise stated in this document, VDC has not verified the accuracy or completeness of such data, surveys, analysis, designs, plans and other information.

No responsibility is accepted for use of any part of this document in any other context or for any other purpose by third parties.

This document does not purport to provide legal advice. Readers should engage professional legal advisers for this purpose.

Document Status

REV	Author	Review	Date
1	R Barnes C McCoull	R Barnes	4-9-2020
1	R Barnes C McCoull	T Jacobson, Gadtech Materials Pty Ltd	5-9-2020
1	R Barnes C McCoull	EPA	23-9-2020
2	R Barnes C McCoull	R Barnes	27-9-2020
2	R Barnes C McCoull	T Jacobson, Gadtech Materials Pty Ltd	27-9-2020
2	R Barnes C McCoull	EPA	14-10-2020
3	R Barnes C McCoull	R Barnes	18-10-2020
3	R Barnes C McCoull	T Jacobson, Gadtech Materials Pty Ltd	18-10-2020

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Environmental noise, ground vibration and air blast overpressure assessment

DEFINITION OF TERMS/ABBREVIATIONS

Board	the Board of the EPA
DA	Development Application
DFTD	Devil facial Tumour Disease
DPIPWE	Department of Primary Industries, Parks, Water and Environment
EMPCA	<i>Environmental Management and Pollution Control Act 1994</i>
EMPCS	Environmental Management and Pollution Control System objectives to be found in Schedule 1 of EMPCA
EPA	Environment Protection Authority
EPN	Environment Protection Notice
(the) Land	The land described as the Development Area in Figure A-2A
LUPAA	<i>Land Use Planning and Approvals Act 1993 (Tas)</i>
ML	Mining Lease
MRT	Mineral Resources Tasmania
QCP	<i>Tasmanian Quarry Code of Practice 2017</i>
RMPS	Resource Management and Planning System objectives to be found in Schedule 1 of EMPCA
(the) Scheme	Southern Midlands Interim Planning Scheme 2015
SMC	Southern Midlands Council
STDP	Save the Tasmanian Devil Program Roadkill Project
TNMPM	Tasmanian Noise Measurement Procedures Manual 2008
WSP	Weed Spraying Program

PREFACE

THE DEVELOPMENT

Big Blue Quarry is proposed to extract up to 200,000 cubic metres (approx. 320,000 tonnes) of material per annum. All the extracted volume may be crushed/screened (mechanised/vibratory) to reduce particle size and/or make a uniform particle size product.

The quarry operation includes two activities listed Schedule 2 of the *Environmental Management and Pollution Control Act 1994* ('EMPCA') –

- '5. Extractive Industries. (a) Quarries: the extraction of any rock or gravel and producing 5 000 cubic metres or more of rock or gravel per year'
- '6. Materials Handling. (a) Crushing, Grinding or Milling: processing (by crushing, grinding, milling or separating into different sizes by sieving, air elutriation or in any other manner) of ... (ii) rock, ores or minerals at a rate in excess of 1 000 cubic metres per year'

Level 2 Activities must be referred by the Planning Authority (in this case, Southern Midlands Council) to the Environment Protection Authority (the 'EPA'), for assessment under the EMPCA.

The Environmental Impact Statement (EIS) has been prepared to support a Development Application (DA2020/32) by Gadtech Materials Pty Ltd to establish and operate a quarry north of Runnymede.

The EIS and associated impact assessments (eg noise and vibration) have considered impacts from the extraction of material from within the **Maximum Extraction Extent**, not simply the known mine plan area (Level 1, 2 and 3) shown in Figures B-2 to B-4. Maximum Extraction Extent (ie the area within which material may be extracted) is shown in Figure B-5.

FUNCTION OF THE ENVIRONMENTAL IMPACT STATEMENT

An Environmental Impact Statement is the basis on which the Board makes its assessment of an activity. The Board considers the EIS, as well as other relevant information, against the objectives of the RMPS and EMPCS objectives. These objectives focus on the concept of sustainable development, which requires consideration of the economic and social needs of people now and in the future, while sustaining the environment and avoiding or mitigating adverse effects.

The Board will consider the objectives and endeavour to make the decision which best furthers them, when considered together. That decision may be to approve the proposal with conditions, or in some cases, the Board may decide the objectives cannot be upheld and the proposal is rejected.

GUIDANCE FROM THE EPA BOARD ON THE CONTENT OF THE EIS

EMPCA requires the Board of the Environment Protection Authority to provide guidance to an applicant about what should be included in an EIS. The Board has authorised EPA Tasmania to establish the information base to inform decision making on its behalf.

The EPA issued Project Specific Guidelines (PSG's) based on the permit application (DA 2020/32) for the Big Blue Quarry proposed by Gadtech Materials Pty Ltd. PSG's focus on the key issues for the proposal, as they are understood at the time they are issued, as well as any known information gaps relevant to the proposal. They are to be read in conjunction with the general EIS guidelines.

The EPA require the EIS to be prepared using a risk-based approach. Not all issues nominated in the guidelines will have the same degree of relevance to all proposed activities. Depending on the nature of the proposed activity and its location, some of the issues may be more relevant than others, and some may not be applicable at all. The level of detail provided on each issue should be appropriate to the level of significance of that environmental issue to the proposal.

When the EPA is satisfied that enough information has been received, the Council will be directed to advertise the application for a set period within which anyone can make a representation about the application.

STRUCTURE OF THE EIS

The EIS and Planning Information document contains the following components –

- Part A *Introduction* to the proposed development/activity including details of the proponent, activity location, rationale and
- Part B *Project Description* including details of the volume extracted, extraction process, machinery, and equipment to be used and timeframe for the activity.
- Part C *Planning information* for use by the Planning Authority, in this case the Southern Midlands Council, in assessing the development and use against the requirements of the Southern Midlands Interim Planning Scheme 2015 (the Scheme).
- Part D *Existing environment* information including climatic (temperature, rainfall, wind), catchment, geological and biodiversity information.
- Part E *Potential environmental impacts and their management* including an assessment of each relevant (moderate to high risk) impact, its likelihood of occurrence, mitigation measures and net impact.
- Part F *Decommissioning and rehabilitation* details as the ‘mine plan’ is implemented, and the process of closure if the quarry permanently closed prior to full extraction.
- Part G *A summary of the management measures* proposed for the activity to avoid or mitigate potential environmental impacts from the activity.
- Part H *Conclusion* about the proposed activity.
- Part I *References* cited in the EIS.
- Part J *Attachments* referenced in the EIS.

EXECUTIVE SUMMARY

PROPOSED ACTIVITY

The Environmental Impact Statement (EIS) has been prepared to support a Development Application (DA2020/32) by Gadtech Materials Pty Ltd to establish and operate a quarry north of Runnymede. The extracted volume is up to 200,000 cubic metres per annum (approximately 320,000 tonnes per annum), all of which may be crushed/screened (mechanised/vibratory) to reduce particle size and/or make a uniform particle size product.

The activity will include the harvesting of hardwood plantation (progressively as ground is needed for the quarry), ripping, drilling, and blasting, crushing (jaw and impact style crushers), vibratory screening and transportation of material.

The quarry will include the following activities:

- surface site preparation by tree-felling and stockpiling/mulching,
- soil and overburden removal and stockpiling,
- excavation and ripping of material,
- drilling and blasting by licensed contractor,
- crushing and/or screening of material,
- stockpiling of material (processed and unprocessed), and the
- loading of trucks with processed material from the stockpile area.

The EIS and associated impact assessments (eg noise and vibration) have considered impacts from the extraction of material from within the **Maximum Extraction Extent**, not simply the known mine plan area (Level 1, 2 and 3) shown in Figures B-2 to B-4. Maximum Extraction Extent (ie the area within which material may be extracted) is shown in Figure B-5.

LOCATION

Big Blue Quarry is located on private freehold land at Woodsdale Road, north of Runnymede in the Southern Midlands municipality.

PROPONENT

The proponent, Gadtech Materials Pty Ltd, owns and operates several quarries within Tasmania including those at Pawleena, Dromedary, Nichols Road (Nubeena) and Kallista Hill.

ENVIRONMENTAL MANAGEMENT MEASURES

Best practice management is important to the project proponent to minimise the risk of environmental nuisance/harm from the activity. The potential environmental effects which may arise from the activity have been detailed and, where appropriate, actions documented in this EIS to prevent and or minimise potential adverse impacts. Specific comment is made of the items summarised below.

Noise Emissions

An environmental noise emission criterion for operations at Big Blue Quarry was developed based on Quarry Code of Practice requirements and ambient noise monitoring conducted in the vicinity of

the quarry which was analysed in accordance with the Tasmanian Noise Measurement Procedures Manual 2008 (TNMPM). Predicted noise levels from all operational scenarios and weather conditions at the Big Blue Quarry are below 45 dBA at all sensitive residential receiver locations near the quarry.

Mitigation recommendations for blasting were provided as follows: -

- Initial blasting at the quarry should be restricted to a charge mass/delay of 30 kg and be conducted at locations within the quarry no closer than 420 m to any residential premises in other ownership.
- Increase burden depth and deck loading of front row of holes for face blasts and backfill cover the blast area for establishment and face blasts to minimise ABO. Increased stemming depth should also be considered generally.
- Site-specific scaled regressions should be developed from initial blasting monitoring to provide greater certainty on ground vibration and ABO levels. These data are necessary to support any further increase in charge/mass per delay above what is recommended here.
- Shielding of the drill rig is required when within 630 m of the closest receiver (R3). The following bund design is recommended –
 - bund to at least 1.5 m above rig height, e.g. 3 m, and
 - Adequately shield emissions from drilling to R3 along where the drill rig is expected to operate ensuring the bund extends beyond or wraps around the drill site to minimise noise diffracting around the barrier.

Surface Water

No chemicals, fuels or oils will be stored in the quarry overnight and refuelling of quarry equipment will be carried out using a mobile bund. Sediment will be managed through the installation and maintenance of a cut-off drain to the active pit area, additional drains, and sediment pond network.

Other Matters

Environmental management measures for other potentially harmful emissions or matters of potential significance are in place or will be put in place to address the following potential effects to the local environment –

- dust mitigation measures including the use of sprays on the crushing unit, the wetting of the internal road network when required and the use of a water spraying system for load dampening,
- waste generated will be limited by not servicing machinery, except for *emergency* repairs or minor service requirements, within the quarry. Wastes generated from *emergency* repairs will be disposed of in an appropriate bin located near the site office for future disposal at a permitted refuse disposal site, and
- A Weed and Pathogen Management Plan will be developed and implemented as part of the quarry operation guided by the Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania (Department of Primary Industries, Parks, Water and Environment, 2015).

DECOMMISSIONING AND REHABILITATION

In the event of permanent closure of the proposed development a Decommissioning and Rehabilitation plan will be developed and submitted to the EPA for approval.

PART A – INTRODUCTION

Big Blue Quarry is located on private freehold land at Woodsdale Road, north of Runnymede in the Southern Midlands municipality (Figures A-1 and A-2).

A.1 PROPONENT DETAILS

The proponent, Gadtech Materials Pty Ltd, owns and operates several quarries within Tasmania including those at Pawleena, Dromedary, Nichols Road (Nubeena) and Kallista Hill.

Legal entity Name	Gadtech Materials Pty Ltd
Trading Name	Gadtech Materials Pty Ltd
ACN	157 676 018
ABN	89 157 676 018
Registered Address	546 Brinktop Rd, Penna TAS 7171
Postal Address	546 Brinktop Rd, Penna TAS 7171
Contact Person	Name – Thomas Jacobson Email – admin@gadtech.com.au Mobile – 0427 518 004

A.2 CONSULTANT DETAILS

The contact details for the consultant engaged to prepare the assessment documentation is below:

Van Diemen Consulting Pty Ltd	Contact – Dr Richard Barnes Postal Address – PO Box 1 New Town 7008 Mobile – 0438 588 695 Email – rwbarnes73@gmail.com
--------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------

A.3 LANDOWNER DETAILS

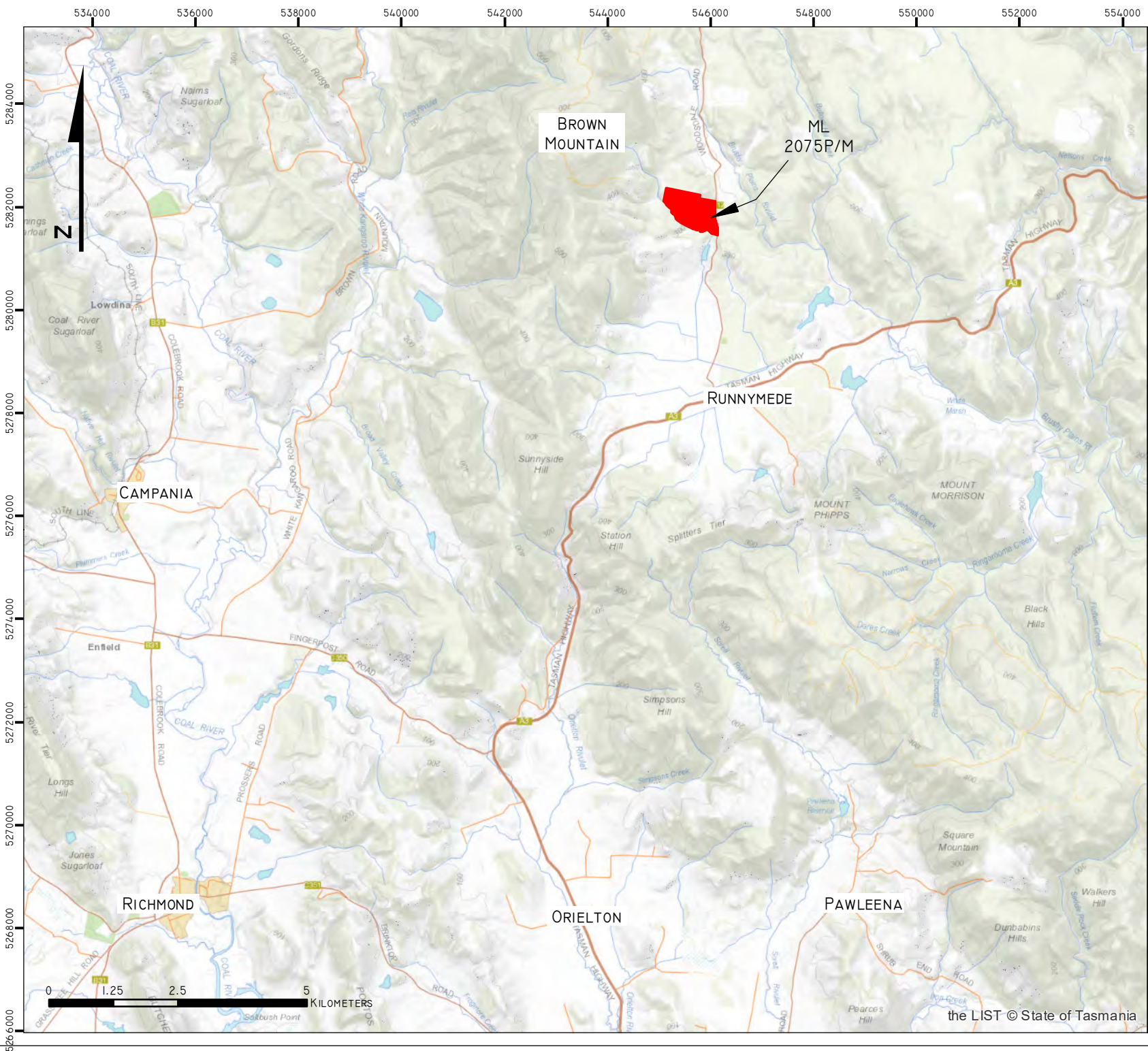
The land is owned by –

THE TRUST COMPANY (PTAL) LIMITED
PO BOX 5316 LAUNCESTON TAS 7250

A.4 QUARRY INFORMATION

The details for the site of Big Blue Quarry are below:

Physical address	Woodsdale Road, Runnymede TAS 7190
PID	2713661
Land Titles	Certificate of Title 146726 Folio 1, Certificate of Title 47615 Folio 1
Mining Lease	2075P/M (pending) – 57.63 hectares



GADTECH
MATERIALS
PTY LTD

BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

FIGURE A-1: LOCATION
OF THE BIG BLUE QUARRY
(MINING LEASE)

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

BASE DATA BY TASMAP. © STATE OF TASMANIA
BASE IMAGE © GOOGLE EARTH

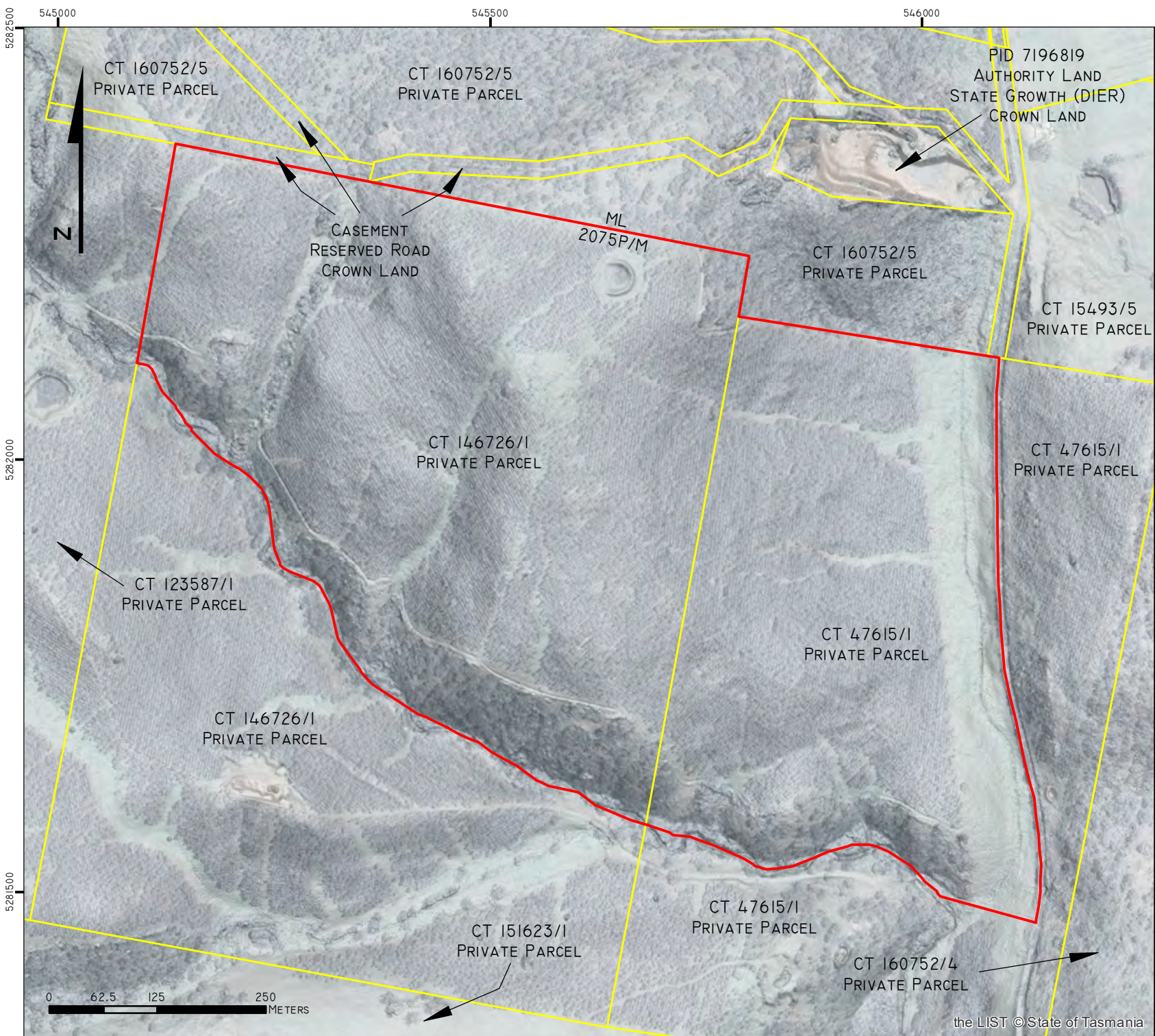
an Diemen CONSULTING
PO Box 1 NEW TOWN TAS 7008



DATUM: GDA94
GRID: MGA ZONE 55
SCALE: @A4 - NA

CLIENT:
GADTECH
MATERIALS
PTY LTD

DATE: 6 JULY 2020



**GADTECH
MATERIALS
PTY LTD**

**BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)**

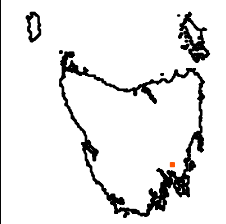
**FIGURE A-2: LOCATION
OF THE BIG BLUE QUARRY
DEVELOPMENT AREA AND
LAND TITLES**

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

BASE DATA BY TASMAP. © STATE OF TASMANIA
BASE IMAGE © GOOGLE EARTH

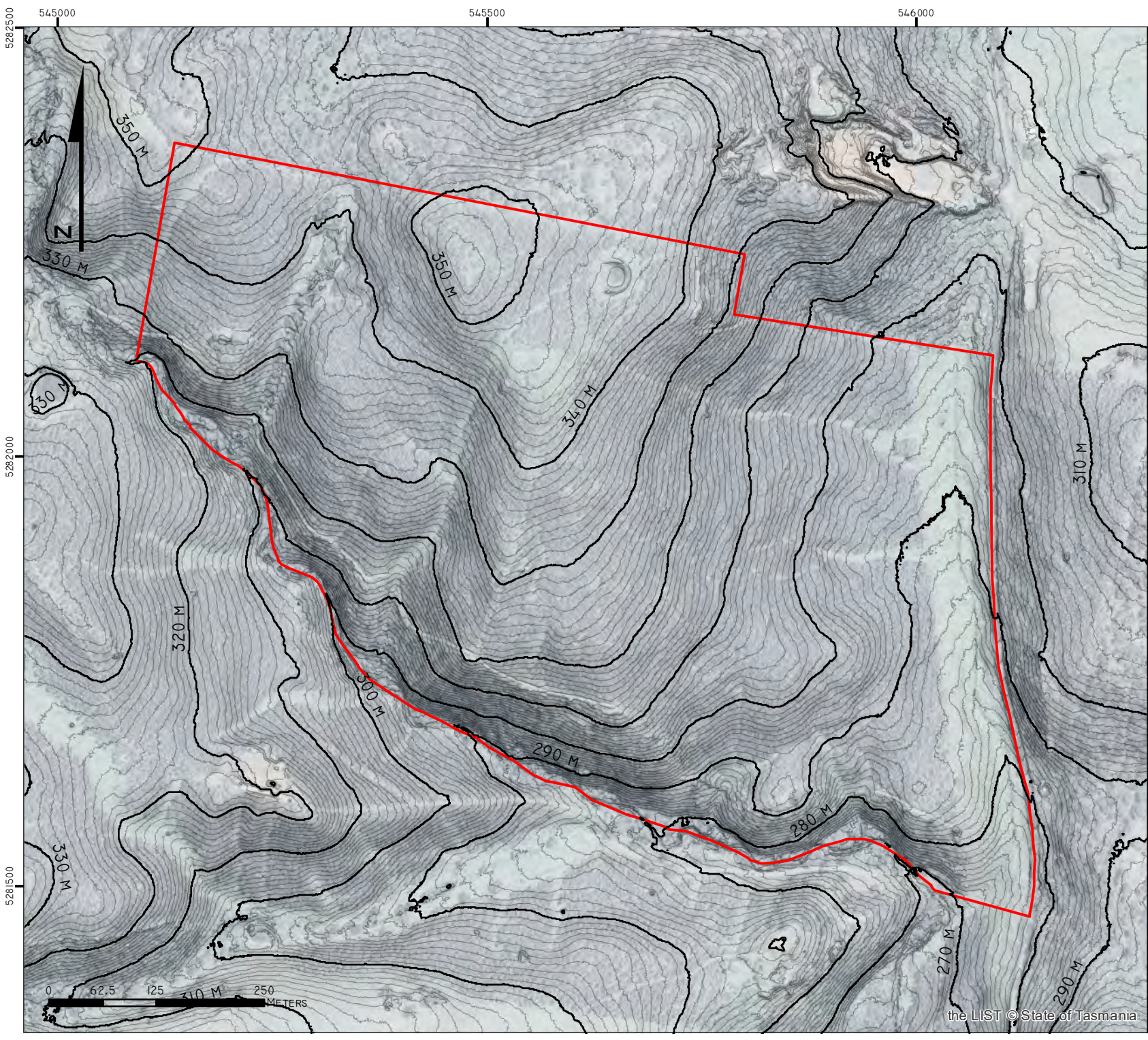
an Diemen CONSULTING
PO Box 1 NEW TOWN TAS 7008



DATUM: GDA94
GRID: MGA ZONE 55
SCALE: @A4 - NA

CLIENT:
GADTECH
MATERIALS
PTY LTD

DATE: 6 JULY 2020



GADTECH
MATERIALS
PTY LTD

BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

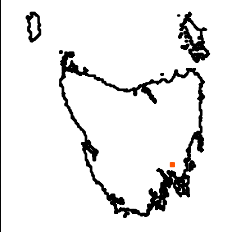
FIGURE A-3: TOPOGRAPHY
(M AHD) AT THE BIG BLUE
QUARRY DEVELOPMENT AREA

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

BASE DATA BY TASMAP. © STATE OF TASMANIA
BASE IMAGE © GOOGLE EARTH

an Diemen CONSULTING
PO Box 1 New Town TAS 7008



DATUM: GDA94
GRID: MGA ZONE 55
SCALE: @A4 - NA

CLIENT:
GADTECH
MATERIALS
PTY LTD

DATE: 6 JULY 2020

A.5 TIMEFRAME AND LONGEVITY OF DEVELOPMENT

It is anticipated that extraction will commence in the third quarter of the 2020-2021 financial year.

The quarry is expected to have a lifespan of at least 40 years owing to the high volume of material available in the Mining Lease.

A.6 RESOURCE IMPORTANCE, PROJECT RATIONALE AND ALTERNATIVES

A.6.1 SELECTION OF QUARRY LOCATION

The location and size of the quarry has been selected primarily because of the strategic location it has relative to existing and emerging markets in the south-east and east coast regions of Tasmania.

Other factors for its choice are –

- The resource is high-quality rock suitable for aggregate production,
- Proximity to an existing main highway with connections to existing and emerging markets,
- Lack of high conservation values in and around the Mining Lease (the site is mainly eucalypt plantation), and the
- General paucity of dwellings in the landscape and especially nearby to the proposed extraction footprint.

A.6.2 LOCATION RELATIVE TO OTHER AGGREGATE GENERATING QUARRIES

Large quarries that have the capacity to generate high-volumes of material are mainly located south of Hobart (eg Leslie Vale – Hazell Bros), north of Hobart (eg Bridgewater Quarry - Boral) or on the Derwent River's eastern shore (eg Flagstaff Gully Quarry - Hanson).

There is no medium to large sized quarries (>100,000 cubic metres per annum) producing dolerite/basalt-based aggregates in the south-east or east coast regions where the nearby road network they use is not, at times, heavily occupied by urban-generated traffic. This includes for example the Brooker Avenue and Southern Outlet that access Hobart, and Davey and Macquarie Streets within Hobart. For example, aggregate derived from quarries south of Hobart must navigate busy Hobart streets to gain access to the eastern shore or the Midlands Highway (via Brooker Avenue), and in doing so contribute to shortening the life expectancy of the road surface.

The quarry will primarily provide a resource that uses different road networks to supply aggregates to areas that are more distant to existing quarries, for example Sorell, the Tasman Peninsula, Nugent-Kellevie area, southern midlands locations that can be accessed easily from road networks north of Hobart (via the Midlands Highway).

Importantly, the quarry is a new source of *large volumes* of material for the east coast region, a location that has traditionally been unable to generate its own large volumes for major projects; there has been a heavy reliance upon aggregates being supplied to project carted from great distances. Big Blue Quarry provides the east coast region with a high-quality product at a closer cart distance because trucks would use the Tasman Highway. Large volumes could be efficiently and effectively supplied to any major projects, including for example road upgrades, new road construction and large construction projects.

A.6.3 OTHER BENEFITS

It is logical that the closer an aggregate resource is to the site of works the less distance the trucks travel. This not only reduces carbon emissions due to lower levels of fuel consumption (helping to fight climate change) but can make carting cheaper and quicker. That is, for a shorter distance between quarry and work site, the same number of trucks could cart comparatively more material in any given period than if there was a longer cart route thereby reducing the number of cart days.

While roads are built for the transport of people and goods, they have a limited and finite lifespan of functional use without repair and/or maintenance. Upgrades may be required where the road has suffered substantial damage or has reached its practical end-of-life limit. Existing large quarries may cart significant tonnages over road networks to distant work sites. The use of a quarry closer to the site of works (ie the customer), the less amount of road is affected by high tonnages being carted over the road and therefore the less overall impact to the road network from the carting of product.

Another clear benefit is the likely reduction in trucks using busy now 'urbanised' road networks that service the greater Hobart area.

A.7 ENVIRONMENTAL LEGISLATION, STANDARDS AND GUIDELINES

The Proponent will conduct the quarry operations in compliance with relevant codes and standards.

Guiding legislation, policies and codes are detailed below:

- *Environmental Management and Pollution Control Act 1994*
- *Land Use Planning and Approvals Act 1993*
- *Mineral Resources Development Act 1995*
- Tasmanian Quarry Code of Practice, 3rd Edition, May 2017
- State Policy on Water Quality Management 1997
- Environment Protection Policy (Air Quality) 2004
- Environment Protection Policy (Noise) 2009

PART B - PROJECT DESCRIPTION

B.1 LOCATION

Big Blue Quarry is located on private freehold land at Woodsdale Road, north of Runnymede in the Southern Midlands municipality (Figures A-1 and A-2). Access is onto Woodsdale Road (Figure B-1) which provides direct access to the Tasman Highway.

B.2 VOLUME EXTRACTED

The extracted volume is up to 200,000 cubic metres per annum (approximately 320,000 tonnes), all of which may be crushed/screened (mechanised/vibratory) to reduce particle size and/or make a uniform particle size product.

B.3 EXTRACTION METHODS

The activity will include the harvesting of hardwood plantation (progressively as ground is needed for the quarry), ripping, drilling, and blasting, crushing (jaw and impact style crushers), vibratory screening and transportation of material.

The maximum disturbed area at the quarry at any one time is 15 hectares.

B.3.1 PRIMARY ACTIVITIES

The quarry will include the following activities:

- surface site preparation by tree-felling and stockpiling/mulching,
- soil and overburden removal and stockpiling,
- excavation and ripping of material,
- drilling and blasting by licensed contractor,
- crushing and/or screening of material,
- stockpiling of material (processed and unprocessed), and the
- loading of trucks with processed material from the stockpile area.

B.3.2 DRILLING AND BLASTING

Rock will be liberated by blasting. Drilling and blasting will be carried out by qualified contractors in consultation with the proponent to ensure the following:

- drilling is carried out as specified by a blast contractor,
- noise and vibration standards are met (both drilling and blasting activities),
- blasting activities are safe and meet all workplace health and safety requirements, and
- blasting is adequate for rock fragmentation for extraction by excavator and crushing.

B.3.3 CRUSHING AND SCREENING

The blast fractured rock, when blasting occurs, will be removed using an excavator and loaded into the hopper of a crusher. Crushers have jaws which are adjusted to achieve the desired aggregate size. The crushed and screened (using a vibrating screen adjacent to the crushing unit) material will be

stockpiled. Stockpiles will be created within the pit which will be identified with labels (eg sub-base, 40mm gravel). The quarry will operate on a need basis with trucks loaded using a front loader.

B.4 EXTRACTION (MINE) PLAN

The EIS and associated impact assessments (eg noise and vibration) have considered impacts from the extraction of material from within the **Maximum Extraction Extent**, not simply the known mine plan area (Level 1, 2 and 3) shown in Figures B-2 to B-4.

Maximum Extraction Extent (ie the area within which material may be extracted) is shown in Figure B-5 and is about 50 hectares in size.

B.4.1 INITIATION AND LEVEL 1

The initial quarrying location will be downslope of the highest point on the Land, in a centralised location in the Mining Lease. The initial quarrying point is approximately shown in Figure B-2. This location has been chosen because it provides a good access point from which to develop the first bench, Level 1. The quarry will be worked from this point towards the north via benches until the end wall is reached near the northern boundary (Figure B-2). It is estimated the Level 1 of the quarry will be completed in approximately 2 years if full annual extraction levels are achieved.

B.4.2 LEVELS 2 AND 3

Levels 2 and 3 will then be extracted which will take the mine plan up to approximately 12-13 years. Cross sections of the pit from commencement to approximately year 12.6 are shown in Figures B-6a to B-6d.

B.4.3 BEYOND LEVEL 3

From Level 3 to Maximum Extraction Extent there will be further mine plans developed and approved by Mineral Resources Tasmania in association with the renewal of the Mining Lease. As areas in addition to Levels 1, 2 and 3 are extracted the mine plans will be provided to the EPA for their file.

B.5 OPERATING HOURS

Operating hours for the quarry (including specific activities) are outlined in Table 1¹ and are consistent with the *Quarry Code of Practice 2017*.

Table 1. Operating hours for Big Blue Quarry, Runnymede

Activity	Days and Hours of Activity
Clearing, ripping, stockpiling and associated works	Monday to Friday, 0700 to 1900 hrs Saturday, 0800 to 1600 hrs Not on Sunday and public holidays ²

¹ Management Measure 1. Operating hours are 0700 to 1900 hrs Monday to Friday, 0800 to 1600 hrs on Saturday, closed on Sunday and public holidays (those gazetted Statewide).

² Public holidays are those gazetted Statewide.

Crushing and/or vibratory screening	Monday to Friday, 0700 to 1900 hrs Saturday, 0800 to 1600 hrs Not on Sunday and public holidays
Loading and carting of product	Monday to Friday, 0700 to 1900 hrs Saturday, 0800 to 1600 hrs Not on Sunday and public holidays
Drilling and blasting	Monday to Friday only, 1000 to 1600 hrs Not on Sunday and public holidays

B.6 QUARRY EQUIPMENT

The equipment likely to be used at some stage (ie not all the below listed equipment would be used concurrently) of the quarry operation is as follows:

- Excavator: 2014 Doosan DX225LC
- Crusher: 2006 Metso LT1110 (used with a powered vibratory screen)
- Loader: 2009 Doosan DL250
- Dozer: 2003 Komatsu D87E-2
- Drill Rig: As per contractor.

Other

- Trucks for haulage
- 15,000L capacity water cart truck (for road and load dampening to reduce dust emissions)
- Light vehicles for worker transport
- Service truck for repairs to machinery and equipment

Equipment will be replaced/renewed as existing/proposed equipment ages or becomes redundant.

B.7 ROAD USE AND TRAFFIC GENERATION

B.7.1 ACCESS ROAD

The quarry (and Mining Lease) is accessed from Woodsdale Road. The primary route to the quarry will be from the Tasman Highway onto Woodsdale Road.

A new access from Woodsdale Road is proposed as per Figure B-2 because the sight distances at the existing access are insufficient. A Traffic Impact Assessment (TIA) prepared for the activity (Attachment 2) recommended a junction layout per IPWEA Drawing TSD-R05-v1 (Attachment 3). The northern side of the driveway radius may not need to have the full 20 m as indicated on the standard drawing as trucks will be traveling to/from the south. The initial 15m of the road will be sealed to prevent loose material being carried onto the Woodsdale Road seal. The TIA notes there is not a need for any auxiliary traffic lanes on Woodsdale Road, nor traffic signs or markings at this junction.

B.7.2 TRAFFIC GENERATION AND CHARACTERISTICS

There will be a mix of vehicles transporting the rock from the quarry with around 5% rigid trucks (12 tonne payload), 10% truck and super dog (28 tonne payload) and quad dogs (34 tonne payload). Based on this, and the average payload per loaded tuck will be 32.3 tonne, it has been estimated the truck numbers could be around 9,900 trucks (19,800 truck movements per annum).

Assuming 250 days of operation, there will be around 40 trucks/day transporting material from the quarry. Therefore, there will be 80 trucks/day along Woodsdale Road to and from the quarry or around 8 trucks/hour based on a 10-hour daily period of transport activity. It is expected there will also be up to 10 light vehicles (cars)/day on those days that the quarry is operating and a service vehicle once per week.

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BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

FIGURE B-I: ACCESS TO
BIG BLUE QUARRY

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MIDLANDS

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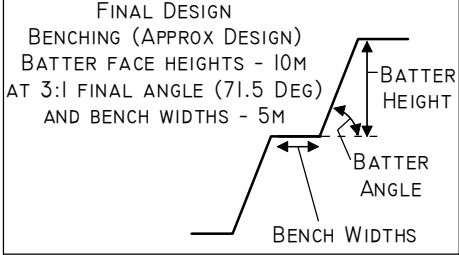
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BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

FIGURE B-2: MINE
PLAN (0 TO 2 YEARS)

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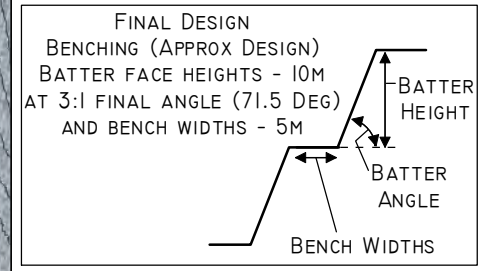
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BIG BLUE QUARRY ENVIRONMENTAL IMPACT STATEMENT (EIS)

FIGURE B-3: MINE PLAN (TO 6.2 YEARS)

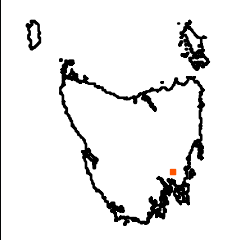
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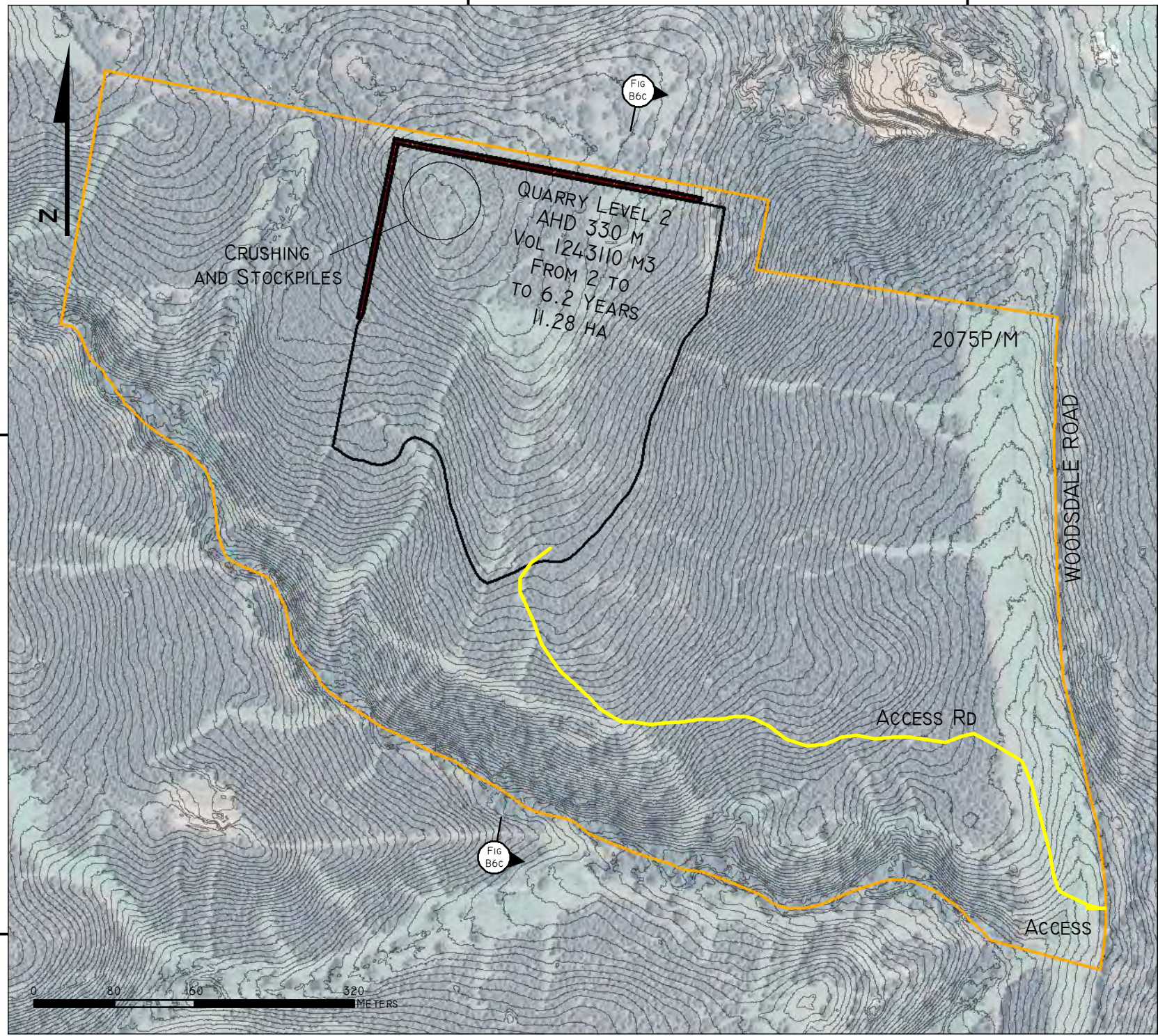
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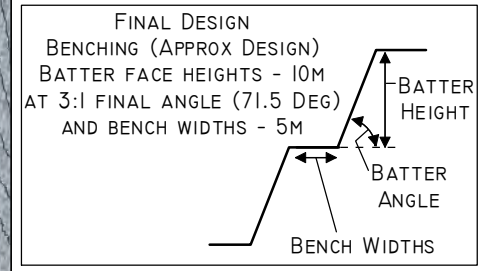
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BIG BLUE QUARRY ENVIRONMENTAL IMPACT STATEMENT (EIS)

FIGURE B-4: MINE PLAN (TO 12.6 YEARS)

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LGA:
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MIDLANDS



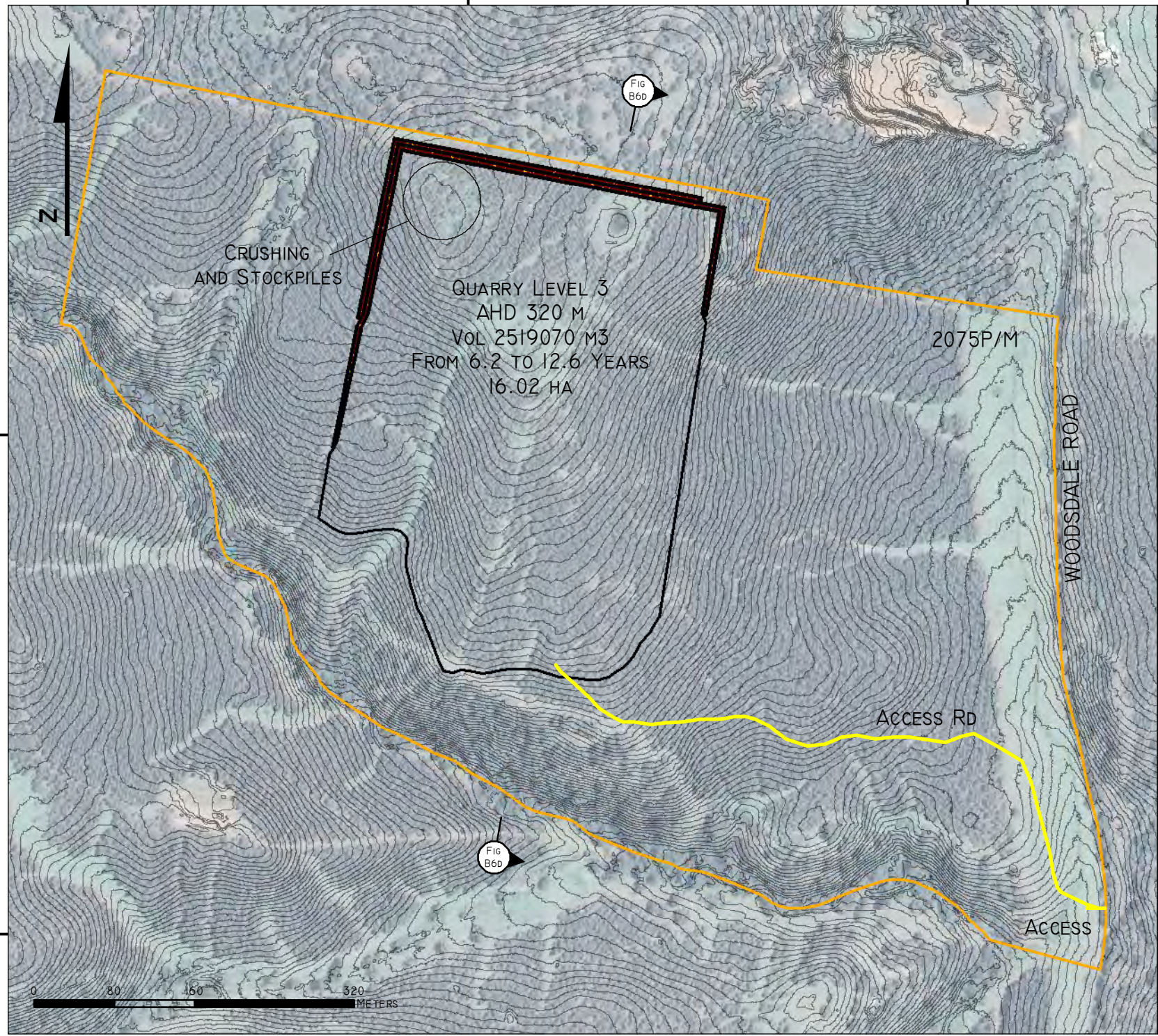
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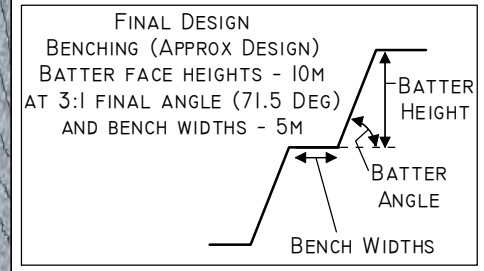
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BIG BLUE QUARRY ENVIRONMENTAL IMPACT STATEMENT (EIS)

FIGURE B-5: MAXIMUM EXTENT (THE LAND)

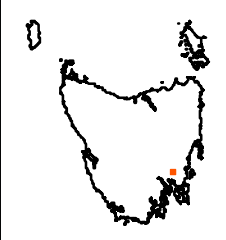
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2075P/M

MAXIMUM
EXTENT
(THE LAND)
(50.22 HA)

WOODSDALE ROAD

ACCESS



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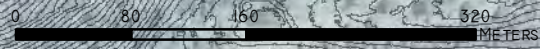


FIGURE B-6a: CROSS SECTION OF BIG BLUE QUARRY
(PRESENT)

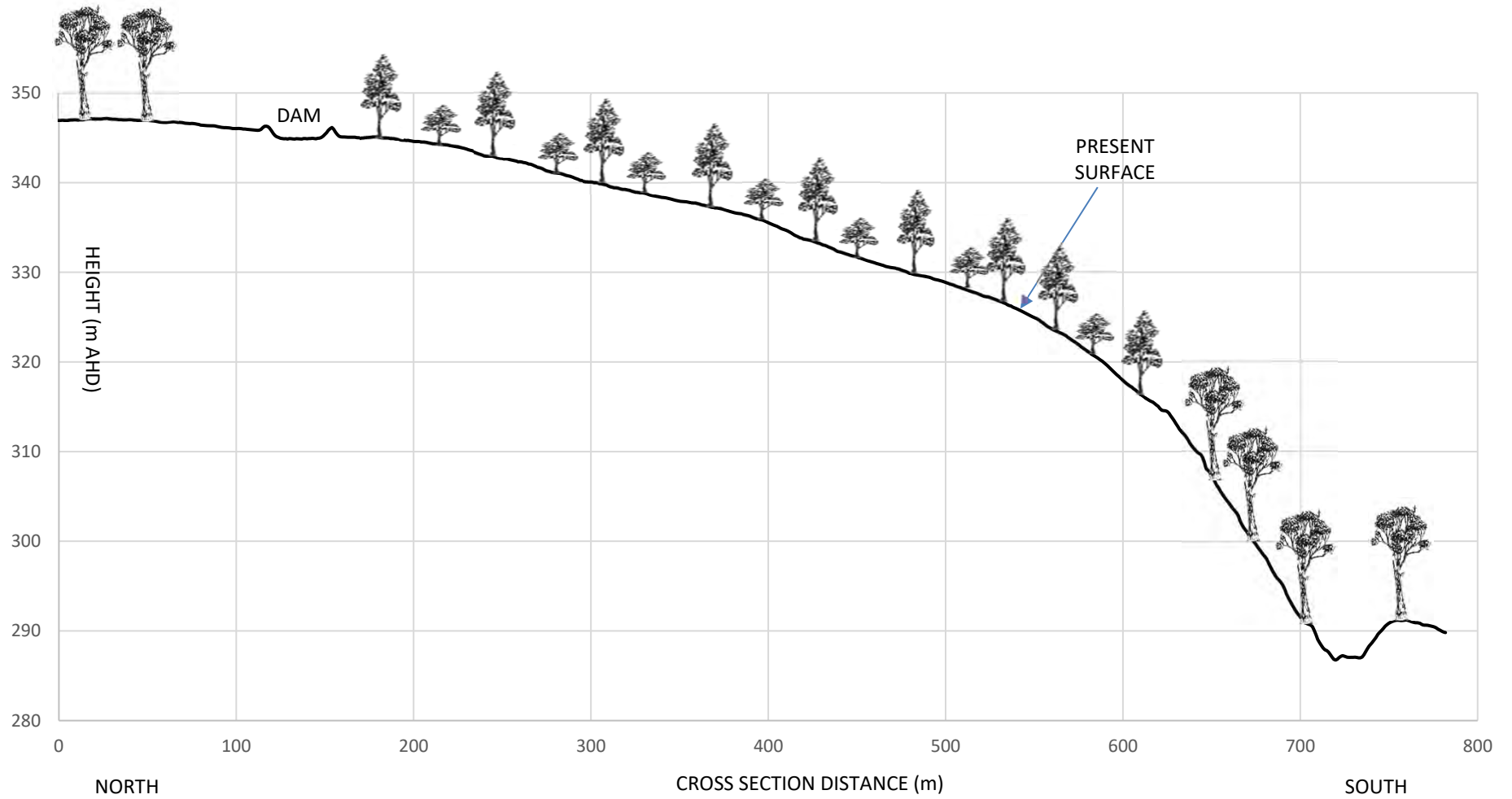


FIGURE B-6b: CROSS SECTION OF BIG BLUE QUARRY
(TO YEAR 2)

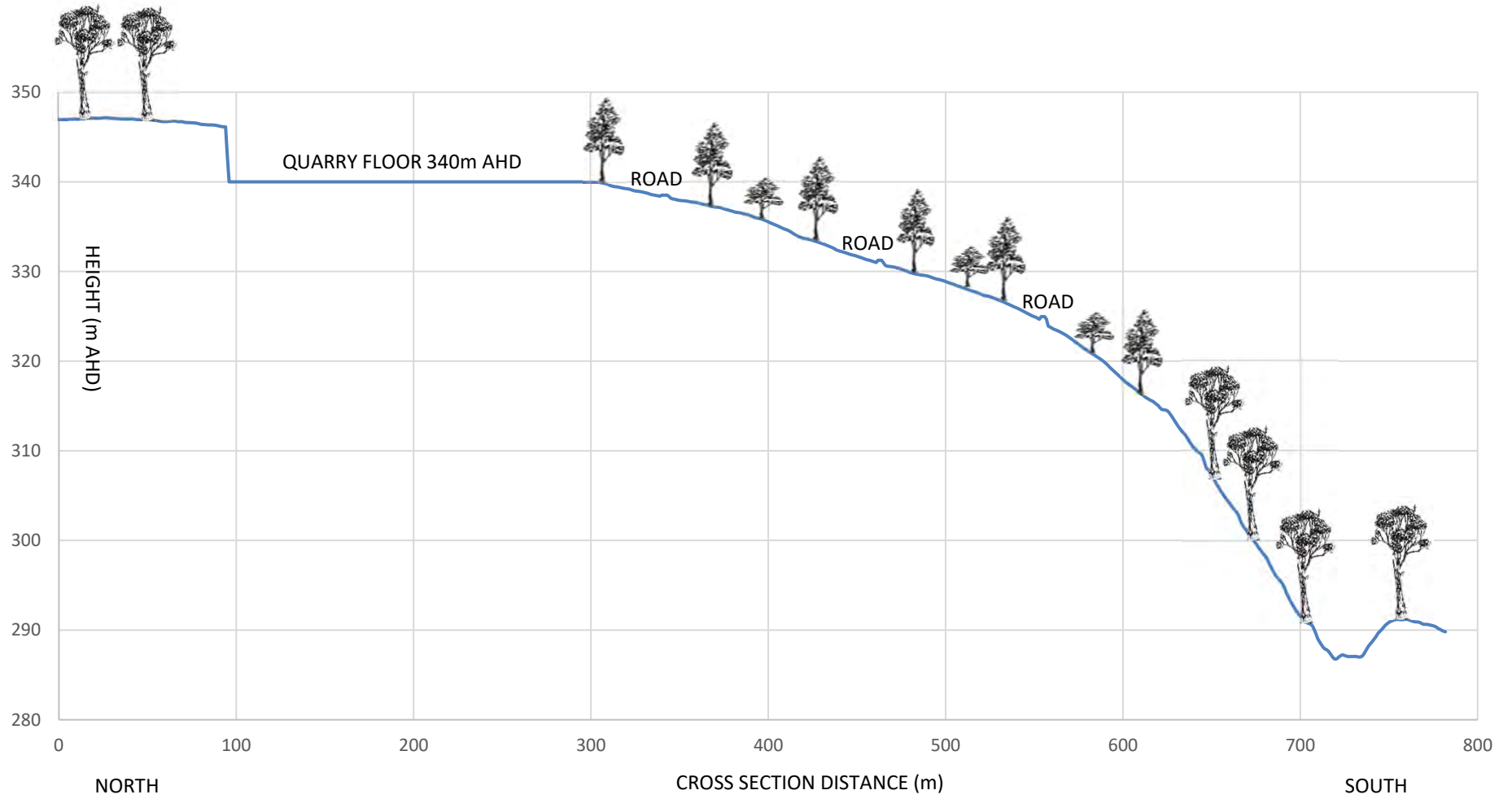


FIGURE B6c: CROSS SECTION OF BIG BLUE QUARRY
(TO YEAR 6.2)

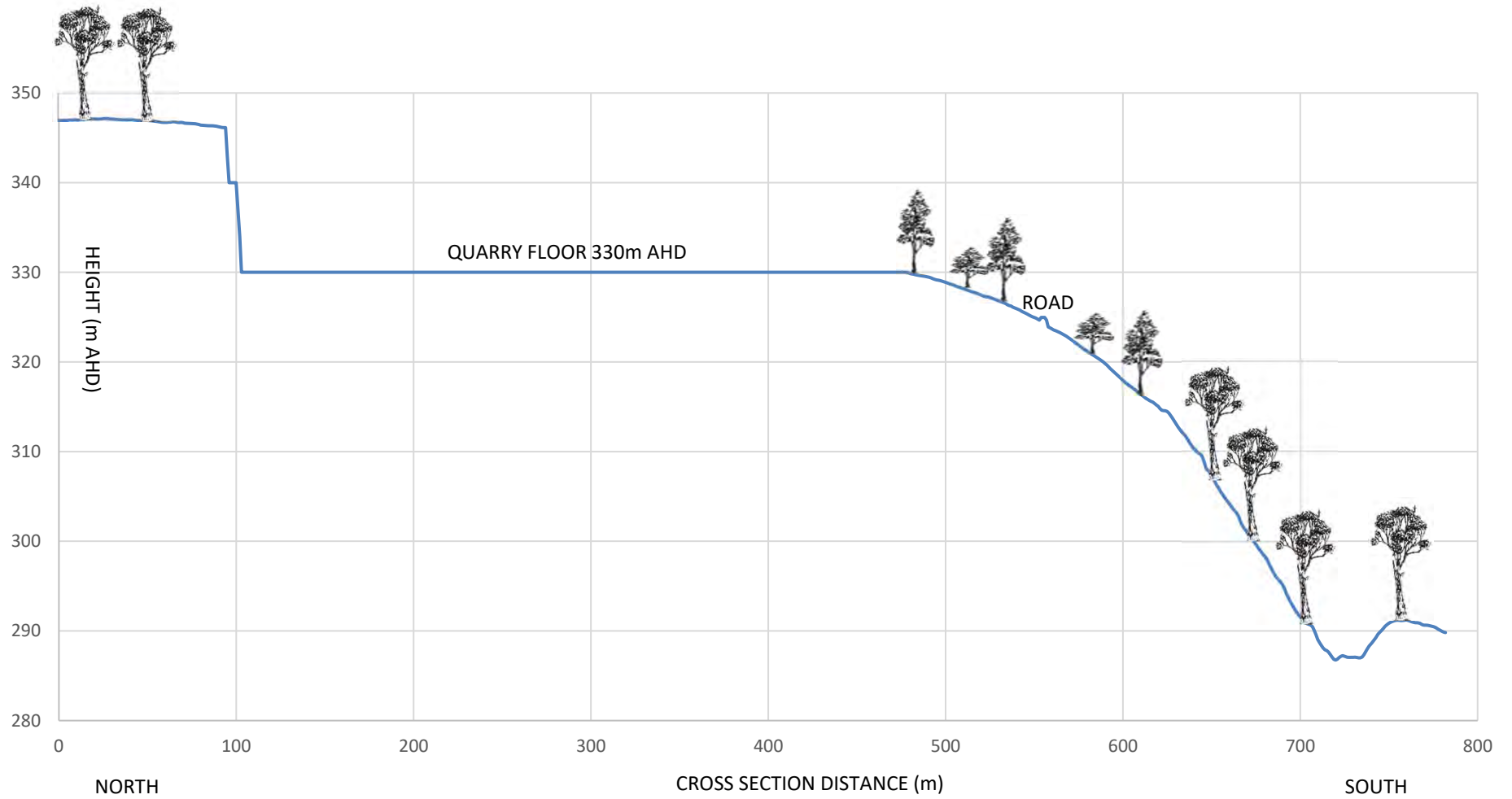
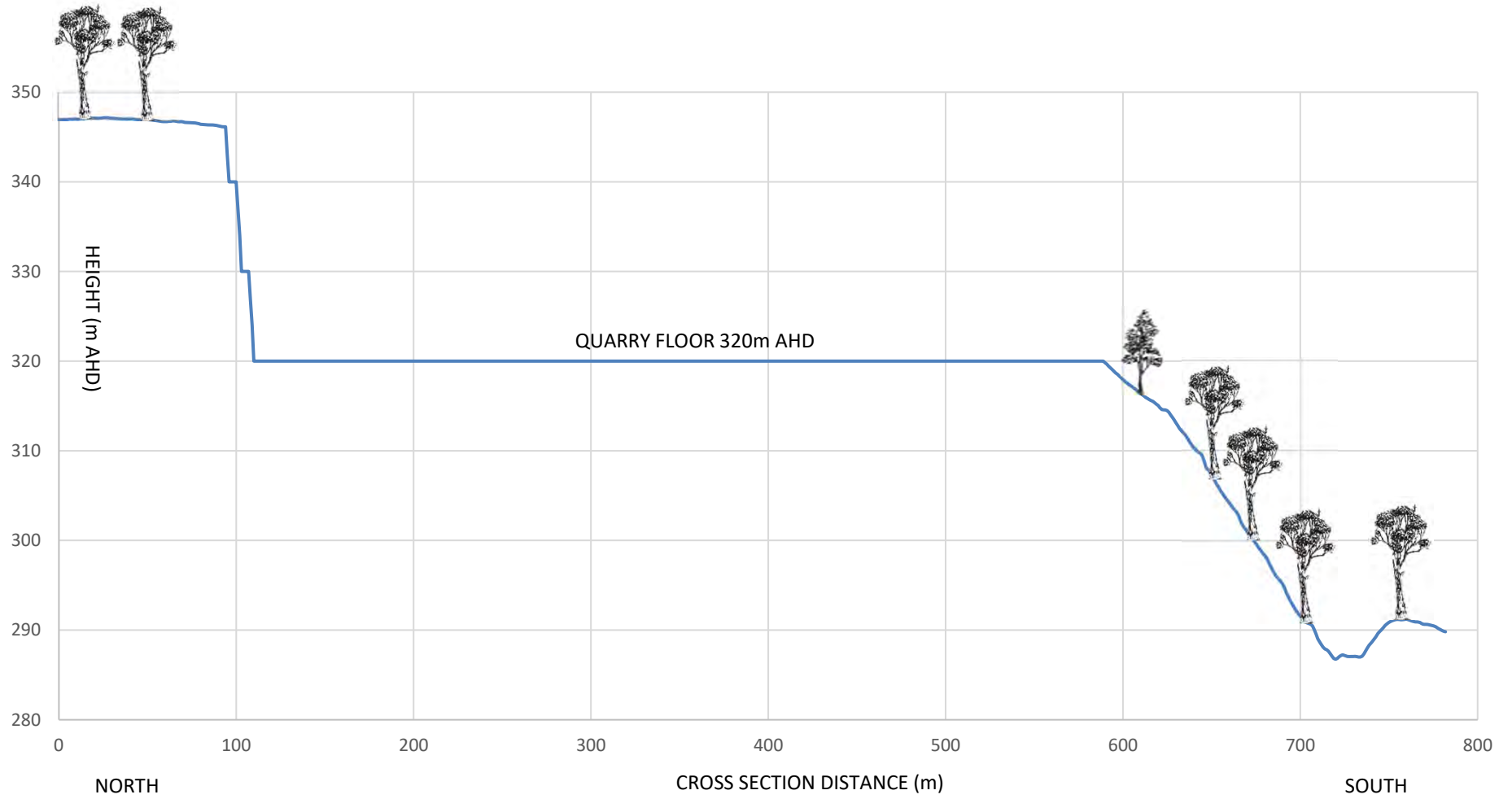


FIGURE B6d: CROSS SECTION OF BIG BLUE QUARRY
(TO YEAR 12.6)



B.8 QUARRY PLANS

B.8.1 INFRASTRUCTURE

No new water or electrical infrastructure (eg powerlines) is required nor proposed for the activity.

B.8.2 STOCKPILED PRODUCT

All material, whether crushed or not, will be stockpiled and stored within the quarry disturbed area.

B.8.3 STOCKPILED SOIL/OVERBURDEN

Soil and overburden (if any) will be stored separately in bunds around the quarry to (i) facilitate the reduction in noise emissions beyond the quarry and (ii) to ensure it remains 'clean' for use in future rehabilitation works. Overburden and topsoil may be seeded with an agricultural grass/herb mix to reduce wind and water-caused erosion and minimise the amount of bare soil upon which weeds may colonise (eg thistles).

B.8.4 SEDIMENT POND AND ASSOCIATED DRAINAGE

Stormwater and associated sediment control will be managed via a water management system (to be installed) at the quarry which will include an internal drainage system, cut-off drains and sediment pond. See section E.2 SURFACE WATER MANAGEMENT for further details.

Water from the pond(s) will be used to dampen roads and loads to prevent/minimise fugitive dust emissions. When the sediment ponds are dry, water will be accessed from other sources via a water cart truck (see B.6 QUARRY EQUIPMENT).

B.8.5 AMENITIES

No amenities are proposed to be constructed for the quarry. A portaloos would be made available at the quarry for long campaigns.

B.9 VEGETATION REMOVAL AND MANAGEMENT

The removal or lopping of vegetation will only occur as the area is required for quarry expansion or the maintenance of specific infrastructure, such as cut-off drains.

Leaves, small limbs, and undergrowth will be removed and mulched for use off-site (eg landscaping works) or retained on-site for future rehabilitation works. No more than 20 cubic metres of mulch and vegetative debris generated by clearing works will be stored in any one stockpile, with stockpiles separated by at least 20 m.

Other aspects of section 7.7 of the QCP (vegetation clearing and topsoil stripping) will be applied where relevant and practical.

B.10 TOPSOIL – OVERBURDEN REMOVAL AND MANAGEMENT

Stripped soil will be used to further create bunding to provide a means by which to direct surface water flows to the sediment pond (for within quarry water flows) or away from the quarry (for water originating from outside the quarry area). These areas will be vegetated with pasture grass/herb species where necessary and appropriately maintained for the life of the quarry.

Other aspects of section 7.7 of the QCP (vegetation clearing and topsoil stripping) will be applied where relevant and practical.

B.11 BLAST PLANNING AND MANAGEMENT

B.11.1 BLAST MANAGEMENT PLAN

A Blast Management Plan will be prepared and submitted to the EPA Director for approval prior to the commencement of the first drilling or blasting event on The Land³.

The plan will include details of the following:

1. Details of blast controller,
2. Notification list and methodology,
3. Blasting procedure, type of explosives, initiation systems,
4. Storage and handling of dangerous goods methods,
5. Risk assessment and auditing procedures,
6. A noise and vibration monitoring program, including:
 - a. a blast monitoring location map,
 - b. the frequency and parameters to be measured.
7. Incident reporting
8. Contingency management procedures, including actions to be implemented in the event of an exceedance of a limit imposed by a permit condition.

B.11.2 GENERAL APPROACH TO BLAST MANAGEMENT

Drilling and blasting will be carried out by qualified and appropriately insured blast contractors. The contractors will carry out each drill and blast in consultation with the quarry owner to ensure the following tasks occur:

- drilling is carried out as specified by a blast contractor,
- noise and vibration standards are met (both drilling and blasting activities),
- blasting activities are safe and meet all workplace health and safety requirements, and
- blasting is adequate for rock fragmentation for extraction by excavator and crushing.

General measures that will be applied for a blast include –

Storage and handling of explosives

The transportation, storage and handling of explosives is conducted by the blast contractor in accordance with the Australian Explosives Code (1999), the Australian Code for the transport of explosives by road and rail (Third edition - 2009) and Australian Standard 2187 Explosives – Transport, storage and Use (parts 1 and 2).

³ Management Measure 2: A Blast Management Plan will be prepared and submitted to the EPA Director for approval prior to the commencement of the first drilling or blasting event on The Land

Risk assessment and auditing

The blast contractor is responsible for conducting a risk assessment and safety audit of the quarry as part of each blast. This includes the drilling of the holes for explosives, handling explosives, operation of detonation devices and the safe detonation of the charges. Gadtech Materials Pty Ltd or their delegated agent will receive a copy of the risk assessment and associated documentation that supports the placement of drill holes, levels of explosives used and the detonation devices.

Noise/vibration blast monitoring program

Measurements of air blast overpressure and peak particle velocity will be carried out by the blast contractor in accordance with the methods set down in *Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration*, Australian and New Zealand Environment Council, September 1990. The noise/vibration test results collected by the blast contractor will be securely held by Gadtech Materials Pty Ltd or their delegated agent for 5 years from the date of the blast. If the blasting noise limits and/or vibrations as specified in the permit are exceeded, the EPA Director will be notified within 24 hours of the blasting event.

Incident Reporting

The blast contractor is responsible for reporting to Police/Fire any incident that requires their involvement or attendance at the quarry. Gadtech Materials Pty Ltd is responsible for reporting any misfires to surrounding relevant landowners: if the blast(s) cannot take place at the time specified, or because of blasting misfires.

PART C – PLANNING SCHEME INFORMATION

This section of the EIA is principally for use by the Planning Authority, in this case the Southern Midlands Council, in assessing the development and use against the requirements of the Southern Midlands Interim Planning Scheme 2015 (the Scheme).

C.1 CATEGORISATION OF USE/DEVELOPMENT

The development and use is consistent with the definition of Extractive Industry in the Scheme –

‘... 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.’

C.2 ZONING AND OVERLAYS

A quarry is defined as an *Extractive Industry* in the Scheme which is a Discretionary use within the Rural Resource zone.

All land adjoining the Mining Lease is zoned Rural Resource (Figure C-1). The Land intersects three Overlays – Landslide Code, Attenuation Code and Waterway and Wetland Protection Areas Code (Figure C-2).

C.3 SCHEME USE STANDARDS

The following notes and comments are made about each Use Standard relevant to the development. The numbers used to label each table below is the same as for the Scheme.

26.3.3 Discretionary Use

Objective - To ensure that discretionary non-agricultural uses do not unreasonably confine or restrain the agricultural use of agricultural land.

Performance Criterion	Comments
<p>P1</p> <p>A discretionary non-agricultural use⁴ must not conflict with or fetter agricultural use on the site or adjoining land having regard to all of the following:</p> <ul style="list-style-type: none"> (a) the characteristics of the proposed non-agricultural use; (b) the characteristics of the existing or likely agricultural use; (c) setback to site boundaries and separation distance between the 	<p>Development complies with P1.</p> <p>The surrounding land is mainly in agricultural use – it is forestry (native forest silviculture and plantation) which is a component of <u>resource development</u> and agriculture (livestock).</p> <p>The area to be quarried has limited agricultural (livestock) potential due to slope and shallow soils (the growing of food crops would be almost impossible) – it has been and can continue to be used to grow and harvest timber even after extraction has occurred. The rehabilitation program for the quarry is to re-establish plantation (or pasture for livestock</p>

⁴ *Agricultural use* means use of the land for propagating, cultivating or harvesting plants or for keeping and breeding of animals, excluding pets. It includes the handling, packing or storing of plant and animal produce for dispatch to processors. It includes controlled environment agriculture, intensive tree farming and plantation forestry.

<p>proposed non-agricultural use and existing or likely agricultural use;</p> <p>(d) any characteristics of the site and adjoining land that would buffer the proposed non-agricultural use from the adverse impacts on amenity from existing or likely agricultural use.</p>	<p>grazing, subject to the land use intent of the landowner) on the worked-out areas.</p> <p>The Mining Lease and adjoining lands are not part of an irrigation district.</p> <p>Setbacks are enough to prevent fettering or any impact to agricultural lands in the region.</p> <p>Water will available from the on-site sediment pond to dampen the access road and the crusher will be fitted with sprayers to prevent dust (as is standard for modern mobile crushing units) – measures described in the Tasmanian <i>Quarry Code of Practice 2017</i> as being industry standard to prevent dust emissions crossing the boundary of the land upon which the quarrying activity is conducted.</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



ENTIRE AREA
IS 26.0
RURAL RESOURCE

**GADTECH
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**BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)**

**FIGURE C-1: ZONE MAP
SOUTHERN MIDLANDS INTERIM
PLANNING SCHEME 2015**

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

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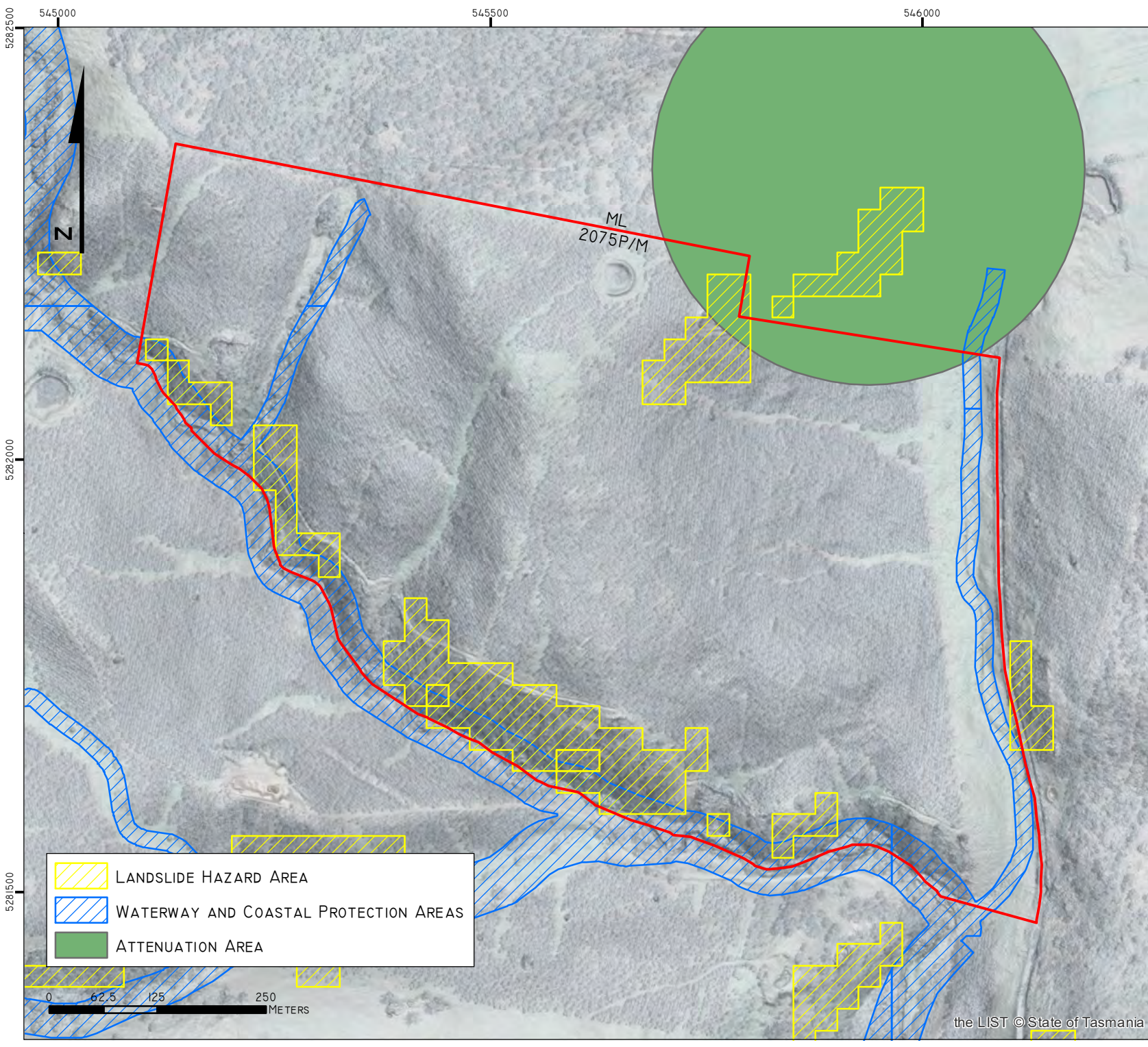
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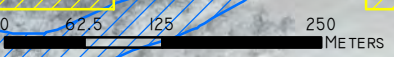
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-  LANDSLIDE HAZARD AREA
-  WATERWAY AND COASTAL PROTECTION AREAS
-  ATTENUATION AREA



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STATEMENT (EIS)

FIGURE C-2: OVERLAY MAP
SOUTHERN MIDLANDS INTERIM
PLANNING SCHEME 2015

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C.4 DEVELOPMENT STANDARDS

The following notes and comments are made about relevant Development Standard. The numbers used to label each table below is the same as for the Scheme.

Clause 26.4.1 is not applicable as no buildings are proposed and Clause 26.5 is not applicable because subdivision is not proposed.

26.4.2 Setback

Objective - To minimise land use conflict and fettering of use of rural land from residential use, maintain desirable characteristics of the rural landscape and protect environmental values in adjoining land zoned Environmental Management.

Acceptable Solution (A)	Comments
A1 Building setback from frontage must be no less than: 20 m.	Not applicable , no buildings are proposed by the activity.
A2 Building setback from side and rear boundaries must be no less than: 40 m.	Not applicable , no buildings are proposed by the activity.
A3 Building setback for buildings for sensitive use must comply with all of the following: (a) be sufficient to provide a separation distance from a plantation forest, Private Timber Reserve or State Forest of 100 m; (b) be sufficient to provide a separation distance from land zoned Significant Agriculture of 200 m.	Not applicable , no buildings are proposed by the activity.
A4 Buildings and works must be setback from land zoned Environmental Management no less than: 50 m.	Satisfies A4 Works are setback at least 50m from land zoned Environmental Management.

26.4.3 Design

Objective - To ensure that the location and appearance of buildings and works minimises adverse impact on the rural landscape.

Performance Criterion (P) or Acceptable Solution (A)	Comments

<p>A1</p> <p>The location of buildings and works must comply with any of the following:</p> <ul style="list-style-type: none"> (a) be located within a building area, if provided on the title; (b) be an addition or alteration to an existing building; (c) be located in an area not requiring the clearing of native vegetation and not on a skyline or ridgeline. 	<p>Satisfies A1(c).</p> <p>Native vegetation will not be cleared, and the activity is not skyline or ridgeline.</p>
<p>A2</p> <p>Exterior building surfaces must be coloured using colours with a light reflectance value not greater than 40 percent.</p>	<p>Not applicable, no buildings are proposed by the activity.</p>
<p>P3</p> <p>The depth of any fill or excavation must be kept to a minimum so that the development satisfies all of the following:</p> <ul style="list-style-type: none"> (a) does not have significant impact on the rural landscape of the area; (b) does not unreasonably impact upon the privacy of adjoining properties; (c) does not affect land stability on the lot or adjoining areas. 	<p>Satisfies P3.</p> <p>Native vegetation will not be cleared, and the activity is not skyline or ridgeline. Excavations will be partly shielded by the retained occurrence of plantation trees and the rehabilitation (revegetation) of worked areas.</p> <p>The excavation will not impact on the privacy of adjoining properties – there are no sensitive uses adjoining the site.</p> <p>The excavation will not affect land stability on adjoining lots – this is regulated under the <i>Mineral Resources Development Act 1995</i> by Mineral Resources Tasmania.</p>

C.5 CODES

The following notes and comments are made about relevant Codes in the Scheme.

C.5.1 BUSHFIRE PRONE AREAS

The Code is not applicable to the development.

C.5.2 POTENTIALLY CONTAMINATED LAND

The Code is not applicable to the development.

C.5.3 LANDSLIDE

The purpose of this provision is to ensure that use and development is appropriately designed, located, serviced, constructed or managed to reduce to within tolerable limits the risk to human life and property and the cost to the community, caused by landslides.

This Code applies to:

- (a) Development for buildings and works or subdivision on land within a Landslide Hazard Area;
- (b) Use of land for vulnerable use or hazardous use within a Landslide Hazard Area.

The quarry will be **exempt** from this Code when the mining lease (2075P/M) under the *Mineral Resources Development Act 1995* comes into force, a hazardous use is not proposed. The mining lease is likely to be issued prior to the planning authority determining the application.

If this is not the case, the following relevant Use and Development Standards of this Code have been considered.

Clause E3.6 Use Standards

Use Standard is not applicable – no hazardous or vulnerable use is proposed.

Clause E3.7 Development Standards

Clause E3.7.1 Buildings and Works, other than Minor Extensions

Objective – To ensure that landslide risk associated with buildings and works for buildings and works, other than minor extensions, in Landslide Hazard Areas, is:

- (a) acceptable risk; or
- (b) tolerable risk, having regard to the feasibility and effectiveness of measures required to manage the landslide hazard.

Performance Criterion	Comments
<p>P1⁵ Buildings and works must satisfy all of the following:</p> <ul style="list-style-type: none"> (a) no part of the buildings and works is in a High Landslide Hazard Area; (b) the landslide risk associated with the buildings and works is either: <ul style="list-style-type: none"> (i) acceptable risk; or (ii) capable of feasible and effective treatment through hazard management measures, so as to be tolerable risk. 	<p>Development complies with P1.</p> <p>No works are to occur within a High Landslide Hazard Area.</p> <p>No buildings are proposed.</p> <p>The activity is a quarry which requires excavation, blasting and crushing/screening – the areas to be extracted overlap with Low and Medium Landslide Hazard Areas.</p> <p>Blasting and extraction will be appropriately managed in accordance with the <i>Tasmanian Quarry Code of Practice 2017</i> and regulated by the EPA.</p>

Clause E3.7.2 Minor Extensions is not applicable as a *minor extension* is not proposed.

Clause E3.7.3 Major Works

Objective – To ensure that landslide risk associated with major works in Landslide Hazard Areas, is:

- (a) acceptable risk; or

⁵ There is no Acceptable Solution.

- (b) tolerable risk, having regard to the feasibility and effectiveness of any measures required to manage the landslide hazard.

Performance Criterion	Comments
<p>P1⁶ Major works must satisfy all of the following:</p> <p>(a) no part of the buildings and works is in a High Landslide Hazard Area;</p> <p>(b) the landslide risk associated with the buildings and works is either:</p> <p>(i) acceptable risk; or</p> <p>(ii) capable of feasible and effective treatment through hazard management measures, so as to be tolerable risk.</p>	<p>Satisfies P1(a). The quarry is in a Low Landslide Hazard Area.</p> <p>Satisfies P1(b)(ii). Blasting and extraction will be planned and managed in accordance with the <i>Tasmanian Quarry Code of Practice 2017</i> and regulated by the EPA.</p> <p>Excavation by benching consistent with the <i>Quarry Code of Practice 2017</i> provides feasible and effective treatment through hazard management measures.</p>

Clause E3.8 is not applicable because subdivision is not proposed.

C.5.4 ROAD AND RAILWAY ASSET CODE

The purpose of this provision is to:

- (a) protect the safety and efficiency of the road and railway networks; and
- (b) reduce conflicts between sensitive uses and major roads and the rail network.

This Code applies as the development and use will intensify the use of an existing access.

A Traffic Impact Assessment (TIA) is in Attachment 2.

The following terms from the Scheme are used in this section –

Access	means land over which a vehicle enters or leaves a road from land adjoining a road.
Access strip	means land, the purpose of which is to provide access to a road.
Road	means land over which the general public has permanent right of passage, including the whole width between abutting property boundaries, all footpaths and the like, and all bridges over which such a road passes.
Road authority	means for State highways or subsidiary roads, within the meaning of the <i>Roads and Jetties Act 1935</i> , the Minister administering that Act and in relation to all other roads, the Council having the control of such road.

Clause E5.5 Use Standards

The following relevant Use Standards of this Code have been considered in this application.

Clause E5.5.1 Existing road access and junctions

⁶ There is no Acceptable Solution.

Objective – To ensure that the safety and efficiency of roads is not reduced by increased use of existing accesses and junctions.

Performance Criterion (P) OR Acceptable Solution (A)	Comments
<p>A1</p> <p>The annual average daily traffic (AADT) of vehicle movements, to and from a site, onto a category 1 or category 2 road, in an area subject to a speed limit of more than 60km/hr, must not increase by more than 10% or 10 vehicle movements per day, whichever is the greater.</p>	<p>Not applicable to the development</p> <p>Site does not access a Category 1 or 2 road.</p>
<p>P2</p> <p>Any increase in vehicle traffic at an existing access or junction in an area subject to a speed limit of more than 60km/h must be safe and not unreasonably impact on the efficiency of the road, having regard to:</p> <p>(a) the increase in traffic caused by the use;</p> <p>(b) the nature of the traffic generated by the use;</p> <p>(c) the nature and efficiency of the access or the junction;</p> <p>(d) the nature and category of the road;</p> <p>(e) the speed limit and traffic flow of the road;</p> <p>(f) any alternative access to a road;</p> <p>(g) the need for the use;</p> <p>(h) any traffic impact assessment; and</p> <p>(i) any written advice received from the road authority.</p>	<p>Satisfies P2.</p> <p>The use will increase traffic on Woodsdale Road. A TIA has been prepared (Attachment 2).</p>
<p>A3</p> <p>The annual average daily traffic (AADT) of vehicle movements, to and from a site, using an existing access or junction, in an area subject to a speed limit of 60km/h or less, must not increase by more than 20% or 40 vehicle movements per day, whichever is the greater.</p>	<p>Not relevant to the development – speed limit is 100 km/hr.</p>

Clause E5.5.2 Existing Level Crossings

Use Standard is not applicable – there is no access over a level crossing.

Clause E5.6 Development Standards

The following Development Standards have been considered in this application.

Clause E5.6.1 Development adjacent to roads and railways

Development Standard is not applicable – there is no access near a railway line, level crossing or a category 1 or 2 road.

Clause E5.6.2 Road accesses and junctions

Objective – To ensure that the safety and efficiency of roads is not reduced by the creation of new accesses and junctions.

Performance Criterion (P) OR Acceptable Solution (A)	Comments
<p>P1</p> <p>For roads in an area subject to a speed limit of more than 60km/h, accesses and junctions must be safe and not unreasonably impact on the efficiency of the road, having regard to:</p> <p>(a) the nature and frequency of the traffic generated by the use;</p> <p>(b) the nature of the road;</p> <p>(c) the speed limit and traffic flow of the road;</p> <p>(d) any alternative access;</p> <p>(e) the need for the access or junction;</p> <p>(f) any traffic impact assessment; and</p> <p>(g) any written advice received from the road authority.</p>	<p>Satisfies P1.</p> <p>A new access is proposed to replace the existing access which has poor sight distance along Woodsdale Road.</p> <p>Woodsdale Road is a low volume traffic generator that is sealed through to the Tasman Highway from the proposed new access.</p> <p>The TIA conducted for the development has identified the location and the form of the access as per Attachments 2 and 3.</p>
<p>A2</p> <p>No more than one access providing both entry and exit, or two accesses providing separate entry and exit, to roads in an area subject to a speed limit of 60km/h or less.</p>	<p>Satisfies A2.</p> <p>One access that provides entry and exit from the site is proposed.</p>

Clause E5.6.3 New level crossings

Development Standard is not applicable.

Clause E5.6.4 Sight distances at accesses, junctions and level crossings

The development complies with the Acceptable Solution A1 – sight distance onto the access road are more than those stipulated in Table E.5.1 of the Scheme.

C.5.5 PARKING AND ACCESS

The purpose of this provision is to:

- (a) ensure safe and efficient access to the road network for all users, including drivers, passengers, pedestrians and cyclists;
- (b) ensure enough parking is provided for a use or development to meet the reasonable requirements of users, including people with disabilities;
- (c) ensure sufficient parking is provided on site to minimise on-street parking and maximise the efficiency of the road network;
- (d) ensure parking areas are designed and located in conformity with recognised standards to enable safe, easy and efficient use and contribute to the creation of vibrant and liveable places;

- (e) ensure access and parking areas are designed and located to be safe for users by minimising the potential for conflicts involving pedestrians, cyclists and vehicles; and by reducing opportunities for crime or anti-social behaviour;
- (f) ensure that vehicle access and parking areas do not adversely impact on amenity, site characteristics or hazards;
- (g) recognise the complementary use and benefit of public transport and non-motorised modes of transport such as bicycles and walking;
- (h) provide for safe servicing of use or development by commercial vehicles.

Clause E6.6 Use Standards

The following relevant Use Standards have been considered in this application.

Two car spaces (Clause E6.6.1) are required for every 3 employees that are associated with the development pursuant to Table E6.1 of the Scheme. Two car spaces will be constructed in the quarry site. Clause E6.6.3 and E6.6.4 are not applicable.

Clause E6.7 Development Standards

The following relevant Development Standards have been considered in this application.

The development and use comply with E6.7.1 as there is only one access.

Clause E6.7.2 Design of Vehicular Accesses

Objective – To ensure safe and efficient access for all users, including drivers, passengers, pedestrians and cyclists by locating, designing and constructing vehicle access points safely relative to the road network.

Performance Criterion (P)	Comments
<p>P1 Design of vehicle access points must be safe, efficient and convenient, having regard to all of the following:</p> <ul style="list-style-type: none"> (a) avoidance of conflicts between users including vehicles, cyclists and pedestrians; (b) avoidance of unreasonable interference with the flow of traffic on adjoining roads; (c) suitability for the type and volume of traffic likely to be generated by the use or development; and (d) ease of accessibility and recognition for users. 	<p>Satisfies P1.</p> <p>The design of the access is safe, efficient and convenient.</p> <p>The use of the access will not cause unreasonable interference with the flow of traffic on adjoining roads – see TIA (Attachment 2).</p>

Clause E6.7.3 Vehicular passing areas along an access

Objective – To ensure that:

- (a) the design and location of access and parking areas creates a safe environment for users by minimising the potential for conflicts involving vehicles, pedestrians and cyclists;
- (b) use or development does not adversely impact on the safety or efficiency of the road network as a result of delayed turning movements into a site.

Performance Criterion (P)	Comments
<p>P1</p> <p>Vehicular passing areas must be provided in sufficient number, dimension and siting so that the access is safe, efficient and convenient, having regard to all of the following:</p> <ul style="list-style-type: none"> (a) avoidance of conflicts between users including vehicles, cyclists and pedestrians; (b) avoidance of unreasonable interference with the flow of traffic on adjoining roads; (c) suitability for the type and volume of traffic likely to be generated by the use or development; (d) ease of accessibility and recognition for users. 	<p>Satisfies P1.</p> <p>No passing bays along the access road are proposed as they are not needed in this development – the access road will be constructed to enable trucks to pass without the need for pulling over to the side of the road or passing bay built for this purpose.</p> <p>The quarry development will not open to the public, there will be no direct sales to the public from the quarry and inspection of the quarry material by prospective customers will be by inspection only.</p> <p>The new access is suitable for the type and volume of traffic proposed to utilise the access.</p> <p>The entrance will be clearly demarcated by reflective markers on road safety posts.</p>

Clause E6.7.4 On-site turning

Objective – To ensure safe, efficient and convenient access for all users, including drivers, passengers, pedestrians and cyclists, by generally requiring vehicles to enter and exit in a forward direction.

Acceptable Solution (A)	Comments
<p>A1</p> <p>On-site turning must be provided to enable vehicles to exit a site in a forward direction, except where the access complies with any of the following:</p> <ul style="list-style-type: none"> (a) it serves no more than two dwelling units; (b) it meets a road carrying less than 6,000 vehicles per day. 	<p>Satisfies A1.</p> <p>Vehicles, including trucks, will be able to turn within the quarry to exit in a forward direction.</p>

Clause E6.7.5 Layout of parking areas

Objective – To ensure that parking areas for cars (including assessable parking spaces), motorcycles and bicycles are located, designed and constructed to enable safe, easy and efficient use.

Performance Criterion (P)	Comments
<p>P1</p>	<p>Satisfies P1.</p>

<p>The layout of car parking spaces, access aisles, circulation roadways and ramps must be safe and must ensure ease of access, egress and manoeuvring on-site.</p>	<p>Vehicles, including trucks, will be able to turn within the quarry to exit in a forward direction.</p> <p>Car parking will be formalised in a safe area near the entrance to the quarry where there are stockpiles of material to ensure that any visitors are in an area away from active works.</p> <p>The layout of the quarry will establish efficient and safe roads and accessways and areas for parking/turning.</p>
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Clause E6.7.6 Surface treatment of parking areas

Objective – To ensure that parking spaces and vehicle circulation roadways do not detract from the amenity of users, adjoining occupiers or the environment by preventing dust, mud and sediment transport.

Performance Criterion (P)	Comments
<p>P1</p> <p>Parking spaces and vehicle circulation roadways must not unreasonably detract from the amenity of users, adjoining occupiers or the quality of the environment through dust or mud generation or sediment transport, having regard to all of the following:</p> <ul style="list-style-type: none"> (a) the suitability of the surface treatment; (b) the characteristics of the use or development; (c) measures to mitigate mud or dust generation or sediment transport. 	<p>Satisfies P1.</p> <p>Vehicles, including trucks, will be able to turn within the quarry to exit in a forward direction.</p> <p>Car parking will be formalised in a safe area near the entrance to the quarry where there are stockpiles of material to ensure that any visitors are in an area away from active works.</p> <p>The layout of the quarry will establish efficient and safe roads and accessways and areas for parking/turning.</p>

Clause E6.7.7 Lighting of parking areas

Objective – To ensure parking and vehicle circulation roadways and pedestrian paths used outside daylight hours are provided with lighting to a standard which:

- (a) enables easy and efficient use;
- (b) promotes the safety of users;
- (c) minimises opportunities for crime or anti-social behaviour; and
- (d) prevents unreasonable light overspill impacts.

Acceptable Solution (A)	Comments

<p>A1</p> <p>Parking and vehicle circulation roadways and pedestrian paths serving 5 or more car parking spaces, used outside daylight hours, must be provided with lighting in accordance with clause 3.1 “Basis of Design” and clause 3.6 “Car Parks” in AS/NZS 1158.3.1:2005 Lighting for roads and public spaces Part 3.1: Pedestrian area (Category P) lighting.</p>	<p>Satisfies A1.</p> <p>Only 3 car parks will be provided so lighting provisions are not relevant.</p>
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Clause E6.7.8 Landscaping of parking areas

Objective – To ensure that large parking and circulation areas are landscaped to:

- (a) relieve the visual impact on the streetscape of large expanses of hard surfaces;
- (b) screen the boundary of car parking areas to soften the amenity impact on neighbouring properties;
- (c) contribute to the creation of vibrant and liveable places;
- (d) reduce opportunities for crime or anti-social behaviour by maintaining clear sightlines.

Acceptable Solution (A)	Comments
<p>A1</p> <p>Landscaping of parking and circulation areas must be provided where more than 5 car parking spaces are proposed. This landscaping must be no less than 5 percent of the area of the car park, except in the Central Business Zone where no landscaping is required.</p>	<p>Satisfies A1.</p> <p>Only 3 car parks will be provided so landscaping provisions are not relevant.</p>

Clauses E6.7.9 (Design of Motorcycle Parking Areas), E6.7.10 (Design of Bicycle Parking Facilities) and E6.7.11 (Bicycle End of Trip Facilities) are not applicable.

Clause E6.7.12 Siting of Car Parking

Objective – To ensure that the streetscape, amenity and character of urban areas is not adversely affected by siting of vehicle parking and access facilities.

Acceptable Solution (A)	Comments
<p>A1</p> <p>Parking spaces and vehicle turning areas, including garages or covered parking areas in the Inner Residential Zone, Urban Mixed Use Zone, Village Zone, Local Business Zone and General Business Zone must be located behind the building line of buildings located or proposed on a site except if a parking area is already provided in front of the building line of a shopping centre.</p>	<p>Not applicable.</p> <p>The site is in the Rural Resource zone.</p>

Clause E6.7.13 Facilities for Commercial Vehicles

Objective – To ensure that facilities for commercial vehicles are provided on site, as appropriate.

Performance Criterion (P)	Comments
<p>P1</p> <p>Commercial vehicle arrangements for loading, unloading or manoeuvring must not compromise the safety and convenience of vehicular traffic, cyclists, pedestrians and other road users.</p>	<p>Not applicable.</p> <p>The loading, unloading, and manoeuvring of trucks and other commercial vehicles will occur on the site, not on or adjacent to a road.</p>

Clause E6.7.14 Access to a road

Objective – To ensure that access to the road network is provided appropriately.

Performance Criterion (P)	Comments
<p>A1</p> <p>Access to a road must be in accordance with the requirements of the road authority.</p>	<p>Can satisfy A1.</p> <p>A new access is proposed in the TIA (Attachments 2 and 3) to improve the sight distances of the property onto Woodsdale Road.</p>

C.5.6 STORMWATER MANAGEMENT

The purpose of this provision is to ensure that stormwater disposal is managed in a way that furthers the objectives of the State Stormwater Strategy. This code applies to development that requires the management of stormwater. This code does not apply to use.

The following relevant Development Standards have been considered in this application.

E7.7.1 Stormwater disposal and management

Performance Criterion (P) OR Acceptable Solution (A)	Comments
<p>P1</p> <p>Stormwater from new impervious surfaces must be managed by any of the following:</p> <ul style="list-style-type: none"> (a) disposed of on-site with soakage devices having regard to the suitability of the site, the system design and water sensitive urban design principles (b) collected for re-use on the site; (c) disposed to public stormwater infrastructure via a pump system which is designed, maintained and managed to 	<p>Satisfies P1.</p> <p>Sediment ponds will be constructed to capture and treat stormwater for sediment removal prior to its discharge to the environment. The sediment pond to which water flowing from the development will be designed to cater for an ARI of 20 years.</p> <p>Sediment will be cleaned from the pond for re-use in the quarry for rehabilitation works.</p>

<p>minimise the risk of failure to the satisfaction of the Council.</p>	<p>Water collected will be used in the development to dampen the material when crushed (to maintain a 5-10% water component to minimise dust) and the internal road and quarry pit during periods of dry weather.</p>
<p>P2 A stormwater system for a new development must incorporate a stormwater drainage system of a size and design sufficient to achieve the stormwater quality and quantity targets in accordance with the State Stormwater Strategy 2010, as detailed in Table E7.1 unless it is not feasible to do so.</p>	<p>Satisfies P2. Sediment ponds will be sized based on an ARI of 1 in 20 years.</p>
<p>A3 A minor stormwater drainage system must be designed to comply with all of the following: (a) be able to accommodate a storm with an ARI of 20 years in the case of non-industrial zoned land and an ARI of 50 years in the case of industrial zoned land, when the land serviced by the system is fully developed; (b) stormwater runoff will be no greater than pre-existing runoff or any increase can be accommodated within existing or upgraded public stormwater infrastructure.</p>	<p>Satisfies A3. Sediment ponds will be sized based on an ARI of 1 in 20 years.</p>
<p>A4 A major stormwater drainage system must be designed to accommodate a storm with an ARI of 100 years.</p>	<p>Not relevant to the development.</p>

C.5.7 ELECTRICITY TRANSMISSION INFRASTRUCTURE PROTECTION

The Code is not applicable to the development.

C.5.8 ATTENUATION

The purpose of this provision is to:

- (a) minimise adverse effect on the health, safety and amenity of sensitive use from uses with potential to cause environmental harm; and
- (b) minimise likelihood for sensitive use to conflict with, interfere with or constrain uses with potential to cause environmental harm.

The development and use is a Level 2 activity as defined by Schedule 2 the *Environmental Management and Pollution Control Act 1994* so it is exempt from this Code.

C.5.9 WATERWAY AND COASTAL PROTECTION

The purpose of this provision is to manage vegetation and soil disturbance in the vicinity of wetlands, watercourses, and the coastline in order to:

- (a) minimise impact on water quality, natural values including native riparian vegetation, river condition and the natural ecological function of watercourses, wetlands and lakes;
- (b) minimise impact on coastal and foreshore values, native littoral vegetation, natural coastal processes and the natural ecological function of the coast;
- (c) protect vulnerable coastal areas to enable natural processes to continue to occur, including the landward transgression of sand dunes, wetlands, saltmarshes and other sensitive coastal habitats due to sea-level rise.
- (d) minimise impact on water quality in potable water supply catchment areas.

The development and use is a Level 2 activity defined by the *Environmental Management and Pollution Control Act 1994* so it is **exempt** from this Code.

C.5.10 HISTORIC HERITAGE

The Code is not applicable to the development.

C.5.11 SCENIC LANDSCAPES

The Code is not applicable to the development.

C.5.12 INUNDATION PRONE AREAS

The Code is not applicable to the development.

C.5.13 SIGNS

There will be no signage erected at the frontage of the property associated with the development.

C.5.14 WIND AND SOLAR ENERGY

The Code is not applicable to the development.

C.5.15 TELECOMMUNICATIONS

The Code is not applicable to the development.

C.5.16 DISPERSIVE SOILS

The Code is not applicable to the development.

C.5.17 ACID SULFATE SOILS

The Code is not applicable to the development.

C.5.18 ON-SITE WASTEWATER MANAGEMENT

The Code is not applicable to the development.

PART D – EXISTING ENVIRONMENT

D.1 CLIMATE PARAMETERS

The nearest Bureau of Meteorology weather recording station is at Campania to the west of the quarry. The station details for the Campania weather station are –

- Site name: CAMPANIA (KINCORA)
- Site number: 094212
- Latitude: 42.69 °S Longitude: 147.43 °E
- Elevation: 45 m

Campania has a typically warm to hot summer and cold winter climate pattern (Graph 1). Rainfall occurs throughout the year (Graph 2) with a peak in winter and spring (June to October), which coincides with the cooler months.

Table 2. Mean maximum and mean minimum temperature and rainfall for Campania

	J	F	M	A	M	J	J	A	S	O	N	D	Annual
Mean max temperature (oC)	24.6	24.0	22.4	19.1	15.9	13.6	13.2	14.1	16.2	18.3	20.7	23.0	18.8
Mean min temperature (oC)	11.7	11.3	10.1	7.5	5.8	3.8	3.4	3.9	5.4	6.6	8.8	10.3	7.4
Mean rainfall (mm)	38.5	31.7	33.2	31.0	35.6	39.7	37.4	50.8	44.5	39.9	45.8	42.2	482.0

Source – Bureau of Meteorology (www.bom.gov.au)

D.2 LANDFORM (TOPOGRAPHY), TENURE AND USE

D.2.1 TOPOGRAPHY

The topography (contours) of the Land is shown in Figure A-3.

The northern extent of the Land is formed by a small hill which is about 353 m AHD. The hill slopes gently to the south and east and continues as a ridge to the west with a saddle at about 340 m.

The southern extent of the Land follows an un-named tributary which starts at about 320 m AHD and ends up being about 270 m AHD towards the access road to the Land.

D.2.2 LAND TENURE

The Mining Lease is located on private freehold land (Figure D-1). Most adjacent land is private freehold except for the road network (eg road casements). A ‘public reserve’ owned by the Department of State Growth (a gravel pit; see also Figure A-2) is located to the north-east of the Land.

D.3 ROAD NETWORK

Trucks will enter and exit the quarry via a new access to be constructed onto Woodsdale Road (Figures D-2 and B-1) which connects to the Tasman Highway.

The location of the quarry has quick and efficient access to a major road network (ie Tasman Highway).

D.4 LAND USES

D.4.1 CURRENT AND HISTORICAL LAND USE

The land has a long history of agricultural use, having been cleared of native vegetation to establish pasture for the grazing of livestock. Plantation (hardwood) was established on the land in recent times with some livestock also being run (agistment) on the property. There is no residence or other buildings on the property.

D.4.2 SURROUNDING LAND USES

Land around the quarry is used for agricultural use (livestock grazing, forestry (plantation and native forest) and some cropping) with a few residential uses associated with those agricultural activities.

There is no residence or other buildings on the property (ie the Land).

The nearest residences to any working area of the quarry are >400 and 520 m respectively (Figure D-3). These houses are shielded by the topography of the Land (see Figure A-3) which will be enhanced by the establishment of benches.

There is an existing gravel pit on PID7196819, to the north of the Land, which is owned by the Department of State Growth. The pit does not have any Mining Lease associated with it based on the information in the MRT database.

D.5 GEOLOGY AND LAND CAPABILITY

D.5.1 GEOLOGY AND SOILS

The bedrock geology of the Mining Lease is Jurassic dolerite (Figure D-4) with locally developed granophyre. The soils are a moderate to shallow clay-loam, which is skeletal in some locations.

The soils are described by Spanswick and Kidd (2000⁷) as Podzolic Soils on Dolerite which has low erodibility. DPIPWE (undated report) maps the soils as having a very low⁸ Hillslope Erosivity Hazard. The Mining Lease intersects with Low and Medium Landslide Hazard Planning Bands (Figure D-5).

D.5.2 LAND CAPABILITY

Land capability is mapped by DPIPWE as Class 5 and 6 (Figure D-5) –

⁷ BUCKLAND SOIL REPORT Reconnaissance Soil Map Series of Tasmania. A Revised Edition by Stacey Spanswick & Darren Kidd Department of Primary Industries, Water and Environment Tasmania 2000 of Divisional Report 13/57 Buckland By J. Loveday & G.M Dimmock C.S.I.R.O Division of Soils, Adelaide, 1958 (https://nrmdatalibrary.dpipwe.tas.gov.au/FactSheets/WfW/SoilReports/Buckland_report.pdf)

⁸ Managing Vulnerable Soils under Irrigation in Tasmania, Department of Primary Industries, Parks, Water and Environment (undated), (https://nrmdatalibrary.dpipwe.tas.gov.au/FactSheets/WfW/ListMapUserNotes/Vulnerable_soils.pdf)

Class 5 – This land is unsuitable for cropping, although some areas on easier slopes may be cultivated for pasture establishment or renewal and occasional fodder crops may be possible. The land may have slight to moderate limitations for pastoral use. The effects of limitations on the grazing potential may be reduced by applying appropriate soil conservation measures and land management practices.

Class 6 – Land marginally suitable for grazing because of severe limitations. This land has low productivity, high risk of erosion, low natural fertility or other limitations that severely restrict agricultural use. This land should be retained under its natural vegetation cover.

The mapped Land Capability does reflect the limitations of the Land to support any agricultural uses other than livestock grazing and plantation forestry – the current land uses.

545000

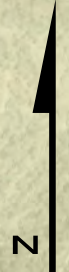
545500

546000

5282500

5282000

5281500



PERMANENT TIMBER
PRODUCTION ZONE LAND

CASEMENT

PUBLIC
RESERVE

PRIVATE
FREEHOLD

PRIVATE
FREEHOLD

0 80 160 320 METERS

GADTECH
MATERIALS
PTY LTD

BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

FIGURE D-1: LAND
TENURE CLASSIFICATION

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

BASE DATA BY TASMAP. © STATE OF TASMANIA
BASE IMAGE © GOOGLE EARTH

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PO Box 1 NEW TOWN TAS 7008

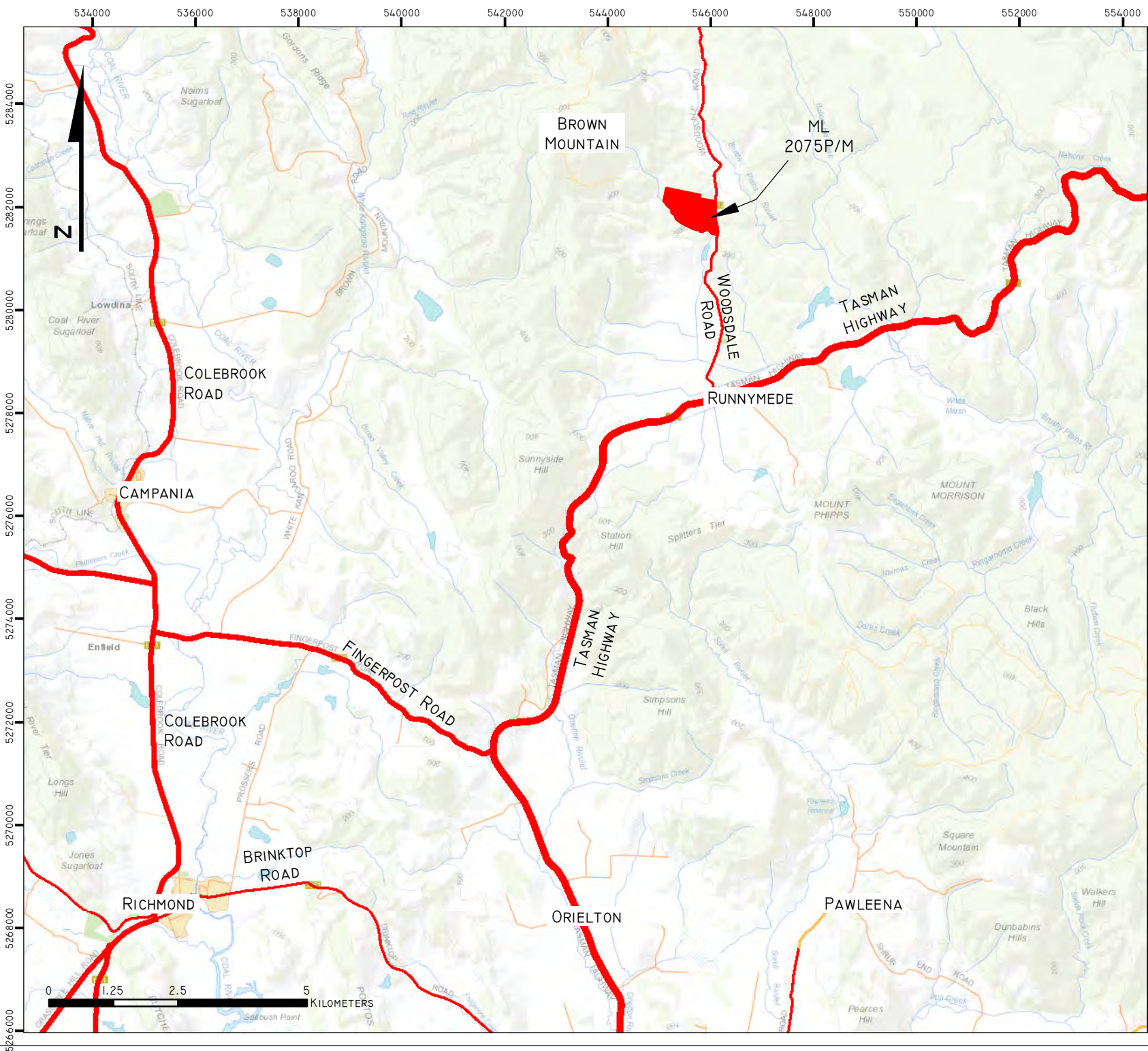


DATUM: GDA94
GRID: MGA ZONE 55
SCALE: @A4 - NA

CLIENT:
GADTECH
MATERIALS
PTY LTD

DATE: 6 JULY 2020

the LIST © State of Tasmania



GADTECH
MATERIALS
PTY LTD

BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

FIGURE D-2: SURROUNDING
ROAD NETWORK

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

BASE DATA BY TASMAP. © STATE OF TASMANIA
BASE IMAGE © GOOGLE EARTH

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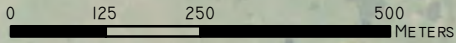
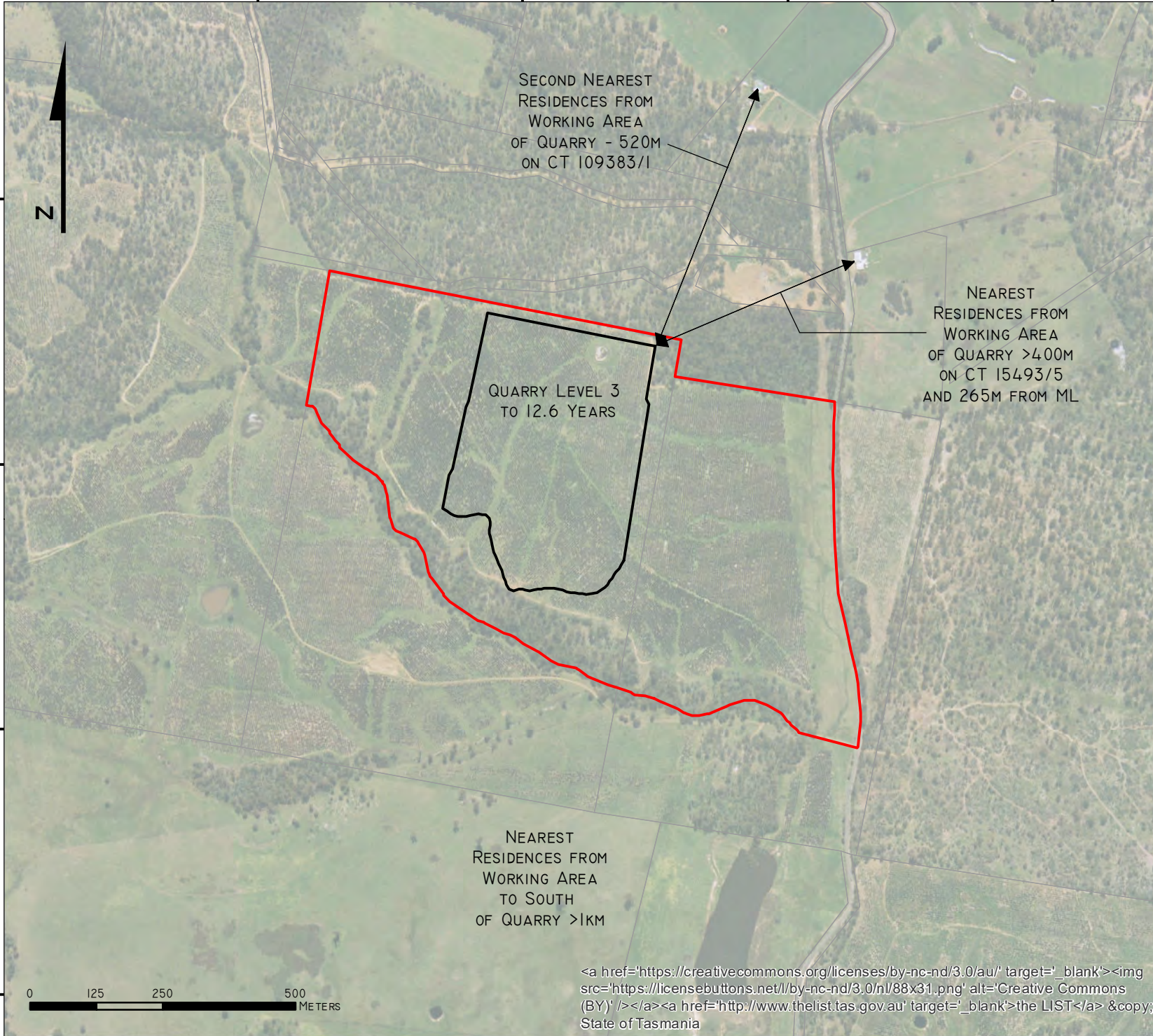
DATUM: GDA94
GRID: MGA ZONE 55
SCALE: @A4 - NA

CLIENT:
GADTECH
MATERIALS
PTY LTD

DATE: 6 JULY 2020

545000 545500 546000 546500

5282500
5282000
5281500
5281000



GADTECH
MATERIALS
PTY LTD

BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

FIGURE D-3: NEAREST
RESIDENCES FROM ACTIVITIES
AT THE BIG BLUE QUARRY

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

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BASE IMAGE © GOOGLE EARTH



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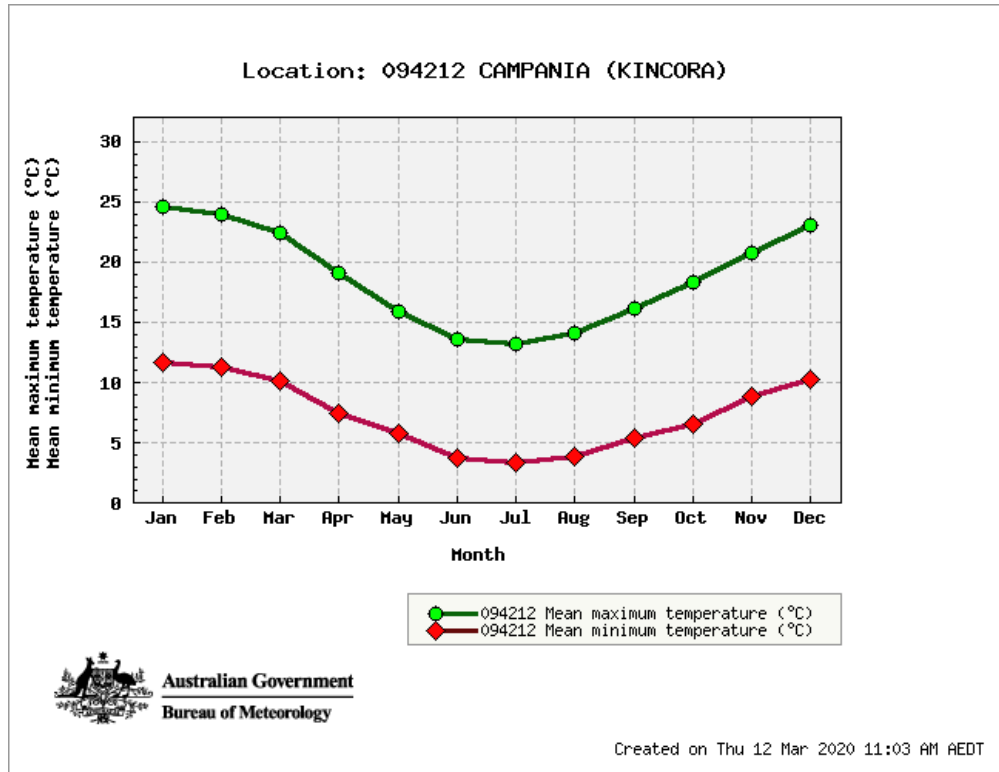
DATUM: GDA94
GRID: MGA ZONE 55
SCALE: @A4 - NA

CLIENT:
GADTECH
MATERIALS
PTY LTD

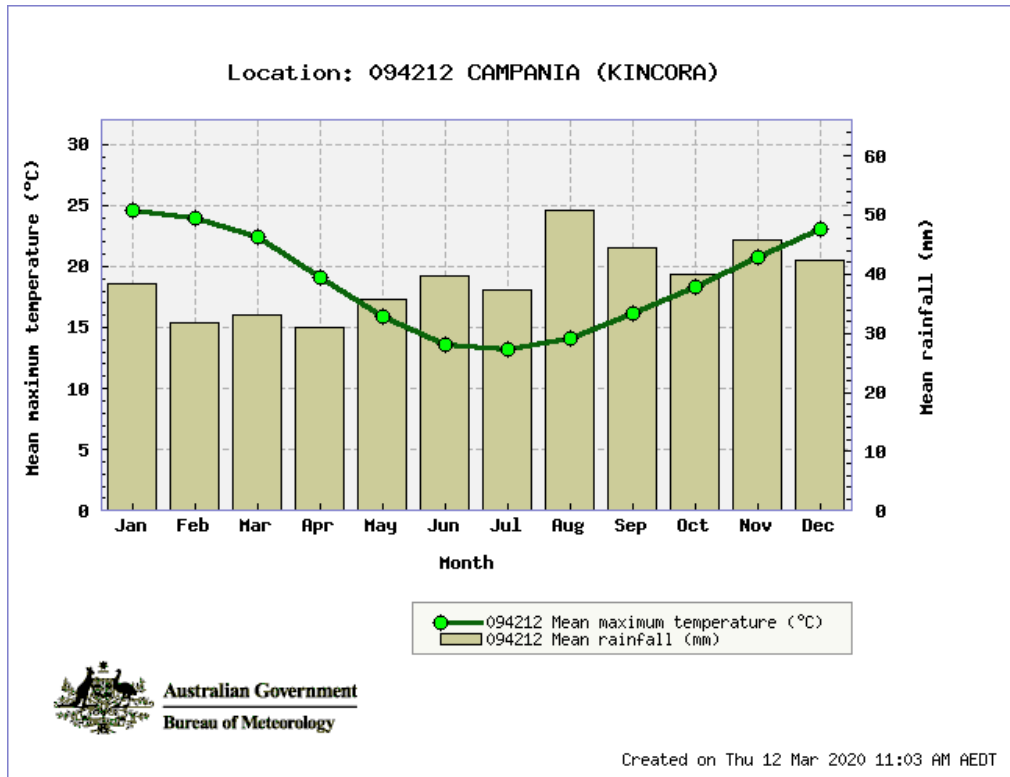
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Graph 1. Mean minimum and maximum temperature for Campania



Graph 2. Mean annual rainfall and mean maximum temperature Campania



Rose of Wind direction versus Wind speed in km/h (12 Apr 2000 to 10 Aug 2019)

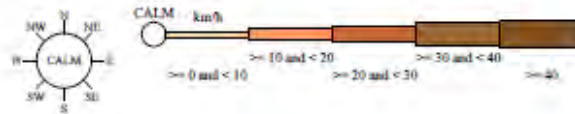
Custom times selected, refer to attached note for details

CAMPANIA (KINCORA)

Site No: 094212 • Opened Apr 2000 • Still Open • Latitude: -42.6867° • Longitude: 147.4259° • Elevation 45m

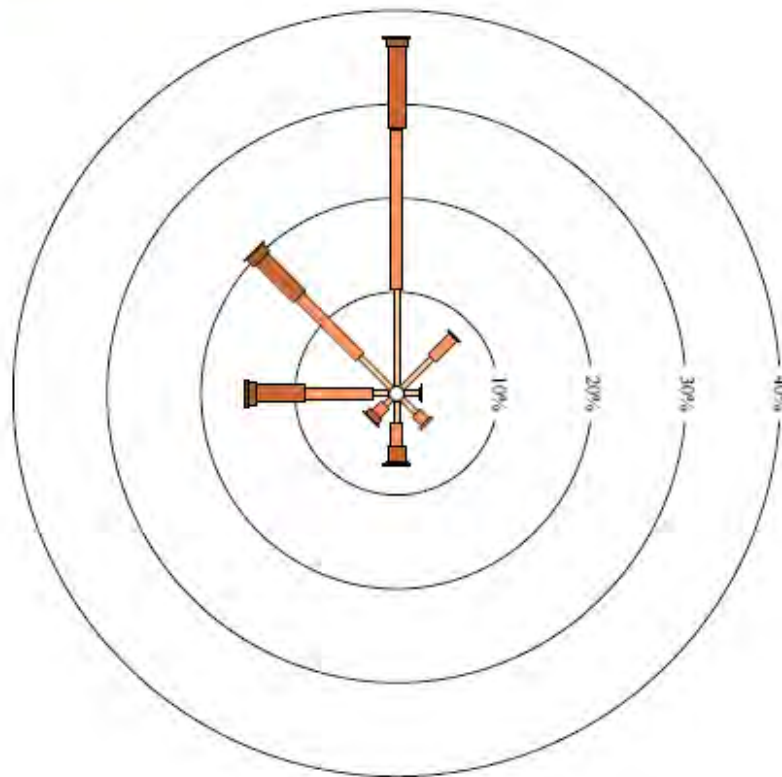
An asterisk (*) indicates that calm is less than 0.5%.

Other important info about this analysis is available in the accompanying notes.



9 am
 7019 Total Observations

Calm 4%



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 Prepared by the Bureau of Meteorology.
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Rose of Wind direction versus Wind speed in km/h (12 Apr 2000 to 10 Aug 2019)

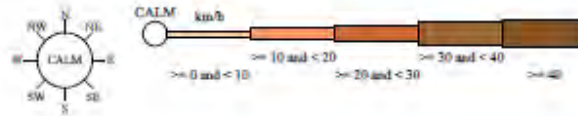
Custom times selected, refer to attached note for details

CAMPANIA (KINCORA)

Site No: 094212 • Opened Apr 2000 • Still Open • Latitude: -42.6867° • Longitude: 147.4258° • Elevation 45m

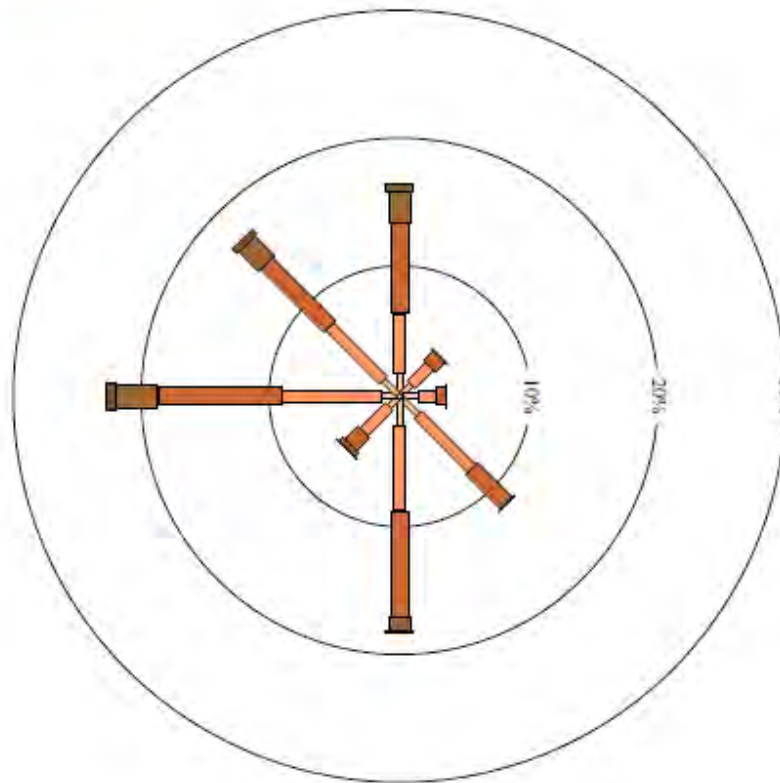
An asterisk (*) indicates that calm is less than 0.5%.

Other important info about this analysis is available in the accompanying notes.



3 pm
 7022 Total Observations

Calm 1%

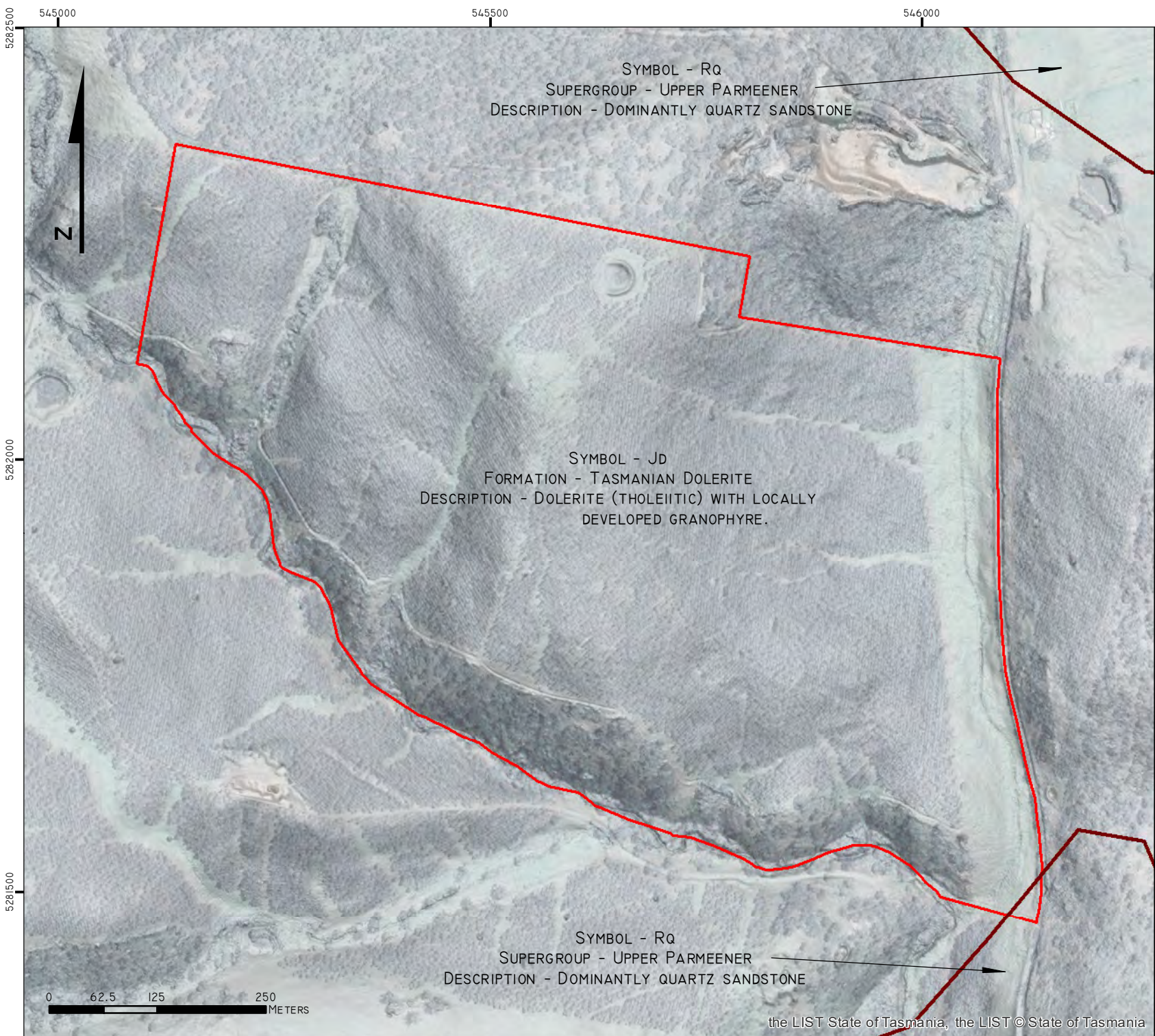


D.6 WATERCOURSES AND DRAINAGE

The Mining Lease contains two Class 4 streams and a few drainage depressions which flow southwards to enter an unnamed tributary (in the headwaters of the creek system) of the Brushy Plains Rivulet (Figure D-6A).

All drainage depressions (see Table 3) in the Land are either dominated by pasture or eucalypt plantation.

The Class 4 watercourse near Woodsdale Road is clear of native vegetation (see Figure D-7) while the Class 4 stream at the western side of the Land supports regrowth native forest. The unnamed tributary that forms the southern boundary of the Land supports native forest (Table 3), mainly on the rocky slopes north of the tributary channel.



GADTECH
MATERIALS
PTY LTD

BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

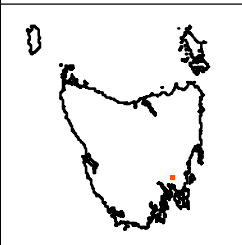
FIGURE D-4: GEOLOGICAL BEDROCK
(MRT - SCALE 1: 250,000)
AROUND MINING LEASES

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

BASE DATA BY TASMAP. © STATE OF TASMANIA
BASE IMAGE © GOOGLE EARTH

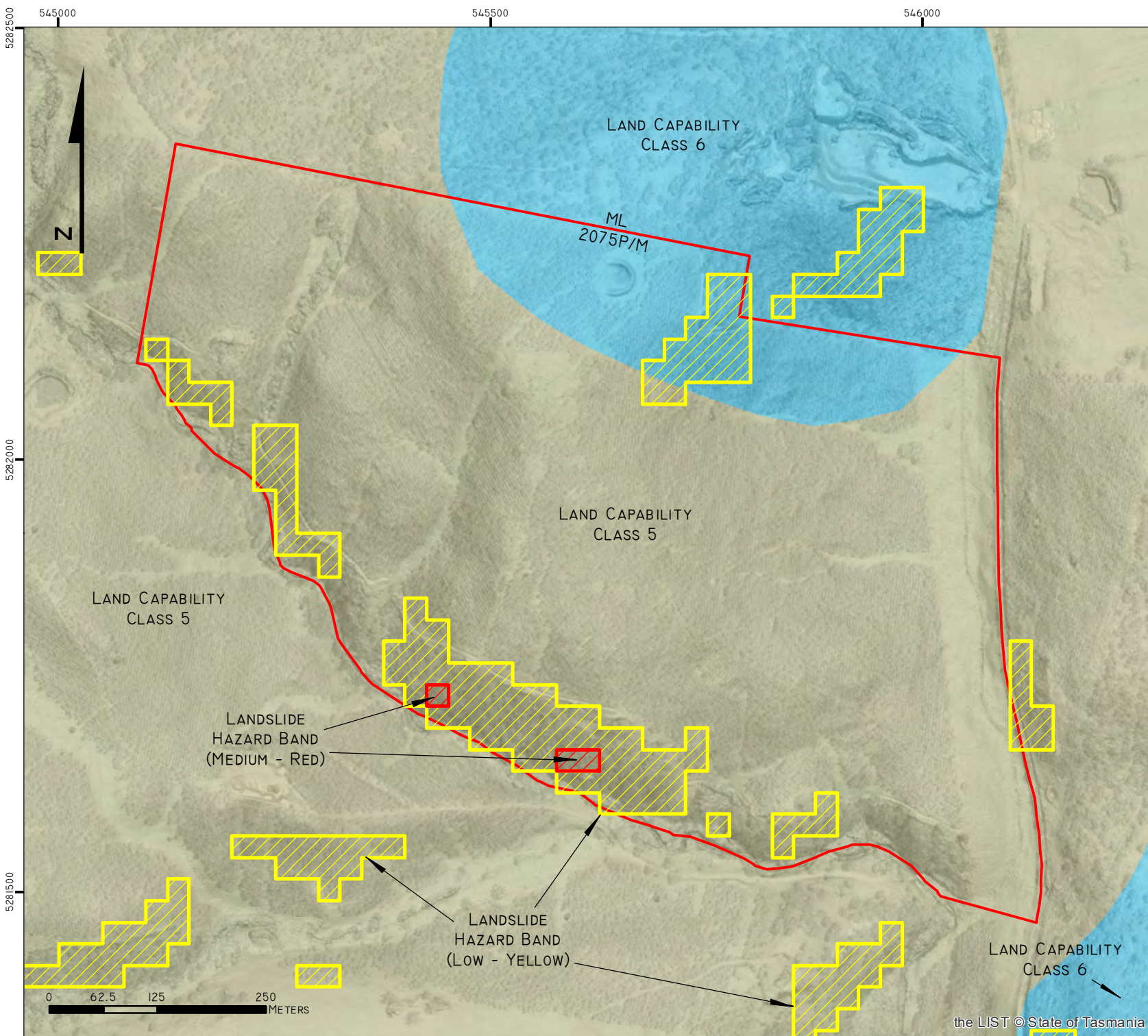
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GRID: MGA ZONE 55
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CLIENT:
GADTECH
MATERIALS
PTY LTD

DATE: 6 JULY 2020



GADTECH
MATERIALS
PTY LTD

BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

FIGURE D-5: LANDSLIDE
PLANNING HAZARD BANDS
AND LAND CAPABILITY CLASS

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

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CLIENT:
GADTECH
MATERIALS
PTY LTD

DATE: 6 JULY 2020

545000

545500

546000

5282500

5282000

5281500



CATCHMENT
BOUNDARY
(CFEV)



GADTECH
MATERIALS
PTY LTD

BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

FIGURE D-6A: EXISTING REGIONAL
DRAINAGE LINES
AND CATCHMENTS

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BUCKLAND
5428

LGA:
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MIDLANDS

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GADTECH
MATERIALS
PTY LTD

DATE: 6 JULY 2020

0 80 160 320
METERS

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545000

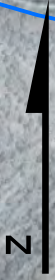
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546000

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5282000

5281500



CATCHMENT
BOUNDARY

AREA TO
CHANGE CATCHMENT
BOUNDARIES - 0.225 HA

QUARRY LEVEL 3
TO 12.6 YEARS

GADTECH
MATERIALS
PTY LTD

BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

FIGURE D-6B: PROPOSED REGIONAL
DRAINAGE LINES
AND CATCHMENTS
(YEAR 10)

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

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MATERIALS
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DATE: 6 JULY 2020

0 80 160 320
METERS

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Table 3. Images of the types of watercourses and drainage depressions within the Land

Drainage depression
in hardwood
plantation



Native regrowth
forest on unnamed
tributary that forms
the southern
boundary of the
Land.



Regrowth native forest on slope immediately above the unnamed tributary that forms the southern boundary of the Land.

The southern side of the tributary is cleared land and hardwood plantation.



D.7 BIODIVERSITY

D.7.1 SURVEY EFFORT AND TIMING

Field surveys were conducted in October 2019, December 2019, March 2020, and June 2020 to identify and examine the biodiversity values on the Land. The June 2020 survey was specifically conducted to search potential eagle nest habitat.

The surveys were conducted by Drs Richard Barnes and Colin McCoull. The relatively small size of the survey area (the Land) and that most is eucalypt plantation meant that it could be easily and quickly assessed in detail for the occurrence of natural values, including threatened flora species and habitat for fauna species.

The following tasks were conducted for flora and fauna values assessment:

1. A review of flora and fauna values recorded previously in the area within and adjacent to the Land.
2. The potential for the occurrence of threatened fauna species listed under the TSP Act using the - DPIPWE Natural Values Atlas database.
3. Field surveys were undertaken to investigate and verify the potential fauna and flora issues identified in the desktop assessment. The field survey included:
 - a. The ground-truthing and mapping of vegetation communities on the Land,
 - b. A survey of terrestrial and riparian flowering annual and perennial plants and aquatic flora, including potential habitat for conservation significant species,
 - c. Habitat assessment for threatened raptor and mammal species,

- d. Eagle nest search of suitable nesting habitat (based on potential nesting habitat model created and published by DPIPW), and
- e. The identification and mapping of declared weeds listed on the schedules of the *Weed Management Act 1999* within and near the Land.

D.7.2 VEGETATION COMMUNITIES

There is no native vegetation cover for most of the quarry footprint (Maximum Extraction Extent), only small areas of native forest occur around the perimeter of the Land and on one drainage line (Figure D-7).

Two vegetation communities are present –

- *Eucalyptus obliqua* dry forest (1.18 hectares); and
- *Eucalyptus pulchella* forest and woodland (8.8 hectares).

These forest types are well reserved in Tasmania and the bioregion, and in regrowth states from a combination of previous logging activities and fire.

No native vegetation communities listed on Schedule 3A (Threatened native vegetation communities) of the *Nature Conservation Act 2002* or ecological community listed under section 181 of the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* occur in the Land.

Table 4. Images of the native vegetation within the Land

Regrowth *Eucalyptus obliqua* dry forest



Regrowth *Eucalyptus pulchella* dry forest



Blue gum
(*Eucalyptus globulus*)
emergent canopy
trees within
regrowth *Eucalyptus pulchella* dry forest



D.7.3 THREATENED FLORA SPECIES

Several flora species of conservation significance have been recorded in the region based on Natural Values Atlas held records (Figure D-8). Surveys were conducted at different times of the year (spring and summer) to determine if any threatened flora species (eg *Asperula scoparia*) are present in the remnant native forest areas. None were observed.

No flora species listed on the Tasmanian *Threatened Species Protection Act 1995* or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* were observed on the Land during the site surveys.

D.7.3 DECLARED AND ENVIRONMENTAL WEEDS

Four plant species listed as a Declared Weed on the Tasmanian *Weed Management Act 1999* or as a Weed of National Significance on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* were recorded on or near the Land (see also Figure D-11) -

- blackberry (*Rubus fruticosus*),
- Californian thistle (*Cirsium arvense*),
- gorse (*Ulex europaeus*), and
- slender thistle (*Carduus pycnocephalus*).

Other pasture and environmental weeds were observed sporadically across the Land, most commonly in association with sheep ‘camps’ and fencelines –

- spear thistle (*Cirsium vulgare*),
- capeweed (*Arctotheca calendula*),
- variegated thistle (*Silybum marianum*), and
- briar rose (*Rosa rubiginosa*).

D.7.4 THREATENED FAUNA SPECIES

There are a few conservation significant fauna species recorded in the NVA that occur *near* the Land (Figure D-9). The following comments are made about the potential for species to occur in the Mining Lease -

Tasmanian devil (*Sarcophilus harrisii*)

There is moderate to high quality foraging habitat present, with no dens or potential dens observed. Woodpiles associated with logging and past land clearing (near or at the perimeter of the Land) support wombat burrows which may, at some point, be occupied by devils. Soils are skeletal with bedrock exposed, so there is limited opportunity for dens to occur in most of the Land.

Eastern quoll (*Dasyurus viverrinus*)

There is moderate to high quality foraging habitat present, but no dens or potential dens were observed. Woodpiles associated with logging and past land clearing (near or at the perimeter of the Land) support wombat burrows which may, at some point, be occupied by quolls.

Eastern barred bandicoot (*Perameles gunnii gunnii*)

There is moderate quality foraging and nesting habitat, but no nests or potential nests were observed.

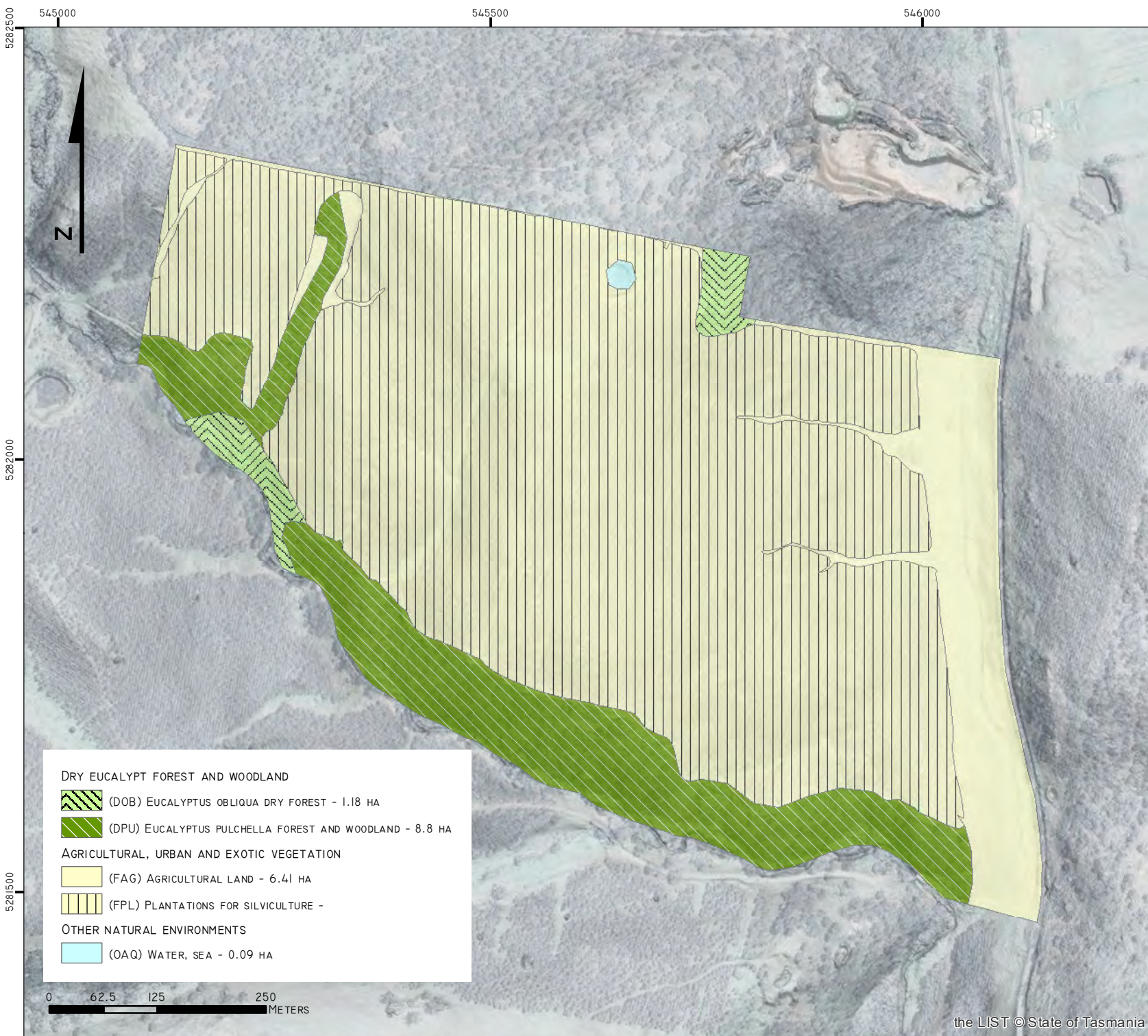
Swift parrot (*Lathamus discolor*)

Foraging habitat only is present in the *Eucalyptus globulus ssp. globulus* trees that occur within the regrowth *E. pulchella* forest and woodland. Sporadic *Eucalyptus ovata* saplings and small trees (<8m tall) occur in the creekline at the southern boundary of the Land.

Tasmanian wedge-tailed eagle (*Aquila audax fleayi*)

Figure D-10 illustrates the modelled habitat 500 m and 1 km line of sight around the Mining Lease. All identified 'modelled' habitat was searched within the 500 m area of the Mining Lease, with Cat 3 and Cat 4+ habitat also searched within the 500m to 1 km buffer areas. As Cat 3 and Cat 4+ occurred in association with Cat 2 modelled habitat most of the Cat 2 areas were indirectly surveyed.

Foraging habitat only is present, with no nests recorded either in the Natural Values Atlas or observed from direct surveys of suitable (modelled) nesting habitat.



GADTECH
MATERIALS
PTY LTD

BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

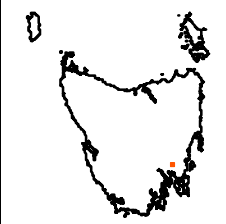
FIGURE D-7: VEGETATION
COMMUNITIES (TASVEG 3.0) IN
THE BIG BLUE QUARRY

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

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BASE IMAGE © GOOGLE EARTH

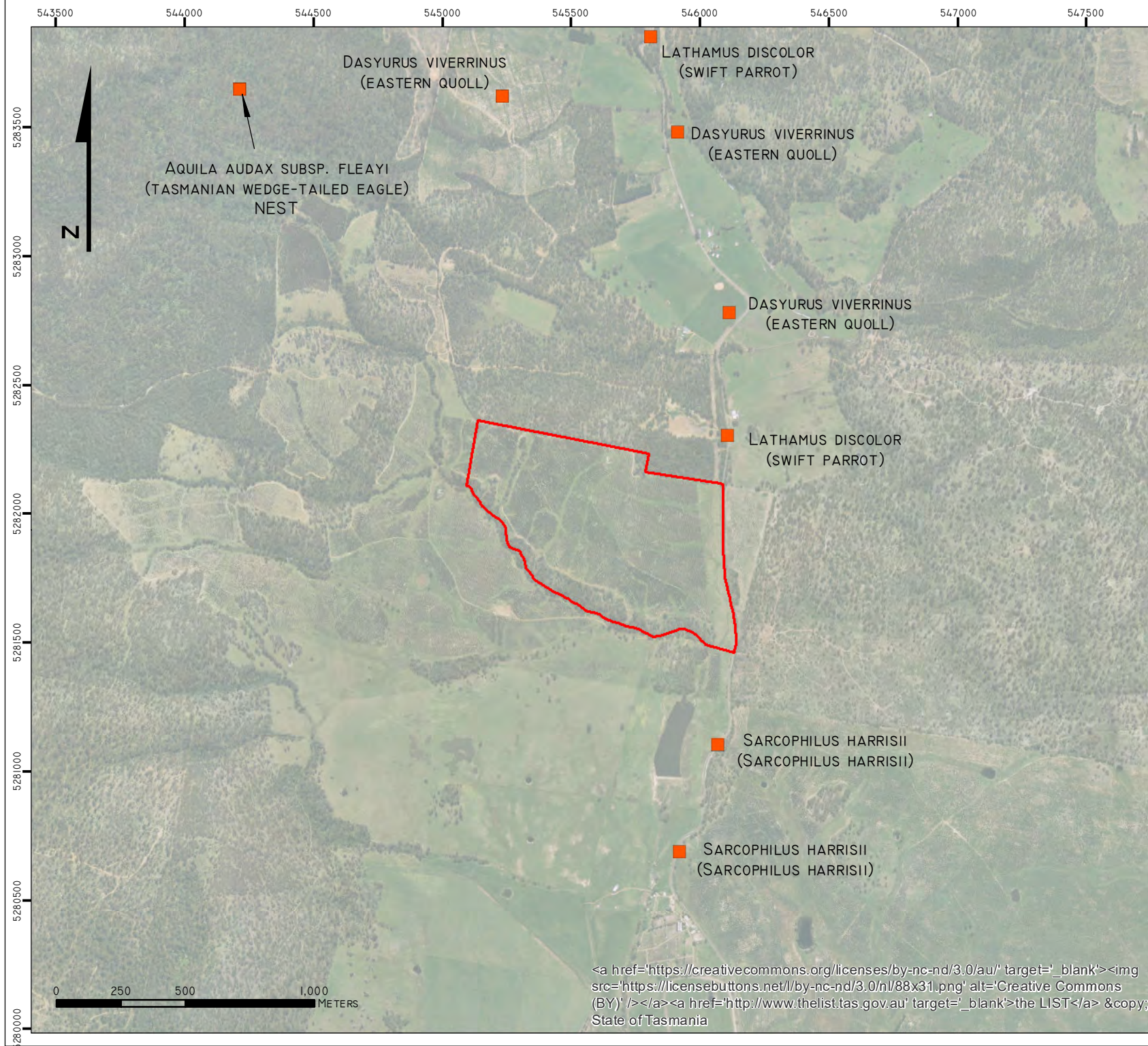
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DATUM: GDA94
GRID: MGA ZONE 55
SCALE: @A4 - NA

CLIENT:
GADTECH
MATERIALS
PTY LTD

DATE: 6 JULY 2020



GADTECH
MATERIALS
PTY LTD

BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

FIGURE D-9: KNOWN (NVA)
THREATENED FAUNA AROUND
THE BIG BLUE QUARRY

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5428

LGA:
SOUTHERN
MIDLANDS

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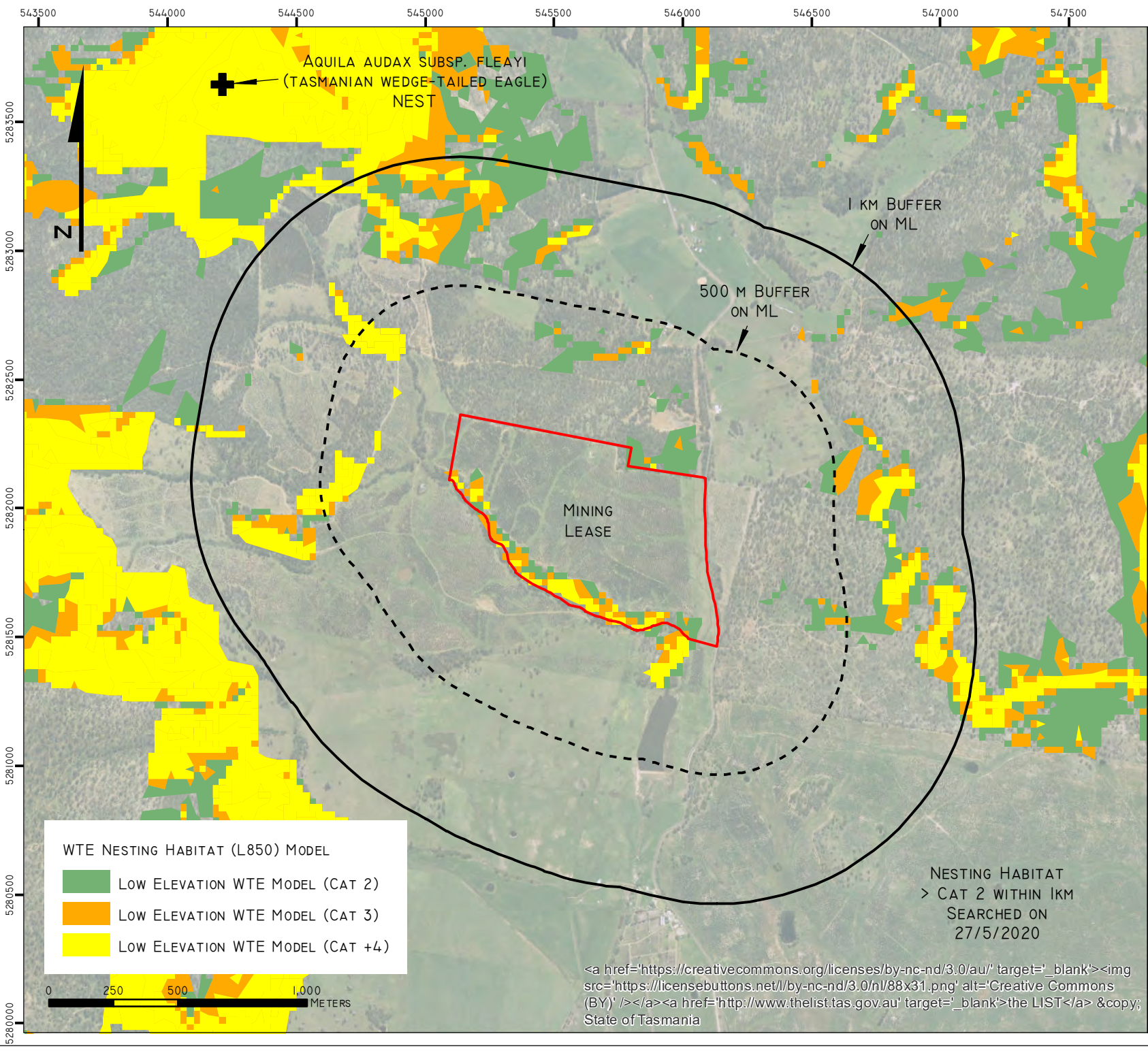


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MATERIALS
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BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

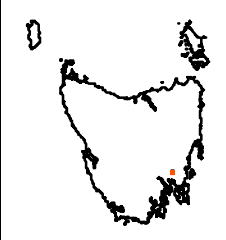
FIGURE D-10: KNOWN EAGLE
NESTING SITES AND HABITAT
WITHIN 500M / 1KM LOS OF THE
BIG BLUE QUARRY OPERATION

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

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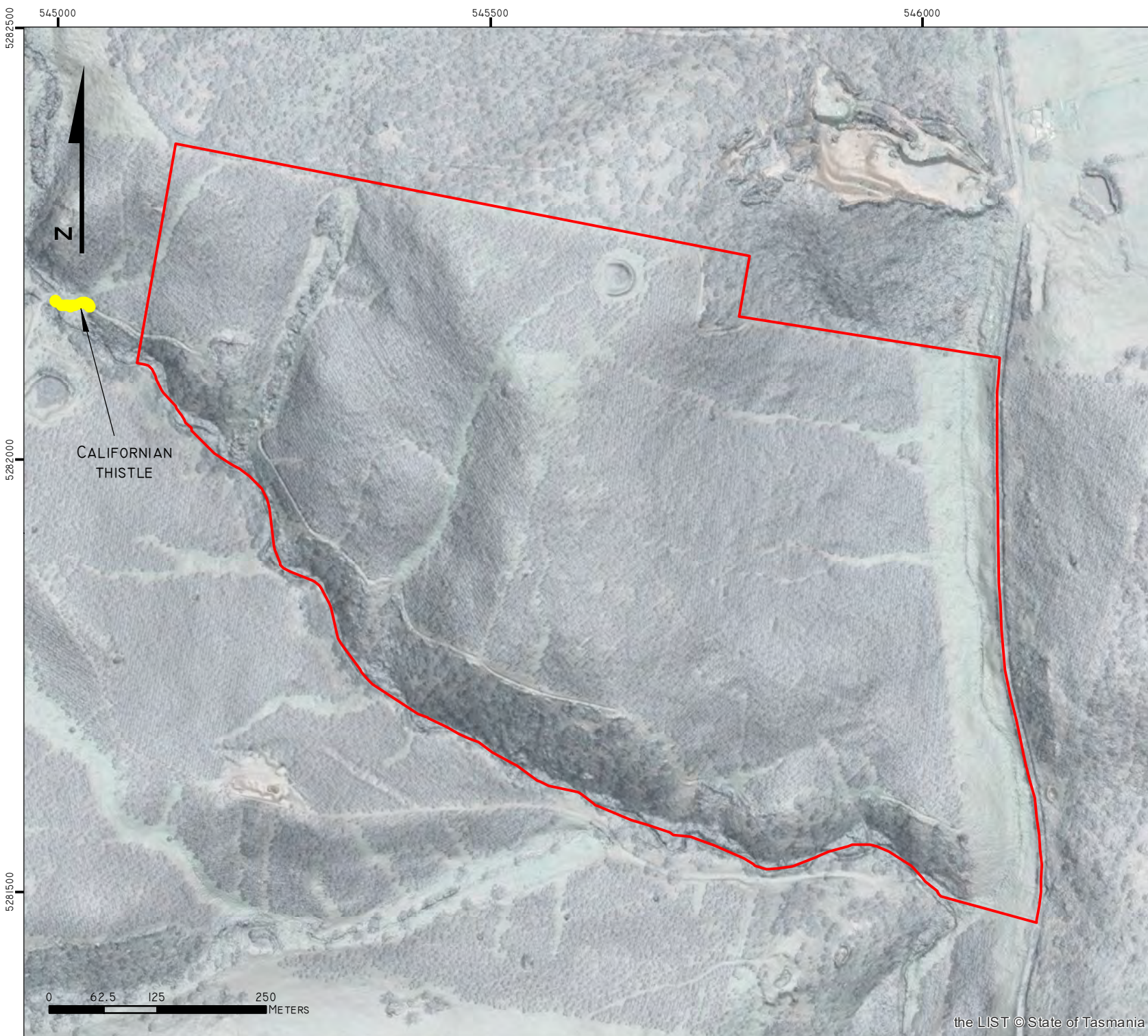


DATUM: GDA94
GRID: MGA ZONE 55
SCALE: @A4 - NA

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BIG BLUE QUARRY
ENVIRONMENTAL IMPACT
STATEMENT (EIS)

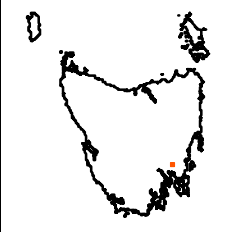
FIGURE D-II: SIGNIFICANT
WEEDS AT THE BIG
BLUE QUARRY

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

BASE DATA BY TASMAP. © STATE OF TASMANIA
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DATUM: GDA94
GRID: MGA ZONE 55
SCALE: @A4 - NA

CLIENT:
GADTECH
MATERIALS
PTY LTD

DATE: 6 JULY 2020

PART E – POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The following sections describe and assess the potential environmental impacts that may be caused by the activity for themes and the mitigation measures to be applied to minimise the risk of causing environmental nuisance.

E.1 AIR EMISSIONS - DUST

The primary air emission associated with quarry operations is dust. Dust can be a nuisance to neighbours and may be a safety hazard to quarry employees. Generally, the emission of visible dust should be confined within the boundary of the premises, except in remote areas where the effects beyond the site may not cause an environmental nuisance or harm.

There are other sources of dust emissions in the surrounding landscape, including agricultural uses (ploughing, cropping, harvesting).

E.1.1 DUST SOURCES FROM QUARRY ACTIVITY

Potential sources of dust from the quarry operation are:

- The blasting, drilling, and ripping of rock during dry windy conditions (especially in the summer months),
- The stripping of topsoil (extremely limited as the amount of topsoil is low),
- The movement of rock and gravel within the quarry by machinery,
- Crushing and/or vibratory screening of rock material,
- Access road (gravel) use in and out of the quarry, and
- Stockpiled gravel and fines.

The most likely source of dust is from quarry internal road use and the act of crushing and screening material. Winds tend to be northerly to westerly with southern breezes in the afternoon (especially in summer) which may push dust emissions to the south and south east of the site. There are no residential dwellings within 1km of the Land to the south and south-east and to the north the nearest dwelling is about 500 m away (Figure D-5). The management of dust on the site in addition to the large distances to the nearest sensitive use makes dust nuisance a very unlikely scenario.

Woodsdale Road is sealed so it will not be a source of dust when traffic generated by the use accesses the road network. Loads will be dampened or covered by a tarpaulin (water sourced on site from sediment ponds or via a water cart accessing water off the site).

E.1.2 MITIGATION MEASURES

Crusher and screens

Standard industry practice for dust control, which will be applied at the activity, is to dampen material prior to crushing and/or to also have installed sprayers on the output chute to minimise dust emissions

from an otherwise dry product⁹. Mobile modern crushers have such features installed and there is a water source available – water from the sediment basin or the use of a dedicated water tanker – to operate these dust suppression measures whilst crushing.

General dust suppression measures

General measures that will be used to suppress dust if it does occur in substantial volumes that may cause environmental harm (eg during periods of strong northerly and/or north-westerly winds in summer) include the following industry standard environmental practices for quarries¹⁰:

- Watering of internal roads or the use of a dust suppressant as required during dry and windy conditions,
- Retention of vegetation (even pasture) along the access road corridor where possible,
- Retention of eucalypt plantation (when possible) around the quarry working area to reduce the likelihood of strong winds liberating fine particles into the air,
- Covering of trucks with tarpaulins and/or load dampening, and
- Minimising the geographic extent of areas of exposed soil.

Water can be accessed from the on-site sediment ponds or via a dedicated water tanker.

E.2 SURFACE WATER MANAGEMENT

E.2.1 EXISTING DRAINAGE AND AQUATIC ENVIRONMENT

The Mining Lease contains two Class 4 streams and a few drainage depressions which flow southwards to enter an unnamed tributary (in the headwaters of the creek system) of the Brushy Plains Rivulet (Figure D-6A). All drainage depressions (see Table 3) in the Land are either dominated by pasture or eucalypt plantation.

The receiving aquatic environment (and aquatic life it supports) is highly modified, being mostly agricultural lands with remnant native vegetation in paddocks, between eucalypt plantation blocks and along sporadic watercourse sections. When native vegetation is present on watercourses it is often modified through weed infestation (mainly gorse and willows) or livestock grazing (ie dominated by an understorey of pasture grasses, weeds and herbs).

E.2.2 SOURCES OF SEDIMENT

All disturbed areas have the potential to generate sediment in runoff during heavy (high intensity) and/or sustained periods of rainfall. Sources of sediment include the access track into and out of the quarry, the pit where material is crushed/screened/stockpiled and the active face.

⁹ Management Measure 3. Standard industry practice for dust control, which will be applied at the activity, is to dampen material prior to crushing and/or to also have installed sprayers on the output chute to minimise dust emissions from an otherwise dry product.

¹⁰ Management Measure 4. General measures to manage dust include watering of internal roads as required during dry and windy conditions, retention of vegetation along the access road corridor where possible, retention of native vegetation around the quarry working area to reduce the likelihood of strong winds liberating fine particles into the air, covering of trucks with tarpaulins and/or load dampening and minimising the geographic extent of areas of exposed soil.

E.2.3 STORMWATER MANAGEMENT PRINCIPLES

The Quarry Code of Practice provides the following practices and principles which will be applied at Big Blue Quarry –

- Drainage works will, when possible, seek to mimic natural drainage patterns and utilise natural drainage lines with retained vegetation.
- A cut-off drain or diversion banks will be installed above the excavation to prevent surface flowing water from entering the site and adding to erosion problems. The cut-off drain will be constructed to discharge into vegetated natural drainage lines, existing plantation area or via a level sill that distributes run-off across a stable area.
- Contour banks and contour drains may be used, if necessary, to capture and slow down water that would otherwise gather momentum as it travels down the slope.
- Working areas will be kept in as dry condition as possible, and machinery should avoid be driven through flowing water.
- Rate of run-off increases dramatically following vegetation removal, hence the total area exposed will be kept to a minimum.
- Tracks and the access road will be constructed to control the grade, have table drains installed, and with regular cross drains or culverts installed.

E.2.4 SEDIMENT POND SIZING AND CLEANOUT RATE

For Big Blue Quarry, run-off from working areas will be collected and treated for sediment removal before being discharged from the actively worked pit. Sediment or settling ponds/basins are a key component of the stormwater management system is the installation, operation, and maintenance of sediment basins. Run-off will be directed through vegetation prior to reaching any watercourse to enable further filtering of sediment.

For the purposes of this stormwater runoff analysis the Big Blue Quarry site (active pit) will be treated as a single catchment area but will be divided into three distinct temporal catchment areas (based on quarry stages).

These are:

- Extent at year 2
- Extent at year 6.2
- Extent at year 12.6

The catchments are also assessed for longest and shortest flow lines from the proposed dam site to the most distant portion of the catchment.

Tc (travel time of the overland flow path) has been calculated using the Bransby Williams formula¹¹ using inputs from the site mining plans (see Figs B2, B3 and B4).

¹¹ Derwent Estuary Program (2012) Water Sensitive Urban Design Procedures for Stormwater Management <<https://www.derwentestuary.org.au/publications/>> viewed in 2020.

$$T_c = 91L / (A0.1 * Se0.2)$$

Tc values are presented in Table 5.

Table 5. Time of concentration calculations

Catchment	Area A (ha)	Flow Line L (km)	Fall	Equal area Se (m/km)	Time of concentration Tc (min)
Y2 Extent Shortest L	6.31	0.34	13	38	12
Y2 Extent Longest L	6.31	0.71	13	18	30
Y6.2 Extent Shortest L	11.28	0.41	10	24	15
Y6.2 Extent Longest L	11.28	0.96	10	10	43
Y12.6 Extent Shortest L	16.02	0.46	20	43	15
Y12.6 Extent Longest L	16.02	1.15	20	17	45

Intensity is derived from the Intensity Frequency Duration chart for centre of the quarry from the Bureau of Meteorology website¹² using the estimated Tc as the duration value. A 1 in 20-year reoccurrence event curve is used.

The site is dolerite so the runoff coefficient for this land will be at the mid end of the scale (0.35).

Flow rate (Q) is calculated using the following formula: $Q = (C * I * A) / 360$

Flow rates are presented in Table 6.

Table 6. Flow rate calculation

Catchment	Coefficient of runoff C	Intensity of rain event I (mm/hr)	Catchment Area A (ha)	Flow rate Q (m ³ /s)
Y2 Extent Shortest L	0.35	70.3	6.31	0.431
Y2 Extent Longest L	0.35	38.4	6.31	0.236
Y6.2 Extent Shortest L	0.35	62.6	11.28	0.687
Y6.2 Extent Longest L	0.35	31.0	11.28	0.340
Y12.6 Extent Shortest L	0.35	62.6	16.02	0.975
Y12.6 Extent Longest L	0.35	31.9	16.02	0.496

The sediment retention pond will discharge into vegetated land. Discharge will travel a further 150 metres through vegetation before intercepting a defined drainage path (unnamed minor river). Table 7 shows the required retention basin areas, design surface areas and design capacities. Design surface areas are based on maximum retention requirements (or shortest flow Line L (km)) to provide an adequate factor of safety.

¹² BOM. (2015). Rainfall Intensity Frequency Duration Data. Retrieved August 1, 2020, from Australian Government Bureau of Meteorology: <http://www.bom.gov.au/hydro/has/cdirswebx/cdirswebx.shtml>

Table 7. Required surface area compared to actual surface area

Catchment	Flow rate Q (m3/s)	Retention Basin Area from WSUD Fig 3.2 (m2)	Design pond surface area (m2)	Design pond capacity (m3) (ave 2.5m deep)
Y2 Extent Shortest L	0.431	170	170 (17mx10m)	425
Y2 Extent Longest L	0.236	95	170 (17mx10m)	425
Y6.2 Extent Shortest L	0.687	270	270 (27mx10m)	675
Y6.2 Extent Longest L	0.340	135	270 (27mx10m)	675
Y12.6 Extent Shortest L	0.975	395	400 (26mx15.2m)	988
Y12.6 Extent Longest L	0.496	395	400 (26mx15.2m)	988

The desired clean out frequencies are calculated for each sediment pond for each of the three distinct temporal catchment areas and assumes a general storage of 50% of total capacity. Desired clean out frequency (Fr (yrs)) is calculated using the below formula and assumes a sediment loading rate (Lo) of 5m³/ha/yr which has been accepted by the EPA for other similar quarries.

$$St = A \times R \times Lo \times Fr \text{ or}$$

$$Fr = St / (A \times R \times Lo)$$

The sediment retention pond will have a minimum clean out frequency of 6.5 years. To provide an adequate factor of safety this basin should be cleaned out every 2 to 4 years depending on sediment capture. The sediment dam should not need to be cleaned out during quarrying of level 1 (to 2 years) as the sediment pond should cater for this entire extraction level.

Table 8. Desired cleanout frequency of sediment basins

Assume storage is 50% of total capacity					
Catchment	Capture efficiency (R)	Contributing catchment A (ha)	Storage Volume St (m3)	Sediment loading rate Lo (m3/ha/yr)	Desired clean out frequency (Fr (yrs))
Y2 Extent	0.9	6.31	212	5	7.5
Y6.2 Extent	0.9	11.28	337	5	6.6
Y12.6 Extent	0.9	16.02	494	5	6.9

E.2.5 MITIGATION MEASURES

The quarry will be managed to collect and treat water to remove sediment prior to discharge from the site.

The below aspects of the site and the activity can be summarised for water management practices:

- No chemicals, fuels or oils will be stored within the pit overnight, and refuelling of quarry equipment will be carried out using a mobile bund¹³,
- Cut-off drains and drains around and internal to the quarry will be established and maintained where required¹⁴,
- The surface of the access road will be gravel. The access road will be constructed in accordance with Forest Practices Code principles and in accordance with the QCP. Like any access road, there will be ongoing maintenance to ensure the surface is fit for purpose, drains are kept unblocked and that culverts are working,
- Buffers will be applied to watercourses (not drainage depressions) of no less than 5 m (measured horizontally), and
- Sediment accumulation rates in the sediment pond(s) will be monitored and the maintenance program revised as required – conducted quarterly. Accumulated sediment will be reused as part of the saleable product or for application onto disused areas as part of site rehabilitation¹⁵.

E.3 LIQUID EFFLUENT

There will be no permanent toilet or other amenities provided on site – a portaloos may be made available during long campaigns (more than 2 weeks) at the quarry.

E.4 NOISE EMISSIONS

E.4.1 BACKGROUND

Tarkarri Engineering conducted an environmental noise, ground vibration and air blast overpressure assessment for the quarry. Specifically, the potential impacts of drilling and blasting, and crushing/screening, were considered in the assessment and mitigation measures recommended.

The assessment report prepared by Tarkarri Engineering forms part of this EIS and is in Attachment 4.

E.4.2 EXISTING LANDSCAPE NOISE SOURCES

Noise sources in the landscape surrounding the land where the activity will occur have been identified as follows:

¹³ Management Measure 5. No chemicals, fuels or oils will be stored within the pit overnight, and refuelling of quarry equipment will be carried out using a mobile bund.

¹⁴ Management Measure 6. Cut-off drains and drains around and internal to the quarry will be installed and maintained.

¹⁵ Management Measure 7. Sediment accumulation rates in the sediment pond will be monitored (at least quarterly) and the maintenance program revised as required. Accumulated sediment will be reused as part of the saleable product or for application onto disused areas as part of site rehabilitation

- farm machinery adjacent properties,
- vehicles and trucks using Woodsdale Road and other private roads,
- wind in shelterbelts, plantation, native forest, and remnant trees,
- timber harvesting operations, reforestation activities, and forest management activities (eg fertiliser application, vermin control, tree pruning and thinning), and
- bird and insect life.

E.4.3 QUARRY EMISSION SOURCES

The major noise sources from the Big Blue Quarry activity have been identified as follows:

- drill rig operation and associated blasting operations,
- stockpiling of soil into bunds,
- crushing, and screening of material, and
- use of ancillary equipment; excavators, crushers, screens (vibratory/mechanised), loader and truck movements.

E.4.4 SENSITIVE RECEPTORS

There is no township near the quarry although there are two residences to the north-east (Figure D-3). The topography of the landforms between the quarry and the nearby residential uses is that of a hill which provides a noise barrier between the quarry and residential uses.

E.4.5 ENVIRONMENTAL NOISE ASSESSMENT

Tarkarri Engineering was commissioned to conduct an environmental noise, ground vibration and air blast overpressure assessment for the quarry.

An environmental noise emission criterion for operations at Big Blue Quarry was developed based on Quarry Code of Practice requirements and ambient noise monitoring conducted in the vicinity of the quarry which was analysed in accordance with the Tasmanian Noise Measurement Procedures Manual 2008 (TNMPM). The criterion is 'Day: 45 dBA ($L_{Aeq,10min}$)'.

Predicted noise levels from all operational scenarios and weather conditions at the Big Blue Quarry are below 45 dBA at all sensitive residential receiver locations near the quarry.

E.4.6 GROUND VIBRATION AND AIR BLAST OVERPRESSURE

Prediction of ground vibration and air blast overpressure was conducted using scaled regression equations developed by the Office of Surface Mining Reclamation and Enforcement (OSMRE), a bureau of the United States Department of the Interior.

Blasting would occur on average 16 times per annum. Predictions are made to the receivers shown in Figure 2.1 in Attachment 4.

An initial maximum charge mass/delay was set at 30 kg for the assessment following sensitivity testing utilising the OSMRE regressions. Blast locations for prediction were selected closest to receiver R3 (closest residence to the quarry) within the proposed quarry extents for the year 2 scenario and years 6.2 and 12.6 scenarios (i.e. north-east corner of quarrying extents).

Subsequent blasts at the quarry will be restricted to a charge mass/delay relative to distance from residential receiver combinations as follows: -

- 30 kg, 420 m.
- 40 kg, 510 m.
- 60 kg, 590 m.
- 80 kg, 650 m.
- 100 kg, 700 m

E.4.7 DRILL AND BLAST PLANNING

A **Blast Management Plan** will be developed for the activity which will include details of the following:

1. Details of blast controller,
2. Notification list and methodology,
3. Blasting procedure, type of explosives, initiation systems,
4. Storage and handling of dangerous goods methods,
5. Risk assessment and auditing procedures,
6. A noise and vibration monitoring program, including:
 - a. a blast monitoring location map,
 - b. the frequency and parameters to be measured.
7. Incident reporting, and
8. Contingency management Procedures, including actions to be implemented in the event of an exceedance of a limit imposed by a permit condition.

E.4.8 FLY ROCK

Modern blast techniques and the use of a suitably qualified and insured engineer/blast contractor minimise the risk of generating fly-rock. There are many examples of quarries being located adjacent to and within highly agricultural landscapes – the fly rock risk can be suitably managed and mitigated.

The blast contractor is responsible for conducting a risk assessment and safety audit of the quarry as part of each blast. This includes the drilling of the holes for explosives, handling explosives, operation of detonation devices and the safe detonation of the charges. The Lessee or their delegated agent will receive a copy of this risk assessment and safety audit and associated documentation that supports the placement of drill holes, levels of explosives used and the detonation devices.

E.4.9 MITIGATION MEASURES

Mitigation recommendations for blasting were provided as follows: -

- Initial blasting at the quarry should be restricted to a charge mass/delay of 30 kg and be conducted at locations within the quarry no closer than 420 m to any residential premises in other ownership. Subsequent blasts at the quarry will be restricted to a charge mass/delay relative to distance from residential receiver combinations as follows: - 40 kg at 510 m, 60 kg at 590 m, 80 kg at 650 m, 100 kg at 700 m.

- Site-specific scaled regressions should be developed from initial blasting monitoring to provide greater certainty on ground vibration and ABO levels. These data are necessary to support any further increase in charge/mass per delay above what is recommended here.
- Increase burden depth and deck loading of front row of holes for face blasts and backfill cover the blast area for establishment and face blasts to minimise ABO. Increased stemming depth should also be considered generally.
- Shielding of the drill rig is required when within 630 m of the closest receiver (R3). The following bund design is recommended –
 - bund to at least 1.5 m above rig height, e.g. 3 m, and
 - Adequately shield emissions from drilling to R3 along where the drill rig is expected to operate ensuring the bund extends beyond or wraps around the drill site to minimise noise diffracting around the barrier.

E.5 WASTE MANAGEMENT

The activity will not generate Controlled waste, nor will it generate rock/soil/overburden ‘solid wastes’ as all of the material excavated will be used in the product sold or for the rehabilitation of benches, slopes etc. Machinery related ‘solid wastes’, such as oil filters, will generally not be produced as machinery servicing will not occur in the quarry (except for emergency repairs or service requirements).

E.5.1 MATERIAL SOURCES

Machinery related ‘solid wastes’, such as oil filters, will generally not be produced as machinery servicing will not occur in the quarry (except for emergency repairs or service requirements).

E.5.2 MITIGATION MEASURES

The below aspects of the site and the activity can be summarised for waste management practices:

- No machinery servicing, except for emergency repairs or minor service requirements (eg a filter change), will be conducted within the quarry. Wastes generated from machinery repairs will be disposed of in an appropriate bin near the entrance to the quarry for future disposal at a permitted refuse disposal site¹⁶, and
- Waste generated by workers from general refuse (eg lunch wrappers) at the quarry will be collected in waste bins provided on-site for general refuse. These will be emptied at least once per fortnight and the material disposed of at a permitted refuse disposal site¹⁷.

¹⁶ Management Measure 8. No machinery servicing, except for emergency repairs or minor service requirements, will be conducted within the quarry. Wastes generated from machinery repairs will be disposed of in an appropriate bin near the entrance to the quarry for future disposal at a permitted refuse disposal site.

¹⁷ Management Measure 9. Waste generated by workers from general refuse (eg lunch wrappers) at the quarry will be collected in waste bins provided on-site for general refuse. These will be emptied at least once per fortnight and the material disposed of at a permitted refuse disposal site.

E.6 DANGEROUS AND/OR HAZARDOUS GOODS

The storage, handling and transport of dangerous goods, explosives and dangerous substances must comply with the requirements of relevant State Acts and any regulations.

E.6.1 MATERIAL SOURCES

Fuel and oil will be used in the quarry to operate and maintain functional machinery. There will be no permanent built storage of fuels, oils, lubricants or any other dangerous good in the quarry.

Chemicals for weed spraying be used (but not stored) in the quarry. They will be handled, used, and disposed of in accordance with the manufacturer's directions and relevant regulations.

E.6.2 MITIGATION MEASURES

The below aspects of the site and the activity can be summarised for dangerous and/or hazardous good management practices:

- Weed spraying chemicals will be handled, used, and disposed of in accordance with the manufacturer's directions and relevant regulations¹⁸,
- When in the quarry, fuel and oil containers will be stored at least 10 m from any drain or sediment pond and will be bunded (moveable bunds) to a capacity at least 1.5 times the volume of the container¹⁹, and
- One hydrocarbon spill kit will be stored at the quarry to use in the event of a spillage. Staff will be trained in how to use the kit and the kit will be replaced as and when required²⁰.

E.7 WEED MANAGEMENT

E.7.1 MATERIAL SOURCES AND POTENTIAL IMPACTS

Four plant species listed as a Declared Weed on the Tasmanian *Weed Management Act 1999* or as a Weed of National Significance on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* were recorded on or near the Land (see also Figure D-11) -

- blackberry (*Rubus fruticosus*),
- Californian thistle (*Cirsium arvense*),
- gorse (*Ulex europaeus*), and
- slender thistle (*Carduus pycnocephalus*).

Other pasture and environmental weeds were observed sporadically across the Land, most commonly in association with sheep 'camps' and fencelines –

¹⁸ Management Measure 10. Weed spraying chemicals will be handled, used and disposed of in accordance with the manufacturer's directions and relevant regulations.

¹⁹ Management Measure 11. When in the quarry, fuel and oil containers will be stored at least 10 m from any drain or sediment pond and will be bunded (moveable bunds) to a capacity at least 1.5 times the volume of the container.

²⁰ Management Measure 12. One hydrocarbon spill kit will be stored at the quarry to use in the event of a spillage. Staff will be trained in how to use the kit and the kit will be replaced as and when required.

- spear thistle (*Cirsium vulgare*),
- capeweed (*Arctotheca calendula*),
- variegated thistle (*Silybum marianum*), and
- briar rose (*Rosa rubiginosa*).

Weeds have the potential to contaminate the gravel supplied from the quarry which may cause fresh outbreaks to occur at locations distant to the quarry.

E.7.2 MITIGATION MEASURES

The below aspects of the site and the activity can be summarised for weed management practices:

Weed and Pathogen Management Plan

A Weed and Pathogen Management Plan will be developed and implemented as part of the quarry operation. The plan will be guided by the *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (Department of Primary Industries, Parks, Water and Environment, 2015)²¹.

The objectives of the Weed and Pathogen Management Plan (WPMP) will be based on the following:

- record and map the occurrence of weeds within the Lease, with a focus on those areas actively being quarried,
- identify and implement management measures within the Lease to –
 - minimise the risk of spreading propagules of weeds within the Lease and to locations outside the Lease,
 - control and/or eradicate weeds where practicable,
 - ensure that rehabilitation works are not compromised by the occurrence or growth of weeds, and to
 - minimise the risk of introducing soil-borne pathogens into the Lease.
- monitor and review the results of on-ground actions as required, and to
- establish a mechanism to review the plan, including its objectives and implementation.

The objectives, responsibilities, and management actions of the WPMP will need to adapt to new information about the site as it becomes available. The WPMP will be reviewed as required with revised versions provided to the Environment Protection Authority for approval.

Weed Spraying Program

A Weed Spraying Program (WSP) will be developed using the document - 'Department of Primary Industries, Parks, Water and Environment (2015). *Weed and Disease Planning and Hygiene Guidelines*

²¹ Management Measure 13. A Weed and Pathogen Management Plan will be developed and implemented as part of the quarry operation guided by the *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (Department of Primary Industries, Parks, Water and Environment, 2015).

- Preventing the spread of weeds and diseases in Tasmania - and in consultation with a weed spraying contractor who will implement the program²².

The WSP will be reviewed each year and updated as new information about the occurrence of weeds in the quarry become available.

Clean Machinery Policy

Transport trucks and light vehicles pose less risk to the transportation of weed propagules if they remain on the hard surface of the roads and the gravel loading area and that these areas are managed to exclude weeds. The highest risk of transporting propagules into the quarry is from heavy machinery, such as excavators, as these can carry large clods of dirt and mud in which seed propagules can be lodged. Heavy machinery will be brought into the quarry in a clean condition; free of weed propagules, clods of dirt and vegetative matter²³.

E.11 FLORA AND FAUNA

E.11.1 VEGETATION

Two vegetation communities are present on the Land which are well reserved in Tasmania and the bioregion, and in regrowth states from a combination of previous logging activities and fire –

- *Eucalyptus obliqua* dry forest (1.18 hectares) – none will be disturbed by the activity; and
- *Eucalyptus pulchella* forest and woodland (8.8 hectares).

The remainder of the Land is agricultural land and silvicultural plantations (hardwood).

No native vegetation communities listed on Schedule 3A (Threatened native vegetation communities) of the *Nature Conservation Act 2002* or ecological community listed under section 181 of the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* occur on the Land.

The loss of approximately 2 hectares of *Eucalyptus pulchella* forest and woodland from the activity is insignificant relative to the total area of this forest type mapped under the Permanent Forest Estate Policy²⁴ (approximately 110,000 hectares) of which only 1.1%²⁵ has been approved for clearance under a forest practices plan by the Forest Practices Authority.

No specific management, mitigation or offset measures are proposed.

E.11.2 THREATENED FLORA SPECIES

No flora species listed on the *Tasmanian Threatened Species Protection Act 1995* or the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* were observed on the Land during the site surveys.

Given this, no specific management, mitigation, or offset measures are proposed.

²² Management Measure 14. A Weed Spraying Program will be developed in consultation with a weed spraying contractor who will implement the program.

²³ Management Measure 15. Heavy machinery will be brought into the quarry in a clean condition; free of weed propagules, clods of dirt and vegetative matter.

²⁴ Policy for Maintaining a Permanent Native Forest Estate, https://www.stategrowth.tas.gov.au/energy_and_resources/forestry/native-forest

²⁵ Forest Practices Authority, Freycinet bioregion forest clearance figures as at 01/01/2020

E.11.3 THREATENED FAUNA SPECIES

There are a few conservation significant fauna species recorded in the NVA that occur *near* the Land (Figure D-9). The following comments and management measures are made about the species relevant to the activity on the Land -

Tasmanian Devil

The devil is nocturnal and therefore more likely to be a management issue from dusk to dawn. Impacts with vehicles generated by the activity are a possible impact to individual animals.

The quarry is primarily a day-time activity and therefore is unlikely to generate a 10% increase²⁶ in roadkill deaths to devils because there simply won't be enough traffic generated when the animals are active to cause a significant impact (or cumulative impact) to the species. That is, given the very low number of vehicle movements during dusk to dawn hours (mainly winter when devil activity is low, unlike spring and summer when young are dispersing) it is unlikely there would be any devil – vehicle interactions.

Furthermore, Woodsdale Road is a public road (accessible permanently to the public, unless otherwise closed by the Local Government for repair/maintenance purposes) with a speed limit controlled by the Department of State Growth. The Proponent has no control over the design of the road, the posted speed limit, roadkill mitigation device installation/operation/placement or the number or type of vehicles that use the road.

There is no approved Recovery Plan between the State and Commonwealth Governments for the Tasmanian devil. The DPIPWE webpage for the devil indicates that the Save the Tasmanian Devil Program (STDP) is the means to deliver conservation outcomes for the species.

The STDP Roadkill Project was launched in 2009 with the aim of collecting information about devil roadkill around the State - it is necessary for the STDP to understand where and when devils are being hit in order to develop mitigation strategies to reduce the number of devils being killed on the road. No devil specific measures have been applied by DSG or STDP for Woodsdale Road.

A permit is required under the TSPA and *Nature Conservation Act 2002* to “take” (which includes kill, injure, catch, damage, destroy and collect), keep, trade in or process any specimen or products (including dens) of the Tasmanian devil however *accidental* roadkill/impact of a devil by a vehicle is not considered by DPIPWE to need a permit.

On the above comments, the following management approach will be applied²⁷ –

²⁶ Natural and Cultural Heritage Division (2015) Survey Guidelines and Management Advice for Development Proposals that may impact on the Tasmanian Devil (*Sarcophilus harrisi*). Department of Primary Industries, Parks, Water and Environment.

²⁷ Management Measure 16. For Tasmanian devil and eastern quoll, The following management approach will be applied – areas needing to be cleared of vegetation (including plantation) to enable quarry activities should first be surveyed to ensure no dens or woodpiles supporting dens are present, and if dens or potential dens are present or suspected then expert advice must be sought from a suitably qualified ecologist. Advice may also be needed from DPIPWE. In the interim, a 10 m no machinery buffer will be applied to the den or suspected den.

- areas needing to be cleared of vegetation (including plantation) to enable quarry activities should first be surveyed to ensure no dens or woodpiles supporting dens are present,
- if dens or potential dens are present or suspected then expert advice must be sought from a suitably qualified ecologist. Advice may also be needed from DPIPWE. In the interim, a 10 m no machinery buffer will be applied to the den or suspected den,
- Internal road speed will be limited to 20 km/hr from dusk to dawn, and
- Truck drivers will be advised to take particular care while driving between dusk and dawn.

Eastern barred bandicoot and eastern quoll

No specific management, mitigation or offset measures are proposed because the management measures around road use for devils (ie to mitigate roadkill impacts) will also apply to this species.

Swift parrot

Foraging habitat only is present in the *Eucalyptus globulus* ssp. *globulus* trees that occur within the regrowth *E. pulchella* forest and woodland. Sporadic *Eucalyptus ovata* saplings and small trees (<8m tall) occur in the creekline at the southern boundary of the Land which will be undisturbed by the activity.

The following management approach will be applied²⁸ –

- avoid removing large canopy emergent blue gum (*Eucalyptus globulus*) in the mapped areas of *Eucalyptus pulchella* forest and woodland.

E.12 SITE CONTAMINATION

E.12.1 MATERIAL SOURCES

The quarry area has not been historically used for the storage or disposal of contaminated wastes including soil.

E.12.2 MITIGATION MEASURES

No soil/contaminant surveys or investigations are proposed.

E.13 COASTAL ZONE AND MARINE AREAS

No part of the extractive industry lies within 300 metres of the coast nor in the marine environment generally. There will be no impact to the coastal zone from the quarry development.

²⁸ Management Measure 17. For swift parrot, the following management approach will be applied – avoid removing large canopy emergent blue gum (*Eucalyptus globulus*) in the mapped areas of *Eucalyptus pulchella* forest and woodland.

E.14 TRAFFIC

E.14.1 MATERIAL SOURCES

A new access is proposed from Woodsdale Road per Figure B-2 because the sight distances at the existing access are insufficient.

Potential sources of dust, noise, water management and biodiversity impacts (eg weeds) are considered under the relevant theme elsewhere in Part D.

E.14.2 MITIGATION MEASURES

The below aspects of the site and the activity can be summarised for access traffic management:

- The new junction layout should be per IPWEA Drawing TSD-R05-v1 (Attachment 3) noting that the northern side of the driveway radius may not need to have the full 20 m as indicated on the standard drawing as trucks will mainly be traveling to/from the south.
- The initial 15 m of the new access road will be sealed to prevent loose material being carried onto the Woodsdale Road seal.

PART F - DECOMMISSIONING AND REHABILITATION

It is the aim of Gadtech Materials Pty Ltd to minimise the area of land 'open' at the quarry. Gadtech Materials Pty Ltd will manage the ratio of area disturbed/ rehabilitated to remain within the terms of the Mining Lease. This is not overly complicated given recent advances in aerial imagery and surveying techniques to regularly calculate areas 'open'. The maximum disturbed area for the quarry will be 15 hectares.

When closed, Big Blue Quarry will be rehabilitated with plantation (pine or eucalypt or a combination of both subject to market conditions at that time) and/or pasture for agricultural use.

F.1 PROGRESSIVE REHABILITATION

'Progressive rehabilitation' will apply at the quarrying operation for those areas that have been quarried and are no longer needed or used for the operation of the quarry²⁹. Progressive rehabilitation refers to the rehabilitation of worked out, or surplus areas, while extractive operations are ongoing. It is an important component of quarry management, particularly where the pit is large or expanding. Progressive rehabilitation includes the stabilisation of the landform prior to revegetation and serves to ensure landform stability and revegetation on an ongoing basis.

In this case, rehabilitation will only occur once benches have been established that will no longer be worked or needed for quarry operation purposes. That is, the benches established from Years 6 to 12 – these would occur initially at the northern extent of the pit and then along the western side of the pit. As quarrying continues there will be additional benches that can be rehabilitated using excess topsoil, overburden, and waste rock.

Temporary vegetative cover of pasture species (eg rye grasses and clovers) may be established on areas (eg stockpiles) to prevent weed infestation and erosion.

The main aims of rehabilitation work would be to:

- achieve long term stabilisation of all worked out areas to minimise ongoing erosion,
- revegetate all worked out areas with appropriate plantation (pine or eucalypt or a combination of both subject to market conditions at that time) and/or pasture vegetation, and
- ensure that worked out areas are safe for future land uses.

The rehabilitation of areas that are no longer being quarried or used for another purpose (such as a stockpile holding area, truck turning bay etc.) will be based on the following principles:

1. Benches ripped or cracked prior to substrate addition (i.e. topsoil, overburden, and waste rock).
2. Stockpiled weathered gravel, topsoil (from quarry site) and sediment collected from sediment interceptors applied to prepared benches.
3. Application of pasture seed and/or plantation species tubestock (either may also include the application of fertiliser or other soil ameliorant).

²⁹ Management Measure 18. 'Progressive rehabilitation' will apply at the quarrying operation for those areas that have been quarried and are no longer needed or used for the operation of the quarry.

4. Monitoring of the following factors –
 - a. weed infestation,
 - b. survivorship and growth rates in planted tubestock,
 - c. germination success and growth in seed distributed species, and
 - d. landform stability.
5. Remedial works which may include but not necessarily be limited to –
 - a. weed control works,
 - b. additional pasture seed spreading,
 - c. additional tubestock to replace plantation tree losses,
 - d. landform stabilisation works, and
 - e. erosion control measures and/or repair works.

F.2 PERMANENT CLOSURE

F.2.1 PLANNING

In the event of permanent closure of the facility prior to complete extraction of the resource a detailed Decommissioning and Rehabilitation Plan (DRP) will be developed and submitted to the EPA for approval³⁰.

The DRP would include discussion and processes to:

- Facilitate the orderly and safe removal of machinery and other equipment,
- Establish sufficient and appropriate tree (native vegetation) cover to minimise the risk of dust generation and soil erosion, and
- Establish a monitoring regime that assesses the success or otherwise of the rehabilitation to agreed (MRT, EPA, and landowner) sign-off parameters.

F.2.2 FINAL BENCH FORM AND SLOPES

Specific attention will be given to the final form of benches and slopes in the DRP. Face height and bench width at the closure of the quarry will be dictated by practical and economic considerations.

The DRP will consider the following principles:

- Toward the end of the productive life of a high face, intermediate benches may be constructed thereby cutting the existing face in half, or into 3 lifts if necessary, to give a maximum final face height between benches of 10 metres. Lower face heights (e.g. about 5 metres) are preferable for final rehabilitation of the site, because they will be screened more quickly by establishing vegetation, but they may not be possible,

³⁰ Management Measure 19. In the event of permanent closure of the facility prior to complete extraction of the resource a detailed Decommissioning and Rehabilitation Plan (DRP) will be developed and submitted to the EPA for approval.

- Slopes and faces should be battered back, preferably to slopes of 3 to 1 or less where it is practicable, or approximately 20° (36%), which will be more likely to hold topsoil and seed without slumping, and
- Where batters are slumping, the toe of the slumped area should be shored up and allowed to drain using rocks or log crib-work or other form of landslip prevention work. Expert advice may need to be sought where slumping occurs.

PART G – MANAGEMENT MEASURES SUMMARY

Best practice management is important to the project proponent to minimise the risk of environmental nuisance/harm from the activity.

In the preceding Sections of this EIS, the potential environmental effects which may arise from the activity have been detailed and, where appropriate, actions documented to prevent and or minimise potential adverse impacts.

The management measures made by the proponent are summarised in Table 9.

Table 9. Management Measures for Big Blue Quarry

No.	Commitment	Timeframe	EIS Reference
1	Operating hours are 0700 to 1900 hrs Monday to Friday, 0800 to 1600 hrs on Saturday, closed on Sunday and public holidays (those gazetted Statewide). Specific quarry tasks will be limited to the hours stipulated in Table 2.	Ongoing from project commencement	B.2 Operating Hours
2	A Blast Management Plan will be prepared and submitted to the EPA Director for approval prior to the commencement of the first drilling or blasting event on The Land	BMP submitted to EPA within 60 days of permit granted	B.11 Blast Planning and Management
3	Standard industry practice for dust control, which will be applied at the activity, is to dampen material prior to crushing and/or to also have installed sprayers on the output chute to minimise dust emissions from an otherwise dry product.	Ongoing from project commencement	E.1 Air Emissions - Dust
4	General measures to manage dust include watering of internal roads as required during dry and windy conditions, retention of vegetation along the access road corridor where possible, retention of native vegetation around the quarry working area to reduce the likelihood of strong winds liberating fine particles into the air, covering of trucks with tarpaulins and/or load dampening and minimising the geographic extent of areas of exposed soil.	Ongoing from project commencement	
5	No chemicals, fuels or oils will be stored within the pit overnight and refuelling of quarry equipment will be carried out using a mobile bund.	Ongoing from project commencement	E.2 Surface Water Management
6	Cut-off drains and drains around and internal to the quarry will be installed and maintained.	Ongoing from project commencement	
7	Sediment accumulation rates in the sediment pond will be monitored (at least quarterly) and the maintenance program revised as required. Accumulated sediment will be reused as part of the saleable product or for application onto disused areas as part of site rehabilitation	Ongoing from project commencement	
8	No machinery servicing, except for emergency repairs or minor service requirements, will be conducted within the quarry. Wastes generated from machinery repairs will be	Ongoing from project commencement	E.5 Waste Management

	disposed of in an appropriate bin near the entrance to the quarry for future disposal at a permitted refuse disposal site.		
9	Waste generated by workers from general refuse (eg lunch wrappers) at the quarry will be collected in waste bins provided on-site for general refuse. These will be emptied at least once per fortnight and the material disposed of at a permitted refuse disposal site.	Implemented from project commencement	
10	Weed spraying chemicals will be handled, used, and disposed of in accordance with the manufacturer's directions and relevant regulations.	Ongoing from project commencement	E.6 Dangerous and/or Hazardous Goods
11	When in the quarry, fuel and oil containers will be stored at least 10 m from any drain or sediment pond and will be bunded (moveable bunds) to a capacity at least 1.5 times the volume of the container.	Ongoing from project commencement	
12	One hydrocarbon spill kit will be stored at the quarry to use in the event of a spillage. Staff will be trained in how to use the kit and the kit will be replaced as and when required.	Ongoing from project commencement	
13	A Weed and Pathogen Management Plan will be developed and implemented as part of the quarry operation guided by the Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania (Department of Primary Industries, Parks, Water and Environment, 2015).	WPMP submitted to EPA within 60 days of permit granted	E.7 Weed Management
14	A Weed Spraying Program (described in the Weed and Pathogen Management Plan) will be developed in consultation with a weed spraying contractor who will implement the program.	Ongoing from approval of the WPMP	
15	Heavy machinery will be brought into the quarry in a clean condition; free of weed propagules, clods of dirt and vegetative matter.	Ongoing from project commencement	
16	For Tasmanian devil and eastern quoll, the following management approach will be applied – <ul style="list-style-type: none"> • areas needing to be cleared of vegetation (including plantation) to enable quarry activities should first be surveyed to ensure no dens or woodpiles supporting dens are present, and • if dens or potential dens are present or suspected then expert advice must be sought from a suitably qualified ecologist. Advice may also be needed from DPIPWE. In the interim, a 10 m no machinery buffer will be applied to the den or suspected den. 	Ongoing from project commencement	E.11 Flora and Fauna
17	For swift parrot, the following management approach will be applied – avoid removing large canopy emergent blue gum (<i>Eucalyptus globulus</i>) in the mapped areas of <i>Eucalyptus pulchella</i> forest and woodland.	Ongoing from project commencement	E.11 Flora and Fauna
18	'Progressive rehabilitation' will apply at the quarrying operation for those areas that have been quarried and are no longer needed or used for the operation of the quarry.	As required	F.1 Progressive Rehabilitation

19	In the event of permanent closure of the facility prior to complete extraction of the resource a detailed Decommissioning and Rehabilitation Plan (DRP) will be developed and submitted to the EPA for approval.	Prior to 60 days of the quarry being permanently closed.	F.2 Permanent Closure
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PART H – CONCLUSION

This Environmental Impact Statement (EIS) has been prepared to support a Development Application (DA2020/32) by Gadtech Materials Pty Ltd to establish and operate a quarry (Big Blue Quarry) north of Runnymede.

This EIS follows the generic EIS Guidelines and Project Specific Guidelines issued by the EPA and provides information on -

1. the present environment of the site, including such matters as zoning, land use, flora, fauna, soils, and climate. It also describes the proposed quarry operation activities in detail, the potential emissions sources, and the development timetable, and on
2. each of the potential environmental issues associated with the quarry and details of the mitigation measures to address each issue.

Big Blue Quarry is a proposed to extract up to 200,000 cubic metres of material per annum.

There are environmental impacts that are likely or potential from the activity, including noise, vibration, dust, and sediment discharge in uncontrolled stormwater discharge. Management measures have been proposed and will be implemented to mitigate the effects of the identified environmental impacts.

It is concluded that:

1. the RMPS and EMPCS objectives have been duly and properly pursued while sourcing and compiling information on the proposal,
2. the EIS for the proposed activity has been prepared in accordance with the Environmental Impact Assessment Principles, and
3. the proposed activity is capable of being managed in an environmentally acceptable manner such that it is unlikely that the objectives of the *Environmental Management and Pollution Control Act 1994* (the RMPS and EMPCS objectives) would be compromised.

PART I - REFERENCES

Department of Primary Industries, Parks, Water and Environment (2015). *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania*. (Eds.) Karen Stewart and Michael Askey-Doran. Department of Primary Industries, Parks, Water and Environment, Hobart, Tasmania.

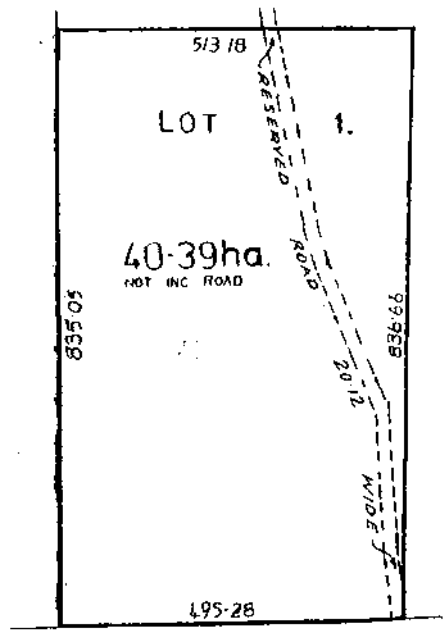
PART J – ATTACHMENTS

- Attachment 1** Land Title
- Attachment 2** Traffic Impact Assessment
- Attachment 3** Road access design
- Attachment 4** Big Blue Quarry
Environmental noise, ground vibration and air blast overpressure assessment

Attachment 1 Land Titles

D-47615

Owner:	<p>PLAN OF TITLE of land situated in the</p> <p>PEMBROKE - KILMANAHAN</p> <p>COMPILED FROM.....</p> <p>SCALE 1 7500 MEASUREMENTS IN METRES</p>	Registered Number
Title Reference 3188-1		D 47615
Grantee		Approved.....
		Recorder of Titles



SEARCH OF TORRENS TITLE

VOLUME 47615	FOLIO 1
EDITION 3	DATE OF ISSUE 02-Feb-2016

SEARCH DATE : 20-Sep-2019

SEARCH TIME : 03.22 PM

DESCRIPTION OF LAND

Parish of KILMANAHAN, Land District of PEMBROKE
 Lot 1 on Diagram 47615
 Derivation : Whole Lot 24375 Gtd to E Johnson
 Prior CT 3188/1

SCHEDULE 1

D137009 TRANSFER to THE TRUST COMPANY (PTAL) LIMITED
 Registered 02-Feb-2016 at noon

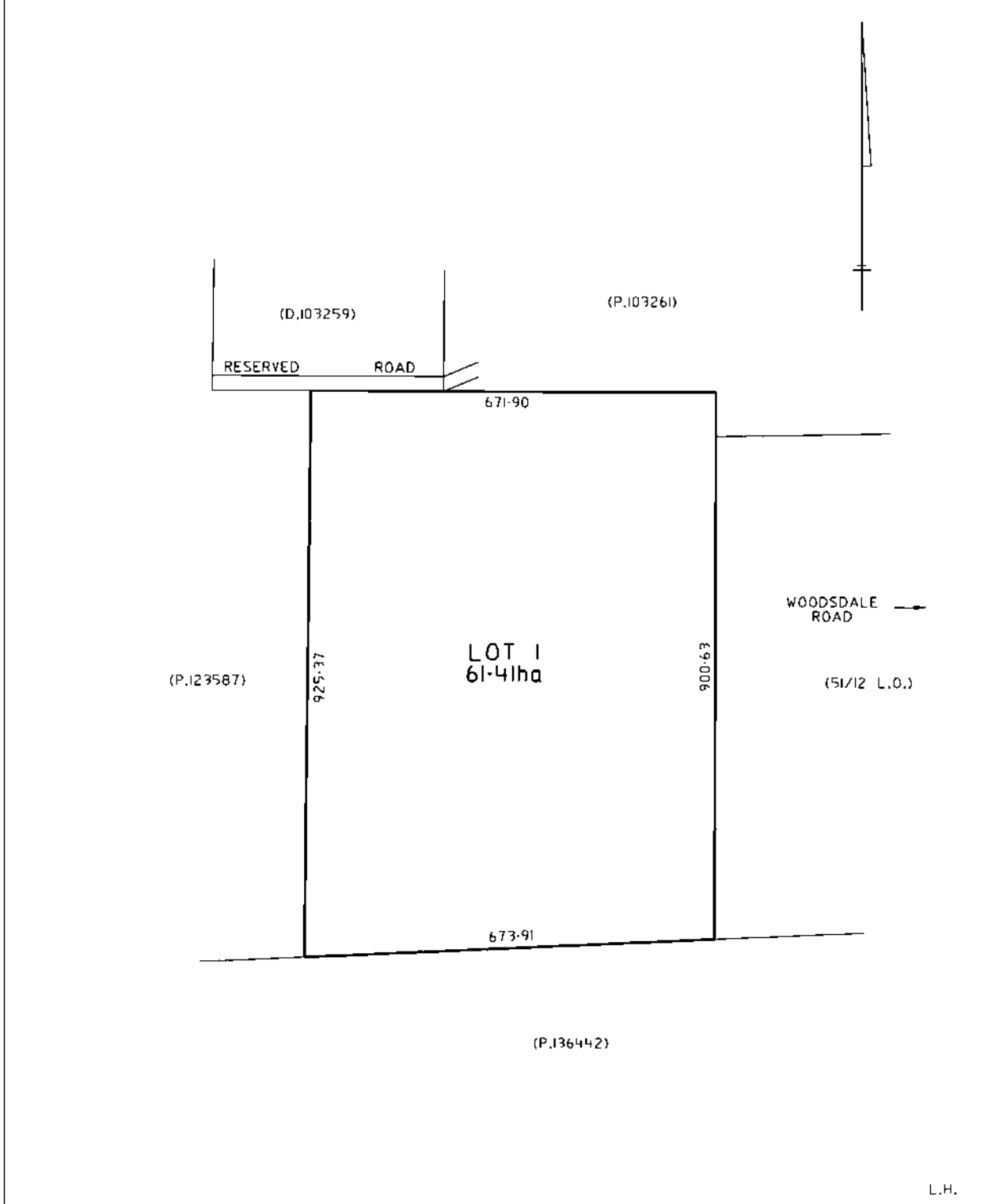
SCHEDULE 2

Reservations and conditions in the Crown Grant if any
 C981036 PRIVATE TIMBER RESERVE pursuant to Section 15(1) of
 the Forest Practices Act 1985 Registered
 14-Jun-2011 at noon

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

OWNER LAND TITLES ACT 1980		<p align="center">PLAN OF TITLE</p> <p>LOCATION PEMBROKE - KILMANAHAN</p> <p>FIRST SURVEY PLAN No. PEM 3/47 L.O. COMPILED BY L.D.R.B. SCALE 1: 6000 LENGTHS IN METRES</p>		Registered Number P.146726
FOLIO REFERENCE A.20783				APPROVED <u>26 APR 2006</u> <i>Alice Kawa</i> Recorder of Titles
GRANTEE WHOLE OF LOT 1476 (51A-3R-0P) GTD. TO ASKIN MORRISON		LAST UPI No 2800524	LAST PLAN No.	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN
MAPSHEET MUNICIPAL CODE No. 125(5428)				



SEARCH OF TORRENS TITLE

VOLUME 146726	FOLIO 1
EDITION 4	DATE OF ISSUE 02-Feb-2016

SEARCH DATE : 19-Sep-2019

SEARCH TIME : 07.45 PM

DESCRIPTION OF LAND

Parish of KILMANAHAN Land District of PEMBROKE
 Lot 1 on Plan 146726
 Derivation : Whole of Lot 1476 (151A-3R-0P) Granted to Askin Morrison.
 Derived from A20783

SCHEDULE 1

D137009 TRANSFER to THE TRUST COMPANY (PTAL) LIMITED
 Registered 02-Feb-2016 at noon

SCHEDULE 2

Reservations and conditions in the Crown Grant if any
 C981036 PRIVATE TIMBER RESERVE pursuant to Section 15(1) of
 the Forest Practices Act 1985 Registered
 14-Jun-2011 at noon

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

Attachment 2 Traffic Impact Assessment



TRAFFIC IMPACT ASSESSMENT

**PROPOSED
BIG BLUE QUARRY
DEVELOPMENT**

**WOODSDALE ROAD
RUNNYMEDE**

FEBRUARY 2020

TRAFFIC IMPACT ASSESSMENT

PROPOSED
BIG BLUE QUARRY
DEVELOPMENT

WOODSDALE ROAD
RUNNYMEDE

FEBRUARY 2020

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2. SITE DESCRIPTION	5
3. DEVELOPMENT PROPOSAL	6
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4.1 Road Characteristics	7
4.2 Traffic Activity	8
4.3 Crash Record	10
5. TRAFFIC GENERATION BY THE DEVELOPMENT	12
6. TRAFFIC ASSESSMENT AND IMPACT	13
6.1 Operational Impact of Traffic Activity to and from Proposed Development Site	13
6.2 Woodsdale Road/Quarry Access Road Junction Layout	13
6.3 Sight Distances along Woodsdale Road at Junction of Quarry Access Road	14
6.4 Other Considerations	17
7. SUMMARY AND RECOMMENDATIONS	18

ATTACHMENTS

Attachment A: Drawings of proposed development site and access road

REFERENCES:

- Australian Standard AS 1742.2-2009 – Manual of uniform traffic control devices Part 2: Traffic control devices for general use
- AUSTRROADS – Guide to Road Safety Part 6: Road Safety Audit
- AUSTRROADS – Guide to Road Design Part 4: Intersections and Crossings General (2017)
- AUSTRROADS – Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (2017)
- AUSTRROADS – Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings (2019)
- Southern Midlands Interim Planning Scheme 2015

1. INTRODUCTION

GADTECH Materials Pty Ltd have applied for a quarry lease on land located adjacent to Woodsdale Road in Runnymede.

This Traffic Impact Assessment (TIA) report has been prepared in support of the proposed quarry development and to assist the Southern Midlands Council in assessing the development application.

The report describes the current road and traffic conditions along Woodsdale Road and in the area of the development site. An assessment is made of the traffic that the quarry operation development will generate and the effect of this traffic on Woodsdale Road.

Advice is also provided on the access arrangements for the development site including available sight distances along Woodsdale Road.

The report is based on the Department of State Growth Traffic Impact Assessment Guidelines.

The techniques used in the investigation and assessment incorporate best practice road safety and traffic management principles.

2. SITE DESCRIPTION

The development site is located on Woodsdale Road, around 3.5km north of the junction with the Tasman Highway at Runnymede.

The location of the development site is in a bushland and rural farming area.

The property has a gravel access track off the western side of Woodsdale Road.

The location of the proposed development site and the current access track is highlighted on the extract from the area map for this area, seen as Figure 2.1.

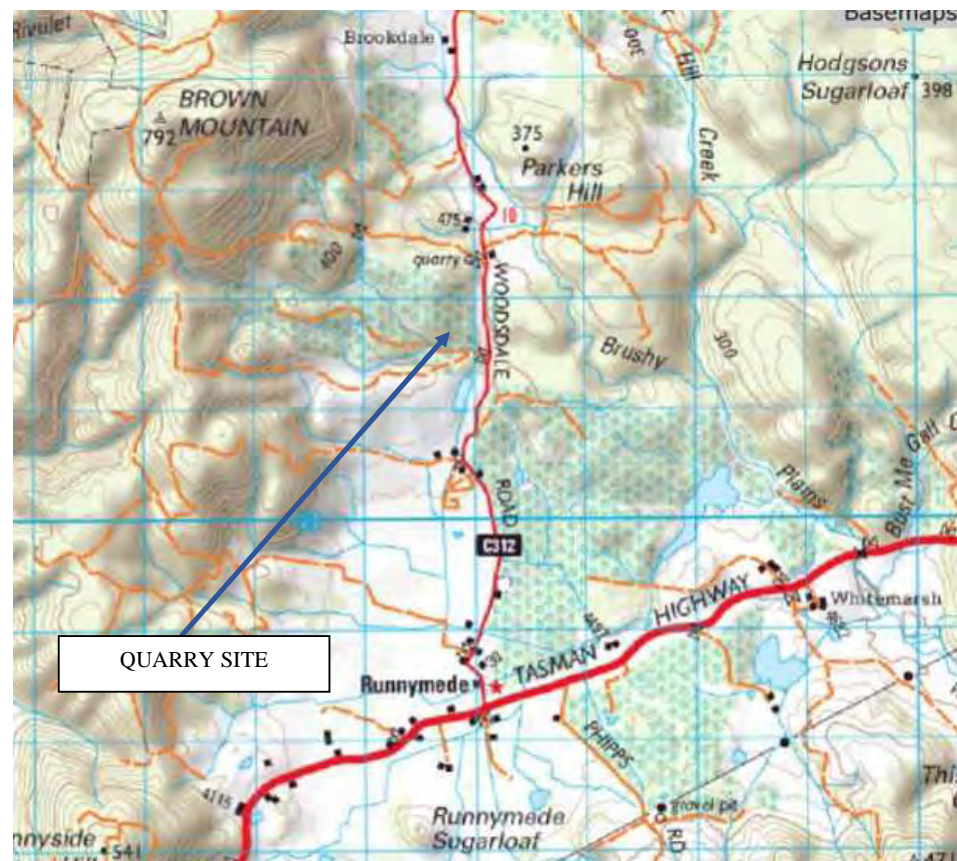


Figure 2.1: Extract of area map showing location of proposed development site

3. DEVELOPMENT PROPOSAL

The development proposal is the establishment and operation of a quarry on the property.

It is expected up to 200,000m³ of material will be extracted per annum, which is around 320,000 tonnes per annum.

Advice has been received that operating hours and time restrictions for the operation including truck movements will be those in the Quarry Code of Practice. These are 7:00am to 7:00pm, Monday to Friday, 8:00am to 4:00pm Saturday, with no activity on public holidays and Sunday.

When operating at full capacity, it will employ some 4-6 people on the site.

Drawings detailing the proposed development site are included as Attachment A to this report.

4. EXISTING ROAD AND TRAFFIC ENVIRONMENT

4.1 Road Characteristics

Woodsdale Road is maintained by the Southern Midlands Council.

The road has a generally winding horizontal and vertical alignment along its length northwards from the Tasman Highway past the development site.

In the area of the development site Woodsdale Road is sealed to a width of around 5.1m with a minimal gravel shoulder along each side.

There are guideposts along both sides of the road in this area but no other traffic control measures.

The rural speed limit of 100km/h applies to Woodsdale Road.

The quarry site currently has a gravel track located at the southern boundary of the property.

Photograph 4.1 provides a view of the southern Woodsdale Road approach to the current access track.



Photograph 4.1: View to north along Woodsdale Road with development site access road ahead on left side of curve

4.2 Traffic Activity

With the traffic to and from the quarry development site expected to pass through the Woodsdale Road/Tasman Highway junction, traffic volume data for the Tasman Highway was obtained from the Department of State Growth database.

The most recent traffic survey data for the Tasman Highway was recorded in May 2017 at a point 2.25km north of Fingerpost Road. The length of the Tasman Highway between Fingerpost Road and Woodsdale Road is a uniform traffic segment.

The data for the survey site show the following:

Average Weekday Traffic (May 2017): - 2,066 vehicles/day

Morning Weekday Peak Hour Traffic (10-11am): - 85 vehicles to north
- 92 vehicles to south

Afternoon Weekday Peak Hour Traffic at 4-5pm: - 109 vehicles to north
- 81 vehicles to south

The average hourly traffic distribution for each direction of travel as well as the two-way traffic on weekdays is shown graphically in Figure 4.1.

The Saturday traffic volume was 89% that of the average weekday and the Sunday traffic volume was around the same as the average weekday traffic volume.

The seasonal traffic variation over the year at the survey site is consistent with Seasonal Group P59 for which the monthly variation is as shown in Figure 4.2.

The traffic growth at the survey site on the Tasman Highway has been 3.3% p.a. over the last couple of decades. Around 6.6% of the traffic is commercial vehicles.

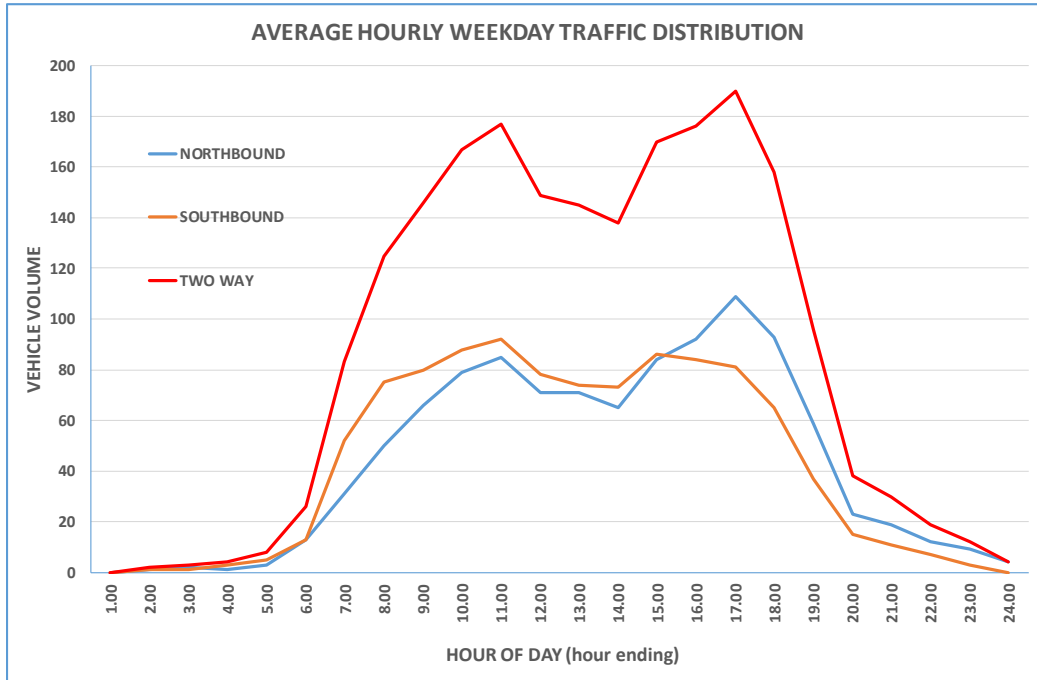


Figure 4.1: Average Hourly Weekday Traffic Distribution on Tasman Highway north of Fingerpost Road

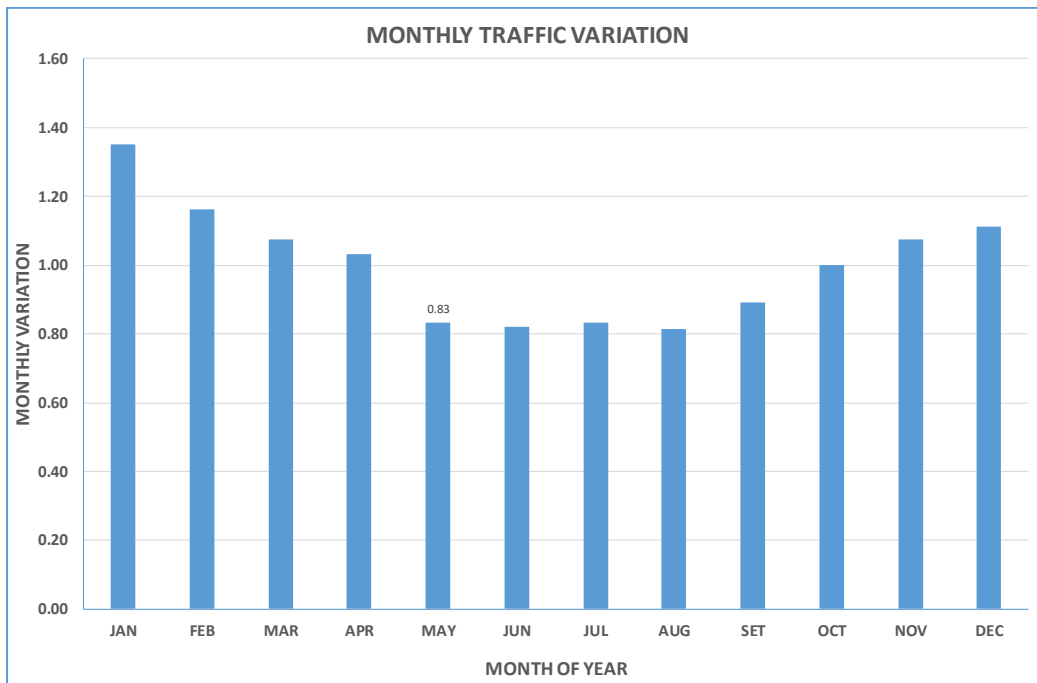


Figure 4.2: Seasonal Traffic Variation on Tasman Highway

In order to have some knowledge of the traffic volume on Woodsdale Road, reference has been made to a turning traffic volume survey which was undertaken at the Tasman Highway/Woodsdale Road junction during the 10:30am to 11:00am period on Friday 20 July 2018. The survey data has been presented in Figure 4.3.

The highway traffic volume in Figure 4.3 is consistent with the DSG survey data for this time of day.

The turning traffic volume survey recorded the equivalent of 22 vehicles/hour using Woodsdale Road at the highway junction.

During investigations at the development site, there were 30 vehicles/hour that passed the development site during the 9:30am to 11:30am period.

The same number of passing vehicles were recorded over the one and three-quarter hour period from 9:30am on 10 October 2019.

These data indicate the traffic volume past the development site would be around 150-200 vehicles/day.

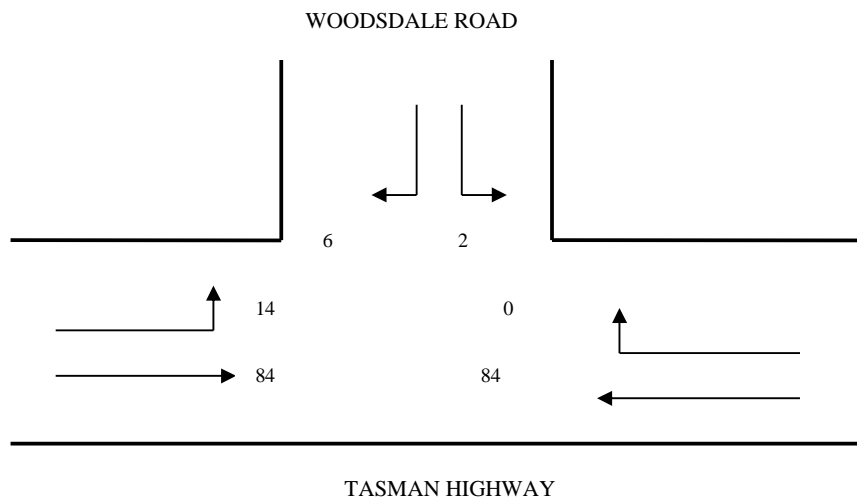


Figure 4.3: Turning Traffic at Woodsdale Road/Tasman Highway 10:30am to 11:00am (vehicles/hour)

4.3 Crash Record

All crashes that result in personal injury are required to be reported to Tasmania Police. Tasmania Police record all crashes that they attend. Any crashes that result in property damage only which are reported to Tasmania Police are also recorded even though they may not visit the site.

Details of reported crashes are collated and recorded on a computerised database that is maintained by the Department of State Growth.

Information was requested from the Department of State Growth about any reported crashes along Woodsdale Road between the Tasman Highway and a point around 4km from the highway.

There have been five crashes reported along this section of Woodsdale Road over the past five years since January 2015.

Two of these crashes have been single vehicle loss of control crashes, another was a head-on side swipe and the other involved an overtaking manoeuvre. Four of these crashes resulted in injury.

There was one angle crash in 2018 at the Woodsdale Road/Tasman Highway junction which resulted in injury.

The crash record is not a concern with respect to the proposed development. However, there are a number of sharp bends (45km/h or less) along Woodsdale Road that do not have any curve warning signs or warning signs without advisory speed plates.

5. TRAFFIC GENERATION BY THE DEVELOPMENT

As outlined in Section 3 of this report, the proposed quarry development will involve the extraction of rock material which will be transported from the site via Woodsdale Road to the Tasman Highway.

The maximum annual production will be 200,000m³, which is around 320,000 tonnes of rock per annum to be transported from the site.

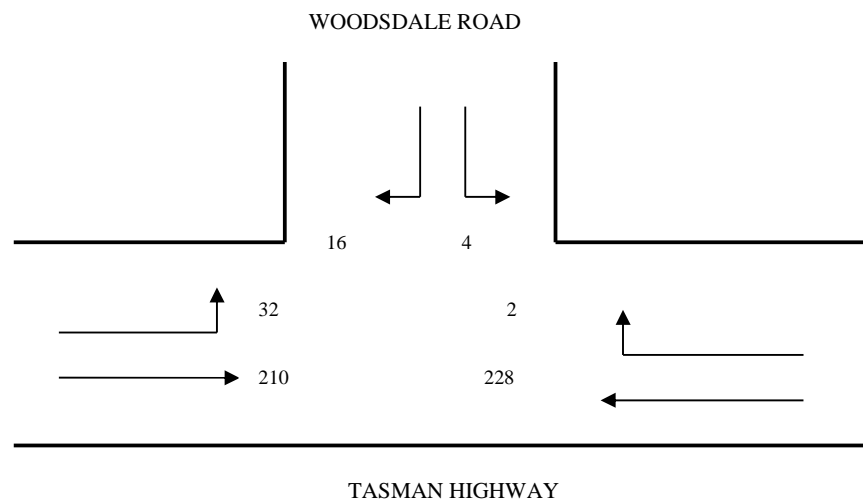
There will be a mix of vehicles transporting the rock from the quarry with around 5% rigid trucks (12 tonne payload), 10% truck and super dog (28 tonne payload) and quad dogs (34 tonne payload) .

Based on this, the average payload per loaded truck will be 32.3 tonne, and it has been estimated the truck numbers could be around 9,900 trucks (19,800 truck movements per annum).

Assuming 250 days of operation, there will be around 40 trucks/day transporting material from the quarry.

Therefore, there will be 80 trucks/day along Woodsdale Road to and from the quarry or around 8 trucks/hour based on a 10 hour daily period of transport activity. It is expected there will also be up to 10 light vehicles (cars)/day on those days that the quarry is in operation.

Based on this traffic generation rate for the quarry, the expected future traffic activity at the Tasman Highway/Woodsdale Road junction during the peak hour of the day and highest traffic month of the year, to year 2031 with the quarry in full operation, is as shown in Figure 5.1.



**Figure 5.1: Turning Traffic at Woodsdale Road/Tasman Highway
 10:00am to 11:00am in January 2031**

6. TRAFFIC ASSESSMENT AND IMPACT

This section of the report evaluates the impact that the traffic generated by the proposed quarry development will have on Woodsdale Road and the Tasman Highway junction.

An assessment has also been made of the adequacy of available intersection sight distances along Woodsdale Road at the quarry access road junction.

6.1 Operational Impact of Traffic Activity to and from Proposed Development Site

The total year 2031 traffic activity at the Tasman Highway/Woodsdale Road junction with the quarry at full production will be as indicated in Figure 5.1.

The total traffic conflict will be around 500 vehicles/hour.

Intersections and junctions reach capacity when the total conflicting approach traffic volumes are around 1,500 vehicles/hour.

There clearly will not be any traffic flow efficiency issues at this junction or at any other junction along Woodsdale Road including the junction of the quarry access road with Woodsdale Road, where conflicting traffic volumes will be much lower.

Overall the traffic on the roads used by quarry traffic will continue to operate efficiently at acceptable Level of Service A well into the future.

6.2 Woodsdale Road/Quarry Access Road Junction Layout

There currently is a gated road into the quarry site located at the southern boundary of the property.

However, in order to achieve good and sufficient sight distances along Woodsdale Road at the quarry access road junction, it is proposed that the road be relocated further to the north at a point 58m to the north of the current access track and 20m to the north of an existing culvert under the road.

The layout of the junction should be as seen IPWEA Drawing TSD-R05-v1., The northern side of the driveway radius may not need to have the full 20m as indicated on the standard drawing as trucks will be traveling to/from the south.

The initial 15m of the road needs to be sealed to prevent loose material being carried onto the Woodsdale road seal.

There is not a need for any auxiliary traffic lanes on Woodsdale Road, nor traffic signs or markings at this junction.

It is proposed the access road beyond the junction area have a width of 5.5m to accommodate the larger vehicles.

6.3 Sight Distances along Woodsdale Road at Junction of Quarry Access Road

Investigations were undertaken on Woodsdale Road at the above proposed junction of the access road to the development site to confirm the adequacy of available sight distances along Woodsdale Road.

Measurement of the sight lines along Woodsdale Road to the north and south of the proposed access road from a point 3m back from the edge of seal has found that the available sight distances are over 300m to the north and around 210m to the south for vehicles waiting to enter Woodsdale Road. The sight distances to the north and the south to and from a vehicle waiting to turn right into the access road are virtually the same.

The available sight lines are seen in Photographs 6.1 to 6.4.

A survey of the speed of vehicles on Woodsdale Road approaching the location of the proposed access road from each direction was undertaken over a two-hour period. Due to the low traffic volume on Woodsdale road, a small sample of vehicle speeds (24 vehicles) was recorded. The sample is considered sufficient to give a reasonable indication of approach vehicle speeds.

This survey found that the 85th percentile vehicle speed is 80.1km/h for northbound traffic and 86.5km/h for southbound traffic.

The required sight distances for these 85th percentile speeds are:

- around 200m to the north and 1182m to the south based on Austroads: Guide to Road Design - Part 4A.

The required sight distances, based on the planning scheme requirements, are slightly less than current Austroads guidelines.

Therefore, the sight distances along Woodsdale Road at the proposed access road junction will be more than sufficient.



**Photograph 6.1: View to south along Woodsdale Road
from proposed quarry access road**



**Photograph 6.2: View to north along Woodsdale Road
from proposed quarry access road**



Photograph 6.3: View to south along Woodsdale Road from vehicle turning right into proposed quarry access road



Photograph 6.4: View to north along Woodsdale Road from rear of vehicle turning right into proposed quarry access road

6.4 Other Considerations

Car Parking

The necessary car parking bays and circulating arrangements will be provided on-site at the quarry in accordance with the Southern Midlands Interim Planning Scheme for up to 6 employee vehicles.

Normally sites such as this have much more open space for vehicle parking and manoeuvring than is required to meet all such requirements.

7. SUMMARY AND RECOMMENDATIONS

This Traffic Impact Assessment has been prepared in support of the development application to the Southern Midlands Council for the construction of a quarry off Woodsdale Road some 3.5km from the Tasman Highway.

The assessment has reviewed the existing road and traffic environment along Woodsdale Road leading to the area of the development site. No issue if concerns have been identified along this road.

Woodsdale Road is sealed to a width around 5.1m with a minimal gravel shoulder along each side.

It has been estimated from hourly traffic surveys that the traffic volume past the development site would be around 150-200 vehicles/day.

The DSG crash database has record of five crashes reported along the 4km section of Woodsdale Road from the Tasman Highway. One crash occurred at the Woodsdale Road/Tasman Highway junction which resulted in injury. The other crashes occurred at different locations along the road.

The crash record is not a concern with respect to the proposed development. However, there are a number of sharp bends (45km/h or less) along Woodsdale Road that do not have any curve warning signs or warning signs without advisory speed plates.

It has been estimated that the proposed quarry development will generate up to 80 trucks/day along Woodsdale Road to and from the quarry or around 8 trucks/hour based on a 10 hour daily period of transport activity. It is expected there will also be up to 10 light vehicles (cars)/day on those days that the quarry is in operation.

The traffic conflict over the working day at the junction of Woodsdale Road with the Tasman Highway with the quarry at full production will be around 500 vehicles/hour during the busiest month in year 2031.

There clearly will not be any traffic flow efficiency issues at this junction or at any other junction along Woodsdale Road where conflicting traffic volume will be even lower. Overall the traffic in the area will continue to operate efficiently at acceptable levels of service (Level of Service A) well into the future.

Consideration has also been given to the safe movement of vehicles through the junction of the quarry access road with Woodsdale Road.

It is proposed that the access road be located at a point 58m to the north of the current access track and 20m to the north of an existing culvert under Woodsdale Road.

The junction should be designed in accordance with Drawing TSD-R05-v1, but the northern side of the driveway radius may not need to have the full 20m as indicated on the standard drawing as the trucks will be traveling to/from the south.

The initial 15m of the road needs to be sealed to prevent loose material being carried onto the Woodsdale road seal.

There is not a need for any auxiliary traffic lanes on Woodsdale Road, nor traffic signs or markings at this junction.

It is proposed the access road beyond the junction area to the quarry have a width of 5.5m to accommodate larger vehicles.

An assessment has been undertaken of the available sight distances at the proposed junction of the quarry access road with Woodsdale Road. The available sight distances were found to be more than required.

It has been concluded that the proposed quarry development can be supported on traffic grounds as it will not give rise to any adverse safety or operational traffic issues.

ATTACHMENT A

Drawings of proposed development site and access road

545000 545500 546000

MARKING OUT POINT
545135.969 ME
5282365.753 MN
(BASED ON THELIST
TITLE BOUNDARY)



TITLE BOUNDARY

TITLE BOUNDARY

TITLE BOUNDARY

INTERSECTION OF
TITLE AND MINOR
RIVER

PROPOSED
MINING LEASE
57.63 HA
ON TITLE REF
146726/1 AND
47615/1

INTERSECTION OF
WOODSDALE RD
AND TITLE CORNER

BOUNDARY IS
WOODSDALE ROAD

BOUNDARY IS
MINOR RIVER

INTERSECTION OF
5281495 MN
AND MINOR RIVER

INTERSECTION OF
WOODSDALE RD
AND 5281465 MN

0 125 250 500 METERS

GADTECH
MATERIALS
PTY LTD

PROPOSED
MINING LEASE

FIGURE I: PROPOSED
MINING LEASE

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

BASE DATA BY TASMAP. © STATE OF TASMANIA
BASE IMAGE © GOOGLE EARTH

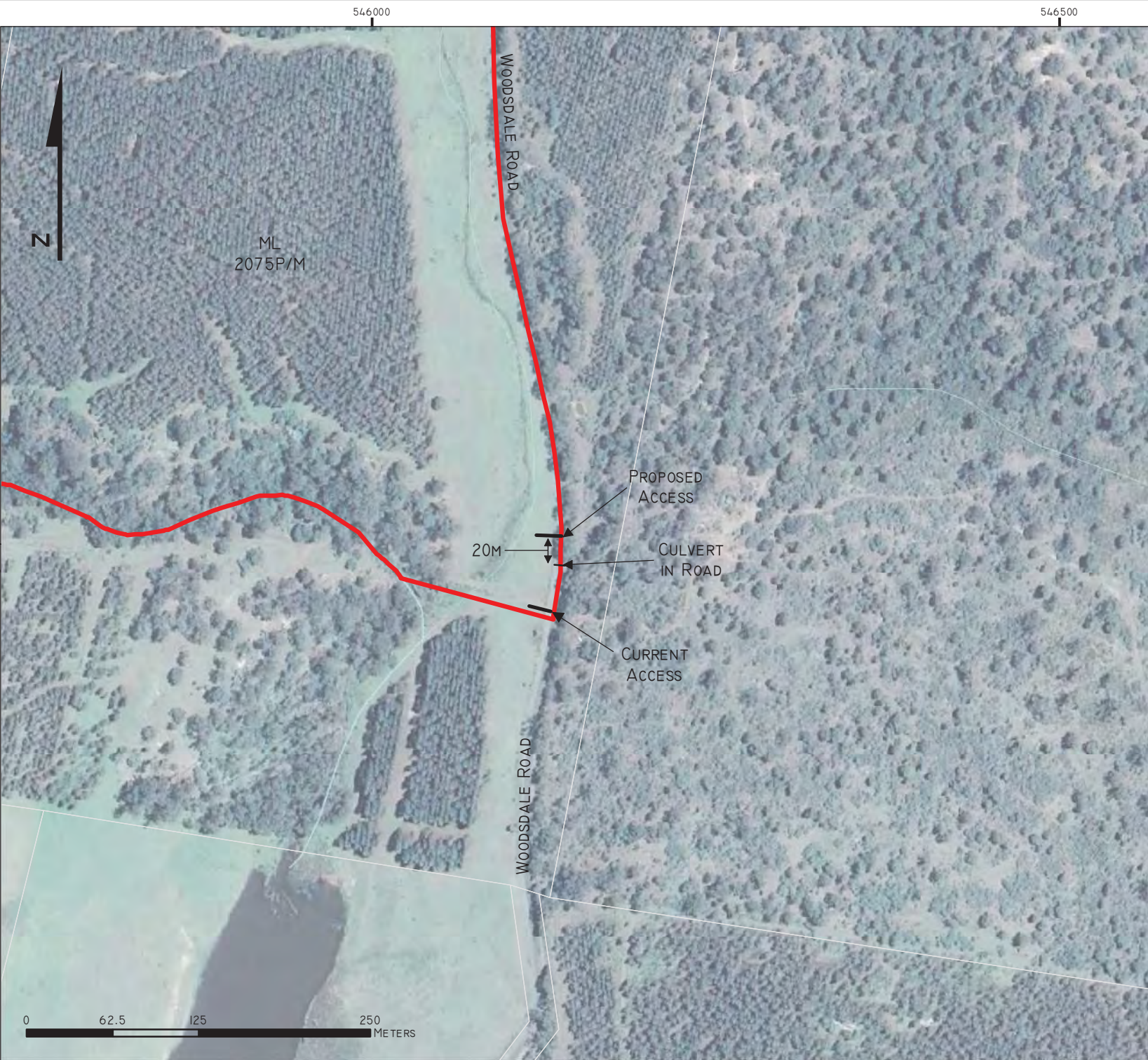
 **an Diemen CONSULTING**
PO Box 1 New Town TAS 7008



DATUM: GDA94
GRID: MGA ZONE 55
SCALE: @A4 - NA

CLIENT:
GADTECH
MATERIALS
PTY LTD

DATE: 19TH SEP 2019



GADTECH
MATERIALS
PTY LTD

MINING LEASE

FIGURE 2: PROPOSED
MINE ACCESS / EGRESS
LOCATION

TASMAP:
BUCKLAND
5428

LGA:
SOUTHERN
MIDLANDS

BASE DATA BY TASMAP. © STATE OF TASMANIA
BASE IMAGE © GOOGLE EARTH

 **an Diemen CONSULTING**
PO Box 1 NEW TOWN TAS 7008

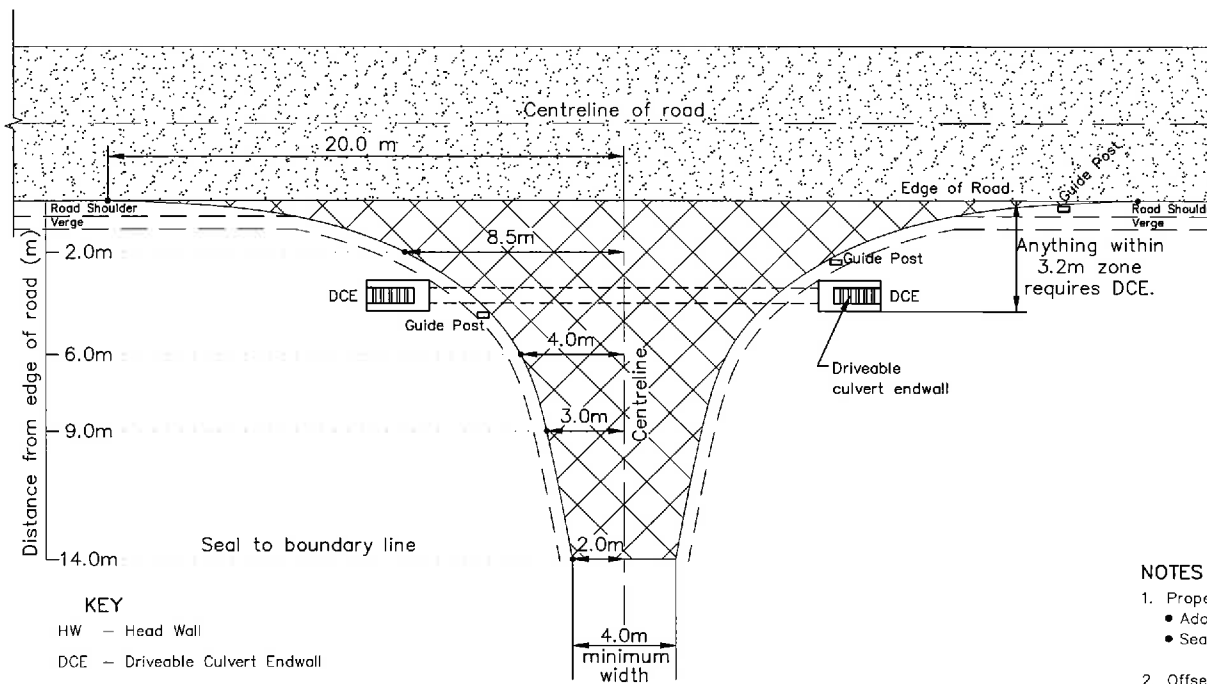


DATUM: GDA94
GRID: MGA ZONE 55
SCALE: @A4 - NA

CLIENT:
GADTECH
MATERIALS
PTY LTD

DATE: 30 DEC 2019

Attachment 3 Road access design



KEY
 HW - Head Wall
 DCE - Driveable Culvert Endwall

DRIVEWAY TYPE 'A' CATERS FOR:	LENGTH
Long Rigid Trucks	12.5m
Long Mini B-Doubles	19.0m
Truck + Trailer Combinations	19.0m



STANDARD OBJECTIVES

1. Maximise road safety.
2. Reduce the extent of debris being tracked onto the roadway.
3. Provide vehicle standing area clear of the road edge.
4. Contain stormwater runoff within the road table drains.

NOTES

1. Property Access Seal Types:
 - Adopt the seal type on the adjacent road (Asphalt / Hot Sprayed bituminous surfacing).
 - Seal is not required for property access off unsealed roads.
2. Offset property entrance gate to provide adequate vehicle standing area clear of road edge, as required.
3. Install guideposts at :
 - culvert end walls.
 - the start of the access ('nearside' lane approach only).
4. Pipe Culvert.
 - Pipe size, type, class, cover and grade shall be determined by consideration of the drainage catchment, rainfall I.F.D. data and road grade for an A.R.I. of 5 years (min).
 - Minimum pipe size - 300 dia.
 - Minimum grade - 1 in 100 (1%).
5. References.
 - DIER drawing No.3402-2/P35-2.
6. Applicable for design speed zones in excess of 60km/hr.

Attachment 4 **Big Blue Quarry**
Environmental noise, ground vibration and air blast overpressure assessment

Van Diemen Consulting

Big Blue Quarry environmental noise, ground vibration and air blast overpressure assessment



Report No. 5437_AC/VIB_R

TARKARRI ENGINEERING PTY LTD

PO Box 506

Kings Meadows TAS 7249

August 2020



**Tarkarri
Engineering**

Air Quality • Acoustics • Environment • Vibration





DOCUMENT CONTROL

VAN DIEMEN CONSULTING BIG BLUE QUARRY ENVIRONMENTAL NOISE, GROUND VIBRATION AND AIR BLAST OVERPRESSURE ASSESSMENT	
Report No. 5437_AC/VIB_R Prepared for Van Diemen Consulting 32 Banticks Road Mangalore Tasmania 7030 Contact Dr Richard Barnes  Mobile +61(0)438 588 695 Email rwbarnes73@gmail.com	Library Code AC Prepared by Tarkarri Engineering Pty Ltd PO Box 506 Kings Meadows Tasmania 7249 Contact Dr Alex M ^c Leod  Mobile +61 3 6343 2077 Email alex.mcleod@tarkarri.com

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Revision History		
Revision No.	Date Issued	Reason/Comments
0		
Distribution		
Copy No. _____	Revision No.	Location
1	0	Project/Client File
2	0	Client
3	0	Tarkarri Engineering Library
Keywords	environmental noise, dBA, L _{Aeq} , background (L _{A90}), mm/s, dBL	



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References

[1] Environment Protection Authority (2017) Quarry Code of Practice 3rd Edition, EPA Tasmania, Hobart, Tasmania.
 [2] Office of Surface Mining Reclamation and Enforcement (<https://www.osmre.gov/>).
 [3] SoundPLAN Acoustic modelling software - Braunstein & Berndt GmbH.
 [4] CONCAWE The oil companies’ international study group for conservation of clean air and water – Europe (est. 1963) report 4/81.



Executive Summary

Tarkarri Engineering was commissioned by Van Diemen Consulting (VDC) on behalf of Gadtech Materials Pty Ltd to conduct an environmental noise, ground vibration and air blast overpressure assessment of their Big Blue Quarry. The work supports a Development Application (DA) and Environmental Impact Statement (EIS) to the Tasmanian EPA for commencement of a proposed level 2 extraction in Runnymede.

An environmental noise emission criterion for operations at Big Blue Quarry was developed based on *Quarry Code of Practice* requirements and ambient noise monitoring conducted in the vicinity of the quarry which was analysed in accordance with the *Tasmanian Noise Measurement Procedures Manual 2008* (TNMPM). The criterion is as follows:-

- Day: 45 dBA ($L_{Aeq,10min}$).

Predicted noise levels from all operational scenarios and weather conditions at the Big Blue Quarry are below 45 dBA at all sensitive residential receiver locations surrounding the quarry.

Shielding of the drill rig is required when within 630 m of the closest receiver (R3). The following bund design is recommended

- Bund to at least 1.5 m above rig height, e.g. 3 m
- Adequately shield emissions from drilling to R3 along where the drill rig is expected to operate ensuring the bund extends beyond or wraps around the drill site to minimise noise diffracting around the barrier

Mitigation recommendations for blasting were provided as follows:-

- Initial blasting at the quarry should be restricted to a charge mass/delay of 30 kg and be conducted at locations within the quarry no closer than 420 m from any residential premises in other ownership.
- Increase burden depth and deck loading of front row of holes for face blasts and backfill cover the blast area for establishment and face blasts to minimise ABO. Increased stemming depth should also be considered generally.
- Site-specific scaled regressions should be developed from initial blasting monitoring to provide greater certainty on ground vibration and ABO levels. This data is necessary to support any further increase in charge/mass per delay above what is recommended here.



1 Introduction

Tarkarri Engineering was commissioned by Van Diemen Consulting (VDC) on behalf of Gadtech Materials Pty Ltd to conduct an environmental noise, ground vibration and air blast overpressure assessment as part of a Development Application (DA) and Environmental Impact Statement (EIS) to the Tasmanian EPA for commencement of proposed level 2 extraction in Runnymede.

The relevant condition under Section 6.1 (Noise emissions) of the Tasmanian EPA's Project Specific Guidelines for the quarry is provided below:-

Discuss potential impacts of noise emissions from the proposal on sensitive receivers, including:

- Description of the pre-existing noise in the area including the results of measured levels as experienced at the nearest residences for day, evening and night-time periods.
- Consideration of each of the following during each of the main proposed quarrying stages:
 - Topography (including modifications due to extraction of rock);
 - Sound power output levels for all major sources of noise (including both fixed and mobile equipment);
 - Results of noise modelling to predict the 30, 35, 40 and 45 dB(A) noise level contours under typical and plausible worst-case operating conditions.
Noise modelling must incorporate noise likely to arise from periodic drilling campaigns and must take into account the likely location(s) of drilling and equipment (e.g. top of quarry face). Consideration is to be given to worst case weather conditions.
 - An assessment of potential noise nuisance taking into account the predicted levels and changes in noise characteristics such as tonal components, increases in noise level, the time varying nature of emissions (e.g. modulation, impulsive or intermittent noise) and the temporal span of the noise emissions.
 - A description of noise attenuation measures that will be implemented (as relevant).
- Provide details of the need for blasting, the expected number of blasts per year and the notional blast plan, including:
 - Results of ground vibration modelling to predict peak particle velocity contours out to 2 mm/s;
 - Results of air blast overpressure modelling to predict dB(lin) level contours out to 100 dB(lin).

To address the above Tarkarri Engineering proposed the following approach:-

Environmental noise

- Ambient noise monitoring to establish typical ambient noise conditions in the area.
- Develop source sound power spectra for the major noise emitting equipment on site.
- Construct an environmental noise model of quarry operations using SoundPLAN.
- Predict noise levels at residential locations within 1 km of the quarry and assess against ambient noise levels and the *Quarry Code of Practice*^[1].

Ground vibration and air blast overpressure



- Develop square root and cube root scaled regressions for the production of ground vibration and air blast overpressure.
- Predict potential ground vibration and air blast overpressure levels at residential locations surrounding the quarry and assess against limits for human comfort under the *Quarry Code of Practice*^[1].
- Ground vibration and air blast overpressure contours out to 2 mm/s and 110 dB(lin).
- Provide charge mass limits and mitigation strategies to maintain levels at residences within limits for human comfort.

Ground vibration and air blast overpressure prediction is typically conducted using site specific scaled regression equations developed from monitored data from multiple blasts measured at multiple locations. Such data is not available and given this Tarkarri Engineering has sourced regression equations developed by the *Office of Surface Mining Reclamation and Enforcement*^[2] in the USA from their extensive data sets.

2 Site description

Big Blue Quarry is located on Woodsdale Rd, approx. 2.8 km north of the township of Runnymede Northeast of Richmond. The quarry is surrounded by land zoned for Rural Resource with the closest noise sensitive residential properties, located approx. 250 m, 500 m and 840 m north and 1 km south from the nearest boundary of the mining lease (440, 475, 516 and 241 Woodsdale Rd respectively).

The quarry is located on the southern face of an east/west trending spur of Brown Mountain. The underlying geology is dolerite (tholeiitic) with locally developed granophyre.

Material would be extracted, crushed, and transported from the quarry as required. Operations would only occur within allowable operation times under the *Quarry Code of Practice*^[1] with the relevant section pertaining to operational hours provided below:-

7.2.2.1 Hours of operation

Hours of operation should be restricted to:

- 0700 to 1900 hours, Monday to Friday
- 0800 to 1600 hours, Saturdays, and
- No operations on Sundays.

Extended operating hours may be approved following submission of supporting noise monitoring reports and/or consultation with affected neighbours. This may be accomplished via a development application, or through the issue of an Environment Protection Notice (provided that Council do not require a new development application).

Where noise is identified as an issue at a quarry, operating hours negotiated between the approval authority and the operator must be specified as a Permit condition.

The approval authority may approve a one-off extension of operating hours if an appropriate case is established where this is provided for in the Permit. Where existing permits do not contain provisions for one-off extensions Permit conditions may be amended via an Environment Protection Notice.

Operations may only be permitted on Sundays and public holidays that are observed state-wide (excepting Easter Tuesday) with prior approval.

An environmental noise monitoring location (position M1), located approx. 30 m from Woodsdale Rd at the entry to the quarry land, was utilised for the measurement of ambient noise levels. Four



environmental noise model receivers (positions R1 – R4) were also identified for the prediction of the environmental noise, ground vibration and air blast overpressure.

The location of each position is provided in Table 2-1 below while Figure 2-1 highlights the location of the monitoring and model receiver positions and the extent of Figure 2-2. Figure 2-2 shows the location and extent of the mining lease (2075P/M) for the Big Blue Quarry.

Environmental noise measurement and model receiver positions		
Number	Location	Coordinates (MGA94, Zone 55 G)
M1	On-site 30 m from quarry entrance	546100 / 5281481
R1	516 Woodsdale Rd	546036 / 5283037
R2	475 Woodsdale Rd	545940 / 5282703
R3	440 Woodsdale Rd	546125 / 5282380
R4	241 Woodsdale Rd	545885 / 5280477

Table 2-1: Environmental noise measurement and model receiver positions.

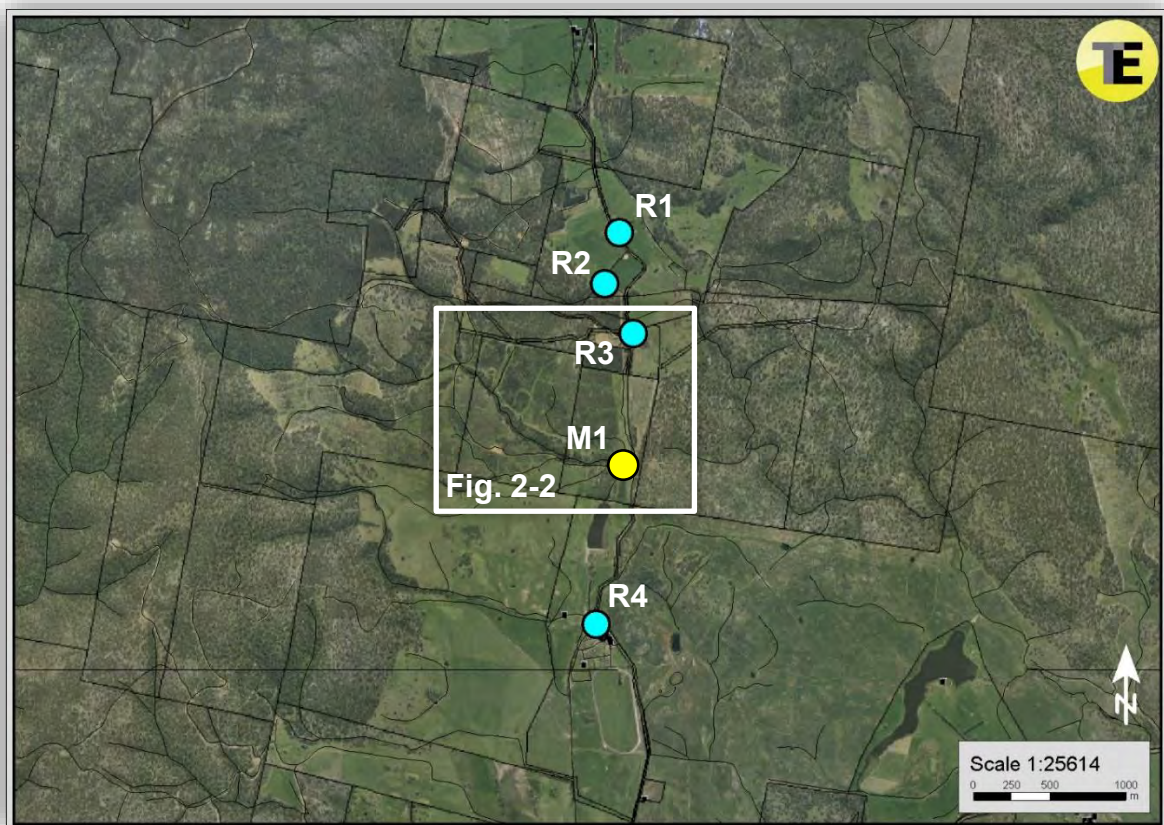


Figure 2-1: Aerial view of Big Blue Quarry and surrounds with environmental noise monitoring and model receivers marked.

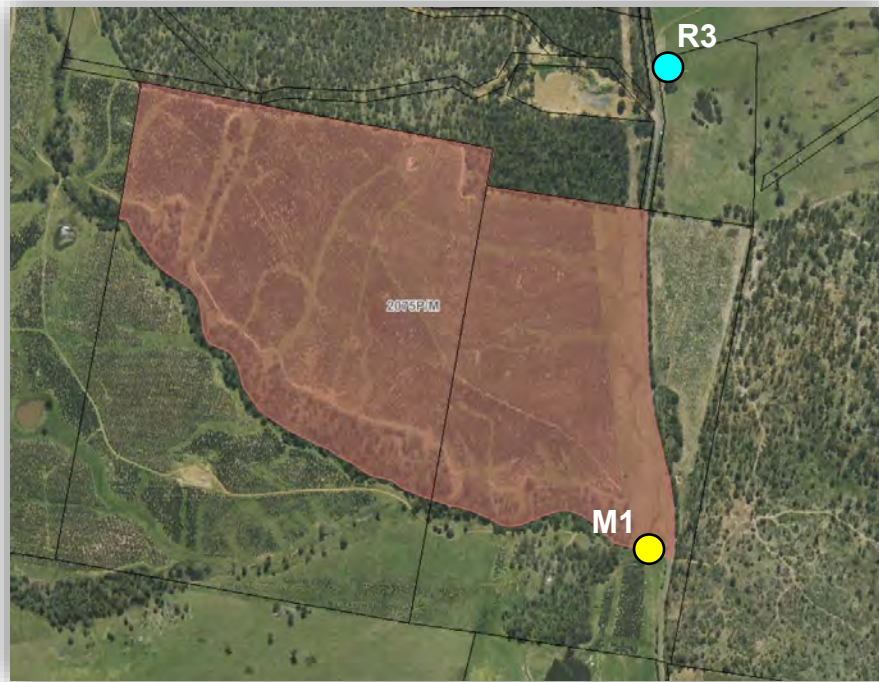


Figure 2-2: Aerial view with Big Blue Quarry mining lease and closest receiver marked.

3 Environmental noise

3.1 Ambient noise environment

3.1.1 Ambient noise monitoring procedure

All measurements were carried out in general accordance with the *Tasmanian Noise Measurements Procedures Manual*.

An unattended logging sound level meter (SLM) was placed on-site approx. 30 m west of the quarry entrance and captured relevant 10-minute Ln-statistics for a period of approx. 8 days.

Figure 3-1 shows the relevant daytime $L_{Aeq,10min}$, $L_{A10,10min}$ and $L_{A90,10min}$ logged data over the period while Table 3-5 provides daily 10th Percentile ($P_{10\%}$) $L_{A90,10min}$ of this data from the unobserved measurement position.

NB: The descending trend in background levels over the first three days is likely due to sustained rainfall outflow from a nearby river course which was clearly audible when commissioning the equipment. The trend likely reflects the gradual reduction in flow after a heavy deluge recorded a few days prior (22 – 24th June).

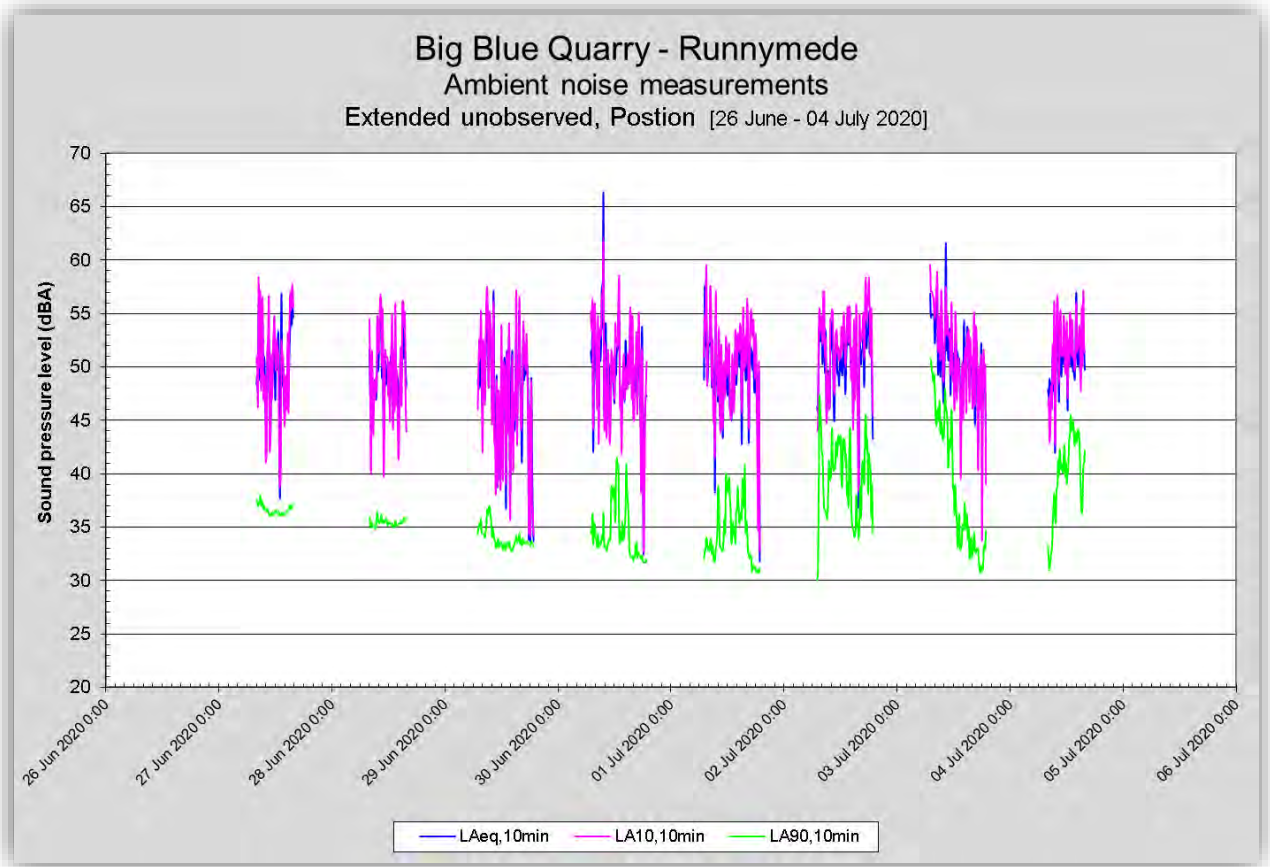


Figure 3-1: Extended unobserved $L_{Aeq,10min}$, background and transient noise (L_{A90} and L_{A10}) measured at position M1.

Environmental noise measurement results summary		
Date	Day	$P_{10\%} L_{A90,10min}$
27/6	Saturday	36.2
28/6	Sunday	N.A.*
29/6	Weekday	33.2
30/6	Weekday	32.0
1/7	Weekday	31.2
2/7	Weekday	34.9
3/7	Weekday	32.3
4/7	Saturday	33.2

*QCP^[1] hours exclude Sundays and public holidays

Table 3-1: Environmental noise measurement summary Ln-statistics.



A representative background of 33.2 dBA was determined from the percentile data above.

3.2 Assessment criteria

Criteria for the assessment of environmental noise emissions from quarry operations are provided in the *Quarry Code of Practice*^[1]. The relevant section from the code is provided below.

7.2.2.2 Level of noise

Noise from quarrying and associated activities, including equipment maintenance, when measured at any neighbouring sensitive use must not exceed the greater of:

- the A-weighted 10 minute L₉₀, excluding noise from the quarry, plus 5 dB(A), or
- the following levels:
 - 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}.

Regulatory authorities may require compliance with alternative noise limits derived from a site-specific noise assessment.

Based on the hours of operation proposed (see Section 1) and background results presented in Section 3.1, the following noise emission criterion is nominated for this assessment:-

- Day: 45 dBA (L_{Aeq,10min}).

3.3 Environmental noise modelling

SoundPLAN^[3] software was used for carrying out detailed noise emission spectra and contour modelling. This program allows the use of the CONCAWE^[4] calculation method for modelling atmospheric attenuation/amplification of noise. Parameters influencing sound propagation and attenuation include:

- Source type (point, line, plane).
- Relative source and receiver height.
- Topography and barriers.
- Industrial buildings as sources and/or barriers.
- Ground and air absorption.
- Distance attenuation.
- Atmospheric conditions (Pasquill stability, temperature, humidity and vector wind speed).
- Reflecting surfaces.
- Source directivity.

As all propagation and attenuation parameters are frequency dependent, all input source data has been based on 1/1 and 1/3-octave band sound power spectra.

Geo-referenced topographic, transport, building and hydrologic data was obtained from LISTdata. This provided contours at 10 m intervals; residential locations; road layouts; cadastral parcels; and river and stream courses for the areas modelled. 1 m LIDAR contour data for the existing quarry topography was provided by VDC.

Equipment list and layout data for operations were provided by VDC. Contour data for the proposed benching and extraction to years 2, 6.2, 12.6 and at the quarry's end of life (maximum extent of extraction) were also provided.



All source and geodata is referenced to the Map Grid of Australia (MGA).

3.3.1 Model input data

Input sound power (SWL) spectra were taken from Tarkarri Engineering library data. Table 3-6 presents overall SWLs and equipment details while table 3-7 presents 1/1-octave band SWL spectra.

Overall sound power levels (dBA)		
Source	SWL	Comment
Dozer	106.9	(2003) Komatsu D87E-2 (SWL data from Tarkarri Engineering library data for CAT D7H)
Drill rig - Drilling	118.0	Contractor equipment not specified. (SWL data from Tarkarri Engineering library for Roc F9C Atlas Copco)
Drill rig - Engine	97.6	
Drill rig – Rattling	129.3 [†]	
Excavator	104.0	(2014) Doosan DX225LC (SWL data from Tarkarri Engineering library data for CAT 345B)
FEL	105.0	(2009) Doosan DL250 (SWL data from reported L _{WA} external noise by Doosan and spectrum from scaled Tarkarri Engineering library data for CAT 950G)
Impact crusher	109.7	(2006) Metso LT1110 (SWL data from Tarkarri Engineering library data for a typical impact crusher)
Road Truck*	106.6	Typical road truck (SWL data from Tarkarri Engineering library)*
Water Cart*	109.0	Typical water cart (SWL data from Tarkarri Engineering library)*

[†]LAmx SWL

*Scaled in the model for time of operation and vehicle route in a 10-minute period.

Table 3-2: Overall sound power levels and data source information.

1/1-octave band sound power levels spectra (dBA)										
Source	Frequency (Hz)									Total
	31.5	63	125	250	500	1k	2k	4k	8k	
Dozer	65.4	82.5	87.5	91.6	98.4	102.3	102.1	97.3	87.0	106.9
Drill rig - Drilling	68.8	95.9	97.3	98.3	107.2	109.6	113.1	112.5	109.9	118.0
Drill rig - Engine	55.7	83.1	80.3	87.5	94.0	90.1	90.0	85.5	77.1	97.6
Drill rig – Rattling	67.2	92.2	95.9	99.3	108.3	119.9	122.1	124.6	124.6	129.3
Excavator	69.6	78.1	90.6	92.3	98.9	97.9	98.0	92.0	84.3	104.0
FEL	59.5	74.0	92.9	101.6	94.5	97.0	96.9	93.5	85.9	105.0
Impact crusher	68.0	82.2	95.4	97.8	100.9	103.4	104.5	102.8	95.3	109.7
Road Truck	70.1	81.6	91.2	91.5	97.7	99.8	103.2	97.6	88.9	106.6
Water Cart	80.2	73.0	90.3	98.4	106.2	102.0	100.5	93.9	83.6	109.0

Table 3-3: 1/1-octave band sound power level spectra.



3.3.2 Atmospheric conditions

SoundPLAN^[3], via the CONCAWE^[4] prediction algorithm, models atmospheric attenuation using Pasquill stability indices in combination with vector wind speed and direction to determine appropriate frequency dependent attenuation/amplification. In this study the following propagation conditions were considered:-

- **Neutral propagation:** Situations where the atmospheric conditions are considered to be neutral occur with a Pasquill stability class D and no wind. These conditions can typically occur in the hour before sunset and the hour after sunrise. Neutral conditions also occur fairly frequently during still, cloudy conditions.
- **Worst case propagation:** This condition considers all receiver points to be downwind with a Pasquill stability class F and a vector wind speed of 2 m/s. Under these conditions noise contours will represent the highest predicted noise levels at any location.

3.3.3 Model scenarios

The following operational scenarios were modelled:-

- **Existing:** An excavator feeds an impact crusher at topsoil level (~150 m AHD) near the initially nominated crushing and stockpile area. A dozer, nearby, clears excavated material while a FEL loads two articulated trucks. Both truck traversals, at 20 km/h, and idle loading periods are modelled in addition to a water cart which completes a single round trip over the route for dust control. The blast contractor's drill rig is positioned to the southwest on elevated ground where further expansion to the south is planned.
- **Year 2:** As above for the Existing scenario with the top of the quarry levelled to 340 m AHD with the progression of extraction.
- **Year 6.2:** The top bench is levelled to 330 m AHD and extends further to the south with a dozer and excavator on the pit face establishing the 320 m AHD bench. The truck route is adjusted to make a direct traversal to the stockpile area on the bench surface. All sources remain near the nominated crushing and stockpile area while the drill rig is moved to the south-western fringe of the bench to prepare for future extraction to the south.
- **Year 12.6:** All equipment remains at the pit face near the stockpile area with the new working bench levelled to 320 m. The truck route is again adjusted for a direct traversal over the bench while a dozer and excavator begin establishing the 270 m AHD bench. The drill rig is located to the west of the pit on high ground to prepare for future extraction out to the western mining lease boundary.
- **Full extent:** The quarry is close to complete extraction with the working bench at 270 m AHD out to the mining lease boundary. Operations are limited to the southeast corner near the quarry entrance where final extraction is expected to occur. All equipment is relocated here where the final benches are formed, and nearby trucks are loaded.

Figure 3-2 to Figure 3-11 present model plan and wire frame views of the each of the five modelling scenarios with quarry topography and source locations shown.

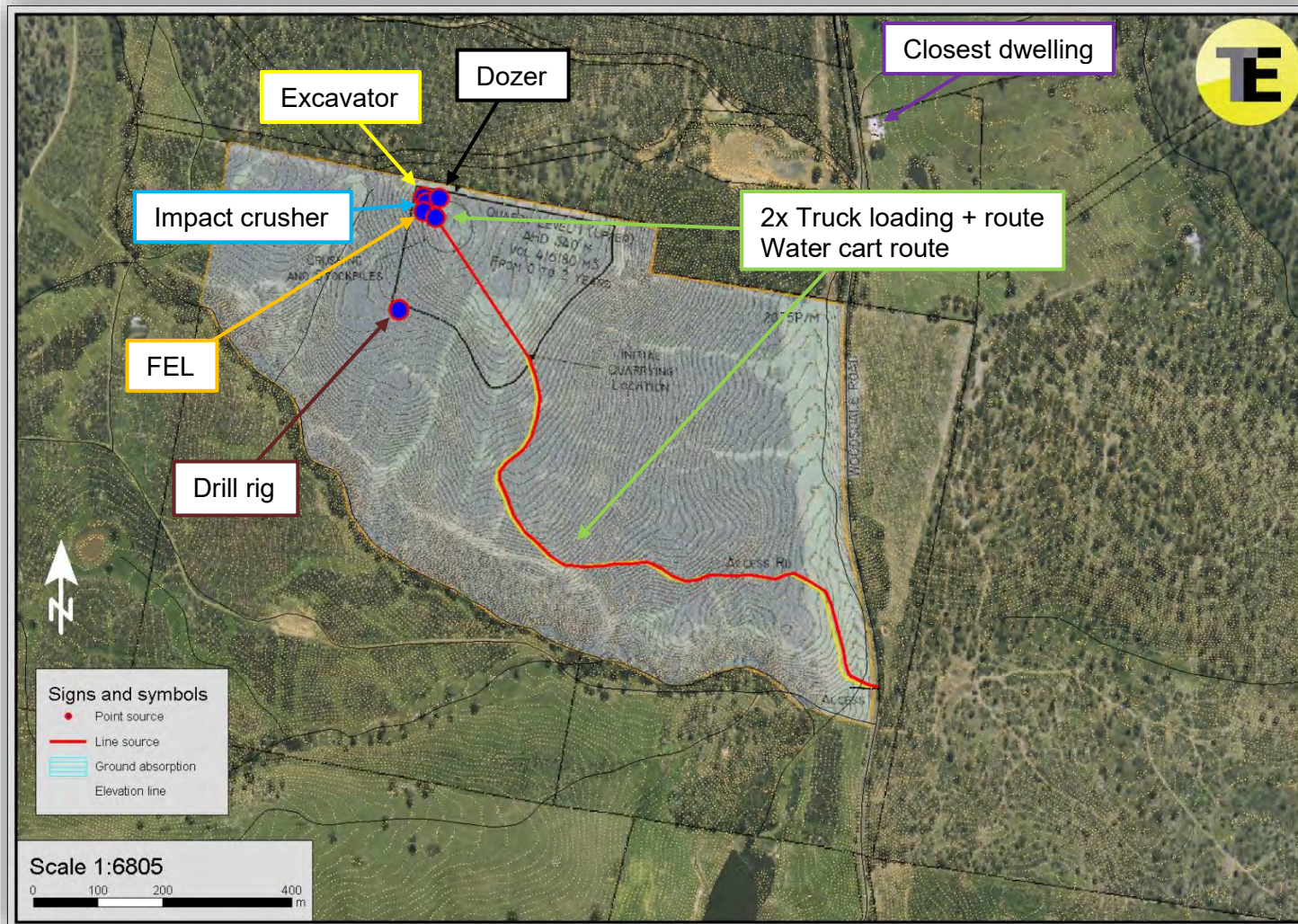


Figure 3-2: Model plan view of the **Existing** model scenario.

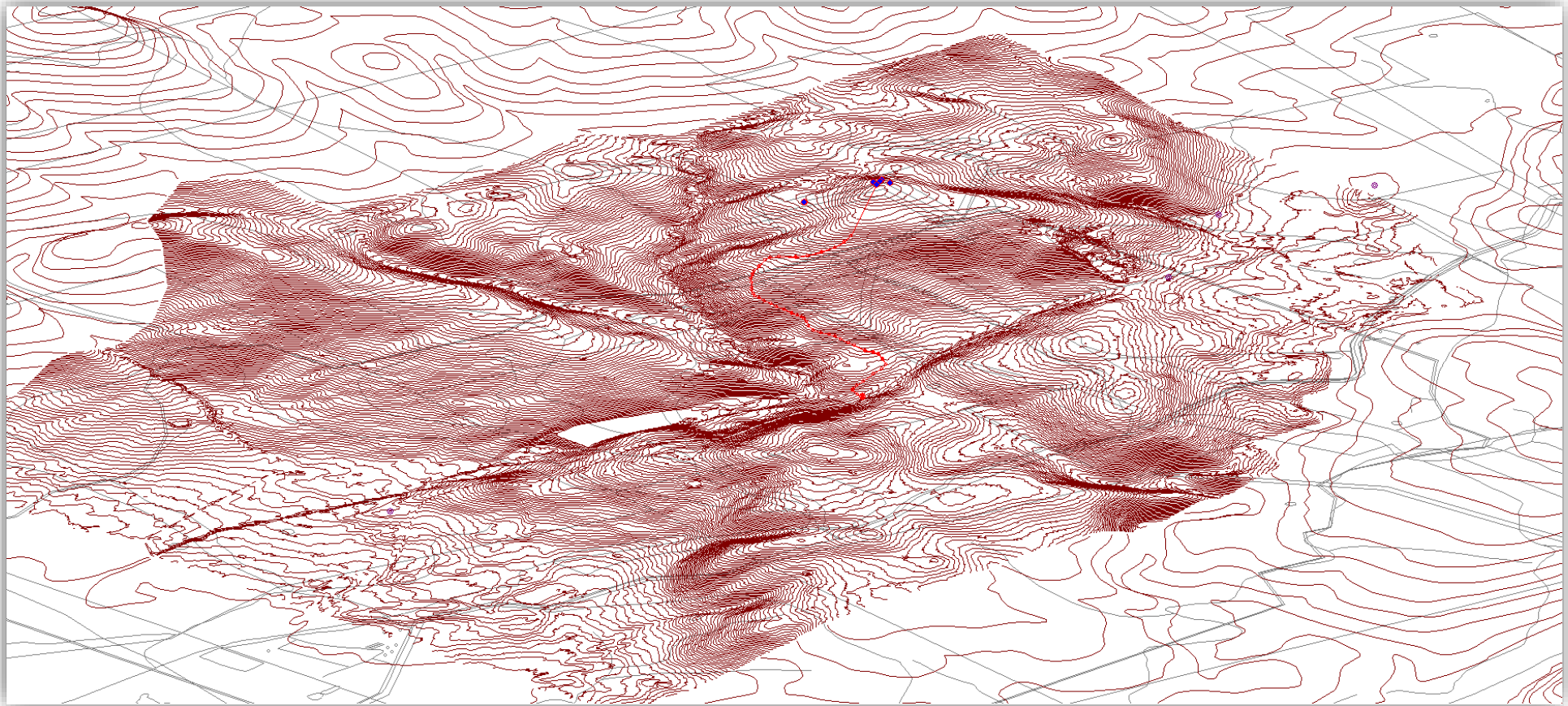


Figure 3-3: Model wire frame view of the **Existing** model scenario viewed from the southeast.

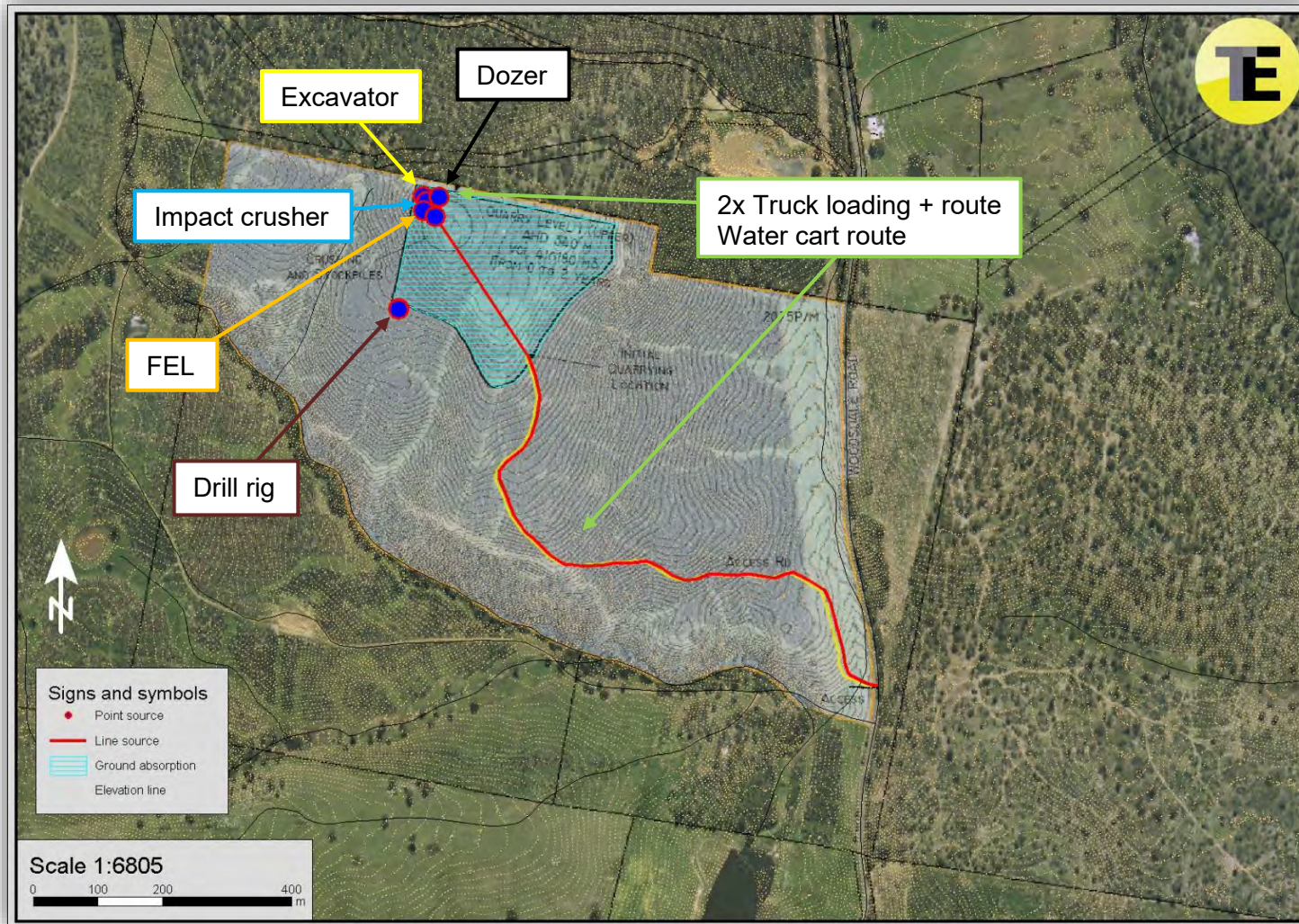


Figure 3-4: Model plan view of the **Year 2** model scenario.

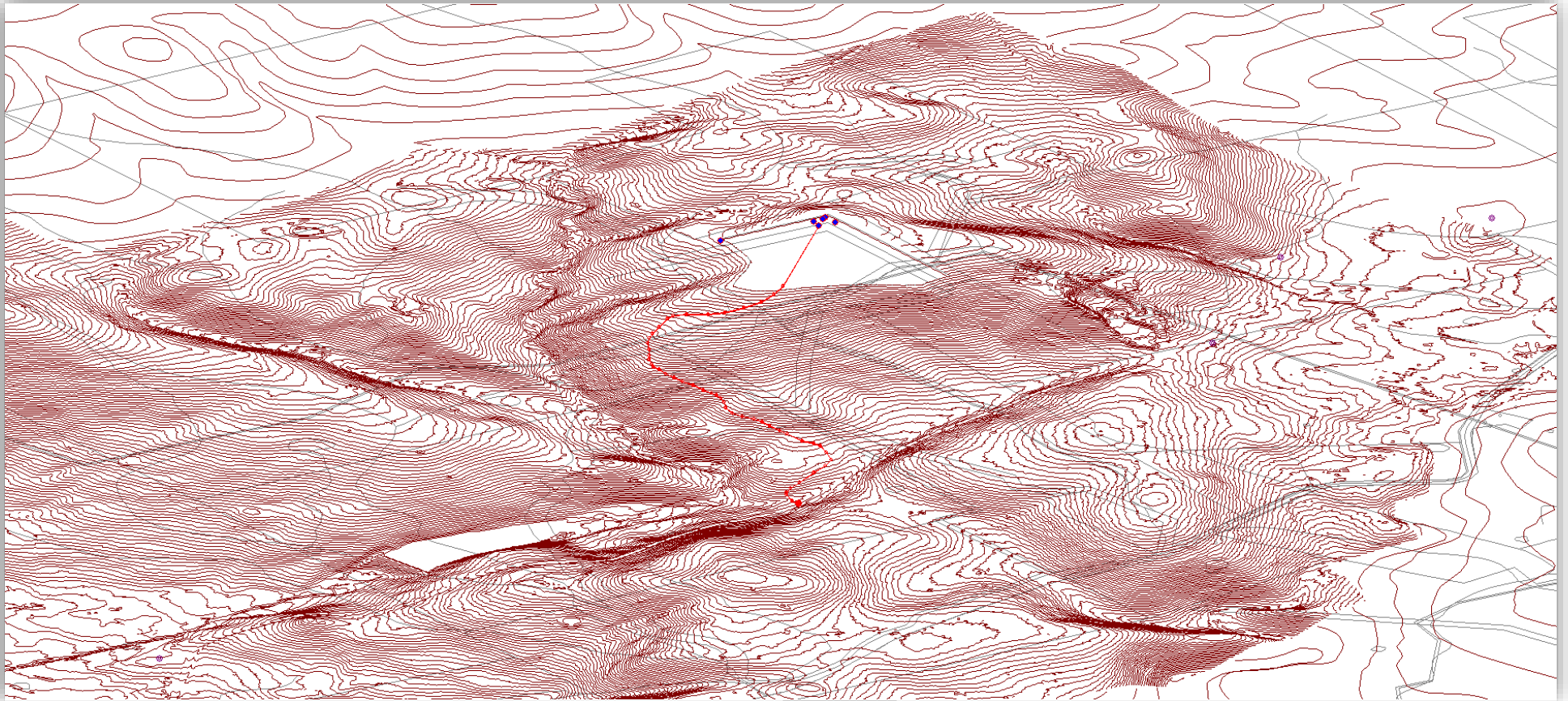


Figure 3-5: Model wire frame view of the **Year 2** model scenario viewed from the southeast.

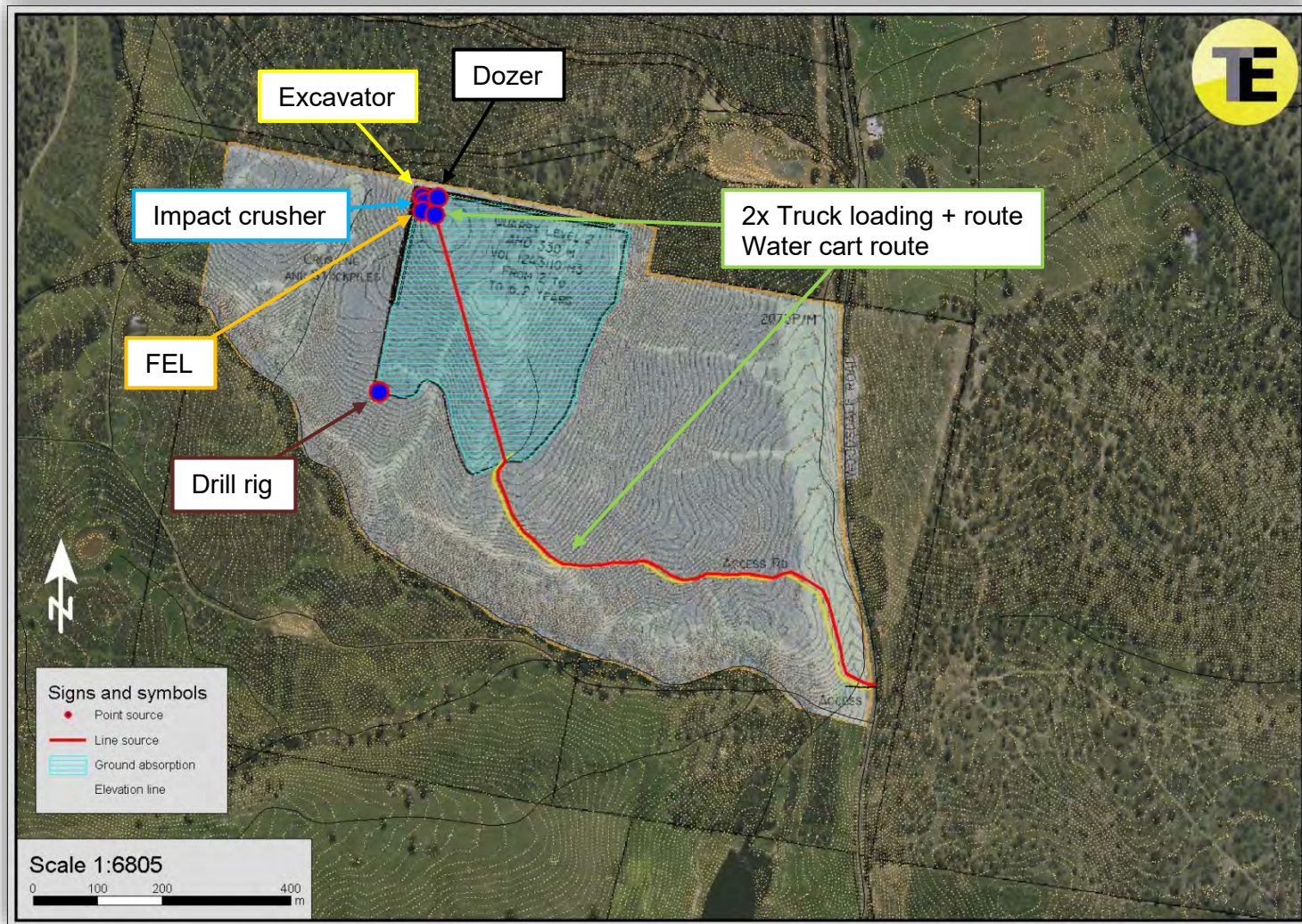


Figure 3-6: Model plan view of the **Year 6.2** model scenario.

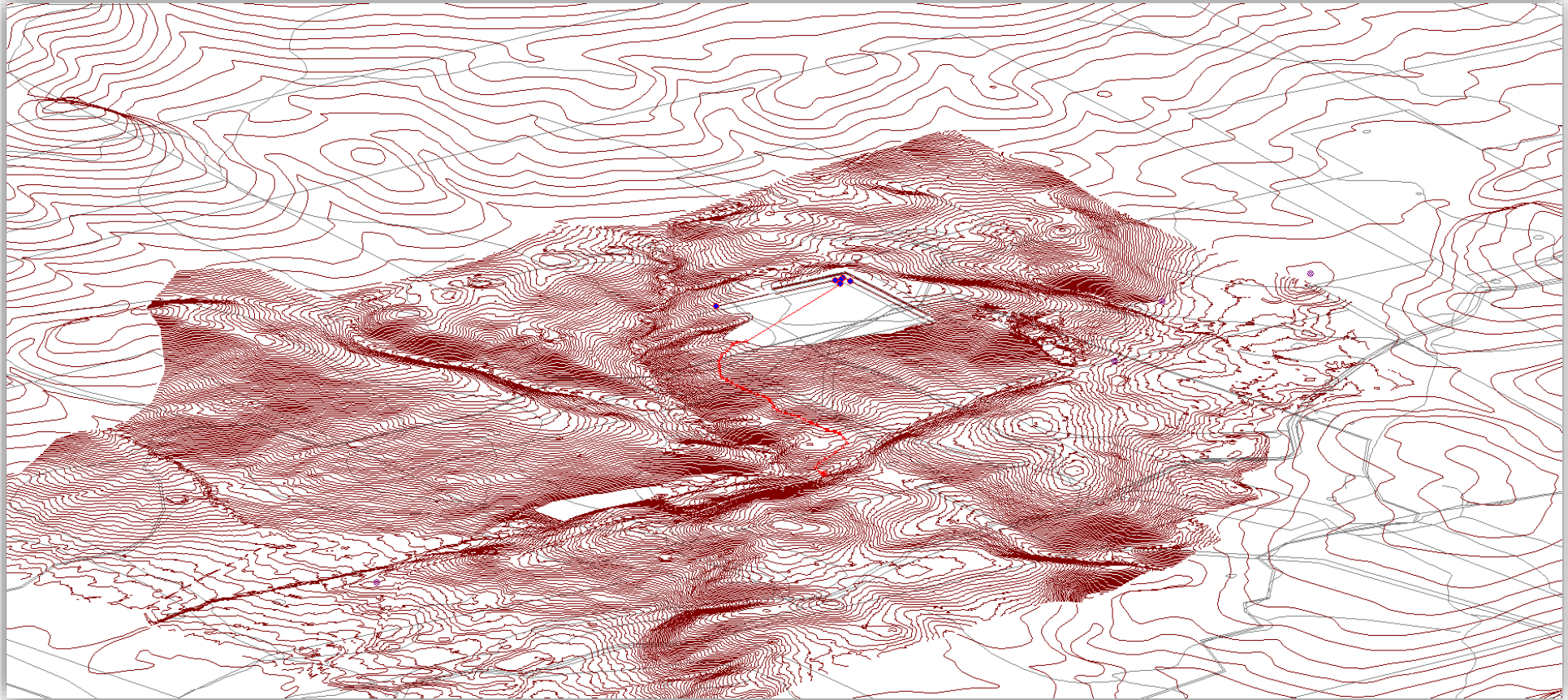


Figure 3-7: Model wire frame view of the **Year 6.2** model scenario viewed from the southeast.

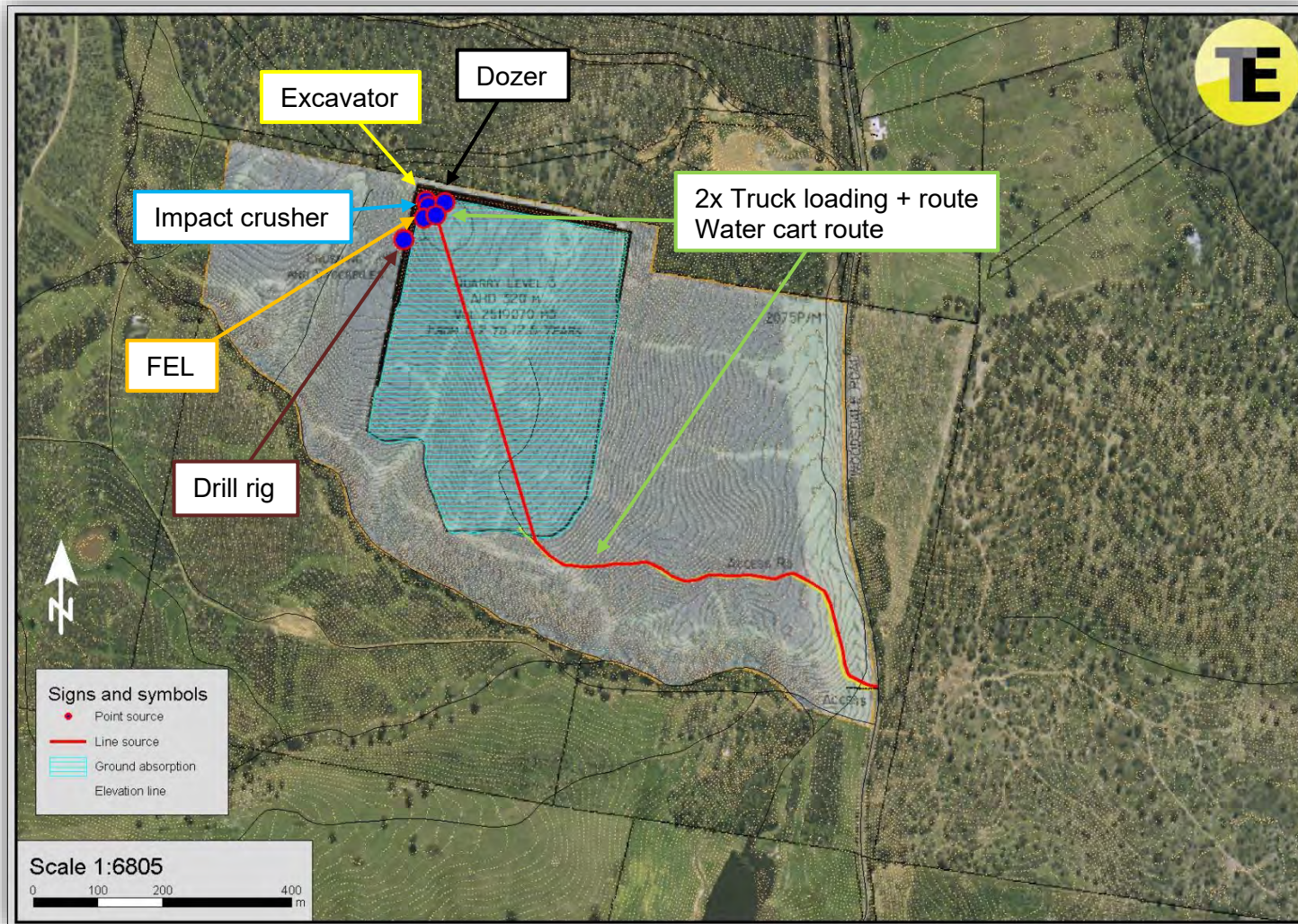


Figure 3-8: Model plan view of the **Year 12.6** model scenario.

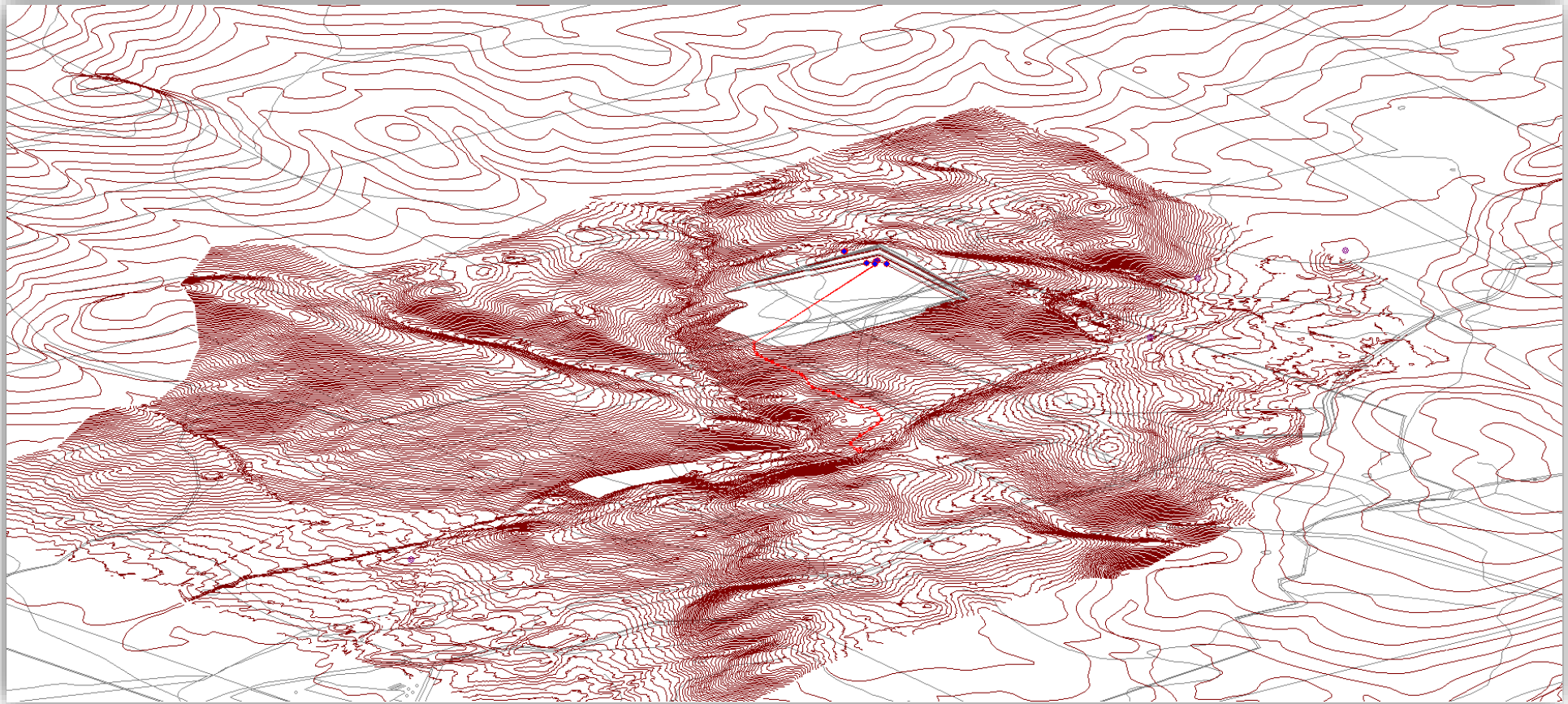


Figure 3-9: Model wire frame view of the **Year 12.6** model scenario viewed from the southeast.

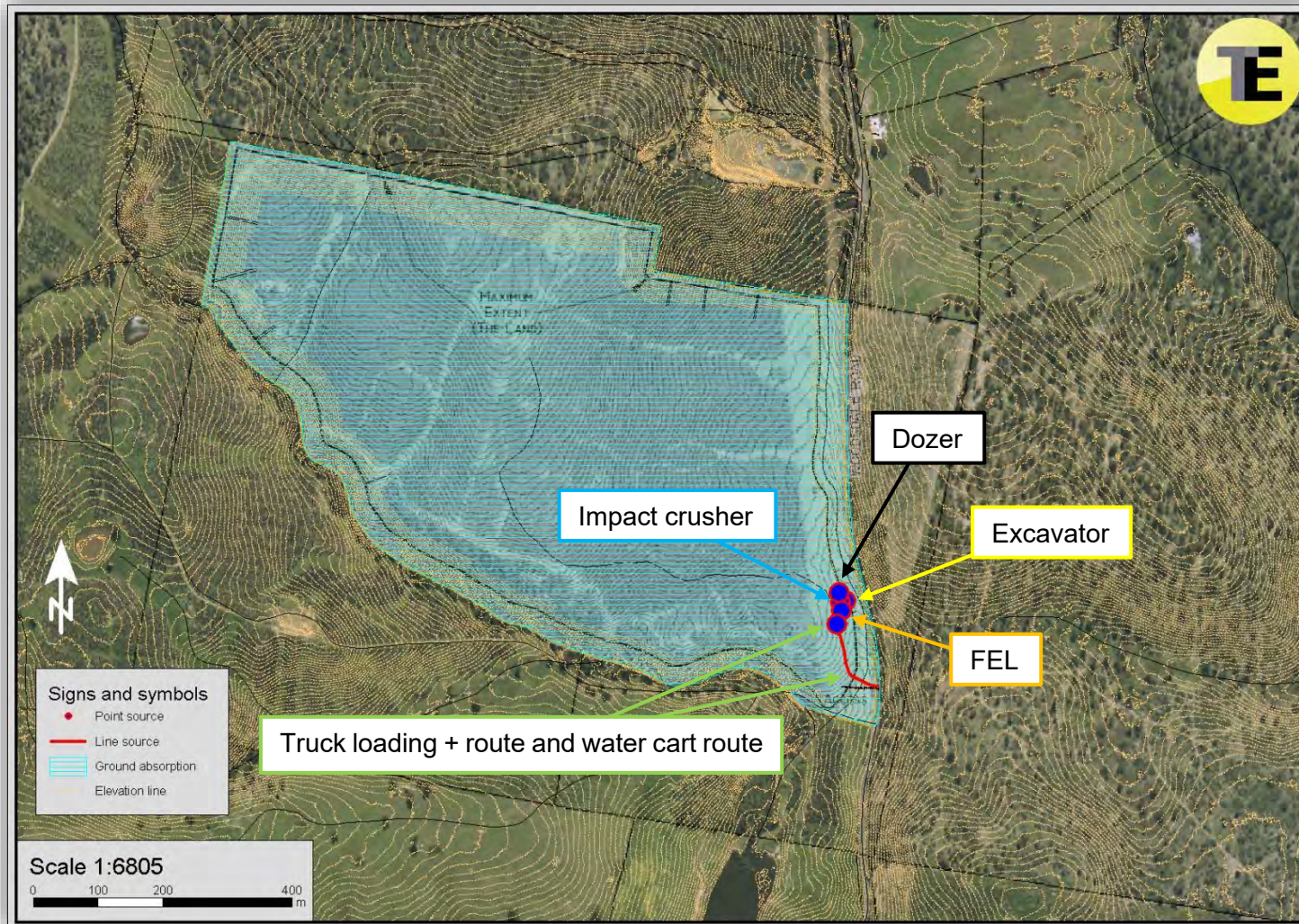


Figure 3-10: Model plan view of the **Full extent** model scenario.

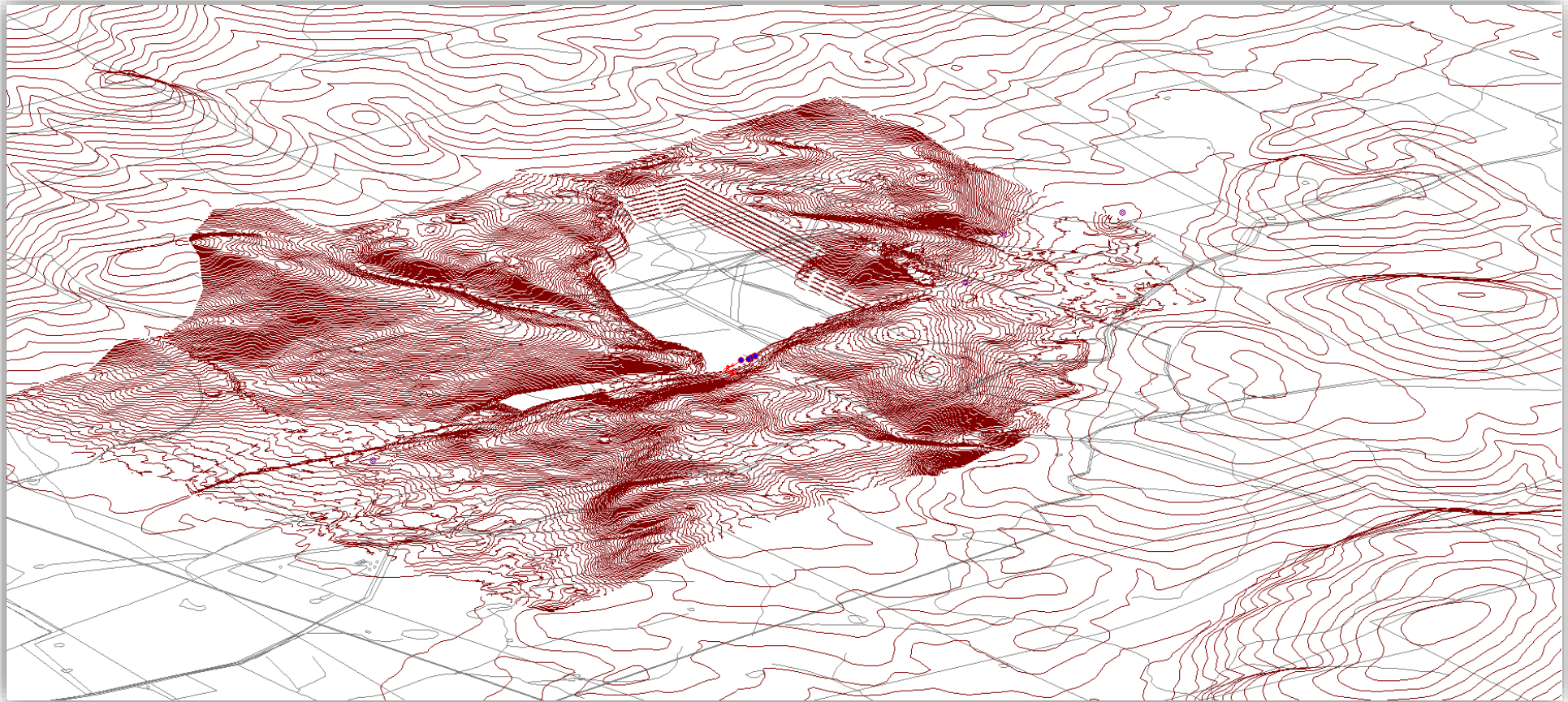


Figure 3-11: Model wire frame view of the **Full extent** model scenario viewed from the southeast.



3.3.4 Modelling results and discussion

3.3.4.1 Predicted noise emission contours

Using the environmental noise model, noise contour maps were generated to assist in the visualisation of noise propagation from the site to the surrounding environment. The contours shown consider the following:-

- Current operations under neutral weather
- Current operations under worst case weather
- Operations at year 2 under neutral weather
- Operations at year 2 under worst case weather
- Operations at year 6.2 under neutral weather
- Operations at year 6.2 under worst case weather
- Operations at year 12.6 under neutral weather
- Operations at year 12.6 under worst case weather
- Operations at full extent under neutral weather
- Operations at full extent under worst case weather

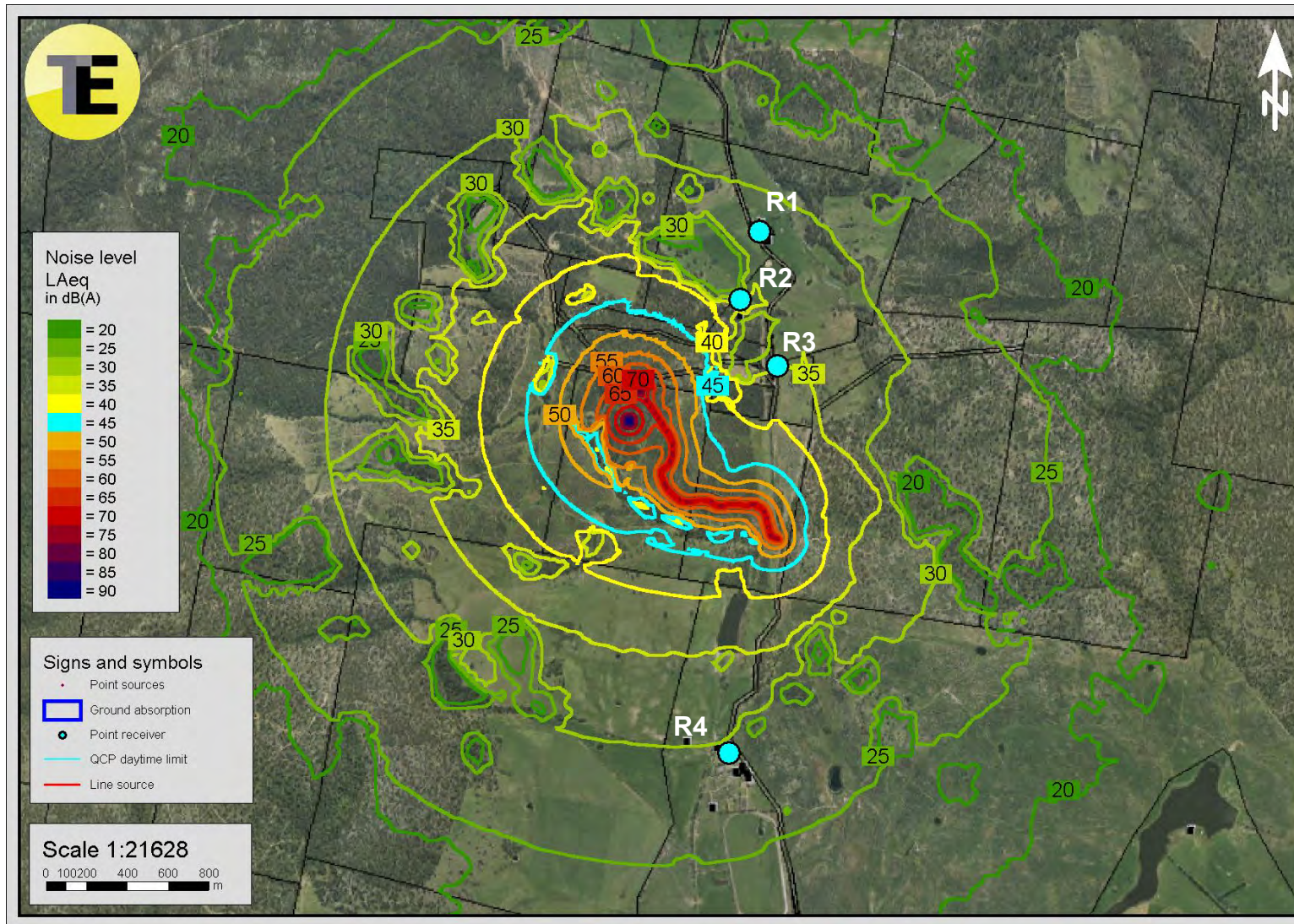


Figure 3-12: Predicted noise emission contours, **Current**, neutral weather.

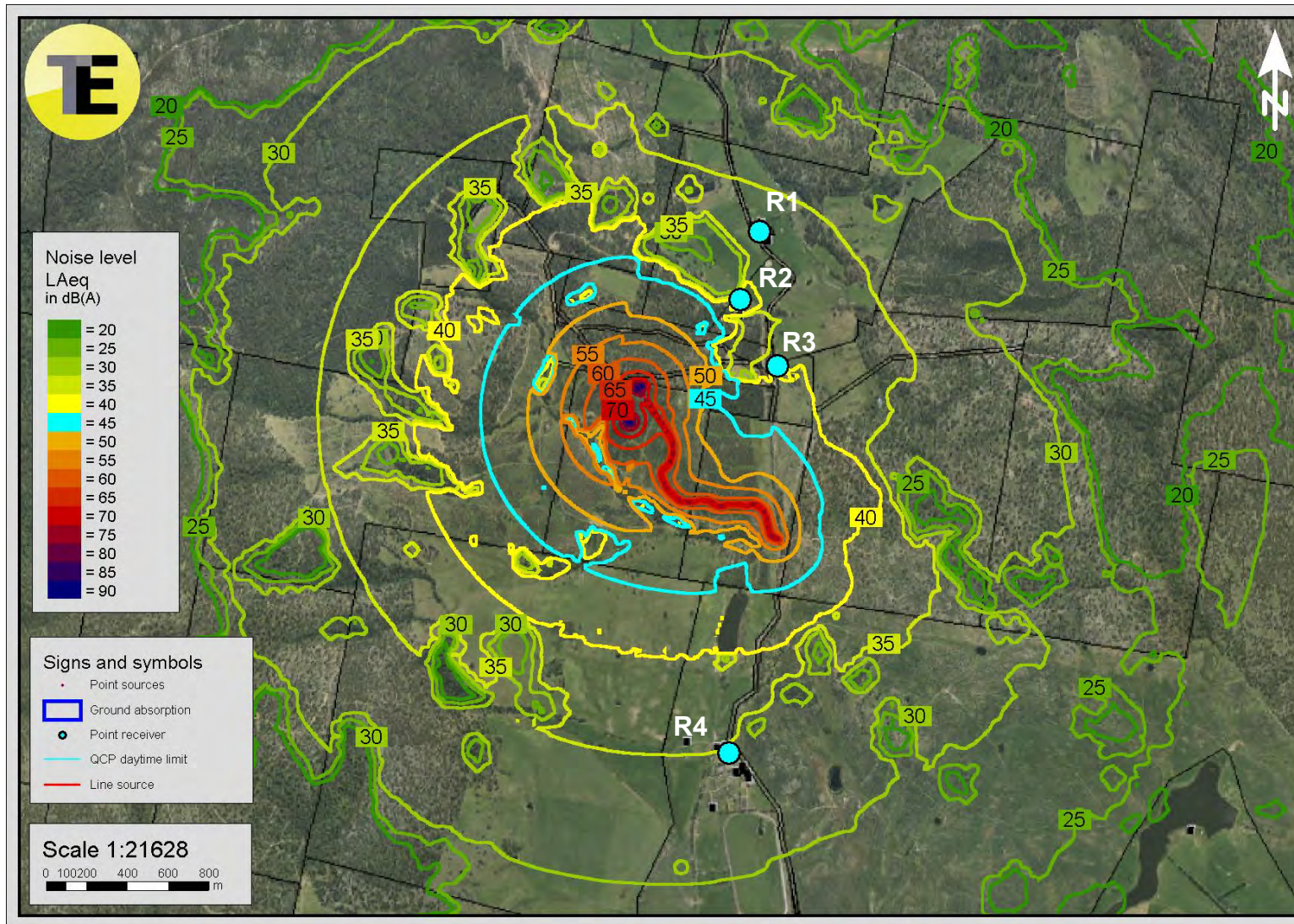


Figure 3-13: Predicted noise emission contours, **Current**, worst case weather.

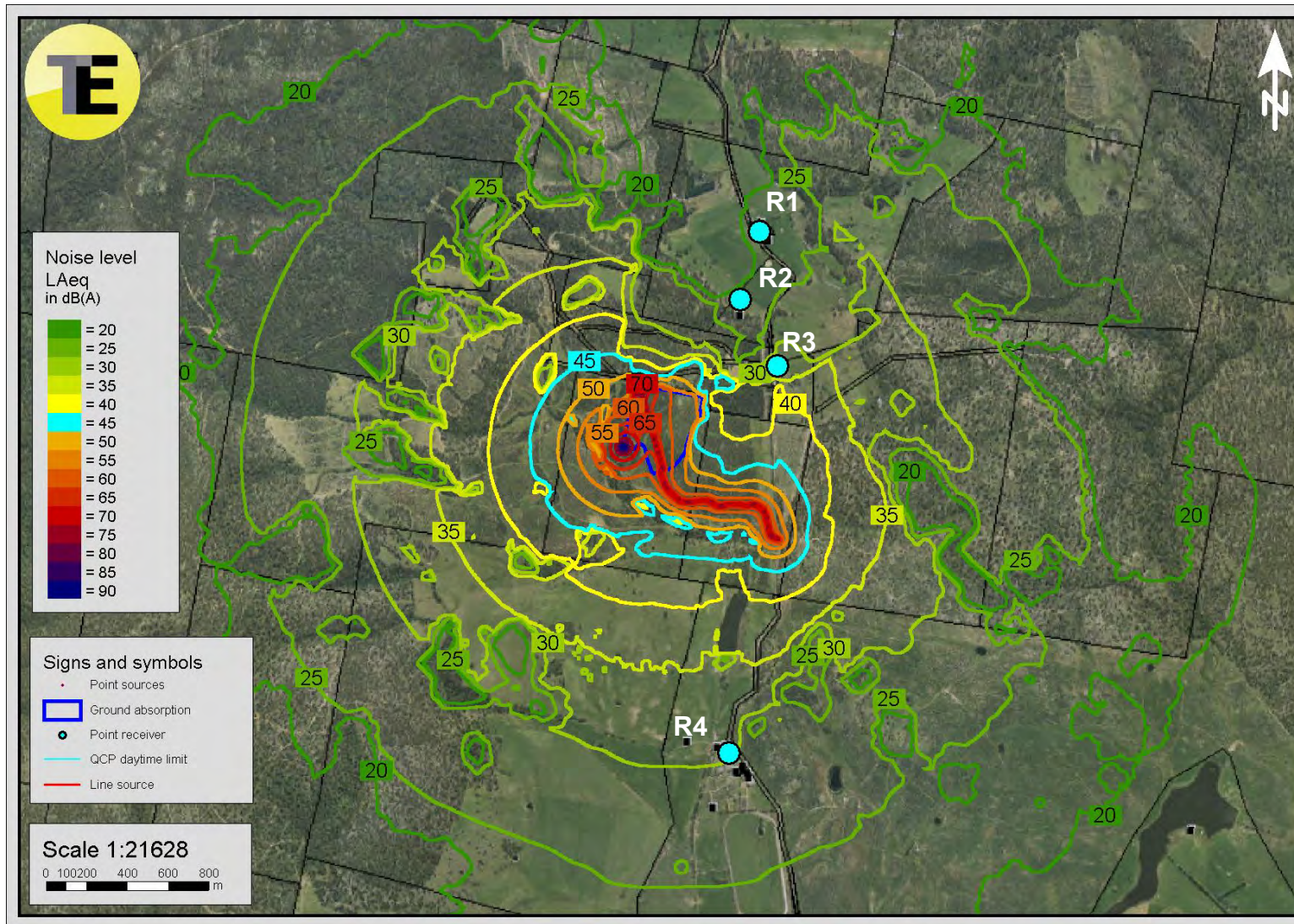


Figure 3-14: Predicted noise emission contours, **Year 2**, neutral weather.

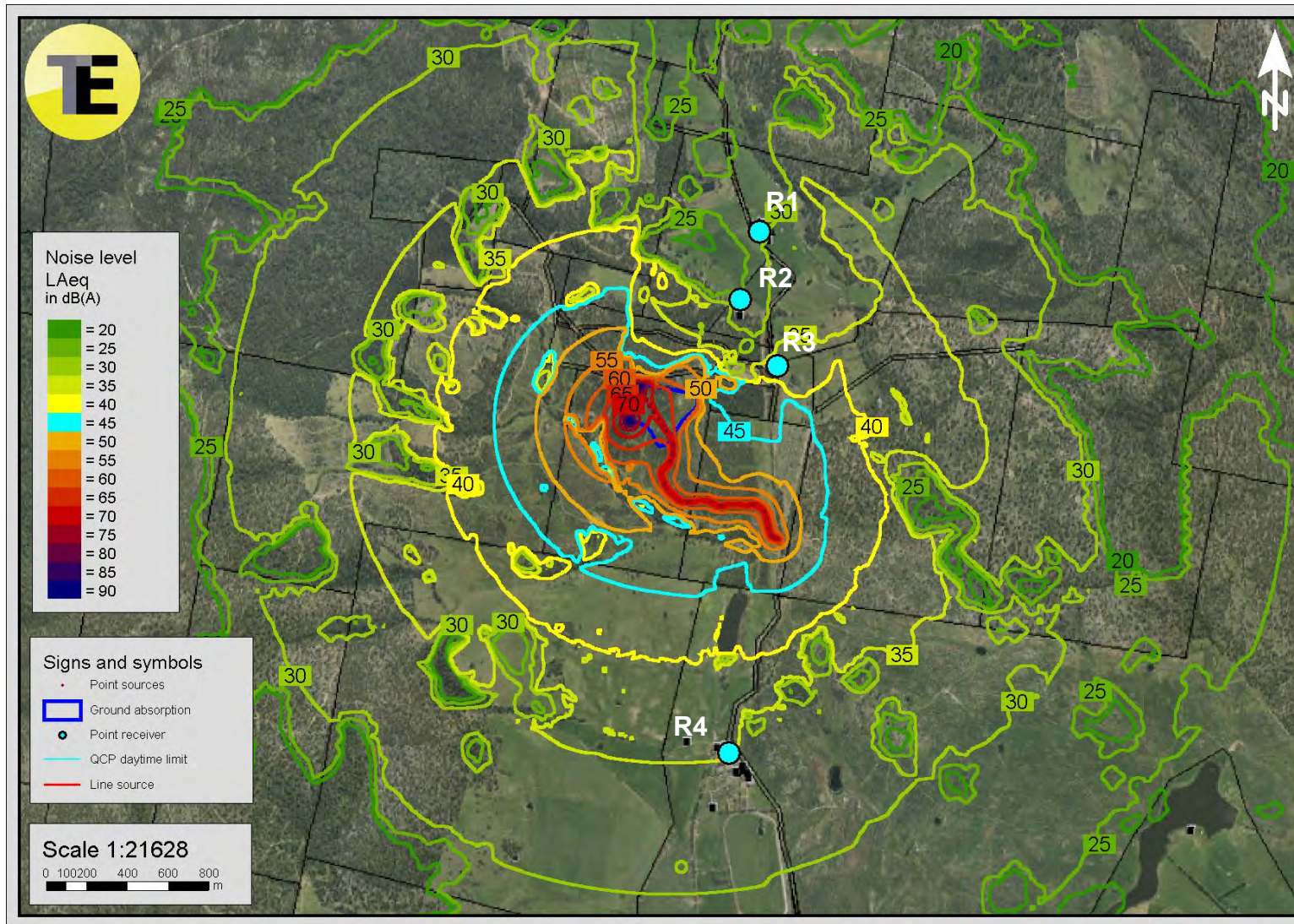


Figure 3-15: Predicted noise emission contours, **Year 2**, worst case weather.

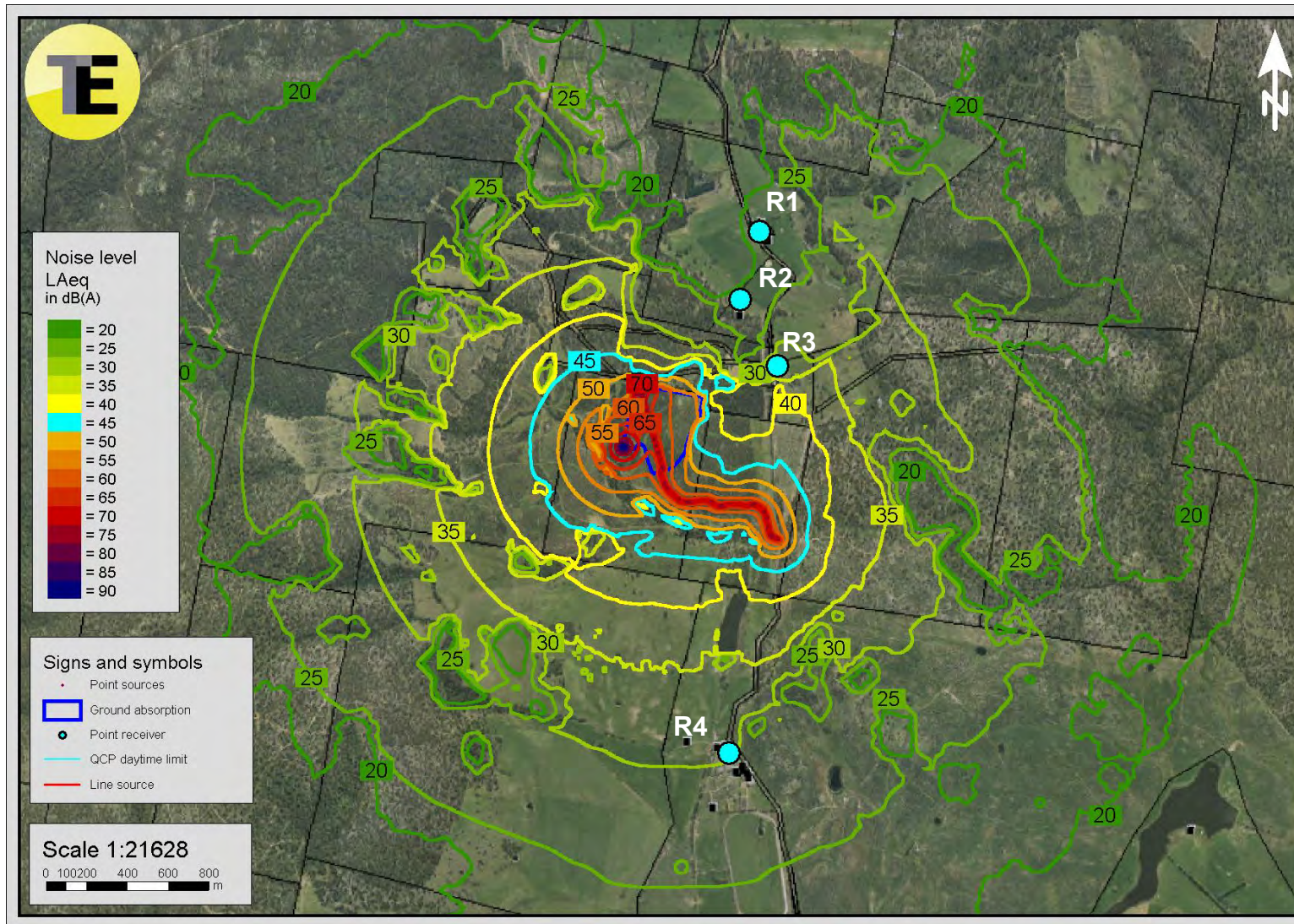


Figure 3-16: Predicted noise emission contours, **Year 6.2**, neutral weather.

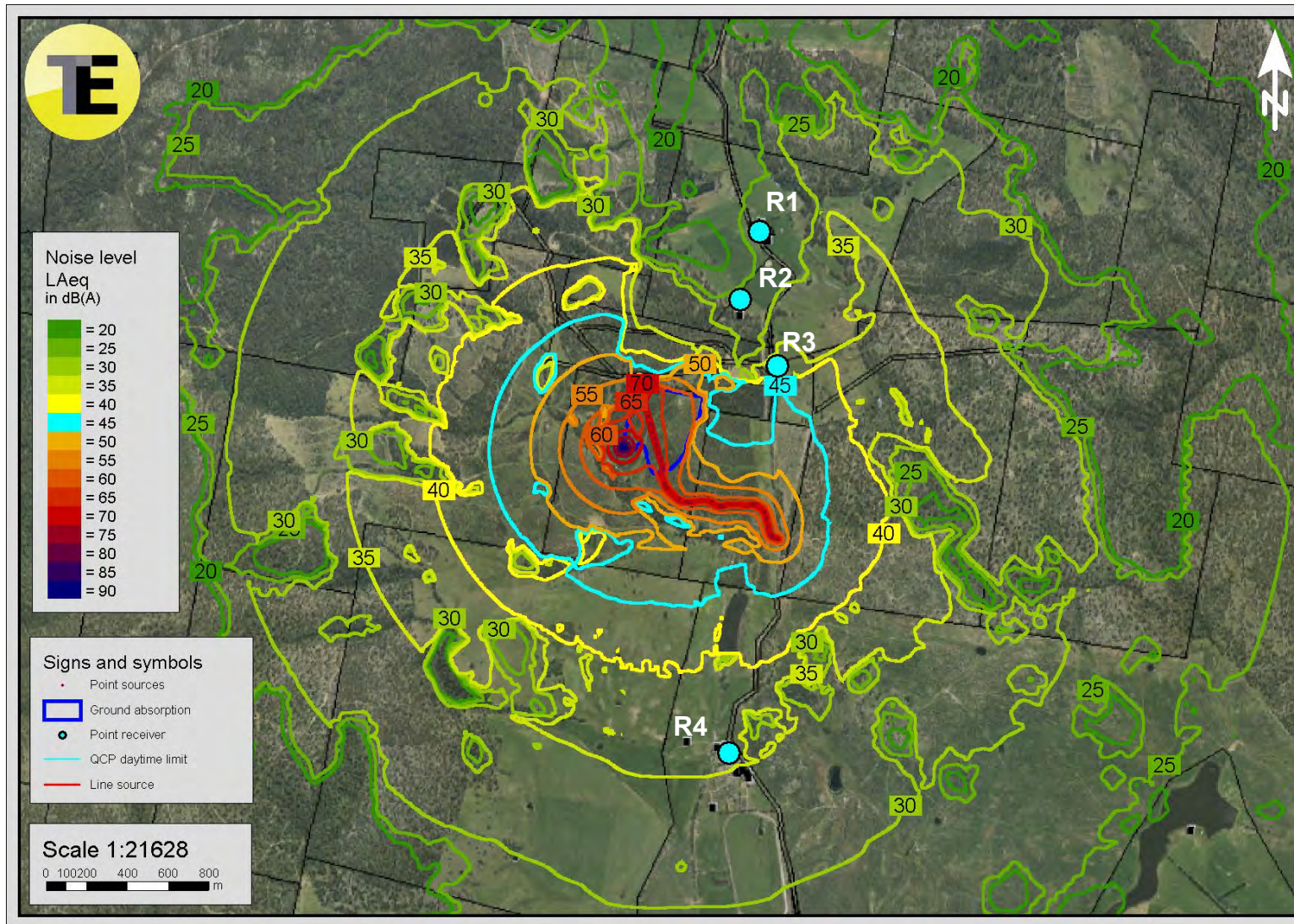


Figure 3-17: Predicted noise emission contours, **Year 6.2**, worst case weather.

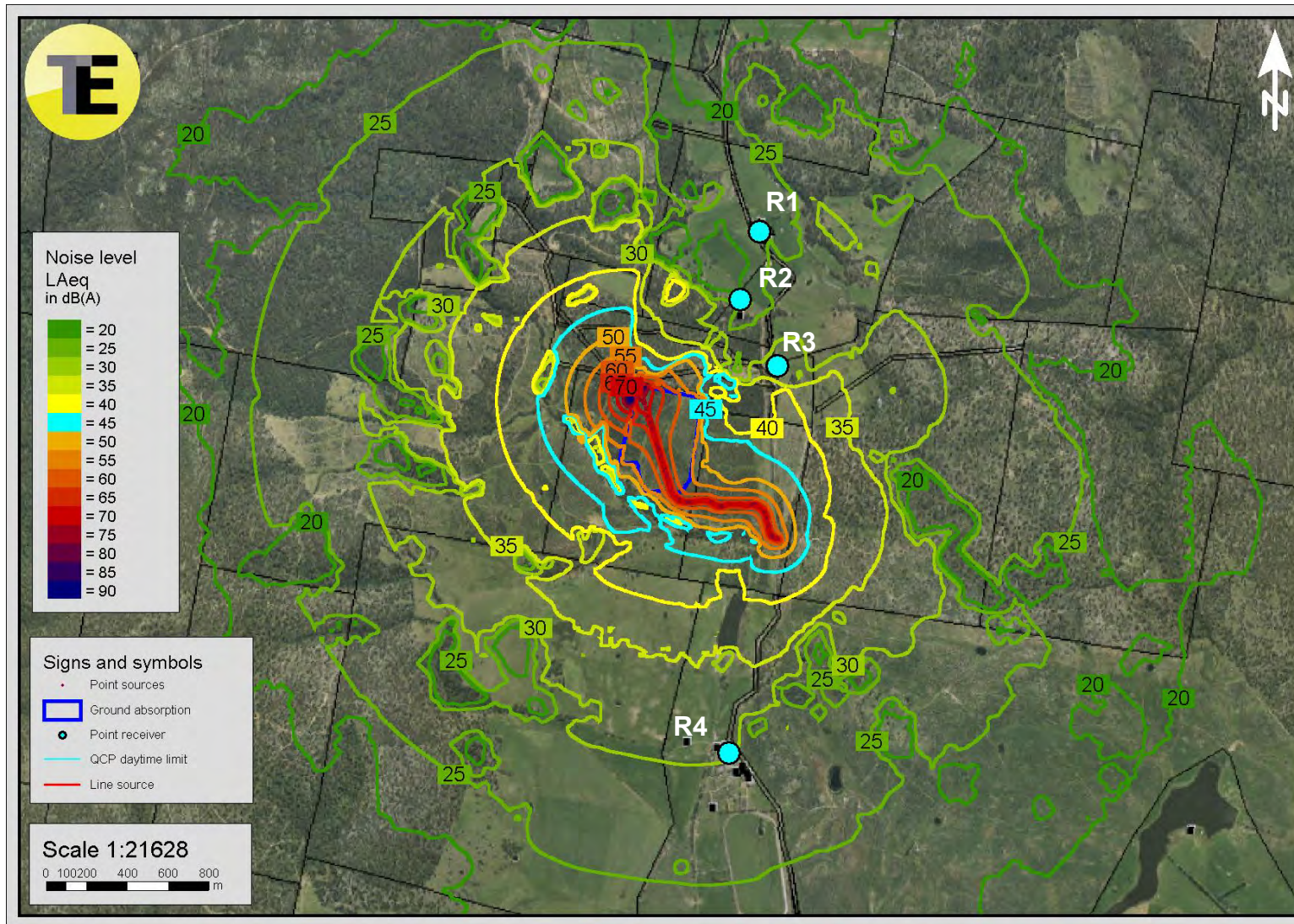


Figure 3-18: Predicted noise emission contours, **Year 12.6**, neutral weather.

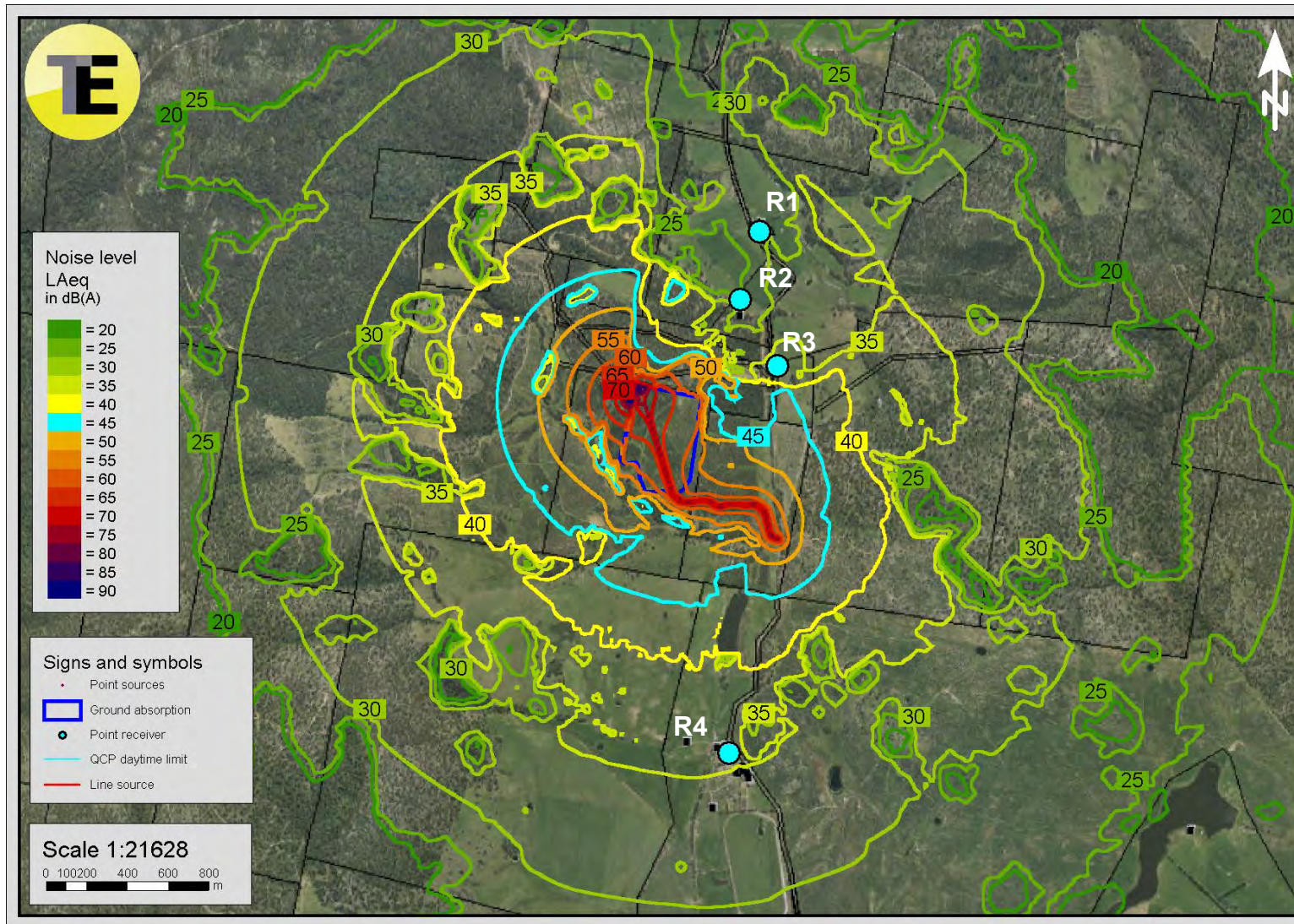


Figure 3-19: Predicted noise emission contours, Year 12.6, worst case weather.

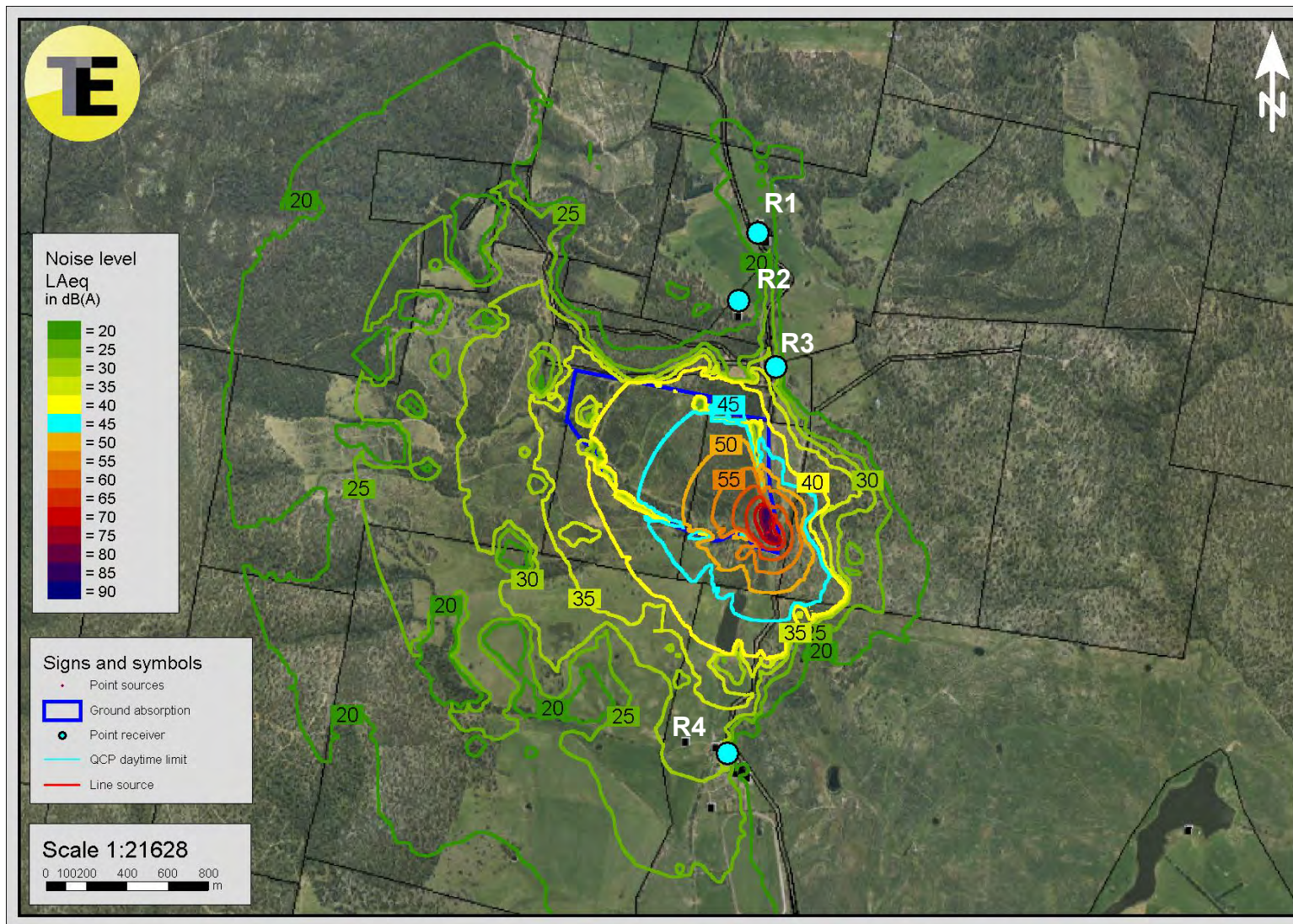


Figure 3-20: Predicted noise emission contours, **Full extent**, neutral weather.

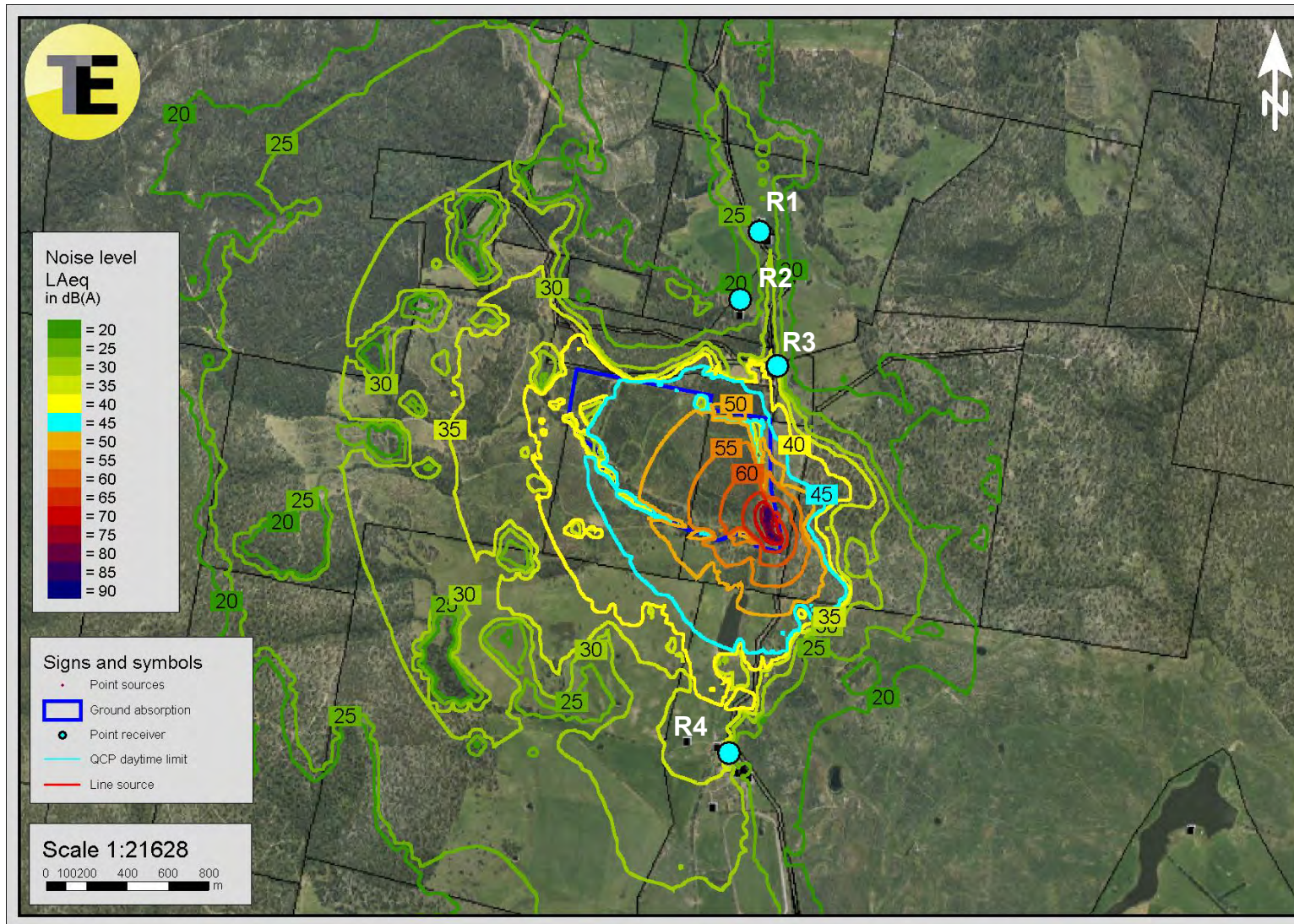


Figure 3-21: Predicted noise emission contours, **Full extent**, worst case weather.



3.3.4.2 Predicted noise emission levels

Table 3-7 presents predicted L_{Aeq} noise emission levels at the four receiver locations for each of the five model scenarios. No predicted noise levels exceeded the noise emission criterion, outlined in section 3.2.

Predicted sound pressure levels (dBA)										
Receivers	Current		Year 2		Years 6.2		Year 12.6		Full extent	
	neu	wcw	neu	wcw	neu	wcw	neu	wcw	neu	wcw
R1	33	38	24	29	22	27	24	29	24	29
R2	37	42	24	29	22	27	26	30	17	22
R3	35	40	34	38	33	38	34	39	31	35
R4	30	35	30	35	31	36	30	36	32	37

Table 3-4: Predicted noise emission levels.

NB: Maximum instantaneous noise emissions from the drill rig during rod attachment was separately assessed and found to be highest at position R4. The highest instantaneous level predicted was 40 dBA in the year 12.6 model scenario under worst case weather conditions.

3.3.4.3 Impact of drill rig

A sensitivity test of the drill rig’s location was conducted to determine where drilling activity would have the potential to cause exceedances of 45 dBA at the closest residence (R3). Based on this the following is recommended:

- Localised bunding or shielding of the rig must be used when within 630 m of R3
- Bunding should extend at least 1.5 m above the rig and obstruct noise pathways between the rig R3, i.e. obstructing line of sight and wrapping around the drill site

This zone is highlighted in pink and drawn over the mining lease boundary in Figure 3-22 while Table 3-5 summaries model predictions at the north and north-east side of the lease, east of the pit.

NB: This zone ignores regions where topographic shielding provides adequate shielding and targets a level of 45 dBA at R3 under worst-case weather conditions as a conservative measure.

Predicted sound pressure levels (dBA) <u>With noise control measures</u>				
Receivers	Year 12.6 (Drill rig – N)		Year 12.6 (Drill rig – NE)	
	neu	wcw	Neu	wcw
R1	29	34	22	28
R2	25	30	24	26
R3	37	42	40	41
R4	30	36	30	36

Table 3-5: Predicted noise emission levels after shielding drill rig when operating closest to R3.

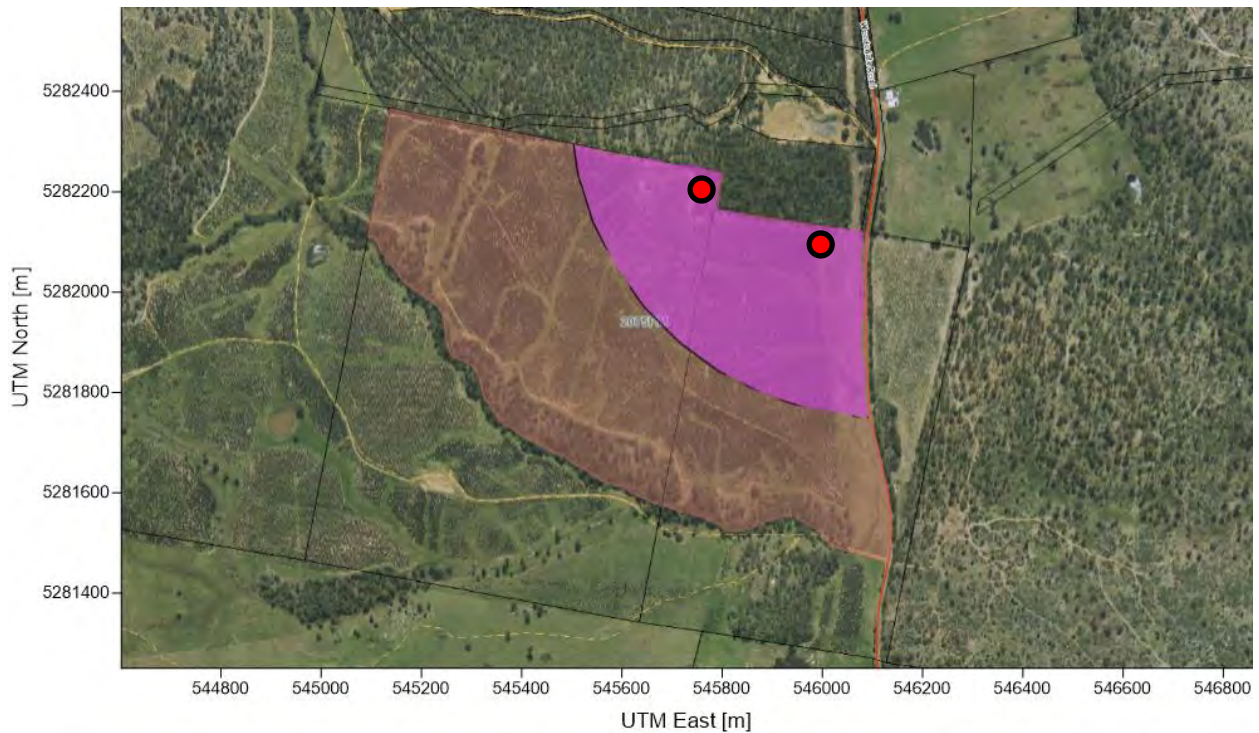


Figure 3-22: Zone where localised bunding or shielding of the drill rig should occur with existing topography (Highlighted in pink) and drill rig positions considered for model results marked.

3.3.4.4 Intrusive noise characteristics

Potential noise nuisance was assessed by observing predicted spectra at each receiver and reviewing the noise characteristics of each source.

Impulsive characteristics are expected from the drill rig during rod attachment. This brief event has been considered in the model using $L_{A,max}$ data measured from a Roc F9C Atlas Copco and has been treated separately from L_{Aeq} predictions. Under worst-case weather conditions in the Year 12.6 scenario with the drill rig in the most unfavourable position, i.e. along the northern boundary on high ground immediately east of the pit face, 47 dBA L_{max} was predicted at R3. This includes the bunding recommended for noise mitigation in this report. Rod attachment is expected to occur over 6 s every minute, i.e. 10%, of drilling operations with 47 dBA representing the highest level expected over this period. An exceedance of the 45 dBA site limit is not likely due to the short duration of the event and 41.6 dBA $L_{Aeq,10min}$ predicted at R3 under this scenario. A review of the unobserved data presented in section 3.1.1 revealed an average $L_{A10,10min}$ of 49.5 dBA during proposed drilling hours, i.e. weekdays between 10:00 and 16:00 hours, and an average spectrum which exceeds the rattling spectrum over all frequency bands by at least 4 dB. Rattling should not generate excessive noise impact.

Tonal components were observed from quarrying operations with the 40 Hz and 80 Hz bands elevated by drilling and water cart movement on-site with further tones at 160 Hz, 500 Hz, 1 kHz and 2 kHz from drilling and truck movements. The *TNMPM* indicates that temporal stability is a key component of tonality and this is not expected due to the time varying nature of mobile equipment operations. Additionally, the manual states that 'This scheme may not be applicable to sound that includes many spectral peaks (possibly from several unrelated items of equipment)'.



The noise environment is expected to change temporally as vehicles move around the site however, the amplitude changes are not expected to be greater than already exists in the noise environment.

3.3.4.5 Model results discussion

- Under all model scenarios presented, predicted noise emission levels at all receiver locations are below the criterion of 45 dBA. Generally, emissions levels trend downwards at receivers north of the quarry as extraction progresses due to increased topographic shielding and increase in year 12.6 due to the position of the drill rig. At R4 a slight increasing trend is seen as the drill rig is moved towards the southern ML boundary and the campaign moves to the entrance near the end of life of the quarry.
- The drill rig requires localised bunding which extends at least 1.5 m above the exposed drilling rod when within approx. 630 m of R3. The barrier should obstruct line of sight to R3 and extend at least 2 meters either side of where drilling occurs.
- Dominant noise sources include the drilling action of the drill rig at all locations and the truck haulage routes, noticeably at R3 and R4 (the closest receivers with line of sight to the route).

3.4 Conclusions and recommendations

- An environmental noise emission criterion for operations at Big Blue Quarry was developed based on *Quarry Code of Practice* requirements and is as follows:-
 - Day: 45 dBA ($L_{Aeq,10min}$).
- Predicted noise levels from operational scenarios at the Big Blue Quarry, with the drill rig west of the pit, are below 45 dBA at all sensitive residential receiver locations
- Localised bunding should be used for the drill rig when operating within 630 m of receiver R3 and extend at least 1.5 m above the exposed rod. Bunding should extend beyond or around the rig such that noise does not flank around the barrier.



4 Ground vibration and air blast overpressure

Ground vibration and air blast overpressure predictions are assessed here against conditions applicable under the *Quarry Code of Practice*^[1]. The relevant section from the code is provided below:-

Blasting must be carried out such that, when measured at the curtilage of the nearest residence (or sensitive use) in other occupation or ownership, air blast and ground vibration comply with the following:

- 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.

The ground vibration level at heritage buildings and structures of significant intrinsic value should not exceed 3 mm/s peak particle velocity.

It has been recommended that the long term regulatory goal for ground vibration should be 2 mm/s peak particle velocity and, where possible, this may be a suitable design target.

Prediction of ground vibration and air blast overpressure was conducted using scaled regression equations developed by the *Office of Surface Mining Reclamation and Enforcement*^[4] (OSMRE), a bureau of the United States Department of the Interior.

Blasting would occur on average 16 times per annum. Predictions are made to the receivers shown in Figure 2.1. An initial maximum charge mass/delay is set at **30 kg** for this assessment following sensitivity testing utilising the OSMRE regressions. Blast locations for prediction were selected closest to receiver R3 (closest residence to the quarry) within the proposed quarry extents for the year 2 scenario and years 6.2 and 12.6 scenarios (i.e. north-east corner of quarrying extents).

4.1 Ground vibration

Prediction of ground vibration was conducted using the following regression equation from OSM which expresses the inverse relationship between PPV and distance from blast as:-

$$PPV = k \left(\frac{\sqrt{m}}{D} \right)^a$$

PPV = peak particle velocity (in/s)

k = constant

m = charge mass / delay (lb)

D = distance to receiver (ft)

a = exponent

The constants (k) and (a) were developed by OSMRE from quarry production blast data and are as follows:-

Average: k = 52, a = 1.38

Upper bound: k = 138, a = 1.38

The above equation and constants are expressed in imperial units and as such all relevant data was first converted to imperial before PPV predictions were made; The subsequent answers were then converted back and reported in metric units.



Predicted ground vibration levels are presented below in Tables 4-1 and 4-2 for a charge mass/delay of 30 kg.

Predicted ground vibration (mm/s) PPV year 2 scenario.			
Receiver	Regression constant (k)	Min distance to receiver [m]	Predicted PPV [mm/s]
R1	Average	870	0.4
	Upper bound		1.1
R2	Average	535	0.8
	Upper bound		2.1
R3	Average	440	1.0
	Upper bound		2.8
R4	Average	1730	0.2
	Upper bound		0.4

Table 4-1: Predicted ground vibration, year 2 scenario.

Predicted ground vibration (mm/s) PPV year 6.2 and 12.6 scenarios			
Receiver	Regression constant (k)	Min distance to receiver [m]	Predicted PPV [mm/s]
R1	Average	870	0.4
	Upper bound		1.1
R2	Average	535	0.8
	Upper bound		2.1
R3	Average	420	1.1
	Upper bound		2.9
R4	Average	1730	0.2
	Upper bound		0.4

Table 4-2: Predicted ground vibration, year 6.2 and 12.6 scenarios.

To assist with visualisation ground vibration contours are presented below in Figures 4-1 and 4-2 for a charge mass/delay of 30 kg.

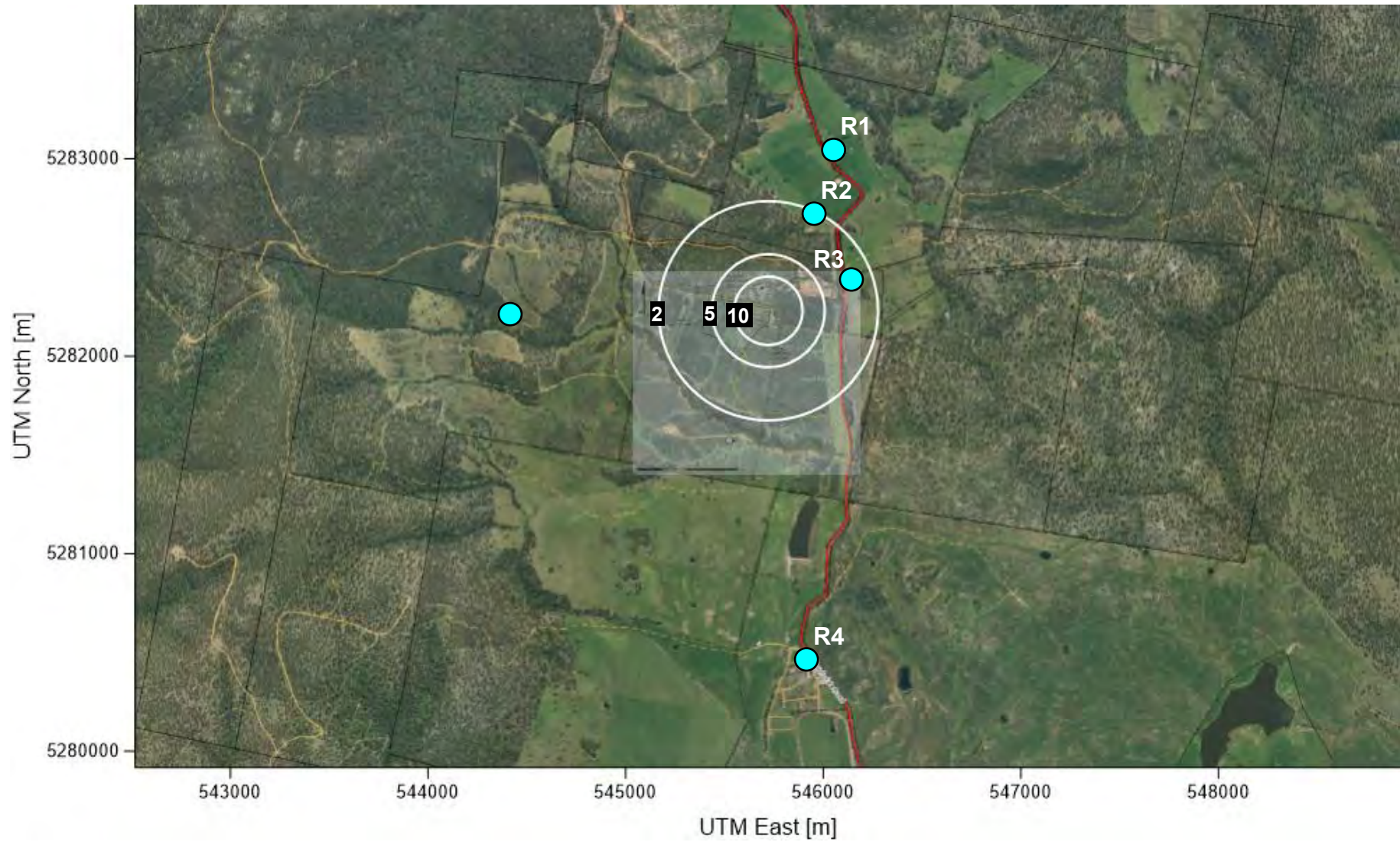


Figure 4-1: Ground vibration contours, year 2 scenario.

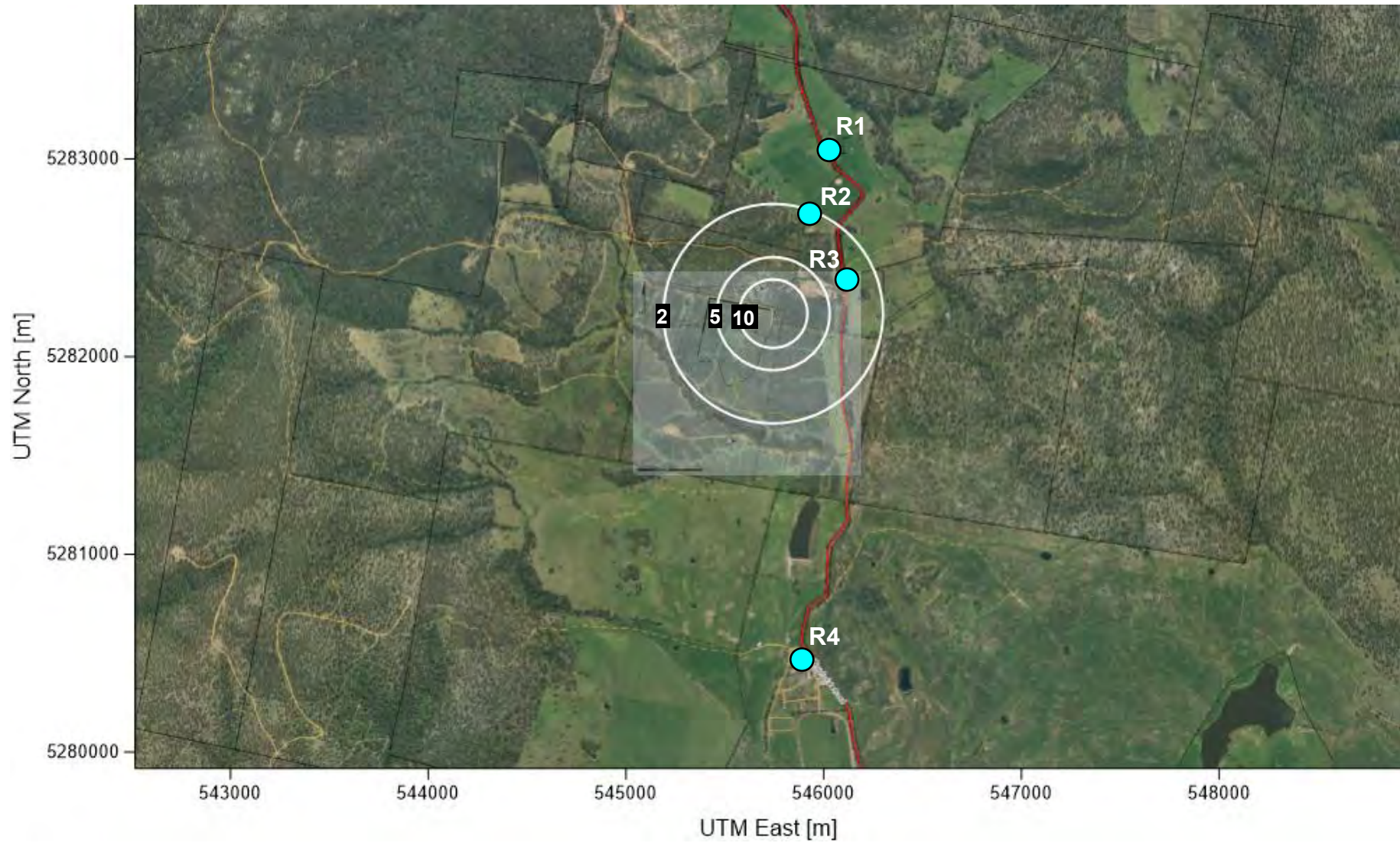


Figure 4-2: Ground vibration contours, year 6.2 and 12.6 scenarios.



4.2 Air blast overpressure

Air blast overpressure (ABO) predictions were conducted using the following regression equation from OSM which gives the following empirical inverse relationship between air pressure and distance from blast as:-

$$PSI = k \left(\frac{\sqrt[3]{m}}{D} \right)^a$$

psi = pounds per square inch

k = constant

m = charge mass / delay (lb)

D = distance to receiver (ft)

a = exponent

Predictions of ABO (in psi), from the above equation, were calculated using imperial units with the resulting pressure converted into dBL with a reference sound pressure level of $2.9(10^{-9})$ psi, i.e. $2(10^{-5})$ Pa.

Predicted ABO levels were calculated using the following constants given by OSMRE for highwall blasting:

$$k=0.162$$

$$a=0.794$$

Predicted ABO levels are presented below in Tables 4-3 and 4-4 for a charge mass/delay of 30 kg.



Predicted air blast overpressure (dB, Lin Peak) year 2 scenario			
Receiver	Regression constant	Min distance to receiver	Predicted ABO
R1	Highwall	870	109.7
R2		535	113.1
R3		540	114.4
R4		1730	105.0

Table 4-3: Predicted air blast overpressure, year 2 scenario.

Predicted air blast overpressure (dB, Lin Peak) year 6.2 and 12.6 scenarios			
Receiver	Regression constant	Min distance to receiver	Predicted ABO
R1	Highwall	870	109.7
R2		535	113.1
R3		420	114.7
R4		1730	105.0

Table 4-4: Predicted air blast overpressure, year 6.2 and 12.6 scenarios.

To assist with visualisation ground vibration contours are presented below in Figures 4-3 and 4-6 for a charge mass/delay of 30 kg.

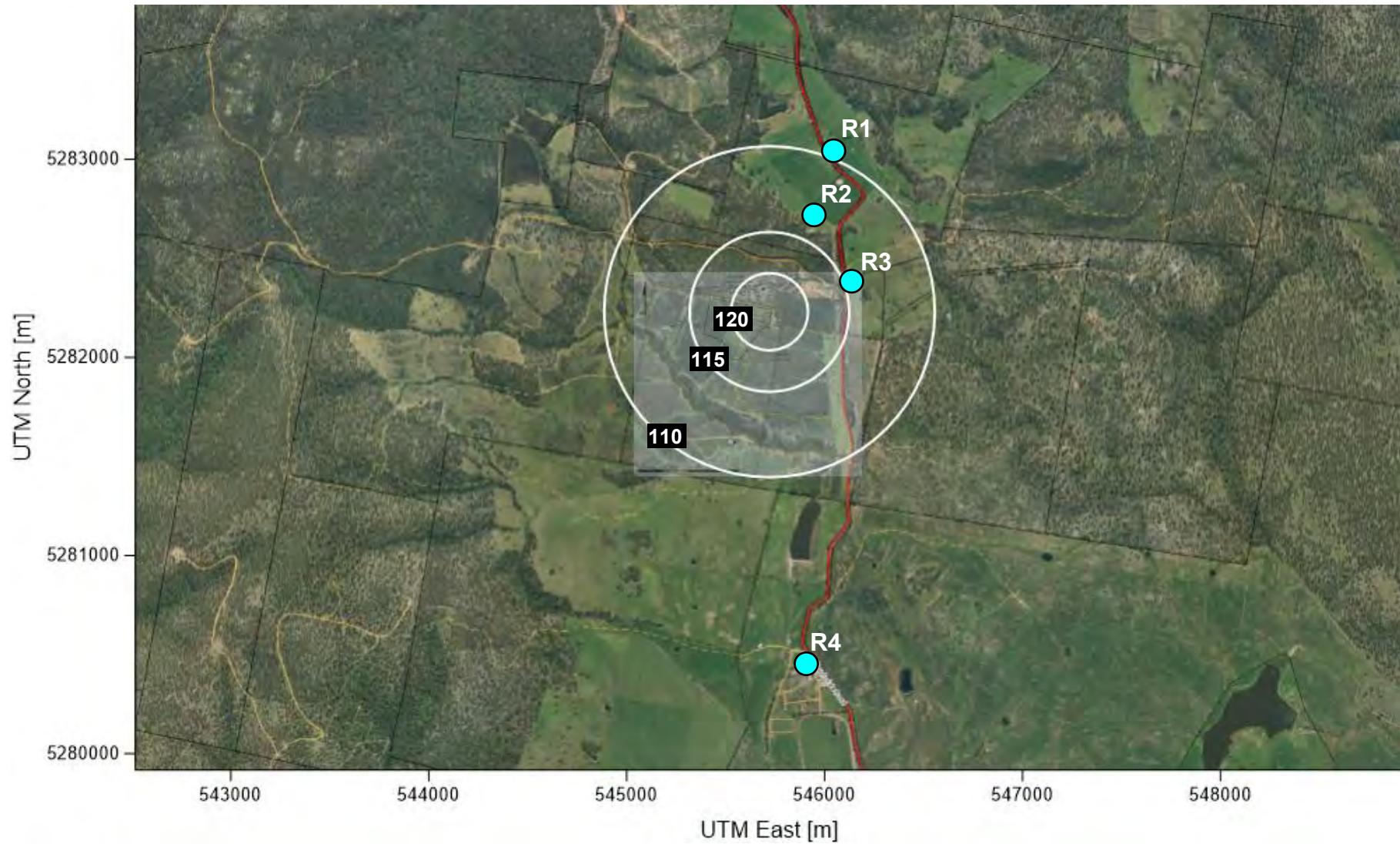


Figure 4-3: Air blast overpressure contours, year 2 scenario.

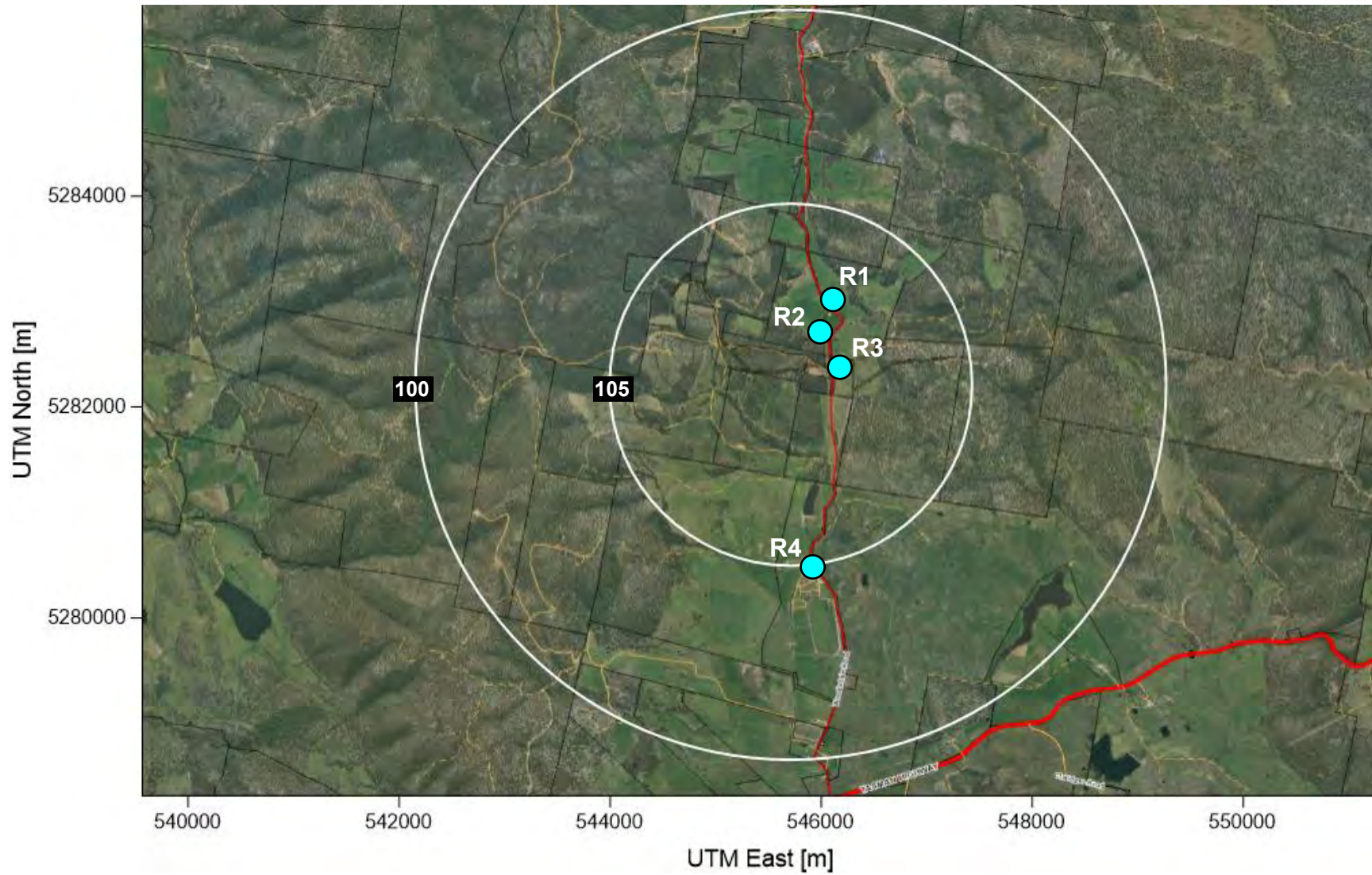


Figure 4-4: Air blast overpressure contours, year 2 scenario

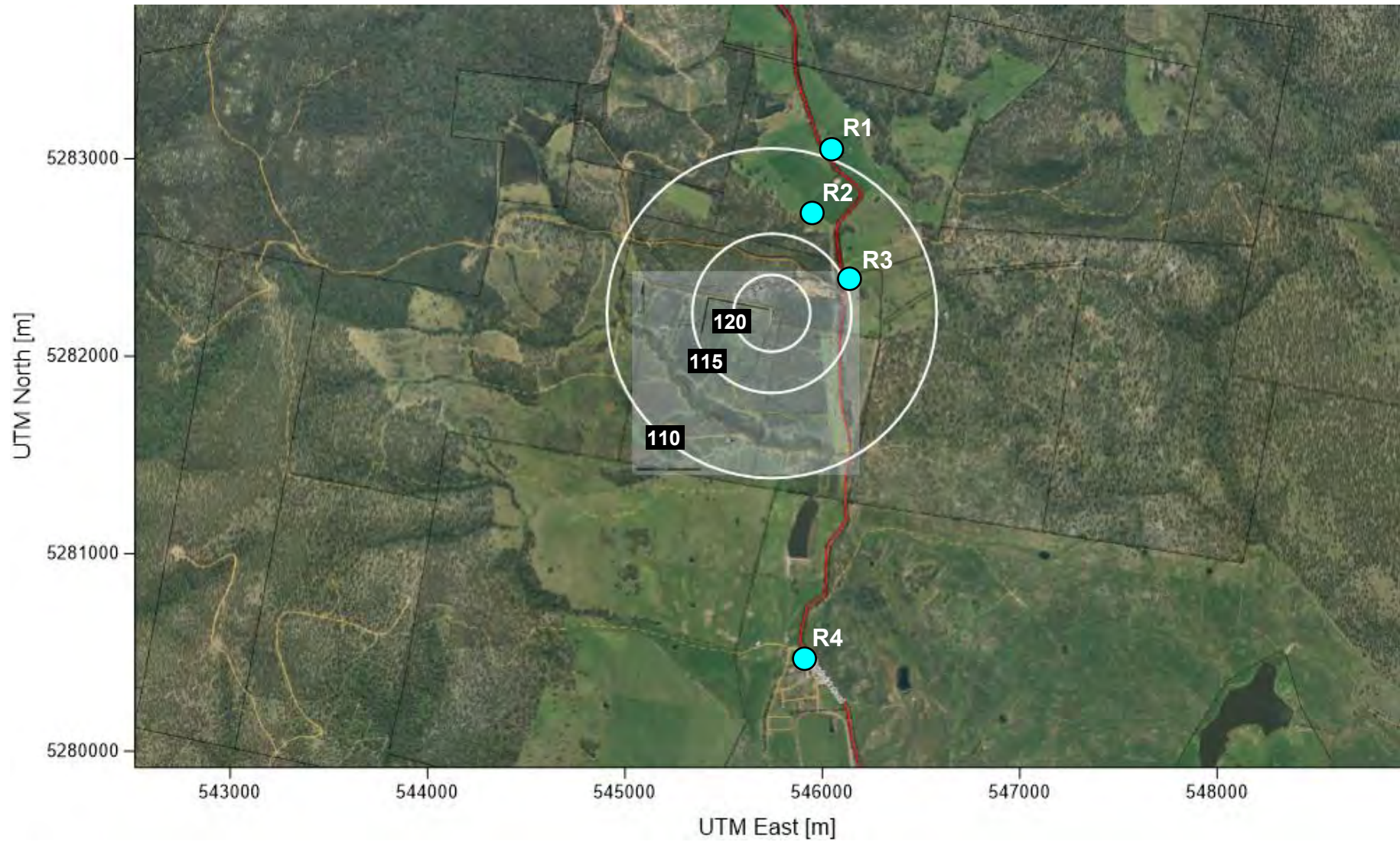


Figure 4-5: Air blast overpressure contours, year 6.2 and 12.6 scenarios.

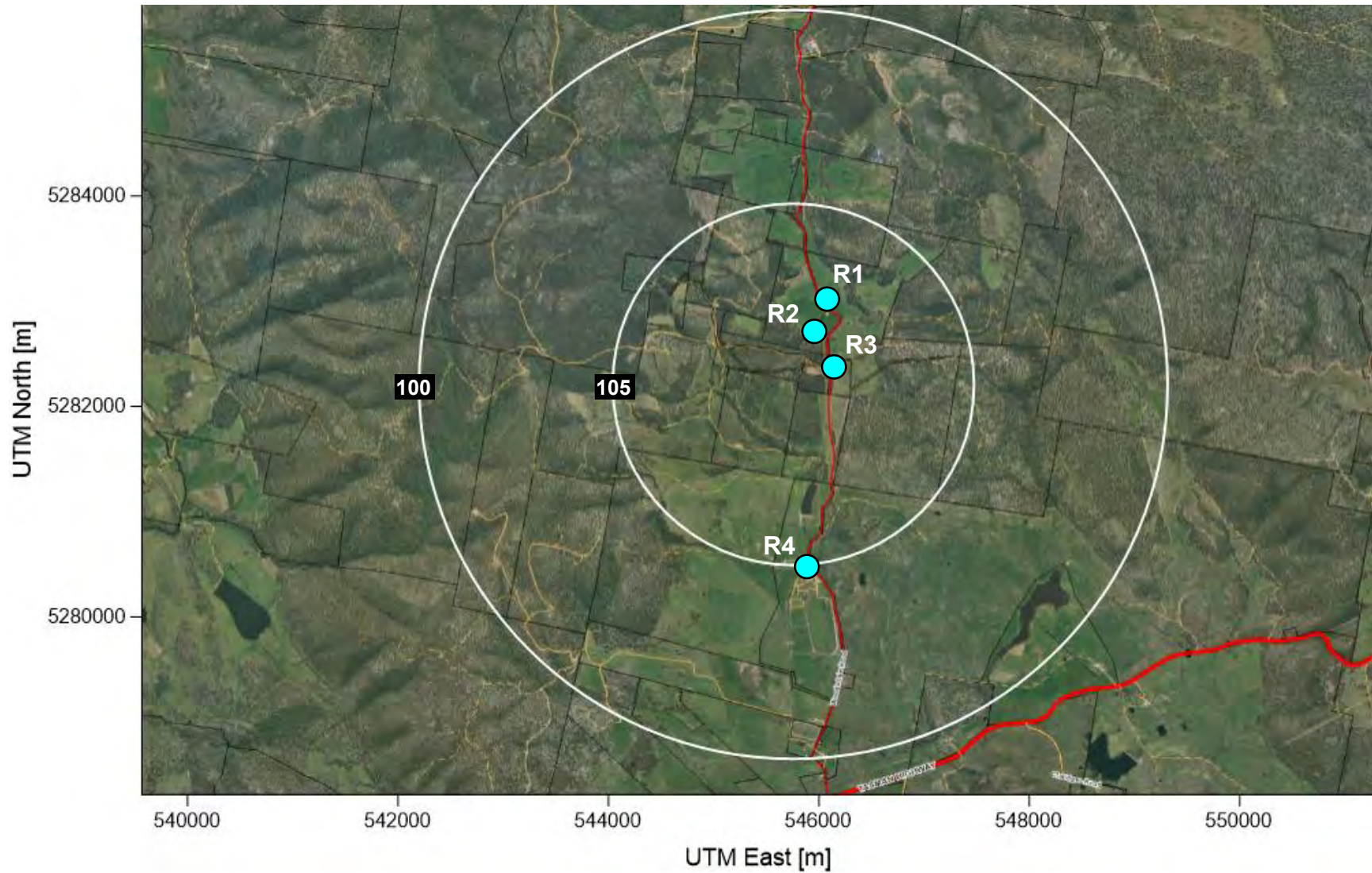


Figure 4-6: Air blast overpressure contours, year 6.2 and 12.6 scenarios.



4.3 Recommendations

- Initial blasting at the quarry should be restricted to a charge mass/delay and distance from residential receiver combinations as follows:-
 - 30 kg, 420 m.
 - 40 kg, 510 m.
 - 60 kg, 590 m.
 - 80 kg, 650 m.
 - 100 kg, 700 m

NB: The above combinations maintain predicted ABO levels below the QCP^[1] limit of 115 dB (Lin Peak) and predicted ground vibration levels well below the QCP^[1] limit 5 mm/s. Under these combinations compliance is highly likely with the QCP^[1] conditions.

- Blasting should be monitored such that site-specific scaled regressions for the prediction of ground vibration and ABO for the site can be developed. With a regression analysis, justification for increasing the charge/mass per delay may be possible.

NB: Beyond 12.6 yrs as quarry activity moves further east towards Woodsdale Rd a charge mass/delay less than 30 kg is likely to be required to comply at the closest residence (R3). By this stage reasonable site-specific regressions should have been developed and charge mass/delay and distance combinations should be reassessed.

- Consideration should be given in any blast design to mitigation measures to minimise air blast overpressure including but not limited to the following:-
 - Increased stemming depth
 - For face blasts increased burden depth.
 - Deck loading the front row of holes for face blasts and backfill covering of the blast area for both establishment and face blasts.
- Blasting should be avoided when atmospheric inversions are present and when the prevailing wind direction is from the south-west. These atmospheric conditions have the potential to provide amplification of ABO levels at residences to the north of the quarry.

Environmental Assessment
Report
Big Blue Quarry
Runnymede
Gadtech Pty Ltd

January 2020



ENVIRONMENT PROTECTION AUTHORITY

Environmental Assessment Report

Proponent	Gadtech Materials Pty Ltd (Thomas Jacobson)
Proposal	Big Blue Quarry
Location	Woodsdale Road, Runnymede
NELMS no.	PCE No. 10427
Permit Application No.	DA 2020/32 (Southern Midlands Council)
Electronic Folder No.	EN-EM-EV-DE-261451
Document No.	D21-7239
Class of Assessment	2B

Assessment Process Milestones

26 March 2020	Permit Application submitted to Council
31 March 2020	Referral received by the Board
15 April 2020	Class of Assessment determined
13 May 2020	Guidelines Issued
24 October 2020	Start of public consultation period
21 November 2020	End of public consultation period
11 January 2021	Date draft conditions issued to proponent
2 February 2021	Statutory period for assessment ends

Acronyms

Board	Board of the Environment Protection Authority
DPIPWE	Department of Primary Industries, Parks, Water and Environment
EIA	Environmental impact assessment
EIS	Environmental impact statement
EMPC Act	<i>Environmental Management and Pollution Control Act 1994</i>
EMPCS	Environmental management and pollution control system
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
LUPA Act	<i>Land Use Planning and Approvals Act 1993</i>
RMPS	Resource management and planning system
QCP	<i>Quarry Code of Practice, EPA Tasmania, May 2017</i>
SD	Sustainable development

Report Summary

This report provides an environmental assessment of the Big Blue Quarry proposed by Gadtech Materials Pty Ltd.

The proposal is a new quarry, involving extraction of up to 200,000 cubic metres (340,000 tonnes) per year of dolerite to produce rock and gravel, with crushing and screening. Blasting will occur approximately 16 times per year. The existing hardwood plantation on the site will be progressively harvested before each quarry excavation stage.

This report has been prepared based on information provided in the permit application, and Environmental Impact Statement (EIS). Relevant government agencies and the public were consulted and their submissions, representations and comments considered as part of the assessment.

Further details of the assessment process are presented in section 1 of this report. Section 2 describes the statutory objectives and principles underpinning the assessment. Details of the proposal are provided in section 3. Section 4 reviews the need for the proposal and considers the proposal, site and design alternatives. Section 5 summarises the public and agency consultation process and the key issues raised in that process. The detailed evaluation of key issues is in section 6, and other issues are evaluated in section 7. Issues not assessed by the Board are listed in section 8 and discussed in Appendix 1. The report conclusions are contained in section 9.

Appendix 2 contains details of matters raised by the public and referral agencies during the consultation process. Appendix 3 contains a table of proponent commitments. Appendix 4 contains the environmental permit conditions for the proposal.

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I Approval Process

A valid application for a permit under the *Land Use Planning and Approvals Act 1993* (LUPA Act) in relation to the proposal was submitted to Southern Midlands Council on 26 March 2020.

The proposal is defined as a 'level 2 activity' under clauses 5(a)(i) and 6(a)(ii), Schedule 2 of the *Environmental Management and Pollution Control Act 1994* (EMPC Act), being a quarry extracting more than 5,000 cubic metres of rock or gravel per year, subject to a mining lease under the *Mineral Resources Development Act 1995*, and processing by crushing, grinding, milling or separating rock, ores or minerals in excess of 1,000 cubic metres per year.

Section 25(1) of the EMPC Act required Council to refer the application to the Board of the Environment Protection Authority (the Board) for assessment under the Act. The application was received by the Board on 31 March 2020.

The Director, Environment Protection Authority, has undertaken determination of the assessment under delegation from the Board.

The Board required that information to support the proposal be provided in the form of an Environmental Impact Statement (EIS) prepared in accordance with guidelines issued on 13 May 2020. Several drafts of the EIS were submitted to EPA Tasmania for review against the guidelines before being finalised and accepted on behalf of the Board on 19 October 2020.

The EIS was released for public inspection for 28 days starting on 24 October 2020. Advertisements were placed in *The Mercury* and on the Southern Midlands Council and EPA websites. The EIS was also referred to relevant government agencies for comment. Four representations were received, with additional comment sent by Council to the Board.

2 SD Objectives and EIA Principles

The proposal must be considered by the Board in the context of the objectives of the Resource Management and Planning System of Tasmania (RMPS), and in the context of the objectives of the Environmental Management and Pollution Control System (EMPCS) (both sets of objectives are specified in Schedule 1 the EMPC Act). The functions of the Board are to administer and enforce the provisions of the Act, and in particular to use its best endeavours to further the RMPS and EMPCS objectives.

The Board must assess the proposal in accordance with the Environmental Impact Assessment Principles defined in Section 74 of the EMPC Act.

The assessment has been undertaken by the Director, Environment Protection Authority under delegation from the Board.

3 The Proposal

The proposal is a new quarry, involving extraction of up to 200,000 cubic metres (considered to be equivalent to 340,000 tonnes at a loose bulk ratio of 1.7) per year of dolerite to produce rock and gravel, with crushing and screening. Blasting will be undertaken approximately 16 times per year. Existing hardwood plantation of the site will be harvested in stages prior to commencement of excavation of each stage.

The quarry will include the following activities:

- surface site preparation by tree-felling and stockpiling/mulching,
- soil and overburden removal and stockpiling,
- excavating and ripping material,
- drilling and blasting by a licensed contractor,
- crushing and/or screening material,
- stockpiling material (processed and unprocessed), and
- loading trucks with processed material from the stockpile area.

Initially, quarrying will take place downslope of the highest point on the Land, in a centralised location in the Mining Lease. The quarry will be worked from this point towards the north, via benches, until the end wall is reached near the northern boundary (Figure B-2). Four stages (or ‘levels’) of quarrying have been identified in the EIS, with Level 1 to be completed in approximately two years, Level 2 in approximately 6 years, Level 3 approximately 13 years from the date of commencement, and the fourth stage or level to be from years 13 to 40. The detail of the fourth stage in terms of directions of excavation has yet to be determined.

The EIS also indicates a ‘maximum extraction extent’ which equates to the vast majority of the mining lease (the Land). It states that, after Level 3, further mine plans will be developed, for approval by Mineral Resources Tasmania. It states that environmental impacts up to the ‘maximum extraction extent’ (see Figure 7 below) have been considered by the EIS. The proposed maximum open (disturbed) area at any one time is 15 hectares.

The activity is proposed to last for approximately 40 years.

The main characteristics of the proposal are summarised in Table I. A detailed description of the proposal is provided in Part B of the EIS.

Table I: Summary of the proposal’s main characteristics

Activity	
Extraction, crushing and screening of a maximum of 200,000 cubic metres of rock and gravel per annum.	
Location and planning context	
Location	Woodsdale Road, Runnymede, CT 146726/1 and CT 47615/1 (PID 2713661) (see Figure 1).
Land zoning	Rural Resource (<i>Southern Midlands Interim Planning Scheme 2015</i>)
Land tenure	Private freehold
Mining lease	2073 P/M (pending)

Lease area	58 hectares
Bond	\$250,000
Existing site	
Land Use	Historically grazing, currently predominantly eucalypt plantation. An old gravel quarry north of the site was formerly used by Council. The mining lease for this quarry expired in 2007, and Council has indicated it has no intention to undertake any further extraction from the site, with rehabilitation proposed in the near future.
Topography	The site constitutes one hill with a maximum height of ~350m AHD, with the peak in the north-western portion of the site, sloping down to the south and east.
Geology	The bedrock geology across the mining lease is Jurassic dolerite, with locally developed granophyre.
Soils	Soils are moderate to shallow clay-loam, described as Podzolic Soils on Dolerite, and considered to have low erodibility.
Hydrology	An unnamed waterway runs along the southern boundary of the site, flowing east, with an ephemeral drainage line running along the eastern boundary, draining to the south.
Natural Values	Apart from the areas of eucalypt plantation, the site supports two vegetation communities around the perimeter, neither of which are listed under legislation. It also supports some individual large blue gums. No threatened flora species have been observed on site. Potential foraging and nesting/denning habitat for several threatened fauna species is present (see discussion under section 6.4 below).
Local region	
Climate	Warm summers and cold winters. Rainfall is fairly evenly distributed throughout the year; approximately 482mm total per annum. Wind direction is predominantly northerly with north westerlies, westerlies and southerlies sub-dominant.
Surrounding land zoning, tenure and uses	The land and surrounding properties are all zoned Rural Resource under the <i>Southern Midlands Interim Planning Scheme 2015</i> . They are all in private tenure, with the exception of one small parcel to the north which formerly operated as a gravel quarry by Council and is owned by the Crown. Council has confirmed that no further use of this quarry is proposed beyond rehabilitation.
Proposed infrastructure	
Major equipment	Excavator, crusher, loader, dozer, drill rig, trucks for haulage
Other infrastructure	Water cart, light vehicles for worker transport, portable toilet
Inputs	
Water	Water from sediment ponds will be used for dust mitigation purposes, when sufficient supply is available. Otherwise, water will be carted into the site.
Energy	Diesel and petrol will be used to power trucks, heavy equipment and other machinery associated with the activity.
Wastes and emissions	

Liquid	Stormwater runoff from extraction and stockpile areas.
Atmospheric	Dust from internal and external traffic, and blow-off from stockpiles.
Solid	General refuse including food scraps, paper and packaging. General inert wastes such as metal waste to be collected periodically.
Controlled wastes	Waste engine oil, possible spilled fuel. A portable chemical toilet to be used when operations are being undertaken will hold sewage.
Noise	From blasting, rock drilling, screening and crushing equipment, excavators on site, and vehicles on site and going to and from the site.
Greenhouse gases	The proposal will generate greenhouse gases in emissions from vehicles and machinery used to excavate, process and transport the material.
Operation	
Proposal timetable	Operation proposed to commence early 2021, with progressive clearing and four stages of extraction: Level 1 – 0-2 years Level 2 – 2-6 years Level 3 – 6-13 years Remainder – 13-40 years
Operating hours (ongoing)	Extraction and processing: 0700 to 1900 hours Monday to Friday 0800 to 1600 hours Saturday Drilling and blasting: 1000 to 1600 hours Monday to Friday only No works on Sundays or Statewide public holidays.

Attachment 2 AGENDA ITEM 11.1.1

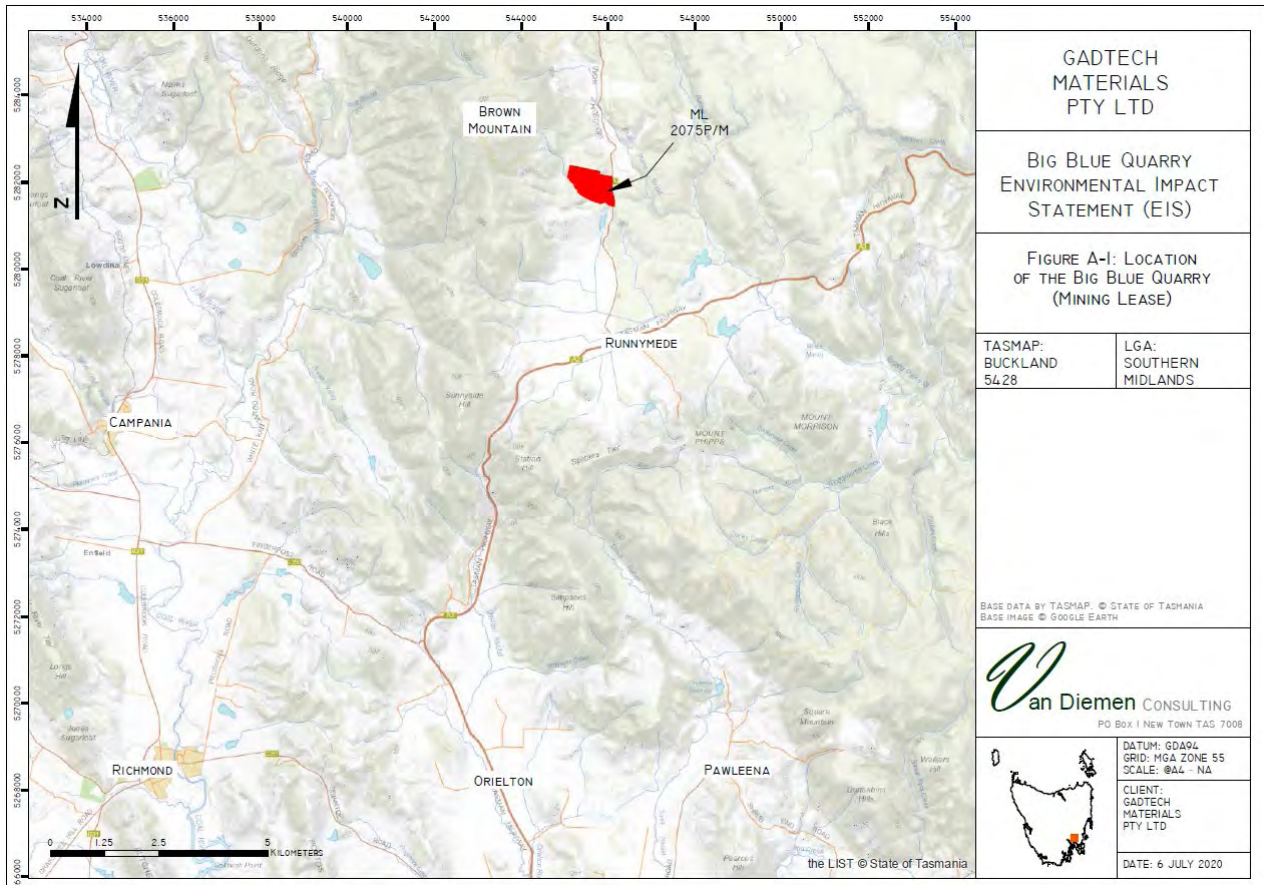


Figure 1: Proposed quarry location (Figure A-1 of the EIS)

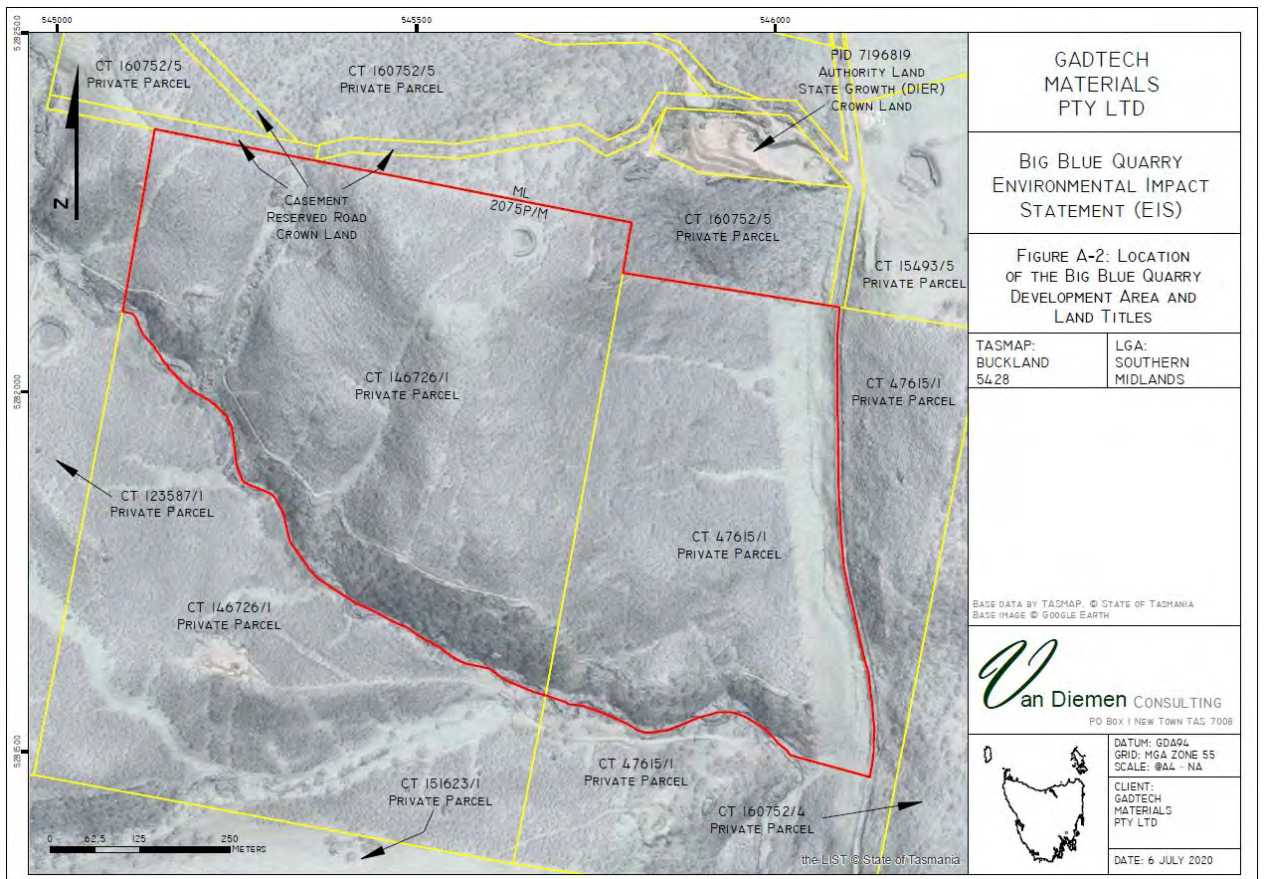


Figure 2: Plan showing affected properties (outlined in red) and adjacent property titles (figure A-2 of the EIS).

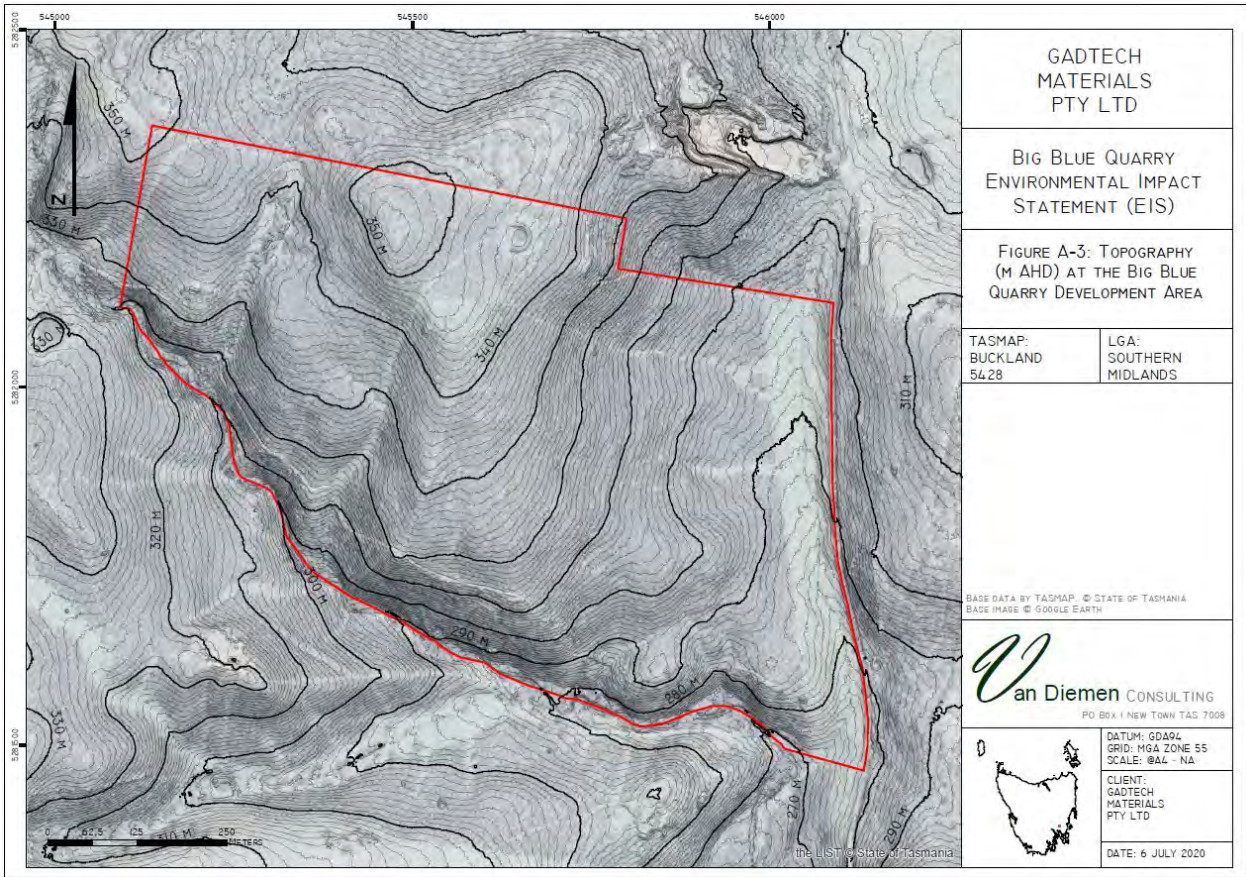


Figure 3: Topography across proposal site (outlined in red) (Figure A-3 of the EIS).

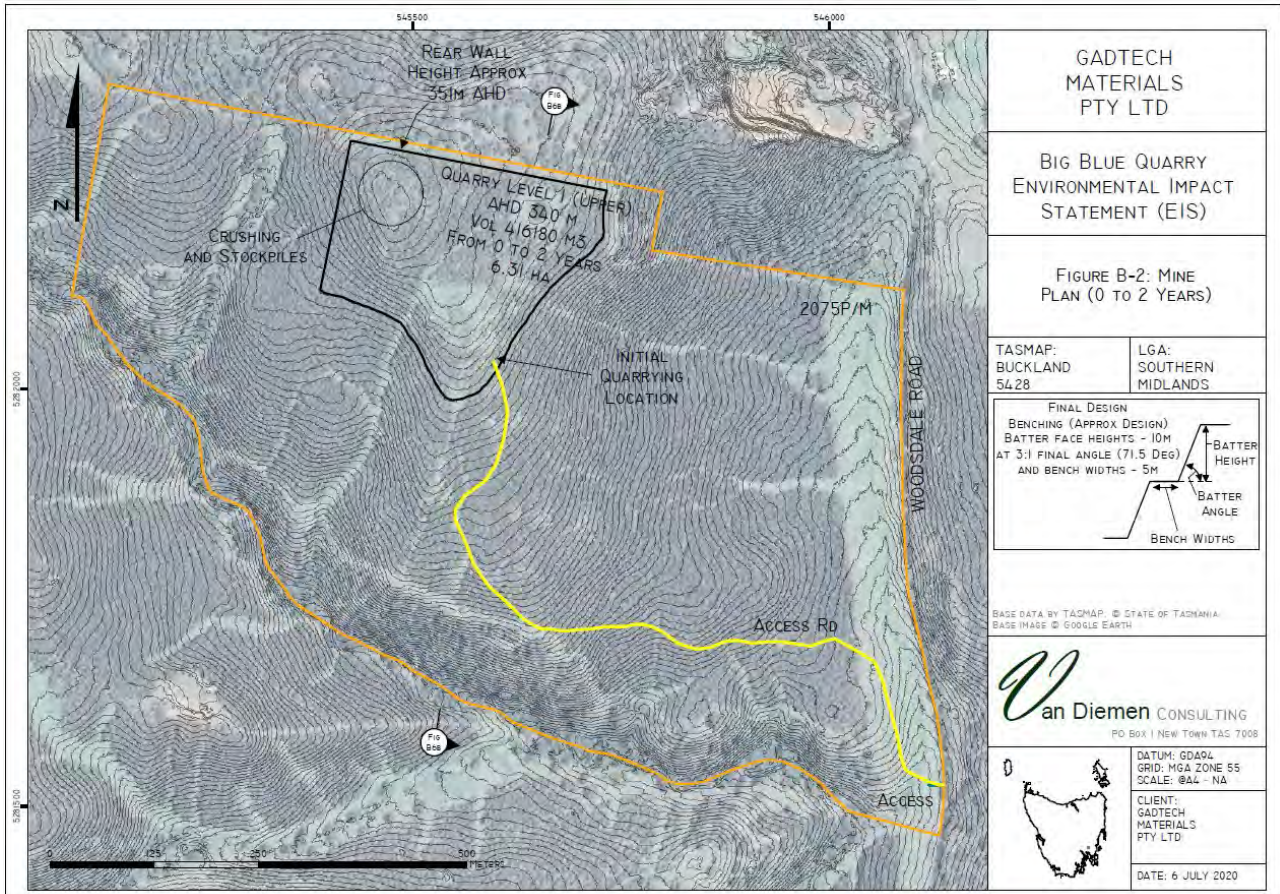


Figure 4: First stage mine plan (0-2 years) (Figure B-2 of the EIS).

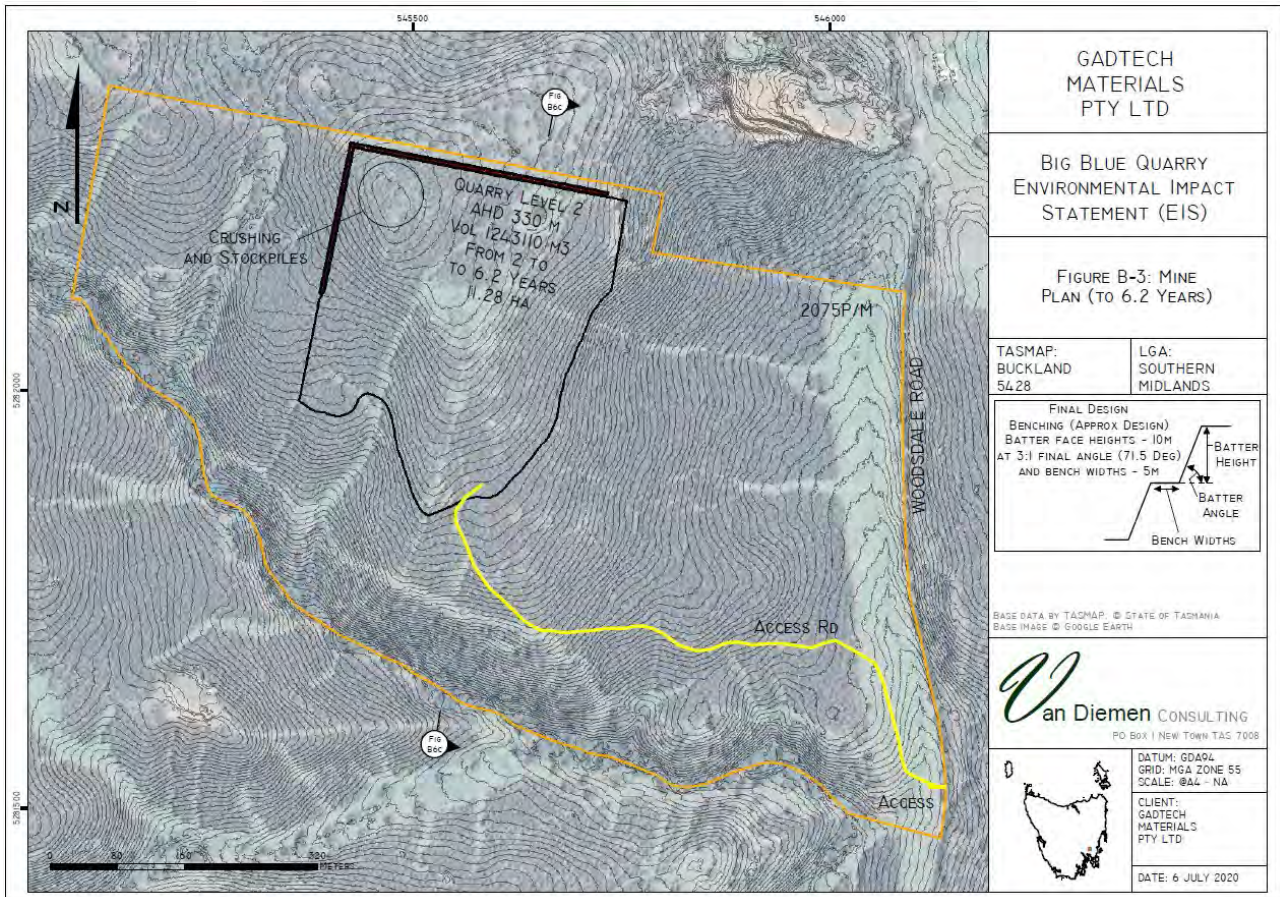


Figure 5: Second stage mine plan (2-6.2 years) (Figure B-3 of the EIS).

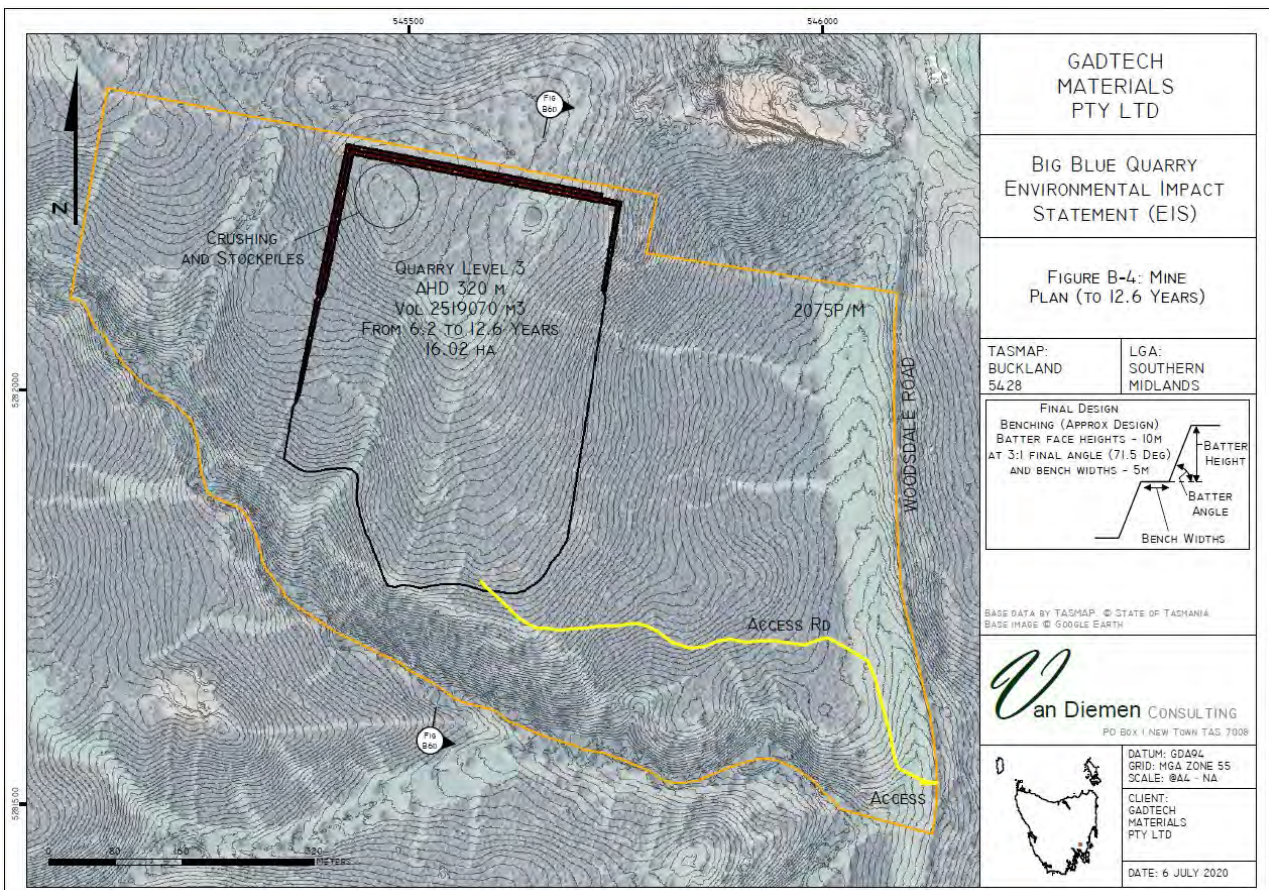


Figure 6: Third stage mine plan (6.2-12.6 years) (Figure B-4 of the EIS).

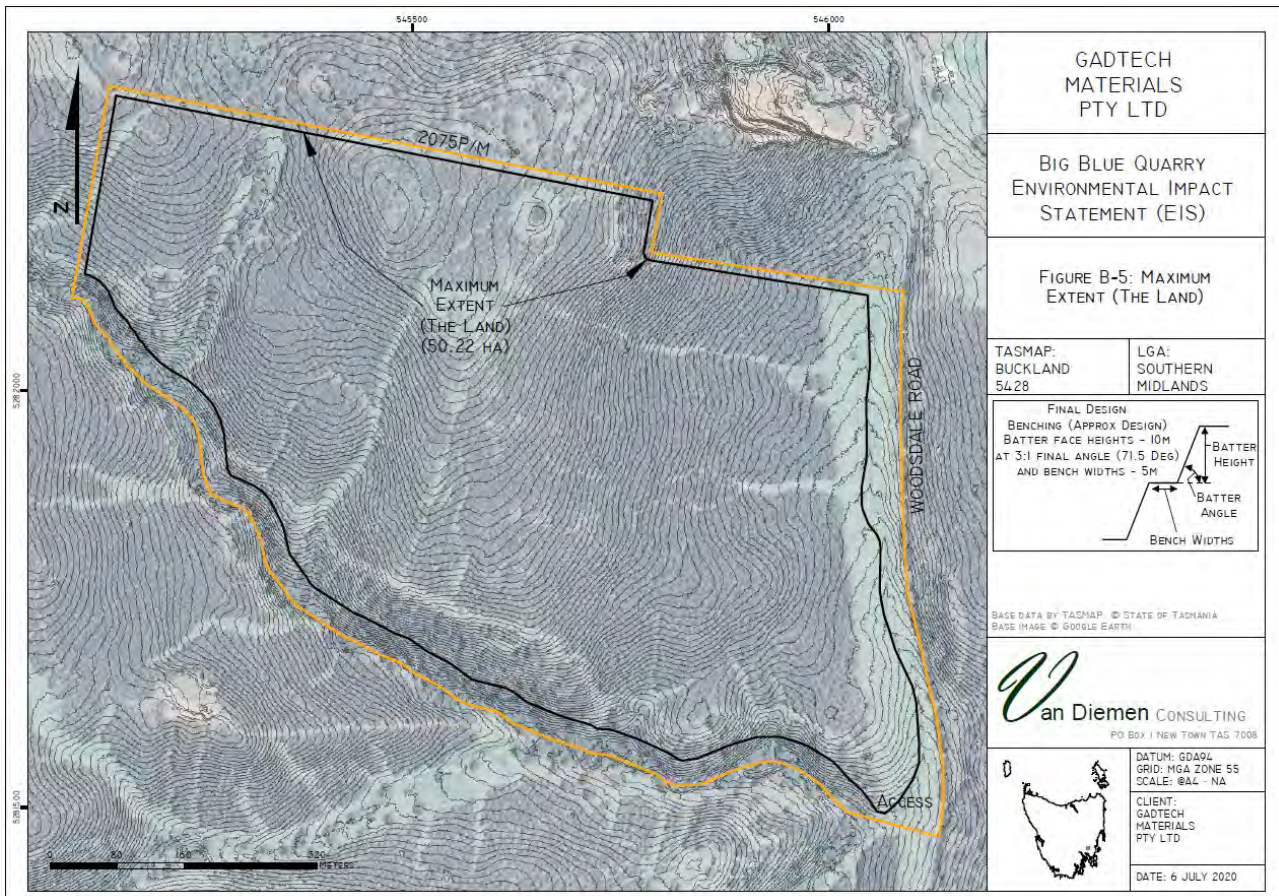


Figure 7: Maximum extent mine plan (Figure B-5 of the EIS).

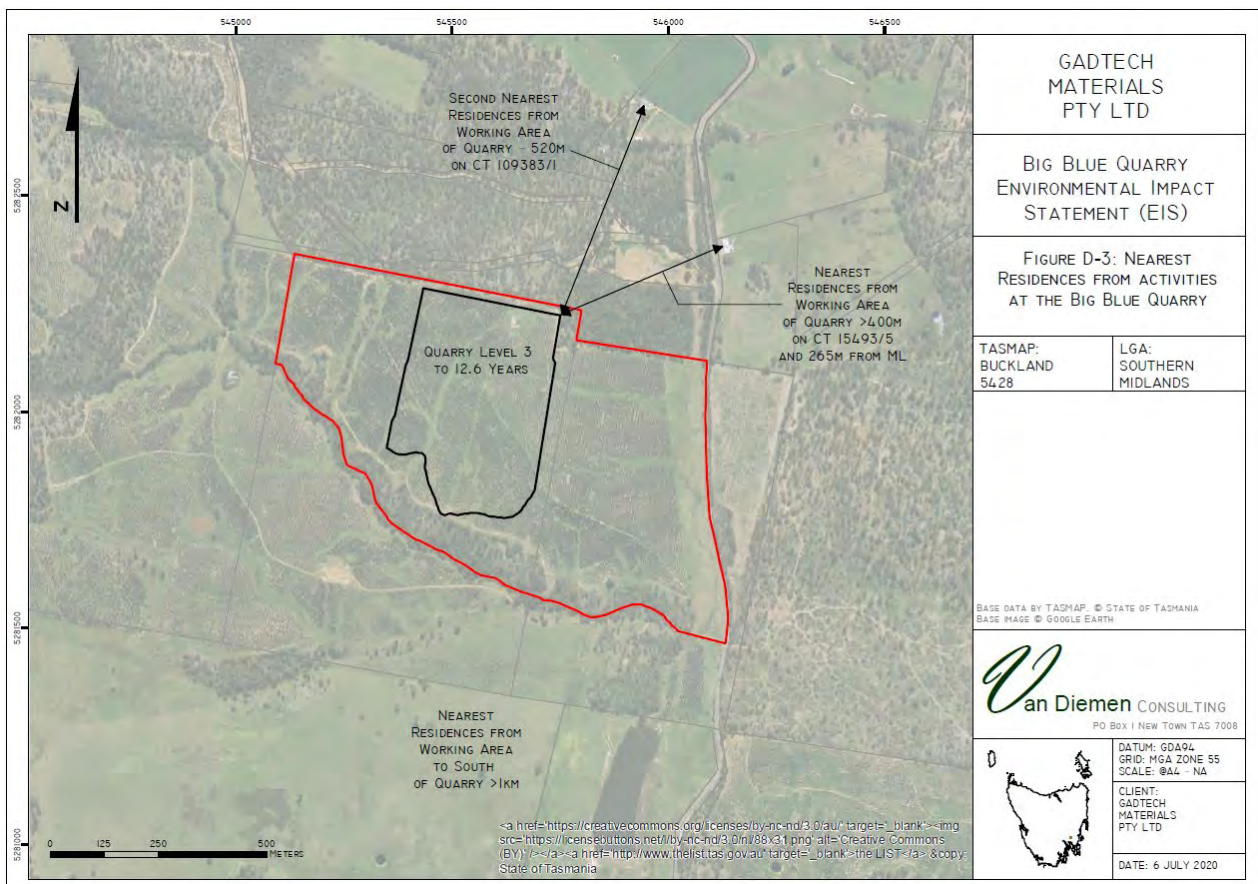


Figure 8: Nearest residences to proposed activity (third stage shown) (Figure D-3 of the EIS).

4 Need for the Proposal and Alternatives

The EIS states that the quarry site has been selected due to:

- its strategic location relative to markets in the south-east and east coast regions of Tasmania;
- the high quality nature of the rock resource, making it suitable for aggregate production;
- proximity to an existing main highway;
- lack of high conservation values in and around the Mining Lease (predominantly supporting eucalypt plantation); and
- the low number of dwellings in the landscape, particularly near to the proposed extraction footprint.

The quarry provides a new source of large volumes of material for the east coast region, a location that has traditionally been unable to generate its own large volumes for major projects, potentially reducing the distance that material has to be carted and lowering costs, road wear and emissions.

The EIS further states that any existing medium to large sized quarries (i.e. generating >100,000 cubic metres per annum) producing dolerite/basalt-based aggregates in the south-east or east coast regions rely on roads and highways heavily used by urban traffic. In contrast, trucks servicing the proposed quarry would use the Tasman Highway.

5 Public and Agency Consultation

A summary of the public representations and government agency/body submissions is contained in Appendix I of this report.

Four public representations were received. The main issues raised in the representations included:

- Potential impact on property owners of the attenuation area which will be imposed around the quarry site in the Planning Scheme as a result of approval of the quarry.
- Capacity and safety of Woodsdale Road.

The EIS was referred to a number of government agencies/bodies with an interest in the proposal. Submissions were received from the following:

- Mineral Resources Tasmania, Department of State Growth
- Southern Midlands Council

The following Divisions/areas of the Department of Primary Industries, Parks, Water and Environment also provided advice on the EIS:

- Regulatory Officer, EPA Tasmania
- Noise specialist, EPA Tasmania
- Water section, EPA Tasmania
- Air section, EPA Tasmania
- Policy, Advice and Regulatory Services Branch, DPIPW
- Aboriginal Heritage Tasmania, DPIPW

6 Evaluation of Key Issues

The key environmental issues relevant to the proposal that were identified for detailed evaluation in this report were:

- Noise emissions and blasting impacts
- Air quality
- Water quality
- Biodiversity and natural values

Each of these issues are discussed in the following subsections.

General conditions

The following general conditions will be imposed on the activity:

Q1 Regulatory limits

G1 Access to and awareness of conditions and associated documents

G2 No changes without approval

G3 Incident response

G4 Change of responsibility

G5 Change of ownership

G6 Complaints register

G7 Annual Environmental Review

G8 Quarry Code of Practice

G9 Staged quarrying

6.1 Noise emissions and blasting impacts

6.1.1 Description

Existing environment

The existing site is undeveloped, supporting primarily timber planted for forestry. The site and all nearby properties are zoned Rural Resource under the *Southern Midlands Interim Planning Scheme 2015*. The nearest sensitive receptors are dwellings located to the north (see Figure 8). The closest of these is approximately 260 metres from the northern edge of the mining lease, and about 400 metres from the north eastern corner of the proposed third stage of extraction (as shown in Figure 8). There are two additional dwellings located approximately 800 metres to the north of the mining lease, and one located approximately 1km to the south, all on Woodsdale Road.

There is also a small gravel pit due north of the proposal site, directly across the road from the nearest dwelling, on a title owned by the Crown. Both Council and Mineral Resources Tasmania have confirmed that this pit is not subject to a mining lease, that the previous mining lease held by Council expired in 2007, that there is no intention to further extract from this site, and that Council now intends to rehabilitate the site.

Other sources of existing background noise in the area include farm machinery, vehicles and trucks using Woodsdale Road, timber harvesting operations, wind and wildlife.

Potential impacts and significance

The proposed quarry activity includes the use of a number of large machines, including bulldozers, excavators, crushers, screens, loaders and trucks, plus drill rigs in preparation for blasting. Blasting is proposed to occur on average 16 times per year, and will result in noise of short duration, accompanied by ground vibration and air blast overpressure.

The EIS discusses noise emissions in Section E.4, and includes a noise, ground vibration and air blast overpressure assessment of the proposed quarry (Attachment 4). The assessment includes measurements of existing background noise in the area and has determined a representative background existing noise level of 33.2 dBA (L_{A90}). A benchmark noise level of 45 dBA (L_{Aeq} , 10 min) is nominated as the maximum level considered acceptable to be experienced at residences during daytime hours (0700-1900 hours) as per the Quarry Code of Practice (QCP).

The assessment models a number of operational scenarios over the life of the quarry, including operation of the drill rig for blasting, and extraction at the full extent shown in Figure 7 above, with consideration of both neutral and 'worst case' weather conditions.

The noise emission contours from each of these scenarios, without noise mitigation measures, are shown in Figures 3.12 – 3.21 in Attachment 4 to the EIS. The modelling indicates that sensitive receptors will experience the highest levels of noise at the commencement of operations, with L_{Aeq} noise emissions at that time in worst case weather modelled to reach 42 dB(A) at dwelling R2, located ~480 metres north of the mining lease boundary (see Figure 9 below). Table 1 below shows the results of the noise modelling in numbers (dBA). R1-R4 refer to the four nearest dwellings, as shown in Figure 9.

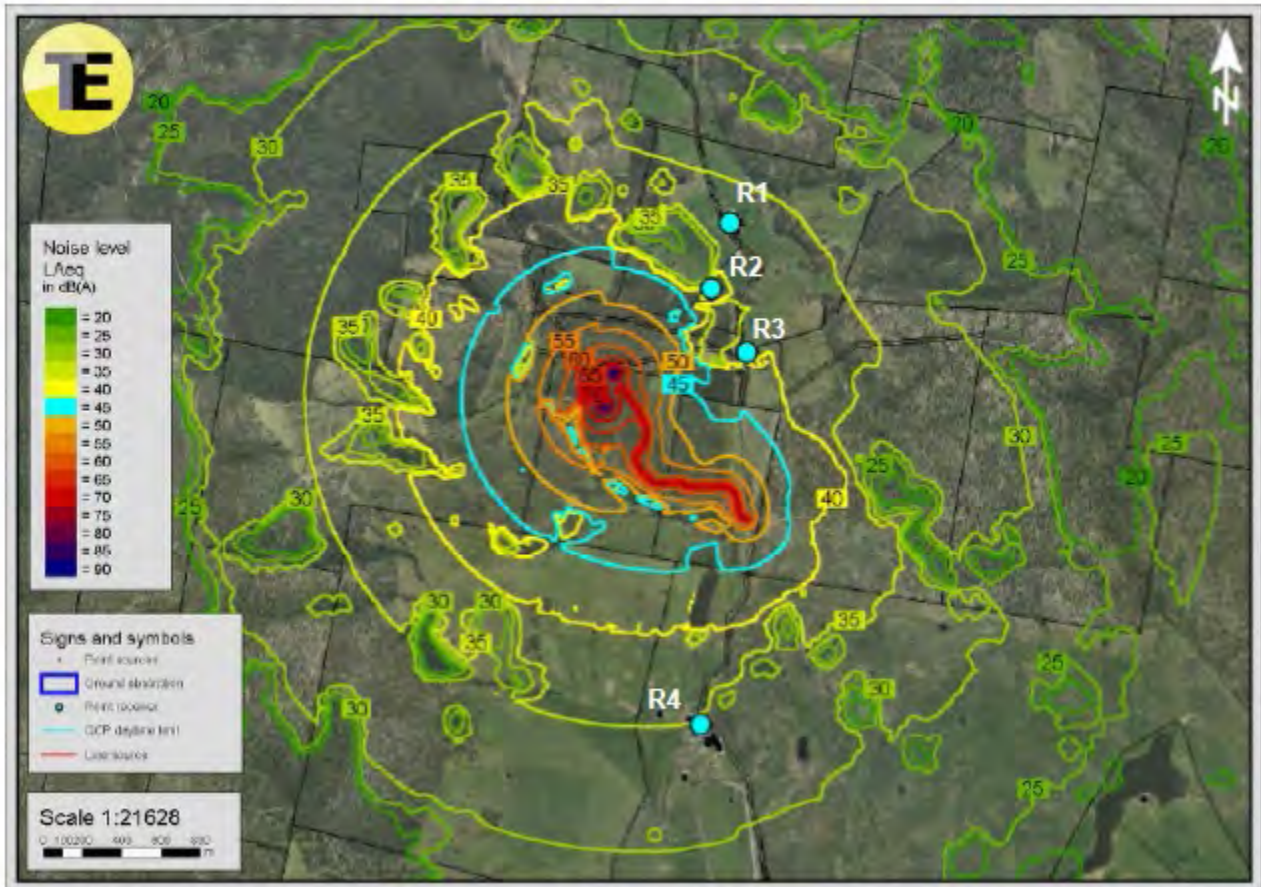


Figure 9: Predicted noise emission contours at commencement of quarrying activity, worst case weather (Figure 3-13 of Attachment 4 to the EIS).

Predicted sound pressure levels (dBA)										
Receivers	Current		Year 2		Years 6.2		Year 12.6		Full extent	
	neu	wcw	neu	wcw	neu	wcw	neu	wcw	neu	wcw
R1	33	38	24	29	22	27	24	29	24	29
R2	37	42	24	29	22	27	26	30	17	22
R3	35	40	34	38	33	38	34	39	31	35
R4	30	35	30	35	31	36	30	36	32	37

Table 1: Predicted noise emission levels at four nearest residences to proposed activity (Table 3-4 of Attachment 4 to the EIS).

Therefore, without mitigation measures, the modelling indicates that the proposed quarry would result in higher noise levels than existing background during daytime hours, in some cases up to 9 dBA higher than the L_{A90} , but is unlikely to exceed the QCP limit of 45 dBA. Over time, the noise levels experienced at sensitive receptors are forecast to reduce, as the floor level of the quarry drops below the escarpment which will be created at the northern edge of the site.

The assessment also considers ground vibration (mm/sec) and air blast overpressure (dB (Lin peak)) arising from blasting, proposed to be undertaken 16 times per annum on average. The QCP specifies that blasting must be carried out such that, when measured at the boundary of the nearest residence:

- 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 (PPV); and
- d) Ground vibration must not exceed 10 mm/s peak particle velocity at all.

The assessment predicts impacts for a charge mass/delay of 30 kg at each of the first three key stages of the quarry; the contours for these predictions are shown in Figures 4.1 – 4.6 and Tables 4.1 – 4.4 in Attachment 4 to the EIS. For each scenario, the results are similar, with the figures for years 6.2 and 12.6 slightly higher for the nearest dwelling, R3. Figures 10 and 11, and Tables 2 and 3 below, depict these results as contours and numerically.

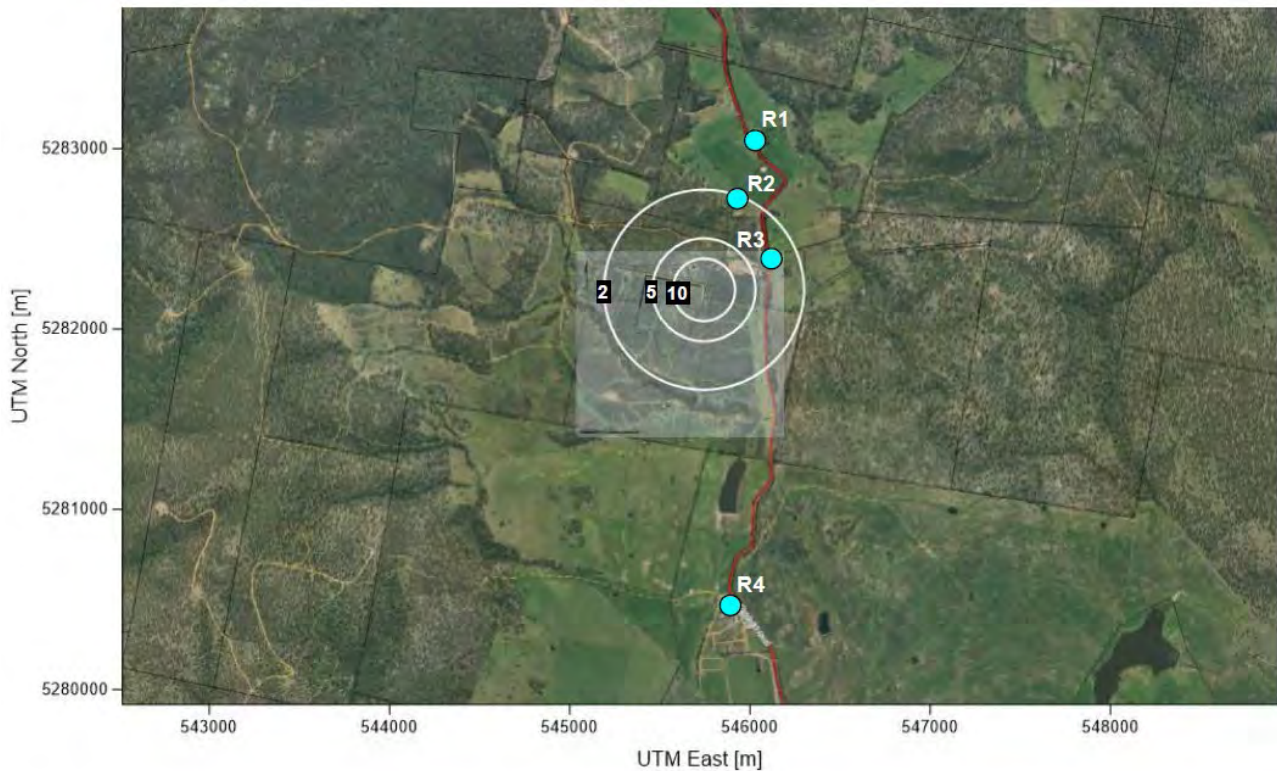


Figure 10: Predicted ground vibration contours for a charge mass/delay of 30 kg, year 6.2 and 12.6 scenarios (Figure 4-2 of Attachment 4 to the EIS).

Predicted ground vibration (mm/s) PPV year 6.2 and 12.6 scenarios			
Receiver	Regression constant (k)	Min distance to receiver [m]	Predicted PPV [mm/s]
R1	Average	870	0.4
	Upper bound		1.1
R2	Average	535	0.8
	Upper bound		2.1
R3	Average	420	1.1
	Upper bound		2.9
R4	Average	1730	0.2
	Upper bound		0.4

Table 2: Predicted ground vibration levels at four nearest residences for a charge mass/delay of 30 kg, year 6.2 and 12.6 scenarios (Table 4-2 of Attachment 4 to the EIS)

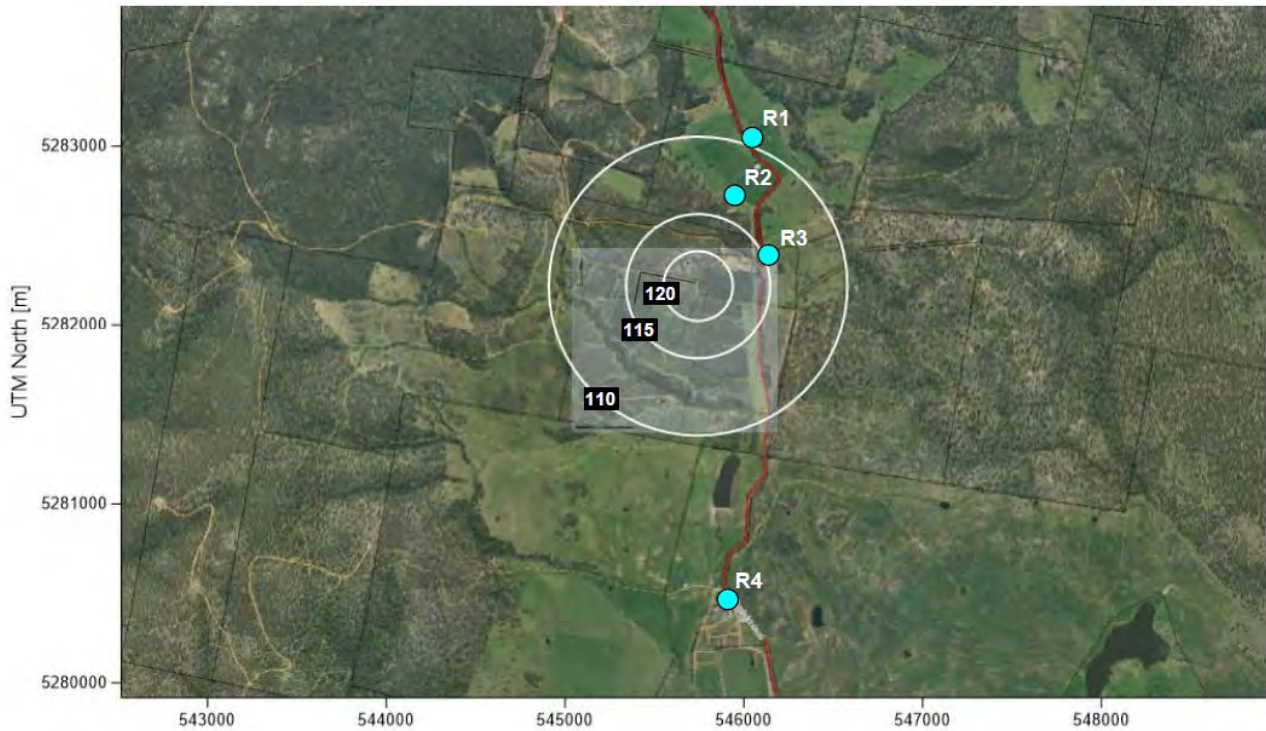


Figure 11: Predicted air blast overpressure contours for a charge mass/delay of 30 kg, year 6.2 and 12.6 scenarios (Figure 4-5 of Attachment 4 to the EIS).

Predicted air blast overpressure (dB, Lin Peak) year 6.2 and 12.6 scenarios			
Receiver	Regression constant	Min distance to receiver	Predicted ABO
R1	Highwall	870	109.7
R2		535	113.1
R3		420	114.7
R4		1730	105.0

Table 3: Predicted air blast overpressure levels at four nearest residences for a charge mass/delay of 30 kg, year 6.2 and 12.6 scenarios (Table 4-4 of Attachment 4 to the EIS)

The predictions indicate that at dwelling R3, the nearest residence, ground vibration levels would result in a maximum PPV of 2.9 mm/s, and that air blast overpressure would reach a maximum of 114.7 dB. These are within the levels specified in the QCP as acceptable, but 114.7 dB is close to the 115 dB maximum considered acceptable for up to 95% of blasts.

With blasting, there is also a risk of fly-rock, creating the potential for injury or property damage. The EIS addresses this potential and states that this risk can be minimised and managed.

Finally, if the quarry is approved by Council, an attenuation area determined by measuring a distance of 1,000 metres from the edge of the mining lease will be imposed around the quarry site under the *Southern Midlands Interim Planning Scheme 2015* (SMIPS). This will mean that any future proposed development for sensitive use within that attenuation distance will be considered discretionary and must be assessed by the planning authority to ensure that it does not create a conflict of use. For example, the noise generated by the quarry may be considered such that new dwellings should not be constructed within the attenuation area. There are several properties

within the 1,000 metre distance, some of which already contain dwellings. The issue has been raised as a concern by a number of representors.

The potential for the quarry to create a conflict of use with future potential development of nearby properties is discussed in Section 7 of this report.

6.1.2 Management measures

The EIS proposes a number of management measures to mitigate noise emission impacts including:

Management measure 1: Limit operating hours to 0700 to 1900 hours Monday to Friday and 0800 to 1600 hours on Saturday, with no operation on Sundays or Statewide public holidays.

Management measure 2: Prepare a blast management plan, including details of blast controller, notification list and methodology, blasting procedure, explosive specifications, storage and handling of dangerous goods, risk assessment and auditing procedures, a noise and vibration monitoring program, incident report and contingency management procedures, and submit to the EPA Director for approval prior to commencement of the first drilling or blasting event on the Land.

The EIS also states that the proponent will:

- Implement localised bunding or shielding of the drill rig when used within 630 metres of dwelling R3 (as per Figure 9). The bunding/shielding should extend at least 1.5 metres above the rig (e.g. 3 metres total height) and obstruct noise pathways between the rig and R3, i.e. obstructing line of sight and wrapping around the drill site.
- In order to ensure that blasting overpressure and ground vibrations are well below QCP limits, restrict initial blasting at the quarry to the following charge mass/delay and distance from residential receptors:
 - o 30 kg, 420 metres
 - o 40 kg, 510 metres
 - o 60 kg, 590 metres
 - o 80 kg, 650 metres
 - o 100 kg, 700 metres.
- Monitor blasting to enable development of site-specific scaled regressions for the prediction of ground vibration and air blast overpressure. Such analysis is necessary for justification for any further increase in the charge mass per delay.
- Where possible, minimise air blast overpressure by increasing burden depth, undertaking deck loading of the front row of holes for face blasts, backfill covering the blast area for establishment and face blasts, and increasing stemming depth.

The noise assessment also recommends avoiding blasting when atmospheric inversions are present and the prevailing wind direction is from the south-west. This measure has not been specifically replicated in section E.4 of the EIS, but should be noted in the Blast Management Plan.

6.1.3 Public and agency comment and responses

No comments were received regarding this issue.

6.1.4 Evaluation

As the area is zoned Rural Resource, the primary purpose being to provide for the sustainable use or development of natural resources (see discussion under Section 7 of this report), it is considered appropriate to apply the 'acceptable standard' maximum noise levels prescribed in the

QCP, i.e. 45 dBA during daytime hours. The EIS states that the noise environment is expected to vary as vehicles move around the site, but still be within acceptable daytime levels at sensitive receptors. Noise levels are predicted to generally decrease as topography changes over time, with the unexcavated northern part of the hillside creating a shield for residences north of the site. A slight increase is modelled to occur at the third stage (year 12.6) due to the position of the drill rig, and for dwelling R4 a slight increasing trend is seen as the drill rig moves towards the southern boundary and the campaign moves near the entrance towards the end of the quarry life. It is noted that the proposed operating hours of the quarry are also consistent with the hours recommended in the QCP.

The EIS concludes that under all modelled scenarios, predicted noise levels at all sensitive receptors are below 45 dBA ($L_{Aeq, 10min}$), and predicted air blast overpressure and ground vibration levels are within acceptable daytime levels specified in the QCP. Therefore, it is considered that the proposal can be undertaken without resulting in nuisance or harm to nearby sensitive receptors.

However, should blasting, crushing, and screening not be appropriately managed, there is potential to cause environmental nuisance given the proximity of some sensitive receptors to the mining lease boundary. Therefore, it is appropriate to impose conditions relating to blasting and noise for the activity.

The predicted noise levels are only acceptable during daytime hours. Condition **NI** specifies the maximum acceptable noise levels at various times of the day and condition **OPI** specifies permitted operating times, both in accordance with the acceptable standards prescribed in the QCP.

Condition **N2** is imposed to require a noise survey to be undertaken once crushing and vibratory screening is taking place to confirm the predicted noise levels and ensure the limits set in condition **NI** are being met. An early survey when the landform is highest will enable early checking of assumptions regarding the noise volumes emitted by equipment, and the efficacy of measures such as drill rig shielding. Condition **N3** supports this by outlining the survey method and reporting requirements. As there are several dwellings within 1,000 metres of the quarry with the potential to be impacted by noise, condition **N4** requires that any noise-related complaints be referred to the Director within 24 hours. In the event noise limits are not being met, the Director can require additional mitigation measures to be implemented.

As the drill rig is likely to cause fluctuating noise levels at certain times, the proposal to install a bund or other structure to create a noise shield around the drill rig is supported. Figure 10 indicates areas on the site where such shielding should be utilised, and Table 4 indicates the predicted maximum noise levels for all quarrying activities during drill rig use, with shielding of the drill rig. The proponent has committed to implementing this measure, and it appears from the modelling results that the measure will be necessary to ensure noise is within acceptable limits.

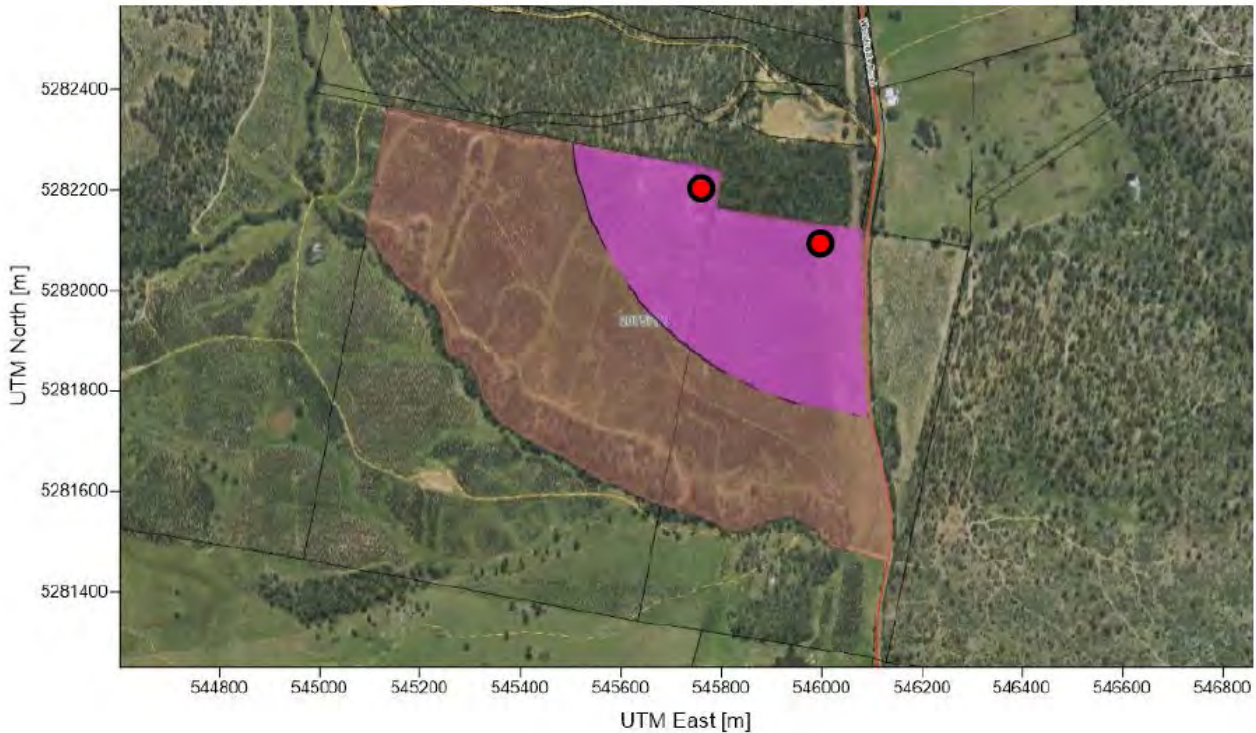


Figure 10: Zone (in pink) where localised bunding or shielding of drill rig should occur with existing topography, with drill rig positions considered for model results shown (Figure 3-22 of Attachment 4 to the EIS).

Predicted sound pressure levels (dBA) <u>With noise control measures</u>				
Receivers	Year 12.6 (Drill rig – N)		Year 12.6 (Drill rig – NE)	
	neu	wcw	Neu	wcw
R1	29	34	22	28
R2	25	30	24	26
R3	37	42	40	41
R4	30	36	30	36

Table 4: Predicted noise emission levels at four nearest residences with use of shielding for drill rig, when operating closest to R3 (Table 3-5 of Attachment 4 to the EIS).

In regard to management of blasting, the QCP does not specify recommended hours, but indicates that limited hours are desirable. As noted above, it also specifies acceptable standards for air blast overpressure and ground vibration. Condition **B1** requires that blasting hours be limited to 1000-1600 hours on weekdays, and Condition **B2** specifies limits to overpressure and ground vibration consistent with those in the QCP.

Condition **B3** requires that all residents within a one kilometre radius of the activity be notified on each occasion before blasting. Condition **B4** requires that blast monitoring be undertaken, with any limit exceedances reported to the Director within 7 days. Condition **B5** requires that any exceedance of ground vibration or air blast over pressure limits be reported to the Director within 24 hours. The commitment to prepare and implement a Blast Management Plan is supported, and enforced by condition **B6**.

6.1.5 Conclusion

The proposal is considered able to be undertaken without causing environmental nuisance or harm to nearby sensitive receptors from noise emissions. The proponent will be required to comply with the following conditions:

- N1 Noise emission limits**
- N2 Noise survey requirements**
- N3 Noise survey method and reporting**
- N4 Noise complaints**
- OPI Operating hours**
- B1 Blasting times**
- B2 Blasting – noise and vibration limits**
- B3 Notification of blasting**
- B4 Blast monitoring**
- B5 Ground vibration**
- B6 Blast Management Plan**

6.2 Air quality

6.2.1 Description

Existing environment

Data obtained from the nearest meteorological weather station at Campania indicates that the area has predominantly northerly winds in the morning, with afternoon winds widely variable with strong northerly, westerly and southerly components.

The nearest dwellings are located to the north/north-east of the mining lease and proposed activity (with excavation moving westwards over time). The closest of these is approximately 260 metres from the northern edge of the mining lease.

Surrounding land uses are grazing, plantation and native forest. There are no sources of significant air emissions in the area.

Potential impacts and significance

The proposed quarry activity is likely to generate dust, particularly under dry or windy conditions, from exposed areas of the quarry floor and faces, crushing and screening material, vehicle movement on unsealed surfaces, and from materials being carried by trucks. Dust can cause a nuisance for residences and possibly a safety hazard to nearby road users and quarry workers.

Vehicles will also produce exhaust emissions, but for most quarry activities such emissions are not considered to be of sufficient scale to cause environmental nuisance or harm.

The Quarry Code of Practice states that visible dust should be contained within the property boundaries of the activity.

6.2.2 Management measures

The EIS proposes a number of management measures to mitigate air emission impacts, including:

Management measure 3: Implement standard industry practice for dust control, i.e. dampen material prior to crushing and/or install sprayers on the output chute to minimise dust emissions from an otherwise dry product;

Management measure 4: Implement general measures to manage dust including:

- water internal roads or use a dust suppressant as needed during dry or windy conditions;
- retain vegetation, including pasture, along the access road corridor where possible;
- retain eucalypt plantation and other vegetation where possible around the quarry working area;
- cover trucks with tarpaulins and/or dampen loads; and
- minimise the geographic extent of areas of exposed soil.

6.2.3 Public and agency comment and responses

No comments were received regarding this issue.

6.2.4 Evaluation

Based on the wind rose data from Campania, wind direction at the site is likely to be variable, with the potential for afternoon southerlies or south westerlies to blow dust in the direction of the nearest dwellings, and to reach those dwellings if generated in the northern half of the quarry site.

The proposed maximum open area of 15 hectares is relatively large, constituting approximately a quarter of the mining lease area, and potentially increasing the potential for dust to be generated. The reasonableness of having an open area of this size is discussed further under Section 7 of this report regarding decommissioning and rehabilitation.

Dust suppression measures will need to be undertaken consistently, particularly in areas of active extraction, processing, and vehicle movement.

The mitigation measures outlined in the EIS are considered consistent with the QCP, sufficient in scope and are supported.

In order to enforce the proposed mitigation measures, condition **A1** requires that vehicles carrying loads which may blow or spill must be covered, condition **A2** requires that dust emissions must be controlled to the extent necessary to prevent environmental nuisance beyond the boundary of the Land, and condition **A3** requires more specifically that dust produced by the operation of crushing and screening equipment be controlled.

6.2.5 Conclusions

The proponent will be required to comply with the following conditions:

- A1 Covering of vehicles**
- A2 Control of dust emissions**
- A3 Control of dust emissions from plant**

6.3 Water quality

6.3.1 Description

Existing environment

The mining lease contains two waterways mapped as Class 4 waterways (as defined in the *Southern Midlands Interim Planning Scheme 2015*) (see Figure 11 below), one flowing southwards at the western end of the site through the plantation with some native understorey present, and the other flowing parallel to the eastern boundary through pasture grass. The proponent has clarified that, based on site surveys and LISTmap indication of the catchment, the western waterway has a small catchment area and is most appropriately considered an ephemeral drainage channel. Riparian vegetation consists of regrowth *E. pulchella*.

There is also a Class 2 waterway flowing along the southern boundary of the site which has an intact native riparian zone, primarily on the north side of the channel within the mining lease.

The site is within the Orford – Prosser River drinking water catchment. Protected Environmental Values for the Prosser River Catchment, specified as per the *State Policy on Water Quality Management 1997*, in mixed rural land use, are:

- A: Protection of Aquatic Ecosystems: (ii) Modified (not pristine) ecosystems from which edible fish are harvested
- B: Recreational Water Quality & Aesthetics: (ii) Secondary contact, (iii) Aesthetics
- C: Agricultural Water Uses: (i) Irrigation (ii) Stock watering

That is, as a minimum, the water quality shall be managed to provide water of a physical and chemical nature to support a healthy, but modified aquatic ecosystem from which edible fish are harvested, that is acceptable for irrigation and stock watering purposes, and which will allow people to safely engage in secondary contact recreation activities such as paddling or fishing in aesthetically pleasing waters.

The EIS states that the receiving aquatic environment is highly modified, being mostly agricultural properties with remnant native vegetation in paddocks, between eucalypt plantation blocks and sporadically along watercourse sections.

LISTmap also indicates a low-moderate prospect of groundwater within the mining lease; the elevation of the site suggests that the potential to encounter groundwater is low.

Potential impacts and significance

Soils are moderate to shallow clay-loam, with dolerite substrate, all of which are considered to have low erodibility.

All disturbed areas would have the potential to generate sediment in runoff, particularly during heavy or long periods of rainfall, which can reduce water quality and negatively impact aquatic natural values and downstream users. Disturbance in close proximity to a waterway exacerbates this risk, in addition to reducing the functionality of a waterway's riparian zone. There is also potential for chemicals or other contaminants to enter waterways, which would be of particular concern for drinking or stockwater.

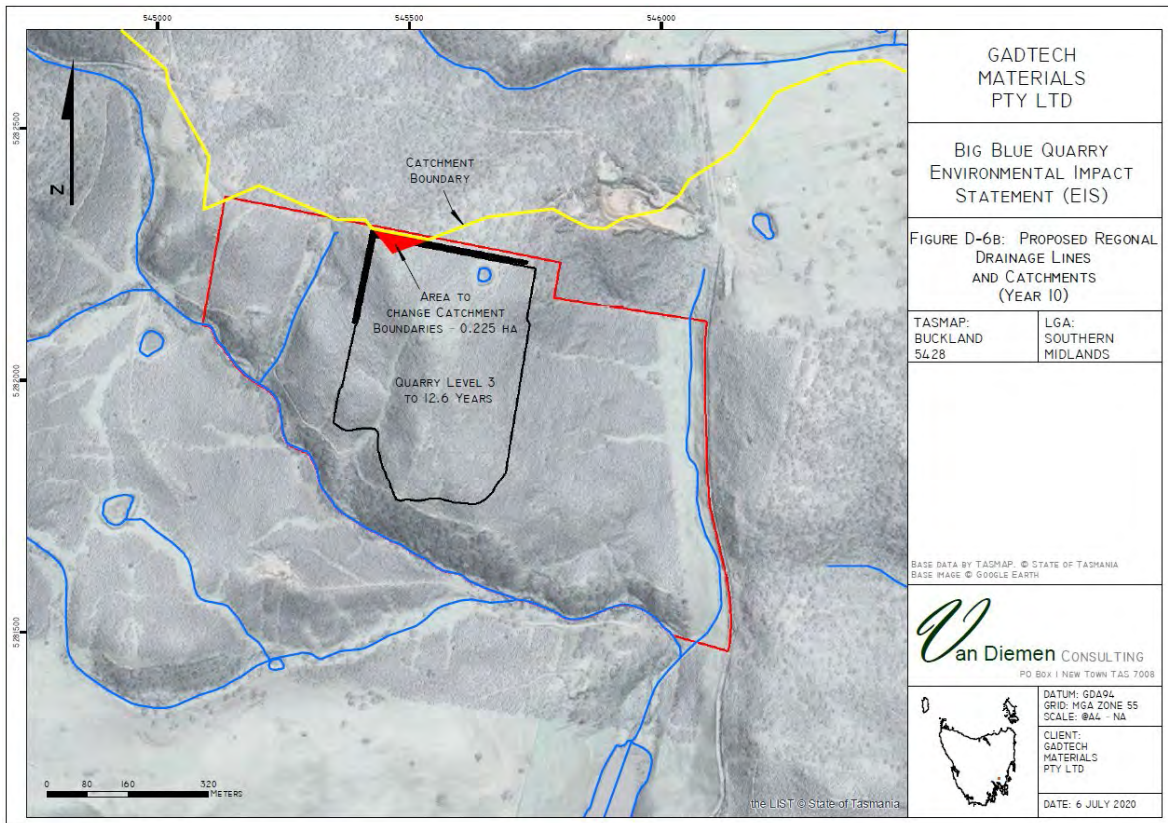


Figure 11: Mapped drainage lines shown in relation to excavation at 12.6 years (Figure D-6B of EIS).

6.3.2 Management measures

The EIS states that a sediment pond or basin will be constructed to a size adequate to contain a 1 in 20 year rainfall event at any one time, with capacity increased over time as the quarry expands, and discharging into a vegetated area.

In addition, the following management measures will be implemented to minimise the potential for sediment runoff or other contamination into the aquatic environment (noting that further management measures are proposed relating specifically to management of hazardous chemicals – see Section 7 of this report):

Management measure 6: Cut-off drains and drains around and internal to the quarry will be installed and maintained.

Management measure 7: Sediment accumulation rates in the sediment pond will be monitored (at least quarterly) and the maintenance program revised as required. Accumulated sediment will be reused as part of the saleable product or for application onto disused areas as part of site rehabilitation.

Other proposed management measures include:

- Implement drainage works which, when possible, seek to mimic natural drainage patterns and use natural drainage lines with retained vegetation;
- Use contour banks and drains, as necessary, to capture and slow down water as it travels downslope;
- Keep working areas as dry as possible;
- Avoid driving machinery through flowing water;

- Minimise vegetation removal and the size of the total open area to reduce the rate of run-off;
- Construct tracks and the access road so as to control the grade and install table drains and regular cross drains or culverts;
- Use gravel for the surface of the access road and undertake maintenance of road as required.

The EIS states that a minimum buffer of 5 metres (measured horizontally) will be applied to all waterways within the site. Further clarification has subsequently been received from the proponent via email that a larger 30 metre buffer will be applied to the waterway running along the southern edge of the mining lease, and a 10 metre buffer to the waterway running along the eastern edge (see Figure 12 below). The waterway – described by the proponent as a drainage channel – in the western portion of the site is to be removed.

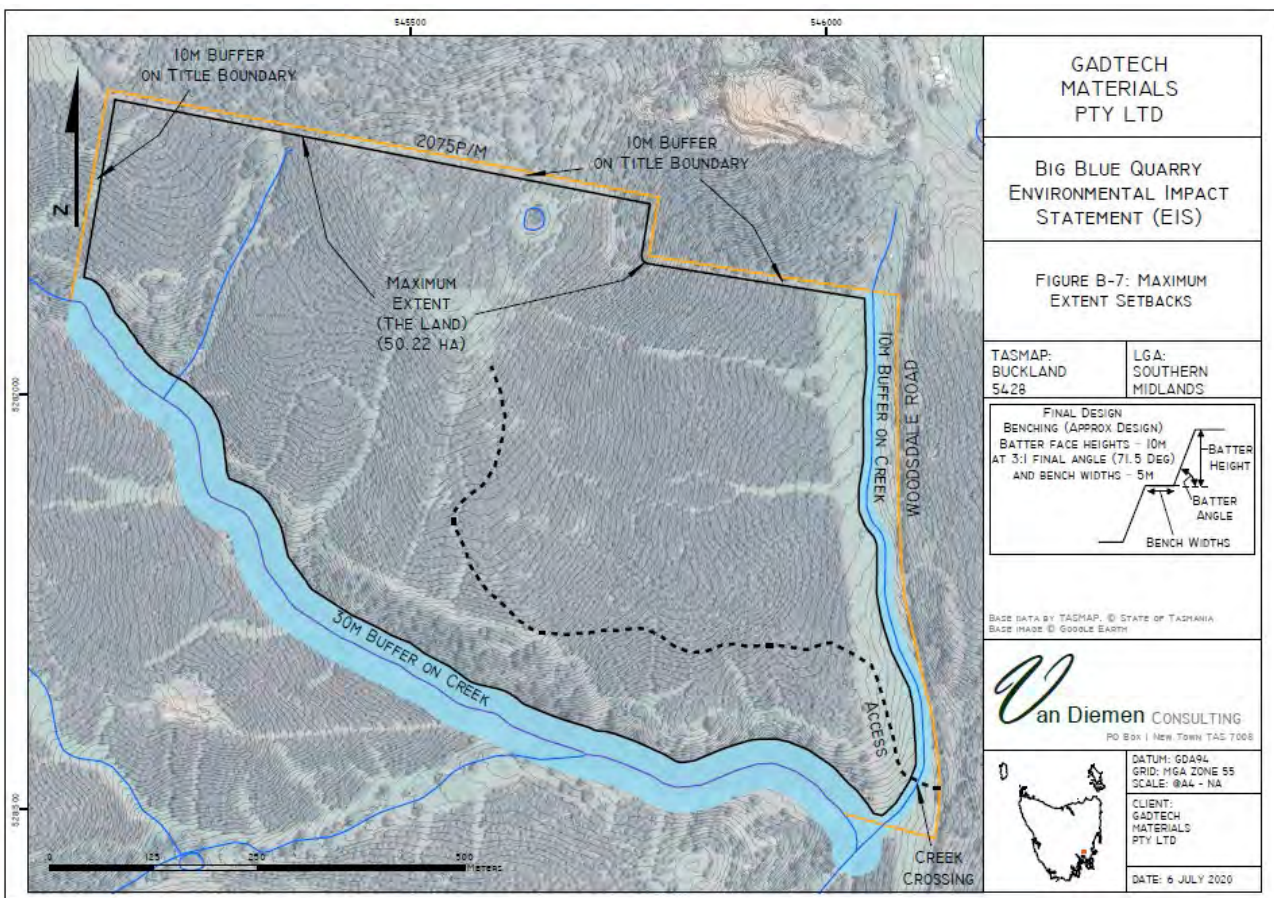


Figure 12: Mapped proposed buffers to waterways and mining lease boundaries - furthest extent of excavation (supplied by proponent to EPA in email dated 19 December 2020).

It is noted that there will not be any permanent toilet or other amenities provided on site, although a portable toilet may be used during longer campaigns.

6.3.3 Public and agency comment and responses

One public comment was received in regard to the potential for chemicals stored on the site to be released into waterways, impacting downstream uses such as vegetable growing.

6.3.4 Evaluation

Based on the staged mining plans in the EIS (see Figures 4 to 7) the waterway within the western part of the site will be removed sometime after the 13th year of quarry operation, with the waterways along the southern and eastern mining lease boundaries to be left intact. This issue is discussed further under Section 6.4 below.

If disturbance to waterway riparian areas is generally avoided, and sediment or chemicals prevented from entering waterways (see Issue 2, Section 7), it is considered that the proposal will have minimal impact on water quality. Condition **SW1** specifies that polluted stormwater must not be discharged from the Land, condition **SW2** requires that perimeter cut-off drains or bunds must be used to divert clean stormwater around the site, and condition **SW3** dictates the design and maintenance requirements of sediment settling ponds, including adequate capacity to capture sediment loss resulting from a 1 in 20 year storm event.

The above permit conditions along with the proponent's commitments outlined in the EIS are considered adequate to manage the potential risks from the activity of sediment pollution entering surface waters.

In regard to the management of chemicals onsite, this issue is discussed further in section 7 of this report in relation to waste, dangerous goods and environmentally hazardous materials. Permit conditions are discussed which are considered sufficient to manage this issue.

Further conditions discussed in the following sections relating to restriction of disturbance near waterways and undertaking progressive rehabilitation are also likely to contribute to minimising potential issues from surface water and erosion.

6.3.5 Conclusions

The proponent will be required to comply with the following conditions:

SW1 Stormwater

SW2 Perimeter drains or bunds

SW3 Design and maintenance of settling ponds

6.4 Biodiversity and natural values

6.4.1 Description

Existing environment

The EIS presents the results of recent field surveys, which have determined that the native vegetation communities present on the site are *Eucalyptus obliqua* dry forest (DOB) and *Eucalyptus pulchella* forest and woodland (DPU) (Figure 13); neither are listed as threatened under the *Nature Conservation Act 2002*. The remainder of the site constitutes agricultural land and eucalypt plantation.

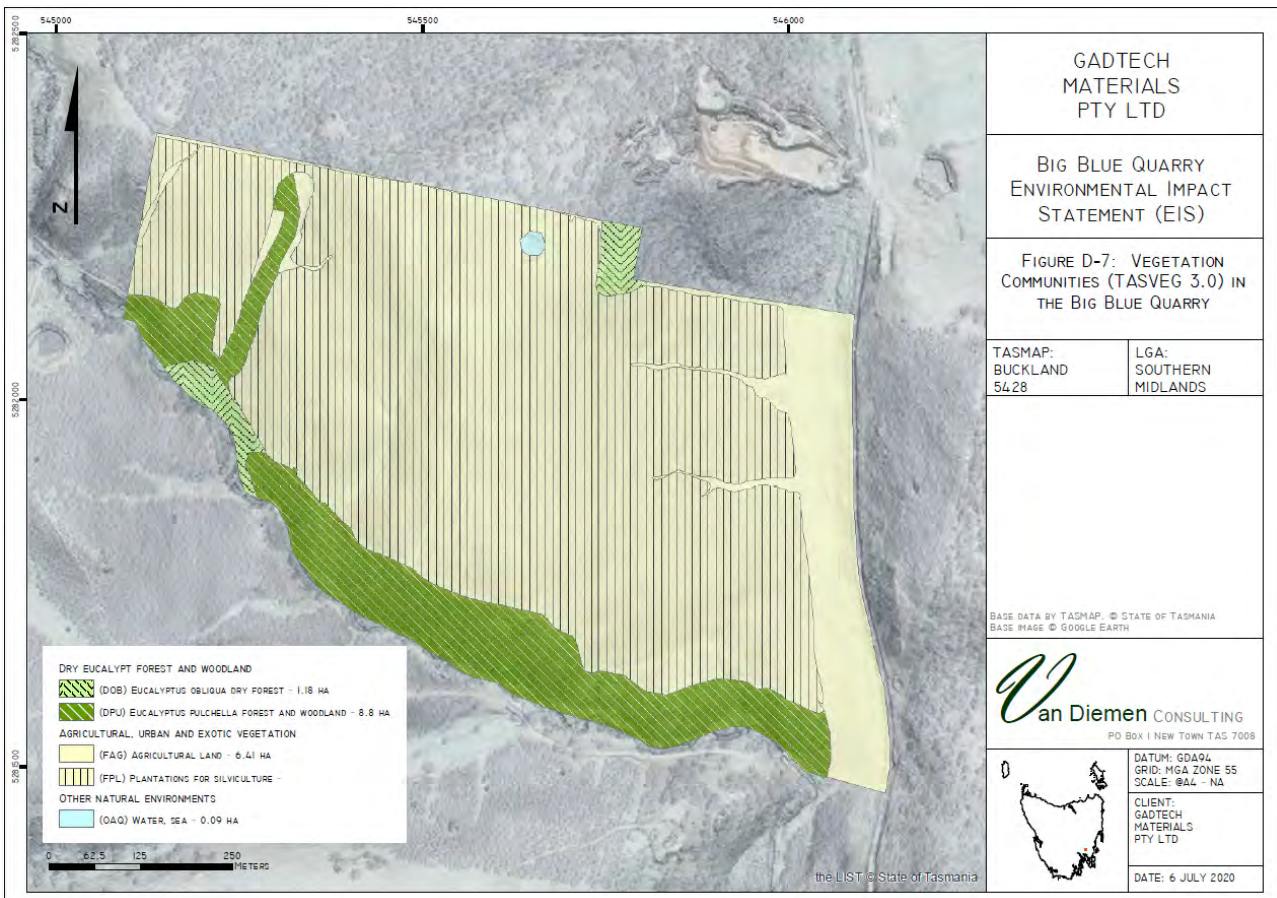


Figure 13: Vegetation communities detected within Mining Lease 2075 P/M (Figure D-7 of the EIS).

There are some emergent canopy blue gum trees (*Eucalyptus globulus*) present within the DPU community.

The closest record of a flora species listed under the *Threatened Species Protection Act 1995* or the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) in the Natural Values Atlas is approximately 3.2 km from the mining lease. Field surveys for the proposal were conducted during spring and summer, but no listed flora species were detected.

There are numerous records of listed fauna species within 5 km of the mining lease, the closest of which is for the Swift parrot (*Lathamus discolor*) approximately 180 metres north of the boundary. The EIS states that site surveys have determined the following in regard to the listed species previously detected within 5 km:

- a) There is moderate to high quality foraging habitat for the Tasmanian devil (*Sarcophilus harrisii*), Eastern quoll (*Dasyurus viverrinus*) and the Eastern barred bandicoot (*Perameles*

gunnii gunnii), but no dens or potential dens (or nests in the case of the bandicoot) were observed. Woodpiles associated with previous land clearing are present primarily on the southern boundary of the mining lease, which have the potential to be occupied by devils or quolls. The skeletal nature of soils on the site indicate limited opportunity for dens to be created.

- b) The individual blue gums present within the DPU woodland provide potential foraging habitat for the Swift parrot. Sporadic black gum (*E. ovata*) saplings and small trees, which would also constitute foraging habitat when in flower, occur within the riparian area of the southern boundary waterway. The EIS indicates that nesting habitat (i.e. hollows in large standing trees) was not detected.
- c) Surveys of mapped potential habitat within 1 km of the mining lease for the Tasmanian wedge-tailed eagle (*Aquila audax fleayi*), did not result in any observations of the species, or of nests.

LISTmap does not show any records of threatened flora species in or near waterways within the site, or within 5 km of the mining lease.

Four plant species listed as declared weeds under the *Weed Management Act 1999* or as a weed of national significance under the EPBC Act, were recorded on or near the mining lease – blackberry, Californian thistle, gorse and slender thistle. Other pasture and environmental weeds were also observed sporadically.

Potential impacts and significance

The quarry will involve clearing, predominantly of the existing eucalypt plantation, which has little understorey and is not considered to constitute a native vegetation community. It will also involve clearing approximately a portion of the *Eucalyptus pulchella* forest and woodland towards the end of the life of the quarry. The EIS states that no areas of *Eucalyptus obliqua* dry forest will be cleared, but the mapped ‘maximum extent’ of the quarry indicates that a small amount may be cleared. Potentially, some swift parrot foraging habitat, potential denning habitat for threatened fauna, and riparian areas of waterways will be disturbed when this clearing occurs.

Weeds have the potential to spread into adjoining bushland, contaminate the gravel supplied from the quarry, or be caught in truck wheels, causing fresh outbreaks elsewhere.

6.4.2 Management measures

The EIS states that the following management measures and principles will be implemented to minimise impact on natural values:

Management measure 13: A Weed and Pathogen Management Plan will be developed and implemented as part of the quarry operation guided by the *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE, 2015).

Management measure 14: A Weed Spraying Program (described in the Weed and Pathogen Management Plan) will be developed in consultation with a weed spraying contractor who will implement the program.

Management measure 15: Heavy machinery will be brought into the quarry in a clean condition; free of weed propagules, clods of dirt and vegetative matter.

Management measure 16: For Tasmanian devil, eastern barred bandicoot and eastern quoll:

- areas needing to be cleared of vegetation (including plantation) to enable quarry activities should first be surveyed to ensure no dens or woodpiles supporting dens are present, and

- if dens or potential dens are present or suspected then expert advice must be sought from a suitably qualified ecologist. Advice may also be needed from DPIPWE. In the interim, a 10 metre no machinery buffer will be applied to the den or suspected den.

In addition:

- internal road speed will be limited to 20 km/hour from dusk to dawn, and truck drivers will be advised to take particular care while driving during those hours;
- minimum buffers of 5 metres from mapped waterways will be applied to clearing and disturbance (measured horizontally);

Management measure 17: For swift parrot, avoid removing large canopy emergent blue gum (*Eucalyptus globulus*) in the mapped areas of *Eucalyptus pulchella* forest and woodland.

6.4.3 Public and agency comment and responses

Agency comments

The following is a summary of the comments provided by the Policy, Advice and Regulatory Services Branch, DPIPWE (PCAR) on review of the EIS:

- a) The natural value survey results presented in the EIS are accepted.
- b) Native vegetation removal should be minimised wherever possible.
- c) Surveys to be undertaken prior to vegetation clearing (including plantation areas) should be done in accordance with the Tasmanian Devil Survey Guidelines and Management Advice for Development Proposals (the Devil Guidelines) available at <http://dpiipwe.tas.gov.au/conservation/development-planning-conservation-assessment/survey-guidelines-for-development-assessments> .
- d) If dens or potential dens of the Tasmanian devil and Eastern quoll are detected in surveys undertaken prior to clearing, these should be monitored in accordance with the Tasmanian Devil Survey Guidelines and Management Advice for Development Proposals (the Devil Guidelines) available at <http://dpiipwe.tas.gov.au/conservation/development-planning-conservation-assessment/survey-guidelines-for-development-assessmentsRoadkill>. A 50 metre buffer is recommended to be maintained around a potential den site.
- e) If the proposal will generate an increase of night-time traffic on the access road and on Woodsdale Road of more than 10%, it is recommended that roadkill mitigation measures be implemented.
- f) The proposed avoidance of removing large canopy emergent blue gums to preserve potential swift parrot habitat is supported.
- g) The proposed development of a weed and pathogen management plan is supported.

Further clarification was subsequently given by PCAR that pre-clearing surveys should be undertaken as close as practicable to the time of impact (to prevent the risk of re-denning) but with ample lead time to enable development of appropriate avoidance and mitigation strategies (if required) and the need for any further surveys (e.g. remote camera surveillance of potentially active dens) can be identified and planned for.

No public comments were received regarding this issue.

6.4.4 Evaluation

The information presented in the EIS is considered adequate as the surveys were undertaken by a suitably qualified person, in spring and summer. Therefore it is accepted that there is no evidence of threatened flora species on the site, and that no threatened vegetation communities will be cleared or disturbed. As an ecological principle, the disturbance of native vegetation should be

minimised wherever possible. The proposal will leave the areas of native vegetation largely undisturbed until sometime after the 'Level 3' stage, shown in Figure 6, is completed in the 13th year of excavation.

The majority of intact native vegetation remaining on the site is within the riparian corridor of the waterway running along the southern boundary of the mining lease, providing the best potential Tasmanian devil denning habitat, as well as *E. globulus* and *E. ovata* providing feeding habitat for the swift parrot. Under the *Southern Midlands Interim Planning Scheme 2015*, Class 4 waterways have protection buffers of 10 metres either side, and Class 2 waterways have a protection buffer of 30 metres. Subsequent clarification received from the proponent by email states that a 30 metre buffer will be applied to the southern boundary waterway, and a 10 metre buffer to the waterway running along the eastern boundary, with the exception of needing to make good an access at one point. However, excavation will approach and eventually disturb the waterway within the western portion of the site sometime after the 'Level 3 stage'. Given that the native vegetation adjacent to the Class 2 waterway encroaches more than 5 metres into the mining lease, and that this is virtually the only remnant of intact vegetation remaining on the site, with a high quality understorey and material that provides potential denning habitat, it is considered appropriate to condition that a 30 metre (horizontal) buffer be left adjacent to this waterway, consistent with the requirements of the planning scheme. Similarly, a 10 metre buffer would enable the Class 4 waterway to remain intact. The waterway in the western portion of the site has some regrowth native vegetation adjacent to it, but given its small catchment and ephemeral nature, the proponent's description of this as a drainage channel is accepted, and therefore it is considered acceptable for the quarry to remove this channel, provided that appropriate sedimentation control measures are put in place. Condition **FF1** stipulates that the 30m and 10m creek buffers be retained, with provision for access crossings.

Based on the site description and survey results presented in the EIS, it is accepted that there is a very low possibility of devil or other threatened native fauna dens occurring within the plantation portion of the site due to a lack of understorey, materials and topsoil. It is unclear whether there is potential for bandicoot nests.

The site survey did not detect any evidence of hollows which could provide nesting habitat for swift parrot and, based on the observations of EPA Tasmania staff on site, the plantation eucalypts are unlikely to provide suitable hollows in the foreseeable future due to their constrained growth habit and young age. The EIS states that emergent blue gums occur within the DPU forest, with sporadic black gum saplings and small trees in the creek line along the southern boundary of the mining lease. Both blue gums and black gums provide potential foraging habitat for swift parrot. The proposal includes removal of some of the *E. pulchella* forest and woodland, where it is outside the 30 metre buffer to the southern waterway, which would potentially result in the removal of some blue gums and black gums. It is noted that the EIS commits to retaining 'large canopy emergent blue gums' present within the *E. pulchella* forest. However, if these were located on the cusp of the native vegetation, there is the potential for differing views as to whether they are within the native vegetation or plantation area. The proponent has clarified by email that these blue gums are currently at or close to 70 cm diameter at breast height (DBH), the size considered under current practice in Tasmania to have potential to provide nesting hollows. It is noted that some of the plantation trees are also blue gums, but these have been planted very close together, and the proponent has clarified that they do not have the potential to achieve 70cm DBH. Condition **FF2** requires that blue gums with a DBH of 70cm or more be identified for conservation prior to the commencement of clearing, and that the Tree Protection Zone of such trees be demarcated and preserved.

Surveys of areas with potential to support wedge-tailed eagle nesting habitat did not find any nests present. The proposed mitigation measures for threatened fauna and potential habitat are supported, with consideration of the additional guidance provided by the PCAR. While the EIS

commits to a 10 metre buffer around identified potential den sites, PCAR has advised that a 50 metre buffer should be preserved in accordance with the Tasmanian Devil Survey Guidelines. Surveys for denning and nesting habitat must be undertaken sufficiently close to the proposed time of clearing to ensure the information obtained is accurate, but still allow time for avoidance, mitigation or further surveys as required. Taking or disturbing identified denning or nesting habitat of threatened species requires a permit under State legislation.

Condition **FF3** stipulates the requirements for pre-clearance surveys for evidence of threatened fauna dens or nesting habitat, references the applicable Guidelines, and requires notification of the Director if these features are identified. It also requires that disturbance not take place until the Director gives approval, as the Director may consider it appropriate to avoid or postpone disturbance, or to place conditions on disturbance, over and above the limitations placed on any permit issued under State legislation.

In regard to potential roadkill, the EIS states that, as the quarry is primarily a daytime activity, it is unlikely to generate a 10% increase in roadkill deaths of Tasmanian devils. It also states that internal road speed will be slowed to 20 km/hour. The test for roadkill measures to be taken under the Devil Guidelines is whether the activity results in an increase in night-time traffic of 10% or more. The traffic impact assessment does not break down vehicle numbers into daytime and night time. However, it is acknowledged that the quarrying activity is unlikely to continue beyond dusk, and that therefore road cartage during night time hours is likely to be limited. In addition, given the narrowness of Woodsdale Road, particularly at the entry to the site, and the steepness of the access that will be formed within the site, it appears unlikely that trucks from the activity would be travelling quickly in this vicinity, particularly during times of low visibility. Therefore, it does not appear warranted to impose a limit to cartage hours.

Given the size of the site, the potential length of time over which the site will be excavated, and the presence of declared weeds, it is considered appropriate that a weed and pathogen management plan be prepared and implemented, as proposed. Condition **FF4** stipulates this.

6.4.5 Conclusions

The proponent will be required to comply with the following conditions:

- FF1 Protection of waterways**
- FF2 Conservation of large blue gums**
- FF3 Pre-clearing surveys**
- FF4 Weed management**

7 Other Issues assessed by the Board

In addition to the key issues, the following environmental issues are considered relevant to the proposal and have been evaluated in this section:

1. Attenuation area resulting from quarry approval
2. Waste, dangerous goods and environmentally hazardous materials
3. Decommissioning and rehabilitation

Issue 1: Attenuation area resulting from quarry approval
Description of potential impacts
<p>If the quarry is approved by Council, an attenuation area determined by measuring a distance of 1,000 metres from the edge of the mining lease will be imposed around the quarry site under the <i>Southern Midlands Interim Planning Scheme 2015</i> (SMIPS). This has implications for the permissibility of future proposed development for sensitive uses within that attenuation area, which would need to be assessed by Council in accordance with the Attenuation Code under the planning scheme in force at the time. There are several properties within the 1,000 metre distance, some of which already contain dwellings.</p>
Management measures proposed in the EIS
<p>The EIS states that the Attenuation Code under the SMIPS is not applicable to the quarry development.</p>
Public and agency comment
<p>Mineral Resources Tasmania commented that the EPA <i>Quarry Code of Practice</i> sets out a suggested recommended attenuation distance of 1,000 metres from the boundary of the mining lease for a quarry undertaking blasting.</p> <p>This issue has been raised as a concern in the majority of public representations received, specifically:</p> <ol style="list-style-type: none"> a) That the attenuation area will affect the potential for future development and property values inside this area, possibly preventing extensions or structural work on existing dwellings. b) That three dwellings already existing inside the attenuation area, and the attenuation distance should be reduced so existing dwellings are not affected; c) House owners already within the 1km attenuation area should not be financially culpable for any building or engineering reports required due to the more restrictive requirements of the attenuation area.
Evaluation
<p>As the planning application for the Big Blue Quarry requires assessment under the EMPC Act by the EPA Board, it is exempt from consideration by Council under the Attenuation Code in the SMIPS. However, as this issue has been raised in a number of representations, it is appropriate that the issue be given some consideration by the Board.</p> <p>All properties which will be affected by the new attenuation distance are currently zoned Rural Resource under the SMIPS. The purposes of the Rural Resource Zone as stipulated under Clause 26.1.1 of the SMIPS are as follows:</p> <ol style="list-style-type: none"> 26.1.1.1 <i>To provide for the sustainable use or development of resources for agriculture, aquaculture, forestry, mining and other primary industries, including opportunities for resource processing.</i> 26.1.1.2 <i>To provide for other use or development that does not constrain or conflict with resource development uses.</i> 26.1.1.3 <i>To provide for non-agricultural use or development, such as recreation, conservation, tourism and retailing, where it supports existing agriculture, aquaculture, forestry, mining and other primary industries.</i>

26.1.1.4 To allow for residential and other uses not necessary to support agriculture, aquaculture and other primary industries provided that such uses do not:

- (a) fetter existing or potential rural resource use and development on other land;
- (b) add to the need to provide services or infrastructure or to upgrade existing infrastructure;
- (c) contribute to the incremental loss of productive rural resources.

26.1.1.5 To provide for protection of rural land so future resource development opportunities are not lost.

26.1.1.6 To provide for economic development that is compatible with agricultural and other rural resource activities.

Therefore the primary purpose of the Rural Resource Zone is to provide for the sustainable use or development of natural resources, with residential and other uses allowable where they do not fetter rural resource development.

It is possible to determine the implications of the future attenuation area by looking at what is currently allowable on affected properties. Under the current Rural Resource zone, residential use is currently a permitted use class (i.e. not discretionary) where it is a home-based business or an extension or replacement of an existing dwelling, and new single dwellings are discretionary. No other form of residential development is permitted. Some forms of visitor accommodation are in the discretionary use class – none are in the permitted use class. Further subdivision of private land is essentially prohibited.

Once the attenuation area is applied, under the Attenuation Code in the SMIPS, substantial extensions (>50% increase to the existing dwelling area) and new uses are all discretionary (smaller extensions are exempt from the Code). Therefore, application of the attenuation distance results in a slight change to the types of use changes/works requiring discretionary assessment by the planning authority,

It is noted that the standards etc under the Attenuation Code in the State Planning Provisions, which will eventually replace the SMIPS, are essentially identical to the current Attenuation Code provisions, with the exception of additional performance criteria to allow for advice from the EPA Director and the Director of Mines.

The concerns raised in the representations are noted. However, there is no scope for the Board to modify the size of the attenuation area that will result from Council approval of the quarry. A smaller attenuation area would result if the quarry did not involve blasting or other forms of materials handling, i.e. it would be 300 metres without materials handling, 500 metres with screening but no crushing or blasting, and 750 metres with crushing but no blasting. However, even the 300 metre attenuation area would affect some properties. Any reduction in the attenuation area can only be achieved by a change in the approved nature of the activity, an amendment to the planning scheme, or by a tribunal or court decision as a result of an appeal.

For the purpose of the Board's assessment, consideration of this issue must ultimately be guided by the zoning of the area and affected properties. As the primary purpose of the Rural Resource zone is to provide for the sustainable use or development of natural resources, to which residential and other sensitive uses are subsidiary, the proposed quarry is not considered to constitute a fundamental conflict with the further development or use of affected properties.

Environmental issues have been considered in Section 6 of this report, with the conclusion that the quarry is able to operate without resulting in environmental nuisance or harm to the sensitive receptors which already exist near the quarry site, provided that relevant conditions are adhered to.

Conclusion

No further conditions are applicable in regard to this issue.

Issue 2: Waste, dangerous goods and environmentally hazardous substances
Description of potential impacts
<p>Operation of the quarry has the potential to produce small amounts of waste such as litter. Spillage of any oil or fuel may result in contamination of soil and water if not adequately contained. It is noted that the proposal does not include vehicle servicing onsite, except for emergency repairs and minor service requirements.</p>
Management measures proposed in the EIS
<p>The EER states that the following management measures will be implemented:</p> <p>Management measure 5: No chemicals, fuels or oils will be stored within the pit overnight, and refuelling of quarry equipment will be carried out using a mobile bund.</p> <p>Management measure 8: No machinery servicing, except for emergency repairs or minor service requirements, will be conducted within the quarry. Wastes generated from machinery repairs will be disposed of in an appropriate bin near the entrance to the quarry for future disposal at a permitted refuse disposal site.</p> <p>Management measure 9: Waste generated by workers from general refuse (e.g. lunch wrappers) at the quarry will be collected in waste bins provided on-site for general refuse. These will be emptied at least once per fortnight and the material disposed of at a permitted refuse disposal site.</p> <p>Management measure 10: Weed spraying chemicals will be handled, used and disposed of in accordance with the manufacturer's directions and relevant regulations.</p> <p>Management measure 11: When in the quarry, fuel and oil containers will be stored at least 10 metres from any drain or sediment pond and will be banded using moveable bunds, to a capacity at least 1.5 times the volume of the container.</p> <p>Management measure 12: One hydrocarbon spill kit will be stored at the quarry to use in the event of a spill. Staff will be trained in how to use the kit and the kit will be replaced as and when required.</p>
Public and agency comment
<p>One public comment was received in regard to the potential for chemicals being stored on the site to be released into waterways, impacting downstream uses such as vegetable growing.</p>
Evaluation
<p>Given that only small quantities of chemicals will be used or kept on site at any one time, and that these are not proposed to be stored overnight, the risk of spillage and waterway pollution is considered relatively low.</p> <p>The proposed management measures are considered adequate to ensure that waste is collected from the site and appropriately disposed of, and hazardous chemicals appropriately managed, in accordance with the QCP. However, if any chemicals are held onsite for any length of time, even short periods during the day, correct bunding must be used.</p> <p>Permit conditions H1 and H2 are necessary to ensure compliance with the QCP regarding mobile and non-mobile storage and use of chemicals and fuel.</p>

Conclusion

The proponent will be required to comply with the following conditions:

H1 Storage and handling of hazardous materials

H2 Handling of hazardous materials – mobile

Issue 3: Decommissioning and rehabilitation
Description of potential impacts
<p>The activity will result in removal of topsoil, and dramatic changes to the topography of the site, with a steep cut being created at the northern and western faces of the quarry. Rehabilitation is necessary to ensure long term stability of the site, prevent sedimentation and erosion, provide native flora and fauna habitat, and minimise the potential for establishment of invasive flora species. Progressive rehabilitation is important to minimise the disturbed areas left ‘open’ at any one time, which in turn minimises the potential for weeds to take hold and, if native vegetation is used, maximises the viability of the native vegetation in the area. Cut faces must be constructed such that sufficient bench width is left for rehabilitation to occur.</p>
Management measures proposed in the EIS
<p>The EIS states that the maximum disturbed (or ‘open’) area of the quarry at any one time will be 15 hectares. It puts forward the following management measures:</p> <p>Management measure 18: ‘Progressive rehabilitation’ will apply at the quarrying operation for those areas that have been quarried and are no longer needed or used for the operation of the quarry.</p> <p>Management Measure 19: In the event of permanent closure of the facility prior to complete extraction of the resource a detailed Decommissioning and Rehabilitation Plan (DRP) will be developed and submitted to the EPA for approval.</p> <p>The EIS also states that the main aims of rehabilitation work on the Big Blue Quarry site would be to:</p> <ul style="list-style-type: none"> - Achieve long term stabilisation of all worked out areas to minimise ongoing erosion; - Revegetate all worked out areas with appropriate plantation and/or pasture vegetation; and - Ensure that worked out areas are safe for future land uses. <p>The EIS lays out principles for undertaking this rehabilitation work, including ripping benches prior to substrate addition, applying topsoil, stockpiling weathered gravel and sediment from interceptors to apply to prepared benches, applying pasture seed and/or plantation species tubestock, monitoring for weeds, growth and landform stability, and undertaking remedial works as necessary.</p> <p>The DRP to be prepared in the event of permanent closure would consider the orderly and safe removal of machinery and other equipment, establishing sufficient and appropriate vegetation cover to minimise the risk of dust generation and soil erosion, and establishing a monitoring regime to agreed sign-off parameters. The DRP would also include detail of the final form of benches and slopes, with potential construction of intermediate benches, to give a maximum final face height of 10 metres, with lower face heights preferable, and with preferable maximum slopes of 3 in 1 (or approximately 36%).</p>
Public and agency comment
<p>None received.</p>

Evaluation

The QCP strongly supports the principle of progressive rehabilitation and discusses in detail the need for appropriate bench formation, slopes and careful management and use of topsoil to facilitate plant growth.

The proposed management measures and principles are supported and considered generally consistent with the QCP. It is noted that condition **G8** requires that works be undertaken in accordance with the QCP, which includes the way the site is initially prepared.

Condition **DC1** requires that soil be stockpiled progressively, and condition **DC2** specifies the requirement for active progressive rehabilitation, as identified in the QCP, with a maximum disturbed area at any one time of 15 hectares.

Conditions **DC3** and **DC4** stipulate notification of the Director if there is temporary or permanent cessation of the activity.

Conditions **DC5** and **DC6** require preparation of a Decommissioning and Rehabilitation Plan (DRP) in the case of permanent or long-term cessation, prepared as recommended in the QCP, and that rehabilitation itself must be undertaken.

Conclusion

The proponent will be required to comply with the following standard conditions:

- DC1** Stockpiling of surface soil
- DC2** Progressive rehabilitation
- DC3** Temporary suspension of activity
- DC4** Notification of cessation
- DC5** DRP requirements
- DC6** Rehabilitation on cessation

8 Issues not assessed by the Board

The following issues that have been raised during the assessment process are discussed in Appendix I. These are issues which are not the Board's responsibility under the EMPC Act, or issues which are more appropriately addressed by another regulatory agency.

1. Road safety and functionality
2. Aboriginal heritage

9 Report Conclusions

This assessment has been based on the information provided by the proponent, Gadtech Materials Pty Ltd, in the permit application and the case for assessment (the EIS).

This report incorporates specialist advice provided by EPA Tasmania scientific specialists and regulatory staff, other Divisions of DPIPWE and other government agencies, and has considered issues raised in public submissions.

It is concluded that:

1. the RMPS and EMPCS objectives have been duly and properly pursued in the assessment of the proposal;
2. the assessment of the proposal has been undertaken in accordance with the Environmental Impact Assessment Principles; and
3. the proposal is capable of being managed in an environmentally acceptable manner such that it is unlikely that the RMPS and EMPCS objectives would be compromised, provided that the Permit Conditions - Environmental No. 10427 appended to this report are imposed and duly complied with.

I0 Report Approval

Environmental Assessment Report and conclusions, including environmental conditions, adopted:



Wes Ford

DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

Acting under delegation from the Board of the Environment Protection Authority

Date: 19 January 2021

II References

Van Diemen Consulting (2020); *Gadtech Materials Pty Ltd, Big Blue Quarry, Runnymede – Environmental Impact Statement* (dated 18 October 2020); Van Diemen Consulting, New Town, Tasmania.

EPA (2017) *Quarry Code of Practice – 3rd Edition* (dated May 2017); Environmental Protection Authority, DPIPWE

12 Appendices

- Appendix 1 Issues not assessed by the Board
- Appendix 2 Summary of public and agency submissions
- Appendix 3 Table of proponent commitments
- Appendix 4 Permit conditions

Appendix I – Issues not assessed by the Board

Issue I: Road safety and functionality
Description of potential impacts
<p>The proposed quarry will result in up to 80 heavy vehicle movements (40 truckloads of material) per day to and from the site. Trucks will be entering and exiting the site at slow speed, via a new access to be created slightly to the north of the southern site boundary. Woodsdale Road is relatively narrow, but has a speed limit of 100 km/hr.</p>
Management measures proposed in EIS
<p>The EIS states that:</p> <ul style="list-style-type: none"> • The new junction layout will be as per IPWEA Drawing TSD-R05-v1 (Attachment 3) noting that the northern side of the driveway radius may not need to have the full 20 metres as indicated on the standard drawing as trucks will be mainly travelling to/from the south. • The initial 15 metres of the new access road will be sealed to prevent loose material being carried out onto the Woodsdale Road seal.
Public and agency comment
<p>All four public representations raised concerns regarding the safety and functionality of Woodsdale Road, particularly in regard to the number of heavy vehicle movements proposed.</p> <p>Council also made a submission to the EPA Board on this issue, stating that the proposed heavy vehicle movement is considered to be a significant impact on Council's road asset, and that Council has concerns regarding the safety implications for road users. Council included in its submission a request that, within 6 months of the granting of any permit by the Planning Authority, the developer undertakes a road assessment report detailing works needed to improve road compliance with applicable standards.</p>
Evaluation
<p>This issue is outside the scope of the Board's assessment under the EMPC Act. It will presumably be considered by Council in its assessment under the <i>Southern Midlands Interim Planning Scheme 2015</i>. Council's request regarding a requirement for the developer to undertake a road assessment report can only be imposed as a condition by Council.</p>
Conclusion
<p>The Board does not have responsibility for road functionality and safety, and cannot imposed conditions relating to this issue.</p>

Issue 2: Aboriginal Heritage
Description of potential impacts
Aboriginal Heritage Tasmania (AHT) completed a search of the Aboriginal Heritage Register (AHR) for the proposed quarry and advised that a survey was required. A survey was undertaken by the proponent, determining that no sites or areas of potential sensitivity were found within the study area.
Management measures proposed in EIS
The EIS does not propose any mitigation measures relating to the issue of Aboriginal heritage.
Public and agency comment
No public representations raised this issue. Aboriginal Heritage Tasmania has not provided comment directly to the EPA subsequent to reviewing the report. However, the proponent has forwarded correspondence indicating that AHT acknowledges the results and recommendations of the survey and has provided further advice regarding the Unanticipated Discovery Plan process.
Evaluation
All Aboriginal heritage is also protected under the <i>Aboriginal Heritage Act 1975</i> , which specifies the requirements in the event of Aboriginal Heritage be uncovered at the site.
Conclusion
The Board does not have responsibility for Aboriginal heritage issues and cannot impose relevant permit conditions relating to this issue.

Appendix 2 - Summary of public representations and agency submissions

Agency / Representation No.	EIS section no.	EIS page no.	Issue raised	EPA Board comments
Agency comments received				
Policy, Advice and Regulatory Services Branch, DPIPWWE			<p>The natural value survey results presented in the EIS are accepted. Native vegetation removal should be minimised wherever possible. If dens or potential dens of the Tasmanian devil and Eastern quoll are detected in surveys undertaken prior to clearing, these should be monitored. A 50 metre buffer is recommended to be maintained around a potential den site.</p> <p>If the proposal will generate an increase of night-time traffic on the access road and on Woodsdale Road of more than 10%, it is recommended that roadkill mitigation measures be implemented.</p> <p>The proposed avoidance of removing large canopy emergent blue gums to preserve potential swift parrot habitat is supported.</p> <p>The proposed development of a weed and pathogen management plan is supported.</p>	The issue of biodiversity and natural values is discussed in section 6.4 of this report.
Mineral Resources Tasmania, State Growth			The EIS identifies the nearest residences to any working area of the quarry as >400 and 520m respectively. The Quarry Code of Practice 2017 (QCoP) sets out a suggested recommended attenuation distance (SRAD) of 1000m from the boundary of the mining lease for an activity such as the one being proposed.	The issue of attenuation distance is discussed in section 7 of this report.
Southern Midlands Council			<p>The proposal will result in an intensification of heavy trucks over the life of the quarry; this is considered to be a significant impact on Council's road asset.</p> <p>Council has concerns for the safety implications of the increased volume of heavily laden vehicles on this section of road,</p>	The issues of public road safety and capacity are outside the scope of the Board's assessment. It is expected that Council's assessment of the planning

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			<p>particularly as the section of Woodsdale Road between the proposed quarry access and the Tasman Highway is narrow.</p> <p>Council requests that, within 6 months of the granting of any permit by the Planning Authority, the developer undertakes a road assessment report detailing works needed to improve road compliance with applicable standards.</p>	<p>application will consider these issues.</p>
Aboriginal Heritage Tasmania, DPIPW			<p>Aboriginal Heritage Tasmania (AHT) understands that an Aboriginal heritage consultant has been engaged to carry out an assessment for the proposal, however AHT has not as yet received the draft Aboriginal heritage assessment report.</p>	<p>It is understood that the assessment report in question has now been completed and submitted to AHT. No further comment has been received directly from AHT, but the proponent has forwarded correspondence indicating that AHT acknowledges the results and recommendations of the survey and has provided further advice regarding the Unanticipated Discovery Plan process. The issue of Aboriginal heritage is outside the scope of the Board's assessment, and is regulated under the <i>Aboriginal Heritage Act 1975</i>.</p>
Public representations				
Attenuation area				
1, 2, 3			<p>The quarry will result in a one kilometre radius attenuation area around the quarry, affecting the potential for future development and property values inside this area, possibly preventing extensions or structural work on existing dwellings.</p>	<p>The issue of attenuation distance, and the attenuation area that will be imposed if the quarry is approved, is discussed in section 7 of this report.</p>
1			<p>The attenuation area and resultant restrictions appear</p>	

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			nonsensical given that three houses already exist within this area; the attenuation distance should accordingly be reduced so as not to affect existing houses.	
3			House owners already within the 1 km attenuation area should not be financially culpable for any building or engineering reports required due to the more restrictive requirements of the attenuation area.	
Safety and capacity of Woodsdale Road				
1			The proposal will result in a need to upgrade and regularly repair Woodsdale Road to maintain safety.	The issues of public road safety and capacity are outside the scope of the Board's assessment. It is expected that Council's assessment of the planning application will consider these issues.
2, 3, 4			Woodsdale Road is currently in poor condition, has sharp corners and is narrow, with a speed limit of 100 km/h. It also floods during high rainfall. With 80 truck movements per day, a fatality appears likely. The road should be widened and have an improved road surface.	
4			Woodsdale Road now has more traffic than in previous years, with people driving at high speed, cutting corners etc. Also, the junction of Woodsdale Road with the Tasman Highway needs to be upgraded as it is too sharp a turn. Flashing signs warning of trucks should be installed on Woodsdale Road.	
Other issues				
3			An engineer's report should be done at the cost of the proponent to ensure that the representor's dwelling and outbuildings will not be affected structurally by the quarry.	The potential vibration resulting from blasting for the quarry is discussed in section 6.1 of this report.
3			If there are any breaches of commitments made in the EIS, there needs to be a mechanism for reporting breaches and acting on them immediately.	The EPA is responsible for regulating the activity in accordance with its permit conditions, and the EPA Director may require action to be

				<p>taken if conditions are not complied with.</p> <p>Condition G3 requires immediate action to be taken by the person responsible for the activity if an incident causing or threatening environmental nuisance or harm occurs.</p> <p>Condition G6 requires that a public complaints register must be maintained, and the information on it retained for a period of 3 years.</p> <p>Finally, any person may make a complaint under the EMPC Act to either Council or the EPA at any time if it is perceived that an environmental nuisance is being caused.</p>
4			<p>Will the constructed storage pond result in any overflow of chemicals into the waterway, affecting vegetable growing downstream?</p>	<p>The issues of sediment and chemical control, to prevent water contamination, are discussed in sections 6.2 and 7 of this report.</p>

Appendix 3 – Table of proponent commitments

No.	Commitment	Timeframe	EIS Reference
1	Operating hours are 0700 to 1900 hrs Monday to Friday, 0800 to 1600 hrs on Saturday, closed on Sunday and public holidays (those gazetted Statewide). Specific quarry tasks will be limited to the hours stipulated in Table 2.	Ongoing from project commencement	B.2 Operating Hours
2	A Blast Management Plan will be prepared and submitted to the EPA Director for approval prior to the commencement of the first drilling or blasting event on The Land	BMP submitted to EPA within 60 days of permit granted	B.1 I Blast Planning and Management
3	Standard industry practice for dust control, which will be applied at the activity, is to dampen material prior to crushing and/or to also have installed sprayers on the output chute to minimise dust emissions from an otherwise dry product.	Ongoing from project commencement	E.1 Air Emissions - Dust
4	General measures to manage dust include watering of internal roads as required during dry and windy conditions, retention of vegetation along the access road corridor where possible, retention of native vegetation around the quarry working area to reduce the likelihood of strong winds liberating fine particles into the air, covering of trucks with tarpaulins and/or load dampening and minimising the geographic extent of areas of exposed soil.	Ongoing from project commencement	E.1 Air Emissions - Dust
5	No chemicals, fuels or oils will be stored within the pit overnight and refuelling of quarry equipment will be carried out using a mobile bund.	Ongoing from project commencement	E.2 Surface Water Management
6	Cut-off drains and drains around and internal to the quarry will be installed and maintained.	Ongoing from project commencement	E.2 Surface Water Management
7	Sediment accumulation rates in the sediment pond will be monitored (at	Ongoing from project commencement	E.2 Surface Water Management

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	least quarterly) and the maintenance program revised as required. Accumulated sediment will be reused as part of the saleable product or for application onto disused areas as part of site rehabilitation.		
8	No machinery servicing, except for emergency repairs or minor service requirements, will be conducted within the quarry. Wastes generated from machinery repairs will be disposed of in an appropriate bin near the entrance to the quarry for future disposal at a permitted refuse disposal site.	Ongoing from project commencement	E.5 Waste Management
9	Waste generated by workers from general refuse (eg lunch wrappers) at the quarry will be collected in waste bins provided on-site for general refuse. These will be emptied at least once per fortnight and the material disposed of at a permitted refuse disposal site.	Ongoing from project commencement	E.5 Waste Management
10	Weed spraying chemicals will be handled, used, and disposed of in accordance with the manufacturer's directions and relevant regulations.	Ongoing from project commencement	E.6 Dangerous and/or Hazardous Goods
11	When in the quarry, fuel and oil containers will be stored at least 10 m from any drain or sediment pond and will be bunded (moveable bunds) to a capacity at least 1.5 times the volume of the container.	Ongoing from project commencement	E.6 Dangerous and/or Hazardous Goods
12	One hydrocarbon spill kit will be stored at the quarry to use in the event of a spillage. Staff will be trained in how to use the kit and the kit will be replaced as and when required.	Ongoing from project commencement	E.6 Dangerous and/or Hazardous Goods
13	A Weed and Pathogen Management Plan will be developed and implemented as part of the quarry operation guided by the <i>Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania</i> (Department of	WPMP submitted to EPA within 60 days of permit granted	E.7 Weed Management

	Primary Industries, Parks, Water and Environment, 2015).		
14	A Weed Spraying Program (described in the Weed and Pathogen Management Plan) will be developed in consultation with a weed spraying contractor who will implement the program.	Ongoing from approval of the WPMP	E.7 Weed Management
15	Heavy machinery will be brought into the quarry in a clean condition; free of weed propagules, clods of dirt and vegetative matter.	Ongoing from project commencement	E.7 Weed Management
16	For Tasmanian devil and eastern quoll, the following management approach will be applied – <ul style="list-style-type: none"> • areas needing to be cleared of vegetation (including plantation) to enable quarry activities should first be surveyed to ensure no dens or woodpiles supporting dens are present, and • if dens or potential dens are present or suspected then expert advice must be sought from a suitably qualified ecologist. Advice may also be needed from DPIPW. In the interim, a 10 m no machinery buffer will be applied to the den or suspected den. 	Ongoing from project commencement	E.11 Flora and Fauna
17	For swift parrot, the following management approach will be applied – avoid removing large canopy emergent blue gum (<i>Eucalyptus globulus</i>) in the mapped areas of <i>Eucalyptus pulchella</i> forest and woodland.	Ongoing from project commencement	E.11 Flora and Fauna
18	‘Progressive rehabilitation’ will apply at the quarrying operation for those areas that have been quarried and are no longer needed or used for the operation of the quarry.	As required	F.1 Progressive Rehabilitation
19	In the event of permanent closure of the facility prior to complete extraction of the resource a detailed	Prior to 60 days of the quarry being permanently closed.	F.2 Permanent Closure

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	Decommissioning and Rehabilitation Plan (DRP) will be developed and submitted to the EPA for approval.		
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Appendix 4 – Permit conditions – Environmental

[Insert proposed permit conditions/EPN/environmental licence as printed from NELMS, including all attachments.]

Attachment 2
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ENVIRONMENT PROTECTION AUTHORITY

PERMIT PART B
PERMIT CONDITIONS - ENVIRONMENTAL No. 10427

Issued under the *Environmental Management and Pollution Control Act 1994*

Activity: **The operation of a quarry (ACTIVITY TYPE: Crushing, grinding, milling or separating into different sizes (rocks, ores or minerals))**
BIG BLUE QUARRY, WOODSDALE ROAD
RUNNYMEDE TAS 7190

The above activity has been assessed as a level 2 activity under the *Environmental Management and Pollution Control Act 1994*.

Acting under Section 25(5)(a)(i) of the EMPCA, the Board of the Environment Protection Authority has required that this Permit Part B be included in any Permit granted under the *Land Use Planning and Approvals Act 1993* with respect to the above activity.

Municipality: **SOUTHERN MIDLANDS**
Permit Application Reference: **DA 2020/32**
EPA file reference: **261451**

Date conditions approved: _____



Signed: _____

DELEGATE FOR THE BOARD OF THE ENVIRONMENT
PROTECTION AUTHORITY

DEFINITIONS

Unless the contrary appears, words and expressions used in this Permit Part B have the meaning given to them in **Schedule 1** of this Permit and in the EMPCA. If there is any inconsistency between a definition in the EMPCA and a definition in this Permit Part B, the EMPCA prevails to the extent of the inconsistency.

ENVIRONMENTAL CONDITIONS

The person responsible for the activity must comply with the conditions contained in **Schedule 2** of this Permit Part B.

INFORMATION

Attention is drawn to **Schedule 3**, which contains important additional information.

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Attachment 3: Quarry Level 3 extent (modified: 05/01/2021 15:29)..... 1 page

Schedule 1: Definitions

In this Permit Part B:-

200,000 cubic metres is considered to be equivalent to 340,000 tonnes per year.

Aboriginal Relic has the meaning described in section 2(3) of the *Aboriginal Heritage Act 1975*.

Activity means any environmentally relevant activity (as defined in Section 3 of EMPCA) to which this document relates, and includes more than one such activity.

Best Practice Environmental Management or '**BPEM**' has the meaning described in Section 4 of EMPCA.

Control Location (Noise) means a location chosen to represent the general ambient sound without contribution from noise sources at the activity.

Director means the Director, Environment Protection Authority holding office under Section 18 of EMPCA and includes a delegate or person authorised in writing by the Director to exercise a power or function on the Director's behalf.

DRP means Decommissioning and Rehabilitation Plan.

EMPCA means the *Environmental Management and Pollution Control Act 1994*.

Environmental Harm and **Material Environmental Harm** and **Serious Environmental Harm** each have the meanings ascribed to them in Section 5 of EMPCA.

Environmental Nuisance and **Pollutant** each have the meanings ascribed to them in Section 3 of EMPCA.

Environmentally Hazardous Material means any substance or mixture of substances of a nature or held in quantities which present a reasonably foreseeable risk of causing serious or material environmental harm if released to the environment and includes fuels, oils, waste and chemicals but excludes sewage.

Guidelines for Terrestrial Natural Values Surveys means the document titled *Guidelines for Natural Values Surveys - Terrestrial Development Proposals*, by the Department of Primary Industries, Parks, Water and Environment, as at January 2021, and any subsequent amendment to or substitution of this document.

Noise Sensitive Premises means residences and residential zones (whether occupied or not), schools, hospitals, caravan parks and similar land uses involving the presence of individual people for extended periods, except in the course of their employment or for recreation.

Person Responsible is any person who is or was responsible for the environmentally relevant activity to which this document relates and includes the officers, employees, contractors, joint venture partners and agents of that person, and includes a body corporate.

Pollutant has the meaning ascribed to it in Section 3 of EMPCA.

Quarry Code of Practice means the document of this title published by the Environment Protection Authority in May 2017, and includes any subsequent versions of this document.

Reporting Period means the 12 months ending on 30 June each year.

Stormwater means water traversing the surface of The Land as a result of rainfall.

Tasmanian Devil Survey Guidelines means the document titled *Survey Guidelines and Management Advice for Development Proposals that may impact on the Tasmanian Devil (Sarcophilus harrisii)*, by the Department of Primary Industries, Parks, Water and Environment, as at January 2021, and any subsequent amendment to or substitution of this document.

Tasmanian Noise Measurement Procedures Manual means the document titled *Noise Measurement Procedures Manual*, by the Department of Environment, Parks, Heritage and the Arts, dated July 2008, and any amendment to or substitution of this document.

The Land means the land on which the activity to which this document relates may be carried out, and includes: buildings and other structures permanently fixed to the land, any part of the land covered with water, and any water covering the land. The Land falls within the area defined by:

- 1 Mining Lease 2075 P/M, within parcels CT 146726/1 and CT 47615/1; and
- 2 as further delineated at Attachment 1.

Weed means a declared weed as defined in the *Weed Management Act 1999*.

Weed And Disease Guidelines means the document titled *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania*, by the Department of Primary Industries, Parks, Water and Environment, dated March 2015, and any amendment to or substitution of this document.

Schedule 2: Conditions**Maximum Quantities****Q1 Regulatory limits**

- 1 The activity must not exceed the following limits :
 - 1.1 200,000 cubic metres per year of rocks, ores or minerals processed.
 - 1.2 200,000 cubic metres per year of rocks, ores or minerals extracted.

General**G1 Access to and awareness of conditions and associated documents**

A copy of these conditions and any associated documents referred to in these conditions must be held in a location that is known to and accessible to the person responsible for the activity. The person responsible for the activity must ensure that all persons who are responsible for undertaking work on The Land, including contractors and sub-contractors, are familiar with these conditions to the extent relevant to their work.

G2 No changes without approval

- 1 The following changes, if they may cause or increase the emission of a pollutant which may cause material or serious environmental harm or environmental nuisance, must only take place in relation to the activity if such changes have been approved in writing by the EPA Board following its assessment of an application for a permit under the *Land Use Planning and Approvals Act 1993*, or approved in writing by the Director:
 - 1.1 a change to a process used in the course of carrying out the activity; or
 - 1.2 the construction, installation, alteration or removal of any structure or equipment used in the course of carrying out the activity; or
 - 1.3 a change in the quantity or characteristics of materials used in the course of carrying out the activity.

G3 Incident response

If an incident causing or threatening environmental nuisance, serious environmental harm or material environmental harm from pollution occurs in the course of the activity, then the person responsible for the activity must immediately take all reasonable and practicable action to minimise any adverse environmental effects from the incident.

G4 Change of responsibility

If the person responsible for the activity intends to cease to be responsible for the activity, that person must notify the Director in writing of the full particulars of any person succeeding him or her as the person responsible for the activity, before such cessation.

G5 Change of ownership

If the owner of The Land upon which the activity is carried out changes or is to change, then, as soon as reasonably practicable but no later than 30 days after becoming aware of the change or intended change in the ownership of The Land, the person responsible must notify the Director in writing of the change or intended change of ownership.

G6 Complaints register

- 1 A public complaints register must be maintained. The public complaints register must, as a minimum, record the following detail in relation to each complaint received in which it is alleged that environmental harm (including an environmental nuisance) has been caused by the activity:
 - 1.1 the date and time at which the complaint was received;
 - 1.2 contact details for the complainant (where provided);
 - 1.3 the subject matter of the complaint;
 - 1.4 any investigations undertaken with regard to the complaint; and
 - 1.5 the manner in which the complaint was resolved, including any mitigation measures implemented.
- 2 Complaint records must be maintained for a period of at least 3 years.

G7 Annual Environmental Review

- 1 Unless otherwise specified in writing by the Director, a publicly available Annual Environmental Review for the activity must be submitted to the Director each year within three months of the end of the reporting period. Without limitation, each Annual Environmental Review must include the following information:
 - 1.1 a statement by the General Manager, Chief Executive Officer or equivalent for the activity acknowledging the contents of the Annual Environmental Review;
 - 1.2 subject to the *Personal Information Protection Act 2004*, a list of all complaints received from the public during the reporting period concerning actual or potential environmental harm or environmental nuisance caused by the activity and a description of any actions taken as a result of those complaints;
 - 1.3 details of environment-related procedural or process changes that have been implemented during the reporting period;
 - 1.4 a summary of the amounts (tonnes or litres) of both solid and liquid wastes produced and treatment methods implemented during the reporting period. Initiatives or programs planned to avoid, minimise, re-use, or recycle such wastes over the next reporting period should be detailed;
 - 1.5 details of all non-trivial environmental incidents and/or incidents of non compliance with these conditions that occurred during the reporting period, and any mitigative or preventative actions that have resulted from such incidents;
 - 1.6 a summary of the monitoring data and record keeping required by these conditions. This information should be presented in graphical form where possible, including comparison with the results of at least the preceding reporting period. Special causes and system changes that have impacted on the parameters monitored must be noted. Explanation of significant deviations between actual results and any predictions made in previous reports must be provided;
 - 1.7 identification of breaches of limits specified in these conditions and significant variations from predicted results contained in any relevant DPMP or EMP, an explanation of why each identified breach of specified limits or variation from predictions occurred and details of the actions taken in response to each identified breach of limits or variance from predictions;
 - 1.8 a list of any issues, not discussed elsewhere in the report, that must be addressed to improve compliance with these conditions, and the actions that are proposed to address any such issues;

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- 1.9** a summary of fulfilment of environmental commitments made for the reporting period. This summary must include indication of results of the actions implemented and explanation of any failures to achieve such commitments; and
- 1.10** a summary of any community consultation and communication undertaken during the reporting period.

G8 Quarry Code of Practice

Unless otherwise required by these conditions or required in writing by the Director, the activity (or activities) undertaken on The Land must comply with the Acceptable Standards provisions of the *Quarry Code of Practice*.

G9 Staged quarrying

- 1** The works authorised by this permit encompass extraction and materials handling to the boundary of the 'Maximum Extent' as shown in Attachment 2.
- 2** Prior to commencement of works beyond the extraction footprint shown as Quarry Level 3 in Attachment 3, or if the direction of extraction changes from that proposed in the EIS, one or more mine plans for subsequent works must be submitted to the Director.
- 3** The Director must be notified in writing a minimum of 14 days prior to the commencement of works beyond the footprint shown as Quarry Level 3 in Attachment 3.

Atmospheric**A1 Covering of vehicles**

Vehicles carrying loads containing material which may blow or spill must be equipped with effective control measures to prevent the escape of the materials from the vehicles when they leave The Land or travel on public roads. Effective control measures may include tarpaulins or load dampening.

A2 Control of dust emissions

Dust emissions from The Land must be controlled to the extent necessary to prevent environmental nuisance beyond the boundary of The Land.

A3 Control of dust emissions from plant

- 1** Dust produced by the operation of all crushing and screening plant must be controlled by the use of one or more of the following methods to the extent necessary to prevent environmental nuisance:
 - 1.1** the installation of fixed water sprays at all crushers and at all points where crushed material changes direction due to belt transfer;
 - 1.2** the installation of dust extraction equipment at all crushers and at all points where crushed material changes direction due to belt transfer, and the incorporation of such equipment with all vibrating screens;
 - 1.3** the enclosure of the crushing and screening plant and the treatment of atmospheric emissions by dust extraction equipment; and
 - 1.4** any other method that has been approved in writing by the Director.

Blasting

B1 Blasting times

Blasting on The Land must take place only between the hours of 1000 hours and 1600 hours Monday to Friday. Blasting must not take place on Saturdays, Sundays or public holidays unless prior written approval of the Director has been obtained.

B2 Blasting - noise and vibration limits

- 1 Blasting on The Land must be carried out in accordance with blasting best practice environmental management (BPEM) principles, and must be carried out such that, when measured at the curtilage of any residence (or other noise sensitive premises) in other occupation or ownership, airblast overpressure and ground vibration comply with the following:
 - 1.1 for 95% of blasts, airblast overpressure must not exceed 115dB (Lin Peak);
 - 1.2 airblast overpressure must not exceed 120dB (Lin Peak);
 - 1.3 for 95% of blasts ground vibration must not exceed 5mm/sec peak particle velocity; and
 - 1.4 ground vibration must not exceed 10mm/sec peak particle velocity.
- 2 All measurements of airblast overpressure and peak particle velocity must be carried out in accordance with the methods set down in *Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration*, Australian and New Zealand Environment Council, September 1990.

B3 Notification of blasting

All residents within a 1 km radius of the activity must be notified on each occasion prior to blasting on The Land. This notification must be given at least 24 hours before such blasting is due to occur. In the event that the blast(s) cannot take place at the time specified, the responsible person must advise all those residents within 1 km of the activity of the revised time at which blasting will take place.

B4 Blast monitoring

- 1 Unless otherwise approved in writing by the Director, blast monitoring must be undertaken for each blast that occurs on The Land.
- 2 Blast monitoring must be carried out at location(s) agreed in writing by the Director.
- 3 In the event that ground vibration and/or airblast overpressure caused by a blast exceeds a limit imposed by these conditions, the Director must be notified within seven days of the blast, or as soon as is reasonable and practicable.
- 4 Blast monitoring records must be maintained for a period of at least two years.

B5 Ground vibration

Unless otherwise approved in writing by the Director, in the event that ground vibration caused by a blast exceeds 5 mm/sec peak particle velocity and/or air blast over pressure exceeds 115 dB(Lin Peak), the Director must be notified within 24 hours of the blast.

B6 Blast Management Plan

- 1 Unless otherwise approved in writing by the Director and before blasting on The Land, a Blast Management Plan to the satisfaction of the Director must be submitted to the Director for approval. The Blast Management Plan must include, without limitation, the following:
 - 1.1 Development of a blast design method for ensuring compliance with air blast overpressure and ground vibration limits at noise sensitive premises;

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- 1.2 The matters listed in section E4.7 of the EIS; and
 - 1.3 A list of all properties containing residences or visitor accommodation within 1,000 metres of the boundary of The Land, the occupants of which are to be notified of blasting times.
- 2 The person responsible must ensure that the approved Plan, as amended from time to time with approval of the Director, is implemented.

Decommissioning And Rehabilitation**DC1 Stockpiling of surface soil**

Prior to commencement of extractive activities on any portion of The Land, surface soils must be removed in that portion of The Land to be disturbed by the conduct of the activity and stockpiled for later use in rehabilitation of The Land. Topsoil must be kept separate from other overburden and protected from erosion or other disturbance.

DC2 Progressive rehabilitation

Worked out or disused sections of The Land must be rehabilitated concurrently with extractive activities on other sections of The Land. Progressive rehabilitation must be carried out in accordance with the relevant provisions of the *Quarry Code of Practice*, unless otherwise approved in writing by the Director. The maximum disturbed area of land which may remain, at any time, without rehabilitation is 15 hectares.

DC3 Temporary suspension of activity

- 1 Within 30 days of becoming aware of any event or decision which is likely to give rise to the temporary suspension of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to suspend or has suspended.
- 2 During temporary suspension of the activity:
 - 2.1 The Land must be managed and monitored by the person responsible for the activity to ensure that emissions from The Land do not cause serious environmental harm, material environmental harm or environmental nuisance; and
 - 2.2 If required by the Director a Care and Maintenance Plan for the activity must be submitted, by a date specified in writing by the Director, for approval. The person responsible must implement the approved Care and Maintenance Plan, as may be amended from time to time with written approval of the Director.
- 3 Unless otherwise approved in writing by the Director, if the activity on The Land has substantially ceased for 2 years or more, rehabilitation of The Land must be carried out in accordance with the requirements of these conditions as if the activity has permanently ceased.

DC4 Notification of cessation

Within 30 days of becoming aware of any event or decision which is likely to give rise to the permanent cessation of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to cease or has ceased.

DC5 DRP requirements

Unless otherwise approved in writing by the Director, a Decommissioning and Rehabilitation Plan (DRP) for the activity must be submitted for approval to the Director within 30 days of the Director being notified of the planned cessation of the activity or by a date specified in writing by the Director. The DRP must be prepared in accordance with any guidelines provided by the Director.

DC6 Rehabilitation on cessation

- 1 Unless otherwise approved in writing by the Director, rehabilitation upon permanent cessation of the activity must be undertaken in accordance with relevant provisions of the *Quarry Code of Practice* and in accordance with the following:
 - 1.1 rehabilitation earthworks must be substantially completed within 12 months of cessation of the activity; and
 - 1.2 rehabilitated areas must be monitored and maintained for a period of at least three years after rehabilitation works have been substantially completed, after which time the person responsible for the activity may apply in writing to the Director for a written statement that rehabilitation has been successfully completed.

Flora And Fauna**FF1 Protection of waterways**

- 1 Other than for the purpose of site access from Woodsdale Road, works for the purpose of the activity must not encroach within the areas labelled 'Buffer on Creek' shown in Attachment 2, being 30 metres (measured horizontally) from the edge of the waterway running along the southern boundary of The Land and 10 metres (measured horizontally) from the edge of the waterway running parallel to the eastern boundary of The Land.
- 2 Prior to commencement of works in the vicinity of these buffers, the edge of the buffers must be delineated with a fence or similar visible method.
- 3 Unless for the purpose of site access or otherwise approved in writing by the Director:
 - 3.1 there must be no disturbance of vegetation, soil, rock or other material within the buffers; and
 - 3.2 the activity must be conducted in a manner that does not cause degradation or disturbance (including sedimentation) to the waterways.

FF2 Conservation of large blue gums

- 1 Prior to clearing vegetation, any *Eucalyptus globulus* tree(s) with a trunk measuring 70cm or greater diameter at 1.4 metres above ground level, in or near the area to be cleared, must be identified.
- 2 Unless otherwise approved in writing by the Director, such trees must not be cleared or disturbed, with no machinery encroachment or disturbance of such trees permitted within the Tree Protection Zone as defined in the *AS 4970-2009 Protection of trees on development sites* (or subsequent versions thereof).
- 3 While works are occurring in the vicinity, any such identified Tree Protection Zone must be delineated with a fence or similar visible method.

FF3 Pre-clearance surveys

- 1 Prior to clearing vegetation for the purpose of the activity, the area to be cleared must be surveyed for evidence of threatened fauna dens or nesting habitat, in accordance with the Guidelines for Terrestrial Natural Values Surveys and the Tasmanian Devil Survey Guidelines, as applicable. This survey must be undertaken as close as practicable to the time of clearing, while allowing sufficient time for avoidance and mitigation strategies to be considered.
- 2 If potential threatened fauna dens or nesting habitat are identified, the Director must be notified. Notification of the Director must include:
 - 2.1 details of survey results;
 - 2.2 whether avoidance of disturbance and/or mitigation is feasible and proposed; and

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- 2.3 requirements under applicable legislation for disturbance or removal of identified features.
- 3 Notwithstanding other requirements under applicable legislation, disturbance of identified threatened fauna dens or nesting habitat must not occur without prior written approval of the Director.

FF4 Weed management

- 1 At least 30 days prior to the commencement of the activity, or by a date otherwise specified in writing by the Director, a Weed & Disease Management Plan must be submitted to the Director for approval. This requirement will be deemed to be satisfied only when the Director indicates in writing that the submitted document adequately addresses the requirements of this condition to his or her satisfaction.
- 2 The plan must be consistent with the Weed and Disease Guidelines, or any subsequent revisions of that document.
- 3 The person responsible must implement and act in accordance with the approved plan.
- 4 In the event that the Director, by notice in writing to the person responsible, either approves a minor variation to the approved plan or approves a new plan in substitution for the plan originally approved, the person responsible must implement and act in accordance with the varied plan or the new plan, as the case may be.

Hazardous Substances**H1 Storage and handling of hazardous materials**

- 1 Unless otherwise approved in writing by the Director, environmentally hazardous materials held on The Land must be:
 - 1.1 stored within impervious bunded areas, spill trays or other containment systems; and
 - 1.2 managed to prevent unauthorised discharge, emission or deposition of pollutants:
 - 1.2.1 to soils within the boundary of The Land in a manner that is likely to cause serious or material environmental harm;
 - 1.2.2 to groundwater;
 - 1.2.3 to waterways; or
 - 1.2.4 beyond the boundary of The Land.

H2 Handling of hazardous materials - mobile

- 1 Where mobile containment of environmentally hazardous materials is utilised for the fuelling or servicing of mobile or fixed plant on The Land, all reasonable measures must be implemented to prevent unauthorised discharge, emission or deposition of pollutants:
 - 1.1 to soils within the boundary of The Land in a manner that is likely to cause serious or material environmental harm;
 - 1.2 to groundwater;
 - 1.3 to waterways; or
 - 1.4 beyond the boundary of The Land.
- 2 Reasonable measures may include spill kits, spill trays/bunds or absorbent pads, and automatic cut-offs on any pumping equipment.

Noise Control**N1 Noise emission limits**

- 1 Noise emissions from the activity when measured at any noise sensitive premises in other ownership and expressed as the equivalent continuous A-weighted sound pressure level must not exceed:
 - 1.1 45 dB(A) between 0700 hours and 1900 hours (Day time); and
 - 1.2 40 dB(A) between 1900 hours and 2200 hours (Evening time); and
 - 1.3 35 dB(A) between 2200 hours and 0700 hours (Night time).
- 2 Where the combined level of noise from the activity and the normal ambient noise exceeds the noise levels stated above, this condition will not be considered to be breached unless the noise emissions from the activity are audible and exceed the ambient noise levels by at least 5 dB(A).
- 3 The time interval over which noise levels are averaged must be 10 minutes or an alternative time interval specified in writing by the Director.
- 4 Measured noise levels must be adjusted for tonality, impulsiveness, modulation and low frequency in accordance with the Tasmanian Noise Measurement Procedures Manual.
- 5 All methods of measurement must be in accordance with the Tasmanian Noise Measurement Procedures Manual.

N2 Noise survey requirements

- 1 Unless otherwise approved in writing by the Director, a noise survey must be undertaken:
 - 1.1 during the first drilling campaign undertaken for the activity, with inclusion of other quarry operational noise; and
 - 1.2 at such other times as may reasonably be required by the Director by notice in writing.

N3 Noise Survey Method and Reporting

- 1 Noise surveys must be undertaken in accordance with a survey method approved in writing by the Director, as may be amended from time to time with written approval of the Director.
- 2 Without limitation, the survey method must address the following:
 - 2.1 measurements must be carried out at day, evening and night times (where applicable) at each location; and
 - 2.2 measurement locations, and the number thereof, must be specified, with one location established as a control location (noise).
- 3 Measurements and data recorded during the survey must include:
 - 3.1 operational status of noise producing equipment and throughput of the activity;
 - 3.2 subjective descriptions of the sound at each location;
 - 3.3 details of meteorological conditions relevant to the propagation of noise; and
 - 3.4 the equivalent continuous (L_{eq}) and L_1 , L_{10} , L_{50} , L_{90} and L_{99} A-weighted sound pressure levels measured over a period of 10 minutes or an alternative time interval specified by the Director.
- 4 A noise survey report must be forwarded to the Director within 30 days from the date on which the noise survey is completed
- 5 The noise survey report must include the following:
 - 5.1 the results and interpretation of the measurements required by these conditions;

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- 5.2 a map of the area surrounding the activity with the boundary of The Land, measurement locations, and noise sensitive premises clearly marked on the map;
- 5.3 any other information that will assist with interpreting the results and whether the activity is in compliance with these conditions and EMPCA; and
- 5.4 recommendations of appropriate mitigation measures to manage any noise problems identified by the noise survey.

N4 Noise complaints

In the event that a noise complaint is received in relation to the activity, the complaint must be reported to the Director within 24 hours.

Operations**OP1 Operating hours**

- 1 Unless otherwise approved by the Director, activities associated with the extraction of rock, gravel, sand, clay or minerals, and loading of product, and screening/crushing must not be undertaken outside the hours of 0700 hours to 1900 hours on weekdays and 0800 hours to 1600 hours on Saturdays.
- 2 Notwithstanding the above paragraph, activities must not be carried out on public holidays that are observed Statewide (Easter Tuesday excepted).

Stormwater Management**SW1 Stormwater**

- 1 Polluted stormwater that will be discharged from The Land must be collected and treated prior to discharge to the extent necessary to prevent serious or material environmental harm, or environmental nuisance.
- 2 Notwithstanding the above, all stormwater that is discharged from The Land must not carry pollutants such as sediment, oil and grease in quantities or concentrations that are likely to degrade the visual quality of any receiving waters outside The Land.
- 3 All reasonable measures must be implemented to ensure that solids entrained in stormwater are retained on The Land. Such measures may include appropriately sized and maintained sediment settling ponds or detention basins.

SW2 Perimeter drains or bunds

- 1 Perimeter cut-off drains, or bunds, must be constructed at strategic locations on The Land to prevent surface run-off from entering the area used or disturbed in carrying out the activity. All reasonable measures must be implemented to ensure that sediment transported along these drains, or bunds, remains on The Land. Such measures may include provision of strategically located sediment fences, appropriately sized and maintained sediment settling ponds, vegetated swales, detention basins and other measures designed and operated in accordance with the principles of Water Sensitive Urban Design.
- 2 Drains, or bunds, must have sufficient capacity to contain run-off that could reasonably be expected to arise during a 1 in 20 year rainfall event. Maintenance activities must be undertaken regularly to ensure that this capacity does not diminish.

SW3 Design and maintenance of settling ponds

- 1 Sediment settling ponds must be designed and maintained in accordance with the following requirements:
 - 1.1 ponds must be designed to successfully mitigate reasonably foreseeable sediment loss which would result from a 1 in 20 year storm event;

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- 1.2** discharge from ponds must occur via a stable spillway that is not subject to erosion;
- 1.3** all pond walls must be stable and treated with topsoil and vegetated or otherwise treated in such a manner as to prevent erosion; and
- 1.4** sediment settling ponds must be periodically cleaned out to ensure that the pond design capacity is maintained. Sediment removed during this cleaning must be securely deposited such that sediment will not be transported off The Land by surface run-off.

Schedule 3: Information

Legal Obligations

LO1 EMPCA

The activity must be conducted in accordance with the requirements of the *Environmental Management and Pollution Control Act 1994* and Regulations thereunder. The conditions of this document must not be construed as an exemption from any of those requirements.

LO2 Storage and handling of dangerous goods, explosives and dangerous substances

1 The storage, handling and transport of dangerous goods, explosives and dangerous substances must comply with the requirements of relevant State Acts and any regulations thereunder, including:

1.1 *Work Health and Safety Act 2012* and subordinate regulations;

1.2 *Explosives Act 2012* and subordinate regulations; and

1.3 *Dangerous Goods (Road and Rail Transport) Act 2010* and subordinate regulations.

LO3 Aboriginal relics requirements

1 Aboriginal relics, objects, sites, places and human remains regardless of whether they are located on public or private land, are protected under the *Aboriginal Heritage Act 1975*.

2 Unanticipated discoveries of Aboriginal heritage must be reported to Aboriginal Heritage Tasmania on **1300 487 045** as soon as possible.

Other Information

OI1 Waste management hierarchy

1 Wastes should be managed in accordance with the following hierarchy of waste management:

1.1 waste should be minimised, that is, the generation of waste must be reduced to the maximum extent that is reasonable and practicable, having regard to best practice environmental management;

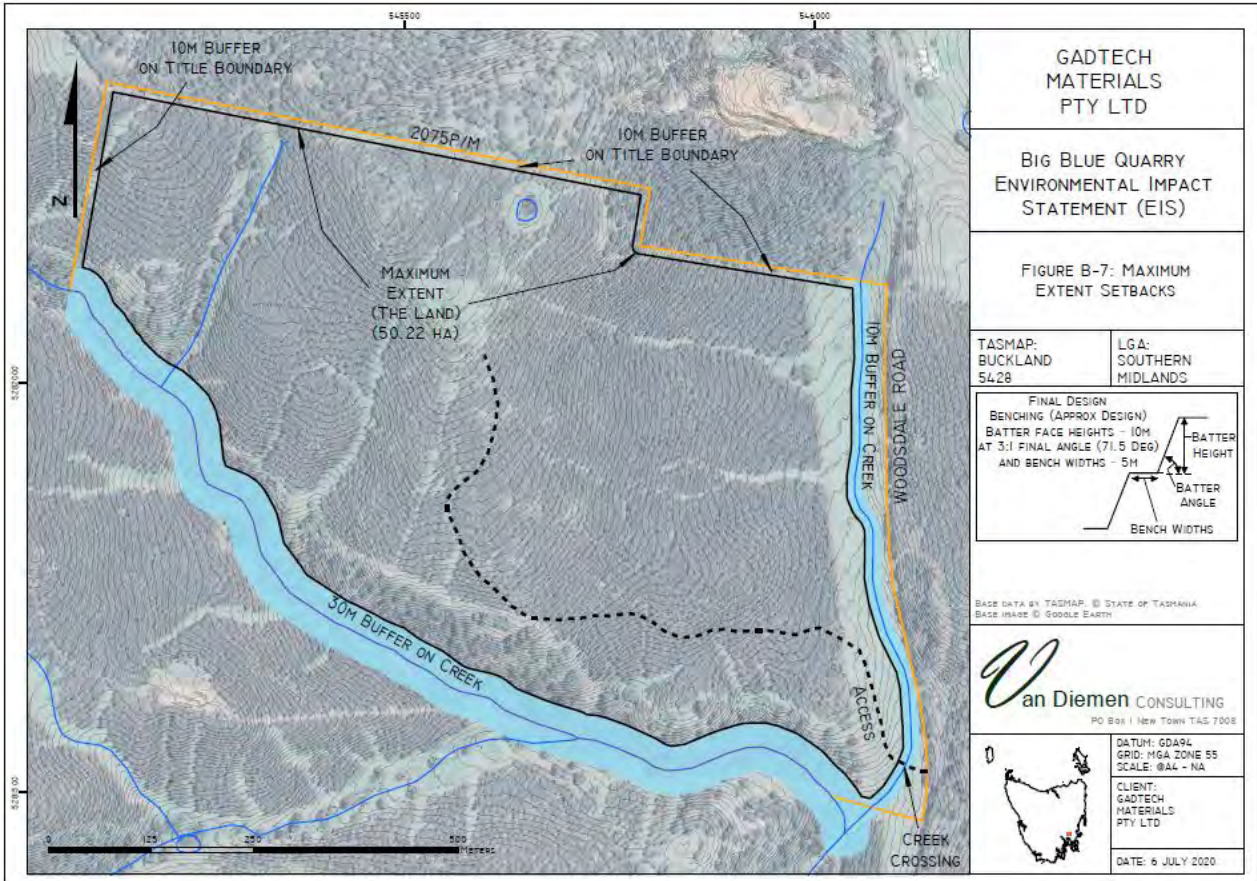
1.2 waste should be re-used or recycled to the maximum extent that is practicable; and

1.3 waste that cannot be re-used or recycled must be disposed of at a waste depot site or treatment facility that has been approved in writing by the relevant planning authority or the Director to receive such waste, or otherwise in a manner approved in writing by the Director.

Attachment 1: The Land



Attachment 2: Maximum extent and buffers to waterways



Attachment 3: Quarry Level 3 extent

