

<b>Bis Western Junction Quarry Extension</b>	
Quarry Conceptual Closure Plan	
JOHN MIEDECKE AND PARTNERS PTY LTD	<b>FIG 20</b>

- *Lomanadra longifolia* Plugs
- *Poa labillardierei* Plugs

All seedlings will be guarded, staked and fertilised when planted. If browsing by animals is a problem, tree guards will be utilised with all seedlings while animal exclusion fencing can be utilised where it can be practically constructed.

#### C 12.2.4 Fertiliser

Fertiliser to be applied are a N:P:K fertiliser mix of 8:4:10 at 300 kg/ha. Based on annual monitoring inspections, maintenance fertilizer application may be required.

All grass plugs will be accompanied with 5 grams of Osmocote and seedlings should be planted with a 20 g Agriform fertiliser tablet or equivalent.

#### C 12.2.5 13.7. Weeds and Diseases

Weeds and diseases will continue to be monitored and treated utilising the existing sites weed and disease management plan up till and including mine closure.

At mine closure a final inspection and report will be commissioned to ensure adequate management has taken place and identify any ongoing management if required.

#### C 12.2.6 Timeframes

Table 7 below shows the key dates for areas of the land that have been scheduled for decommissioning and rehabilitation.

Table 7: Rehabilitation Timeframes

Land area for decommissioning and rehabilitation	2022-2025	2025-2028	2028-2032	2032-2035	2035-2038	2038-end of life
North East Pit 975P/M	X					
Centre Pit 975P/M		X				
Metal Bay 975P/M						X
Pre coat 975P/M						X
Pug mill 975P/M						X
Workshop 975P/M						X
Oil storage 975P/M						X
Fuel tanks and bunding 975P/M			X			
Amenities/ crib room area 975P/M						X
Crushing and screening plant 975P/M						X
Stage 1 new development 2045 P/M						X
End of mine 975P/M and 2045 P/M						X

The timeframes are based on estimations of source rock availability and calculations of production rates and the current/predicted supply need of the civil construction industry over the next 20 years.

As discussed earlier in the DRP timeframes will be subject to change based on operational requirements, un-planned events, business and market interruptions and emerging technologies eliminating current plant requirements.

#### **C 12.2.6 Monitoring and Maintenance**

Periodic inspection and maintenance will be required. The site will continue to monitor the rehabilitation requirements through the schedule established in this plan and the existing Environmental Management Plans and the current monitoring and improvement initiatives in place currently at the site.

Ongoing monitoring will be required on the land after mine closure and rehabilitation controls will need to be undertaken like weed management, water monitoring, dust and erosion monitoring.

### **PART D SUMMARY OF PROPOSED MANAGEMENT MEASURES**

The quarry will be operated in compliance with this EER, the Quarry Code of Practice, Tasmanian State Policies and legislative and regulatory requirements.

It will also be operated in accordance with the planning and environmental conditions of the land use permit which will be issued by the Northern Midlands Council and the EPA. The Mining Lease will also have conditions determined by MRT.

The specific management measures are summarised in **Table 8**.

Table 8: SUMMARY OF MANAGEMENT MEASURES

	<b>Potential Impacts</b>	<b>Management measure commitments</b>	<b>Timeframe</b>
1	<b>Residential amenity</b>	Maintain a complaints register to record all complaints from the public.	As received.
2	<b>Blasting Noise and Vibration</b>	Advise State Rail, Launceston Airport and residents within a 1km radius, (or as agreed) 24 hours in advance Monitor blasting to ensure compliance with standards.	Every blast (1mths approx).
3	<b>Noise Emissions – onsite</b>	Maintain attenuation distances to neighbours. Monitor any complaints	Ongoing. Ongoing.
4	<b>Noise Emissions – offsite</b>	Hours of operations to permit conditions No transportation on Sundays or gazetted public holidays. Transport road trucks maintained in good condition.	Continuous.
5	<b>Water Management</b>	Monitor and maintain settling basins and improve as necessary. Direct all runoff to Briarly Creek storage pond. Monitor groundwater inflows and well for PFAS	Continuous.  As they occur
6	<b>Air Emissions onsite</b>	Operate water sprays on crushing equipment Minimise surface disturbance. Progressive rehabilitation of disturbed areas Watering of internal roads. Maintain Quarry roads routinely.	As needed Ongoing. Ongoing. As needed As needed.
7	<b>Air Emissions offsite</b>	Product transport trucks will be tarpaulin covered if required.	As needed. Ongoing.
8	<b>Attenuation zone</b>	Cooperate with Council to monitor a suitable attenuation zone.	As required.
9	<b>Visual Management</b>	Revegetate overburden and topsoil stockpiles.	Ongoing.
10	<b>Weeds</b>	Yearly weed surveys and appropriate control. Washdown of equipment if from weed infected areas.	Ongoing.
11	<b>Revegetation</b>	Strip and stockpile topsoil and overburden as per the guidelines. Revegetate quarry walls progressively.	Ongoing.
12	<b>Rehabilitation</b>	Progressive rehabilitation as per Table 7.	Ongoing.



D.N.Hughes Western Junction Quarry Southern Extension Environmental Effects Report 27

***References***

Miedecke, 2019. D. Hughes, Western Junction Quarry Extension DPEMP . John Miedecke and Partners 2019

Appendix A: EPA EER Guidelines

Appendix B: EPA Assessment of 2019 Permit Application

Appendix C: Air Services Australia and CASA Information

Appendix D: W Cromer Groundwater report

Appendix E: NVC Noise Assessment

Appendix F: Terrock Blasting Assessment

Appendix G: Western Junction Blast Management Plan ( EPA approved)

Appendix H: Western Junction Weed and Disease Management Plan  
(EPA approved)

Appendix I: Decommissioning and Rehabilitation Plan Western Junction

D. N. Hughes

## Western Junction Quarry Southern Extension

### Development Proposal and Environmental Management Plan

# **APPENDIX A**

## EER Guidelines

# Extractive Industry Environmental Effects Report Guidelines for



D. N Hughes

Western Junction Quarry – Southern  
Expansion, Western Junction

April 2021

## Instructions

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### Purpose of the Guidelines

These guidelines are to assist in preparing an Environmental Effects Report (EER) for an application or proposal referred to the Board of the Environment Protection Authority (the Board).

An EER provides information about the environmental impacts of the proposed activity and is used by the Board under the *Environmental Management and Pollution Control Act 1994* (the EMPC Act).

Although the current proposal is for a modification of an existing activity, this EER must provide a case for assessment of the entire activity as modified.

If a proposal is subject to a permit under the *Land Use Planning and Approvals Act 1993* (LUPA Act), information required solely for the purpose of assessment under the relevant Planning Scheme should be supplied to Council either:

- as a separate response to an additional information request from Council under section 54 of the LUPA Act, where the planning application has commenced the environmental assessment process; or
- where it forms part of a combined planning and environmental effects report, distinguished from information supplied for the purpose of the Board's assessment.

### Preparing an EER

The EER should be prepared using these guidelines. It should contain five parts as follows:

- Part A – information about the proponent
- Part B – information on the proposal, site and area
- Part C – information on potential environmental impacts
- Part D – description of proposed management measures
- Part E – information about any public consultation undertaken

Any other relevant information may be attached to the EER to support the application. The EER and attachments must be typed, A4 sized and submitted both electronically (in a searchable format) and in hard copy.



All images in the EER must be of high quality, with text readily readable. For ease of comparison all maps, plans, and aerial photographs must be oriented in the same direction as far as practicable, and a north direction arrow and scale included. In the electronic version, all images must be capable of being readily copied and pasted into other documents such as a permit (e.g. all objects in images should be 'grouped').

Finally, the level of detail provided in the EER on each issue should be appropriate to the level of significance of that environmental issue to the proposal.

The issuing of the guidelines does not mean that other matters that may emerge as significant from environmental studies, public comments or otherwise during the preparation of the EER, should be excluded.

After the public consultation phase, additional information may be required in response to public and government agency submissions. This generally takes the form of a supplement to the EER.

### **Submission**

The EER may be mailed, faxed, emailed or file shared to:

Chairperson

Board of the Environment Protection Authority

GPO Box 1550

Hobart TAS 7001

Email: [assessments@epa.tas.gov.au](mailto:assessments@epa.tas.gov.au)

### **Commonwealth legislation**

In addition to State Government requirements, the Australian Government may also have a role in the environmental assessment and approval of the proposed activity. Commonwealth approval is required for an action which is likely to have a significant impact on a matter of national environmental significance or on Commonwealth land.

Information on the Commonwealth environmental legislation can be obtained on the internet at [www.environment.gov.au/epbc/](http://www.environment.gov.au/epbc/) or by calling 1800 803 772.

The EER should include a statement on whether or not Commonwealth approval is likely to be required.

**EPA Tasmania Contact**

*For information about preparing an EER, the assessment and approvals process for level 2 activities and 'called-in' activities<sup>1</sup>, and for general advice about air, water and noise pollution and land contamination:*

EPA Tasmania

Telephone: (03) 6165 4599

Email: [enquiries@epa.tas.gov.au](mailto:enquiries@epa.tas.gov.au)

Website: [www.epa.tas.gov.au](http://www.epa.tas.gov.au)

*See Appendix A for other agency contacts which may be needed to address separate legislative requirements.*

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<sup>1</sup> 'called-in' activities means level 1 activities referred to the Board under Section 24 of EMPC Act or activities other than level 1 or level 2 referred to the Board under Section 27 of EMPC Act.

## Content of EER

### Part A – Proponent information

Complete the following table.

<b>Name of proponent (entity and trading name)</b>	<i>The entity name must be consistent with any intended or current permit application for the activity under the LUPA Act.</i>
<b>Registered address of proponent</b>	
<b>Postal address of proponent</b>	
<b>ABN</b>	
<b>ACN (as relevant)</b>	
<b>Contact person's details</b>	<i>Name Telephone number Email address</i>
<b>Consultant engaged to prepare EER (as relevant)</b>	<i>Name Telephone number Email address</i>

If a different entity will operate the quarry or extractive pit, provide similar details for that entity also.

If a consultant has been engaged to prepare the EER, provide the name and contact details of the consultant.

### Part B – Proposal description

If the proposal is subject to a permit application under the LUPA Act, the proposal description and specification of the site must be consistent with the intended or current permit application. Any works or activity that are for the purpose of the proposal (e.g. access works) must be included.

#### 1. Overview of activity and site

Complete the following table. Provide text below the table if there is insufficient space.

Proposed activity	
<b>New activity or intensification of existing activity</b>	<i>State if it is an intensification of an existing activity or new activity, and provide written advice from Council as to whether a Planning Permit is required under the LUPA Act, if a planning application has not already been lodged.</i>



<b>Material to be extracted</b>	<i>Describe the product and forecast life of the activity.</i>
<b>Maximum extraction quantity</b>	<i>Provide in cubic metres and tonnes per year (briefly describe any seasonal variation). If it is an intensification, also provide the current extraction limit (cubic metres and tonnes per year).</i>
<b>Maximum processing quantity</b>	<i>Provide in cubic metres and tonnes per year (i.e. crushing, grinding, screening). If it is an intensification, provide the current processing (crushing/screening) limits (cubic metres and tonnes per year). Provide the loose bulk density.</i>
<b>Material extraction and processing</b>	<i>State the method(s) of material extraction and processing.</i>
<b>Transport</b>	<i>Describe the proposed transport route (can refer to Location Map, see below), vehicle types, number of vehicle movements (per day), and time of day of vehicle movements.</i>
<b>Stockpiling</b>	<i>State the materials that will be stockpiled on site.</i>
<b>Area of disturbance</b>	<p><i>State:</i></p> <ul style="list-style-type: none"> <li>• <i>Maximum area of the site proposed to be disturbed (un-rehabilitated) at any given time (hectares).</i></li> <li>• <i>Total area of land to be cleared over the life of the proposal (hectares).</i></li> </ul>
<b>Major equipment</b>	<i>List all existing and proposed plant and machinery (distinguish between existing and proposed).</i>
<b>Infrastructure</b>	<i>List the existing and proposed buildings, structures, access roads, internal haul roads etc (can refer to the Site Plan, see below) (distinguish between existing and proposed).</i>
<b>Proposal timeline</b>	<i>State the key proposal timeline(s).</i>
<b>Operating hours</b>	<i>State the operating hours.</i>
<b>Rationale for proposal and alternatives</b>	
<b>Rationale</b>	<i>Describe the rationale for the proposal</i>
<b>Alternatives</b>	<i>Describe the alternative options that were considered, including benefits and disadvantages (as relevant)</i>
<b>Location and planning context</b>	
<b>Location</b>	<i>State the address of the site, and CTs and PIDs (as applicable) for all titles on which the activity will take place.</i>
<b>Land zoning and tenure</b>	<i>Describe the land zoning and tenure of the site and surrounds. If rezoning of the site is required, provide details.</i>



<b>Use Class and Permissibility</b>	<i>If a permit is required under the LUPA Act, provide the Use Class of the proposed activity and Permissibility of the activity with reference to the relevant Planning Scheme.</i>
<b>Mining lease (ML)</b>	<i>Provide the ML reference number(s) and status (granted/applied for).</i>
<b>Lease area</b>	<i>State the size of the lease area(s).</i>
<b>Description of existing site and surrounds</b>	
<b>Land Use</b>	<i>Describe the land use of the site and surrounds, distance to the nearest residences in other ownership, and any nearby conservation reserves or recreation areas.</i>
<b>Topography</b>	<i>Describe the topography of the site and surrounds.</i>
<b>Climate</b>	<i>State the annual rainfall and predominant wind direction.</i>
<b>Geology</b>	<i>Describe the geology of the site, including the likelihood that potentially acid forming (PAF) material will be found on site. Describe any geoconservation values on or near the site, e.g. karst.</i>
<b>Soils</b>	<i>Describe the soils on site, including erodibility and dispersibility, and the potential to encounter acid sulphate soils and or contaminated soil (from past activities, as relevant).</i>
<b>Hydrology</b>	<i>Describe the waterbodies and aquatic values on site and in the surrounding area. State the distance from the activity to the nearest waterbody.</i>
<b>Natural Values</b>	<i>List the threatened fauna, flora and vegetation communities, including potential habitat for any such species, that are known to occur on or near the site (use the Natural Values Atlas, TASVEG 4.0<sup>2</sup> or results of any relevant survey). State the vegetation types on and near the site.</i>

## 2. Site layout and development

Describe the site layout and planned development (staging) of the quarry or extractive pit, including description of proposed benching and development of infrastructure (internal road, drainage, sediment ponds etc) (refer to the figures below as necessary).

The following figures are required:

- Location Map (1:25,000 or other suitable scale), showing the Mining Lease, the nearest residences in other ownership and residential zones within 1.5 km of the proposed activity and within the applicable attenuation distance<sup>3</sup>, and the transport route(s) to and from the activity.
- Map of The Land on which the activity will take place and its boundary; by means of mining lease, land title information, map coordinates or other. Note, the Land as defined by this figure must be consistent with the permit application submitted under the LUPA Act (as relevant), i.e. the Land cannot extend beyond the land

<sup>2</sup> Both can be accessed on the internet at: <https://www.naturalvaluesatlas.tas.gov.au/>

<sup>3</sup> Refer to relevant planning scheme or State Planning Provisions

titles referenced in the permit application. This figure may be combined with the Site Plan.

- Site Plan(s) showing:
  - boundary of site;
  - location of existing and proposed buildings/structures and plant and machinery;
  - location of product, overburden, soil, and waste stockpiles;
  - location and orientation of benches at key stages of development;
  - vegetation types, clearly marking areas to be cleared, and records of any threatened species/vegetation communities;
  - watercourses on and near the site;
  - site water management (drains, settling ponds, bunding etc. (see also Part C Issue 2)); and
  - monitoring points (as relevant).

### 3. Definition of the Land

A definition of the land on which the activity will take place must be provided.

The land can be defined by:

- Cadastral boundaries (Title Reference, Property ID)
- Lease boundaries (Mining Lease, Crown Lease, Marine Farming Lease, etc.)
- Topographic features (roads, waterways, etc.)
- Surveyed grid coordinates
- Other boundary types

If the land is defined as the whole of an existing defined boundary, such as a title reference or lease, the definition of the land is simply the title reference or lease name (e.g. Title Reference 136529/1 or Mining Lease 9011P/M). If not, it may be necessary to define the boundary by reference to specific topographic features and or surveyed grid coordinates. The boundary must be consistent with any intended or current permit application under the LUPA Act.

A plan is required clearly showing the boundary of the land in relation to cadastral boundaries and topographic features. The boundary of the land should also be provided to the Board in a geospatial vector format (shapefile or DXF). If a boundary survey is required to adequately identify the land boundary, this may be requested during the assessment process.

### 4. Description of existing activity

- Provide details of any current regulatory approvals (permit<sup>4</sup>, environment protection notice) relating to the existing activity.
- Provide the following in relation to the existing activity:
  - a summary of environmental monitoring results (if any);
  - a summary of public complaints regarding the activity (received by the activity operator and by regulatory authorities);
  - details of breaches of conditions of current regulatory approvals (if any); and

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<sup>4</sup> Permit may also mean a former Licence to Operate a Schedules Premises.

- o details of contraventions of environmental law (if any).

## **Part C – Potential environmental impacts**

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### **General note**

Information from documentation relating to the existing activity (such as previous Environmental Management Plans or survey reports) may be used or referenced in this EER, provided the information is current.

The following is required in the assessment of potential environmental impacts:

#### **1. Air quality**

- Description of the likely sources of dust and other air emissions and the potential to create environmental nuisance or harm, taking into consideration:
  - o Distance to nearest residences (refer to the Location Map), prevailing winds and other climatic factors;
  - o Nature of the material excavated, method of excavation and processing/handling on site; and
  - o Site layout (refer to the Site Plan).
- Description of measures that will be employed to reduce the potential for environmental nuisance or harm.

#### **2. Water quality (surface, discharge and groundwater)**

- Description of management measures to control surface water and the potential for erosion and sediment loss. Control measures include: minimisation of areas of disturbance; minimisation of stormwater ingress and sediment mobilisation through the use of perimeter drains, cut-off drains and bunding; sediment basins or stilling areas to capture entrained sediment; and swales, rock filters, wetlands or vegetated discharge zones to remove fine suspended sediment.
- Identify the dimensions, capacity and other relevant design features of key stormwater infrastructure such as drains and sediment basins, with reference to design rainfall frequency (average recurrence interval) and intensity. For sediment basins provide the sediment capture particle size, settling volume and surface area calculations and design rationale<sup>5</sup>.
- Description of the potential impacts to receiving environment (surface water, groundwater, drinking water, stock water, and irrigation as relevant).

#### **3. Noise emissions and blasting**

- Description of all noise sources, including the size and power rating for each main piece of equipment (e.g. crusher/screen, loader, excavator, haul truck, rock drill etc).
- Description of the potential for the activity to create a noise nuisance, taking into consideration:
  - o Site layout (refer to the Site Plan);

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<sup>5</sup> Suitable design approaches for sediment basins include those detailed in *Best Practice Erosion and Sediment Control – Appendix B (June 2018 revision)*, International Erosion Control Association (Australasia) and *Managing Urban Stormwater: Soils and Construction - Volume 2e: Mines And Quarries*, Department of Environment and Climate Change, NSW Government (2008).



- Distance to the nearest residences and other noise sensitive premises<sup>6</sup> (refer to the Location Map); and
  - Topography.
  - Description of noise attenuation measures that will be implemented (as relevant).
  - Statement as to whether blasting will be undertaken, and if so, the likely blast charge, frequency of blast events (per year) and discussion of potential for blast effects (ground vibration and air-blast overpressure) to impact nearby residences and other sensitive receptors (i.e. the Launceston Airport and the TasRail rail line).
  - Description of the potential impacts on the Launceston Airport and TasRail rail line located adjacent to the site and mitigation measures proposed to minimise the risks to these activities.
- 4. Waste**
- Description of the solid and liquid waste that will be produced (e.g. overburden, Potentially Acid Forming material, metal and machinery service wastes, used oils, general refuse etc), and the proposed methods for reuse, recycling, treatment and disposal.
- 5. Environmentally hazardous substances**
- Details of the nature and quantity of environmentally hazardous substances (e.g. fuel, oil, diesel) that will be stored (permanently or temporarily, e.g. mobile refuelling) and or handled on site.
  - Description of their storage method and location, and management measures to prevent their release and respond to accidental spills, e.g. provision of spill kits.
  - Description of all dangerous goods<sup>7</sup> and controlled wastes<sup>8</sup> that will be present on the site, and how these will be managed.
- 6. Natural values**
- Description and results of any natural values survey undertaken for the EER. The survey report must be appended to the EER.
    - If there are records (from the Natural Values Atlas and or TASVEG 4.0) of listed threatened flora/fauna species or threatened vegetation communities on or near the site, or if the site has potential habitat for any such species, a natural values survey is likely to be required. Surveys must comply with the requirements of the *Guidelines for Natural Values Surveys*<sup>9</sup>.
  - Description of potential impacts to threatened fauna, flora and vegetation communities, taking into account:
    - Clearing or disturbing native vegetation and potential habitat for threatened species. Provide details of the vegetation and habitat values to be cleared or disturbed, and the area of vegetation to be affected, in hectares;

<sup>6</sup> 'noise sensitive premise' is defined as: 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.

<sup>7</sup> Information on controlled waste identification and classification is available on the internet at: <https://epa.tas.gov.au/regulation/waste-management/controlled-waste>

<sup>8</sup> As defined in the *Australian Code for the Transport of Dangerous Goods by Road and Rail*.

<sup>9</sup> Available on the internet at: <https://dppw.tas.gov.au/conservation/development-planning-conservation-assessment/survey-guidelines-for-development-assessments>.



- Movement, noise, or lights during sensitive avifauna breeding seasons;
- Roadkill from vehicles<sup>10</sup>.
- Description of management measures to mitigate adverse impacts to threatened fauna, flora and vegetation communities where they cannot be avoided. The *Survey Guidelines And Management Advice For Development Proposals That May Impact On The Tasmanian Devil (Sarcophilus harrisii)*<sup>11</sup> should be consulted to determine the need for roadkill management measures.
- Description of potential impacts to geoconservation sites (e.g. karst systems), aquatic or riparian environments and other natural values, and a description of management measures to mitigate such impacts, as relevant.

#### **7. Weeds, pests and pathogens**

- List the weeds and diseases known to occur, or likely to occur, on or near the site. Describe the potential for migration of weeds and diseases to and from the site, and within the site, and the proposed management measures, as relevant.

#### **8. Environmental Impacts of Traffic**

- Description of the potential for transport to and from the site to cause a noise nuisance to residences and other noise sensitive premises in proximity to the Land, taking into account the type, volume and time of transport.
- Description of the potential to cause a dust nuisance as a result of transport along gravel roads in proximity to the Land.

#### **9. Monitoring**

- Description of proposed environmental monitoring and reporting. Show all proposed monitoring points on the Site Plan (see Part B).

#### **10. Decommissioning and rehabilitation**

- Description of decommissioning and rehabilitation in the event of cessation of the activity, including final land use.
- Description of progressive rehabilitation on site, with reference to the staged development of the quarry/excavation pit (refer to the Site Plans as relevant).

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<sup>10</sup> Information in relation to roadkill risk for Tasmanian Devils can be found at:  
<http://dppwe.tas.gov.au/Documents/Devil%20Survey%20Guidelines%20and%20Advice.pdf>

<sup>11</sup> Available on the internet at:  
<https://dppwe.tas.gov.au/Documents/Devil%20Survey%20Guidelines%20and%20Advice.pdf>

## Part D – Summary of proposed management measures

- All management measures must be numbered and summarised in a Table in this section (example provided below). They must be written as specific, unambiguous measures for avoiding, minimising and managing the potential environmental impacts identified in Part C above.

### Management measures

No.	Proposed measure	Timeframe
1	<i>A sediment settling pond capable of containing runoff from a 1-in-20 year storm event as described in Part C, paragraph 2.6 [of the EER].</i>	<i>At least 30 days prior to commencement of operations.</i>
2	<i>Develop a solid waste management plan as described in Part C, paragraph 8.4 [of the EER].</i>	<i>Within three months of approval and prior to treatment or removal of any waste.</i>
3	<i>Construct a noise attenuation barrier as described in Part C, paragraph 9.2 [of the EER].</i>	<i>At least 30 days prior to commencement of operations.</i>

## Part E – Public and stakeholder consultation

- Description of consultation with other government agencies, community groups or neighbours that has taken place, or details of any intended consultation that will take place.
- A Guide to Community Engagement is available on the EPA's website at <https://epa.tas.gov.au/assessment/assessment-process/guidance-documents>



## **Appendix A: Other issues and agency contacts**

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In addition to a permit under the LUPA Act and the EMPC Act, there may be other legal requirements to allow your proposal to proceed. These may include other permits, licences or landowner consent. You may also need to contact other Government agencies to obtain information for the purpose of assessment under the LUPA Act or the EMPC Act. The following list identifies some of the key agencies you may need to contact.

Note: your proposal may be referred to other agencies in the process of preparing guidelines. Should assessments or approval outside of the Board's responsibilities be required, the respective agency will engage with you to progress them..

*Natural values including flora, fauna, and geoconservation values, or permits to deal with threatened species:*

Policy and Conservation Advice Branch

Telephone: (03) 6165 4416

Email: [conservationassessments@dpipwe.tas.gov.au](mailto:conservationassessments@dpipwe.tas.gov.au)

Website: [www.dpipwe.tas.gov.au](http://www.dpipwe.tas.gov.au)

*Historic cultural heritage, including State-level site listings, impacts and permits as required under the Historic Cultural Heritage Act 1995:*

Heritage Tasmania

Telephone: (03) 6165 3700

Email: [enquiries@heritage.tas.gov.au](mailto:enquiries@heritage.tas.gov.au)

Website: [www.heritage.tas.gov.au](http://www.heritage.tas.gov.au)

Note: Where works are proposed in or in close proximity to a heritage place entered on the Tasmanian Heritage Register or likely to be of heritage significance to the whole of Tasmania, and a permit is required under the *Land Use Planning and Approvals Act 1993*, the proposal will be referred to Heritage Tasmania by the planning authority. There may also be additional sites listed under local planning schemes, impacts on which are assessed by the relevant planning authority.

*Aboriginal heritage, including desktop assessment, artefact survey requirements, permits:*

Aboriginal Heritage Tasmania

Telephone: (03) 6165 3152

Email: [aboriginal@heritage.tas.gov.au](mailto:aboriginal@heritage.tas.gov.au)

Website: [www.aboriginalheritage.tas.gov.au](http://www.aboriginalheritage.tas.gov.au)

Note: the proposal will be referred to Aboriginal Heritage Tasmania (AHT) on referral to the Board. If assessments or approvals outside of the Board's responsibilities are required, it is your responsibility as the proponent to engage with AHT to progress them.

*Parks and reserves, including where any proposal may impact on land managed by the Tasmanian Parks & Wildlife Service:*

Parks and Wildlife Service

Telephone: 1300 827 727

Website: [www.parks.tas.gov.au](http://www.parks.tas.gov.au) and [www.thelist.tas.gov.au](http://www.thelist.tas.gov.au)

*Crown land, including where any proposal may impact on land owned by the Crown:*

Crown Land Services

Telephone: (03) 6233 6413

Email: [cls.enquiries@dpipwe.tas.gov.au](mailto:cls.enquiries@dpipwe.tas.gov.au)

Website: [www.parks.tas.gov.au](http://www.parks.tas.gov.au)

*State roads, including where any proposal requires works on or access from a State-managed road asset:*

State Roads

Telephone: (03) 6166 3369

Email: [permits@stategrowth.tas.gov.au](mailto:permits@stategrowth.tas.gov.au)

Website: [www.transport.tas.gov.au](http://www.transport.tas.gov.au)

*Mining leases:*

Mineral Resources Tasmania

Telephone: (03) 6165 4800

Email: [info@mrt.tas.gov.au](mailto:info@mrt.tas.gov.au)

Website: [www.mrt.tas.gov.au](http://www.mrt.tas.gov.au)

*Works impacting natural waterway flow, e.g. dams or fords:*

Water Management and Assessment Branch

Telephone: (03) 6165 3222

Email: [Water.Enquiries@dpipwe.tas.gov.au](mailto:Water.Enquiries@dpipwe.tas.gov.au)

Website: [www.dpipwe.tas.gov.au/water](http://www.dpipwe.tas.gov.au/water)



D. N. Hughes

Western Junction Quarry Southern Extension

Development Proposal and Environmental  
Management Plan

**APPENDIX B**

Previous Environmental Assessment Report

[D N Hughes - Western Junction Quarry  
Extension, Western Junction - EAR](#)

# Environmental Assessment Report

## Western Junction Quarry Intensification & Expansion

81 Evandale Road, Western Junction  
D.N. Hughes

October 2020



ENVIRONMENT PROTECTION AUTHORITY



<b>Environmental Assessment Report</b>	
Proponent	D.N. Hughes
Operator	Bis Quarries Pty Ltd
Proposal	Western Junction Quarry Expansion
Location	81 Evandale Road, Western Junction
NELMS no.	PCE No. 9667
Permit Application No.	PLN 19-0071 (Northern Midland Council)
Electronic Folder No.	EN-EM-EV-DE-252179
Document No.	M707588
Class of Assessment	2B

<b>Assessment Process Milestones</b>	
7 March 2017	Notice of Intent lodged
24 April 2017	Guidelines Issued
2 April 2019	Permit Application submitted to Council
9 April 2019	Referral received by the Board
11 May 2019	Start of public consultation period
11 June 2019	End of public consultation period
27 July 2020	Additional information (Supplement) submitted to the Board
25 September 2020	Date draft conditions issued to proponent
9 October 2020	Statutory period for assessment ends





<b>Acronyms</b>	
Board	Board of the Environment Protection Authority
DITCRD	Department of Infrastructure, Transport, Cities and Regional Development
DPEMP	Development Proposal and Environmental Management Plan
DPIPWE	Department of Primary Industries, Parks, Water and Environment
EIA	Environmental Impact Assessment
EL	Environmental Licence
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>
NASF	National Airport Safety Framework
PARS	Policy, Advice and Regulatory Services Branch of Natural and Cultural Heritage
PFAS	Per- and poly-fluoroalkyl substances
RMPS	Resource Management and Planning System
RPDC	Resource Planning and Development Commission
SD	Sustainable Development
TPC	Tasmanian Planning Commission



## Report Summary

This report provides an environmental assessment of D. N. Hughes' proposed quarry expansion. The Landowner and holder of Mining Leases 975P/M and 2045P/M is Mr Hughes, however, the quarry is operated by Bis Quarries Pty Ltd.

The proposal involves the intensification of an existing level 2 hard rock quarry located at Western Junction. The activity is currently permitted to extract 315,000 tonnes and process 350,000 tonnes per annum within mining lease 975P/M. It is proposed to increase extraction and processing to 500,000 tonnes (312,500 cubic meters) per annum. The proposal also includes extraction of a new area (mining lease application 2045P/M) not previously assessed. Material will be won by drilling and blasting and then transported to the existing crushing and screening plant for processing and stockpiling.

This report has been prepared based on information provided in the permit application, Development Proposal and Environmental Management Plan (DPEMP) and Supplement to the DPEMP. Relevant government agencies and the public were consulted, and their relevant submissions, representations and comments considered as part of the assessment.

On 16 August 2019, the Board requested that the proponent submit additional information to address issues raised during the public inspection period and to meet other information requirements. The proponent submitted satisfactory additional information on 27 July 2020, in the form of a Supplement to the DPEMP.

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. The detailed evaluation of key issues is in section 6, and other issues are evaluated in sections 7 and 8 and 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 the environmental permit conditions for the proposal.

The environmental conditions in Appendix 3 are a new set of operating conditions for the entire, intensified activity that will supersede the existing permit conditions.



**Contents**

1 Approval Process..... 6

2 SD Objectives and EIA Principles ..... 7

3 The Proposal ..... 8

4 Need for the Proposal and Alternatives ..... 16

5 Public and Agency Consultation..... 17

6 Evaluation of Key Issues..... 18

    6.1 Noise emissions..... 19

    6.2 Blasting impacts..... 22

    6.3 Air emissions ..... 25

7 Other Issues assessed by the Board ..... 29

8 Other Issues ..... 29

9 Report Conclusions..... 30

10 Report Approval ..... 31

11 References..... 32

12 Appendices ..... 33





## I Approval Process

The Board of the Environment Protection Authority (the Board) received a Notice of Intent in relation to the proposal on 6 March 2017.

An application for a permit under the *Land Use Planning and Approvals Act 1993* (LUPA Act) was submitted to Northern Midlands Council on 2 April 2019.

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 with materials handling.

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 9 April 2019.

The Board required that information to support the proposal be provided in the form of a Development Proposal and Environmental Management Plan (DPEMP) prepared in accordance with guidelines issued by the Board on 24 April 2017. Several drafts of the DPEMP were submitted to EPA Tasmania for review against the guidelines prior to finalisation and acceptance on behalf of the Board on 25 March 2019.

The final DPEMP was submitted to Council with the permit application. The DPEMP was released for public inspection for a 28-day period commencing on 11 May 2019. Advertisements were placed in *The Examiner* and on the EPA website. The DPEMP was also referred to relevant government agencies for comment. Three representations were received.

On 25 May 2020, the Board requested that the proponent submit additional information to address matters raised during the public consultation period. Satisfactory additional information was submitted by the proponent on 27 July 2020.



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## 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 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.



### 3 The Proposal

The main characteristics of the proposal are summarised in Table 1. A detailed description of the proposal is provided in Section 2 of the DPEMP.

**Table 1: Summary of the proposal's main characteristics**

Activity	
Extraction, crushing and screening of a maximum of 312,500 cubic metres of basalt rock per year.	
Location and planning context	
<b>Location</b>	'The Springs' 81 Evandale road, Western Junction
<b>Land zoning</b>	Rural resource
<b>Land tenure</b>	Private freehold
<b>Mining lease</b>	2045P/M and 975P/M
<b>Lease area</b>	21 hectares and 53 hectares respectively
<b>Bond</b>	MRT hold the following bond: Mining Lease: 975P/M - \$200,000 (Pending renewal) Mining Lease 2045P/M – This Mining Lease is still an application and MRT will calculate the bond when they approve it.
Existing site	
<b>Land Use</b>	Agricultural grazing land.
<b>Topography</b>	The proposed quarry is located on the eastern side of a moderately high escarpment, rising above the valley formed by the Rose Rivulet.
<b>Geology</b>	Late Eocene Basalt overlies older Eocene and Palaeocene mudstone, siltstone and sandstone with minor lignite and conglomerate deposited in a graben or half-graben structure.
<b>Soils</b>	Breadalbane Soil Association – Brown clayey soils on Tertiary Basalt.
<b>Hydrology</b>	The site drains towards Briarly Creek, which flows east to drain into Kelley's Creek, Rose Rivulet and eventually the North Esk River.
<b>Natural Values</b>	None identified.
Local region	
<b>Climate</b>	Rainfall approximately 675mm per annum. Wind direction predominantly from the north and northwest with sub dominant winds from the south and southeast.





<b>Surrounding land zoning, tenure and uses</b>	Three other quarries operate adjacent to and north of the site. Launceston Airport (Commonwealth land) is located adjacent to the east and south. Agricultural land exists to the south, east and north east. A vineyard is adjacent to the northern part of the existing quarry. A railway line runs adjacent to the existing quarry's eastern boundary. There are two sewage treatment ponds (TasWater) located adjacent to mining lease 2045P/M. The ponds and airport are both zoned utilities, with the rest of the surrounding land being predominantly rural resource and an area of general industrial zoning to the west of the airport.
<b>Species of conservation significance</b>	None identified.
<b>Proposed infrastructure</b>	
<b>Major equipment</b>	<ul style="list-style-type: none"> <li>• Crushing plant with jaw crusher, secondary cone crusher and tertiary crushing and screens</li> <li>• Pre-coat plant with liquid tank, collection pond and conveyor</li> <li>• PUG Mill QME Twin Shaft (350t/hr)</li> <li>• Mobile screening plant</li> <li>• Conveyors</li> <li>• Drill rig</li> <li>• Trucks - various</li> <li>• Rubber tired front-end loader</li> <li>• Excavators (75t and 30t)</li> <li>• Cat rigid dump truck (45t)</li> </ul>
<b>Other infrastructure</b>	<ul style="list-style-type: none"> <li>• Stockpiles</li> <li>• Settling ponds, also used for water supply</li> <li>• Offices</li> <li>• Weighbridge</li> <li>• Workshops</li> <li>• Stores</li> </ul>
<b>Inputs</b>	
<b>Water</b>	Reticulated water supplied by TasWater connection. Water for crushing and screening plant supplied from Briarly Creek settlement pond.
<b>Energy</b>	Mains power, plus diesel fuel to power vehicles.
<b>Other raw materials</b>	Lubricants, oil, grease and oxyacetylene are stored onsite.
<b>Wastes and emissions</b>	
<b>Liquid</b>	Stormwater runoff from extraction and stockpile areas. Sewage from the staff amenities will be collected by a septic tank.



<b>Atmospheric</b>	Dust from internal and external traffic, blow-off from stockpiles, dust generated from the crushing plant.
<b>Solid</b>	General refuse including food scraps, paper and packaging. Solid wastes associated with machinery and processing plant maintenance.
<b>Controlled wastes</b>	Waste oil
<b>Noise</b>	<ul style="list-style-type: none"> <li>• Primary jaw crusher – Teres Jaques 42x30</li> <li>• Secondary cone crusher – Jaques J 50</li> <li>• Tertiary cone crusher – CME Auspactor 300</li> <li>• Tracked excavator – CAT 375</li> <li>• Wheeled loader at crushing plant – CAT 980H</li> <li>• 2 Wheeled loaders for sales / per-coat – CAT 966</li> <li>• Haul truck – CAT 769D</li> <li>• Drill rig – BP 1100</li> <li>• Rock breaker – on 30t excavator</li> <li>• Screening</li> <li>• Blasting</li> <li>• Pre-coat plant</li> <li>• PUG Mill</li> </ul>
<b>Greenhouse gases</b>	Greenhouse gases will be generated by combustion of fuels by mobile plant, equipment and onsite vehicles. The processing plant requires electrical power to operate. Explosives will be used for blasting.
<b>Construction, commissioning and operations</b>	
<b>Proposal timetable</b>	Gradually transition to the new quarrying area once resources are exhausted in the current quarry pit.
<b>Operating hours (ongoing)</b>	0600 to 1730 hours Monday to Friday 0700 to 1500 hours Saturday No works conducted on Sundays or public holidays

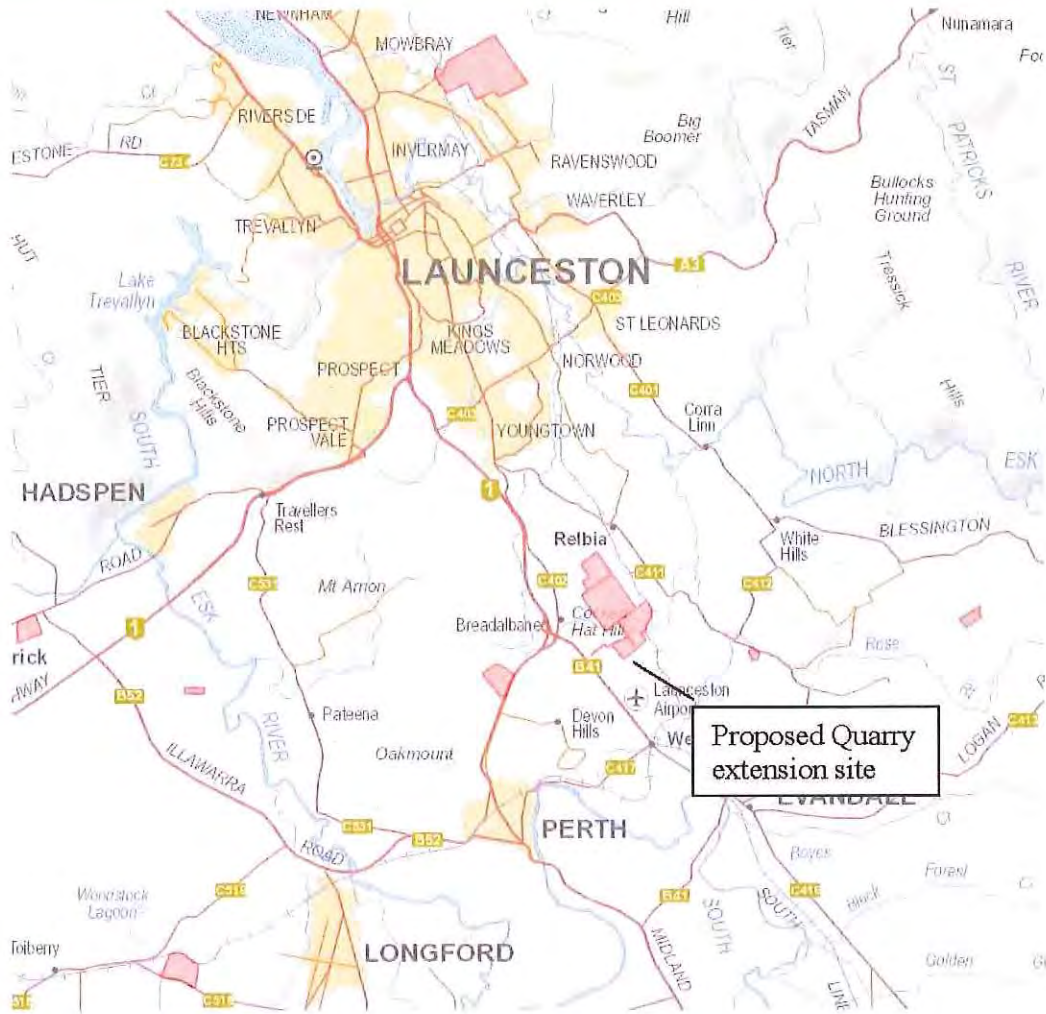


Figure 1: Proposed location (Figure 1.1 of the DPEMP)



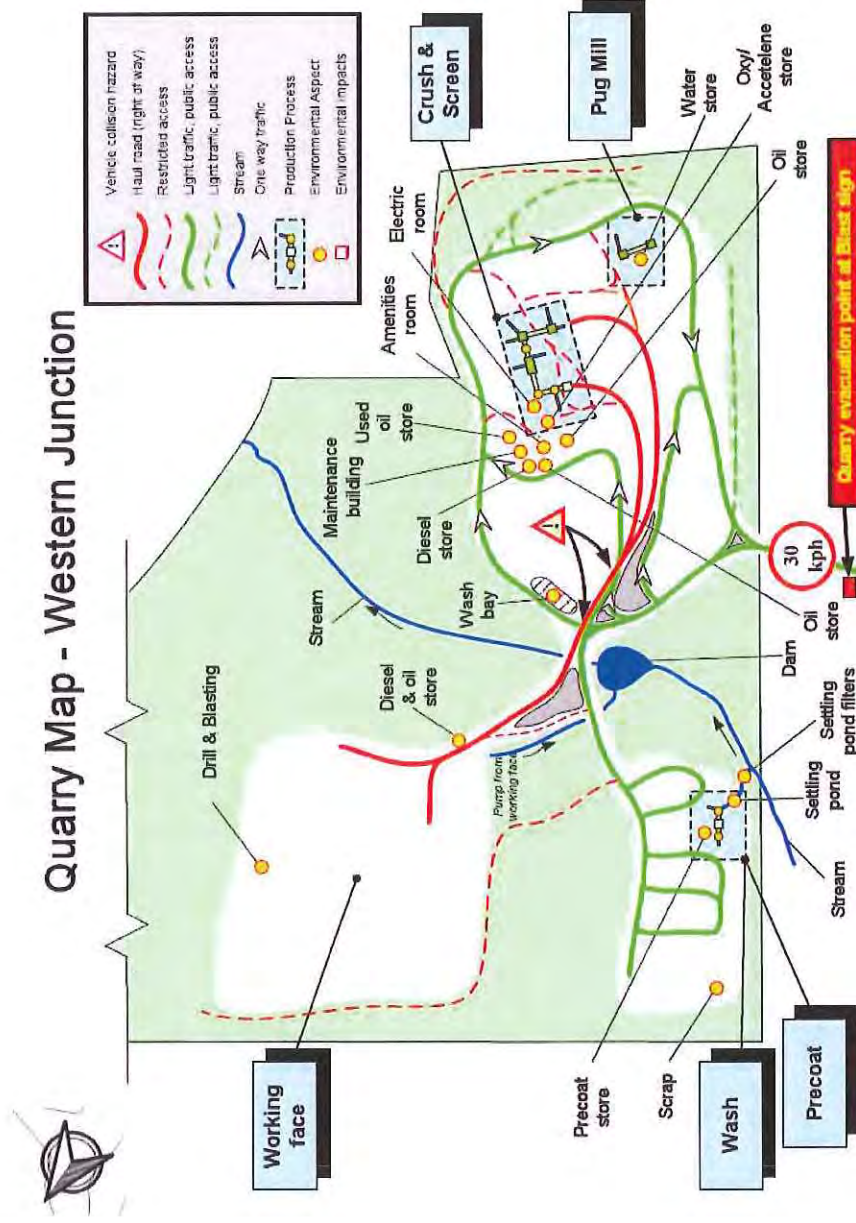


Figure 2: Current quarry layout (Figure 2.6 of the DPMP)

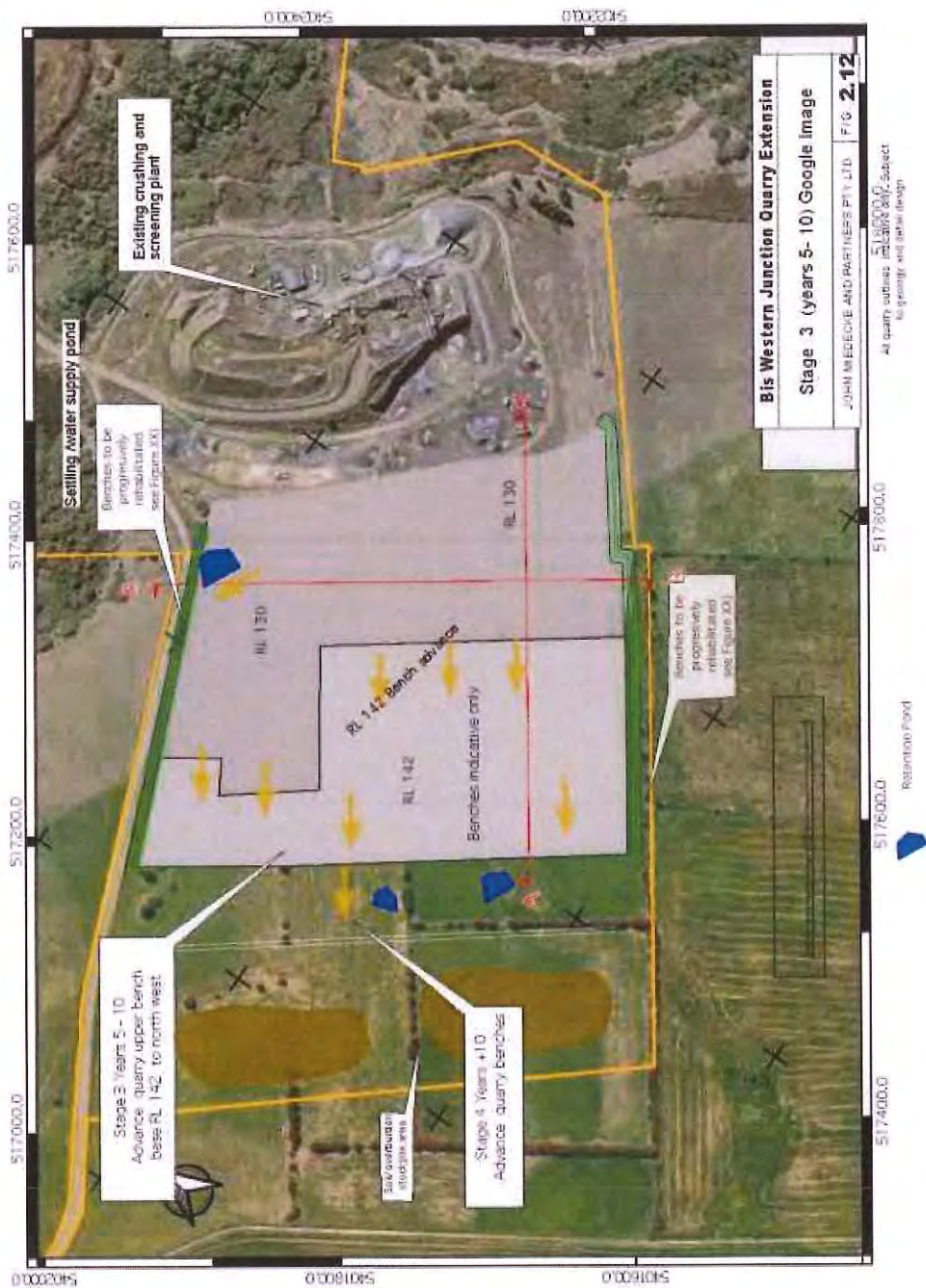


Figure 3: Proposed quarry extension (Figure 2.12 of the DPEMP)



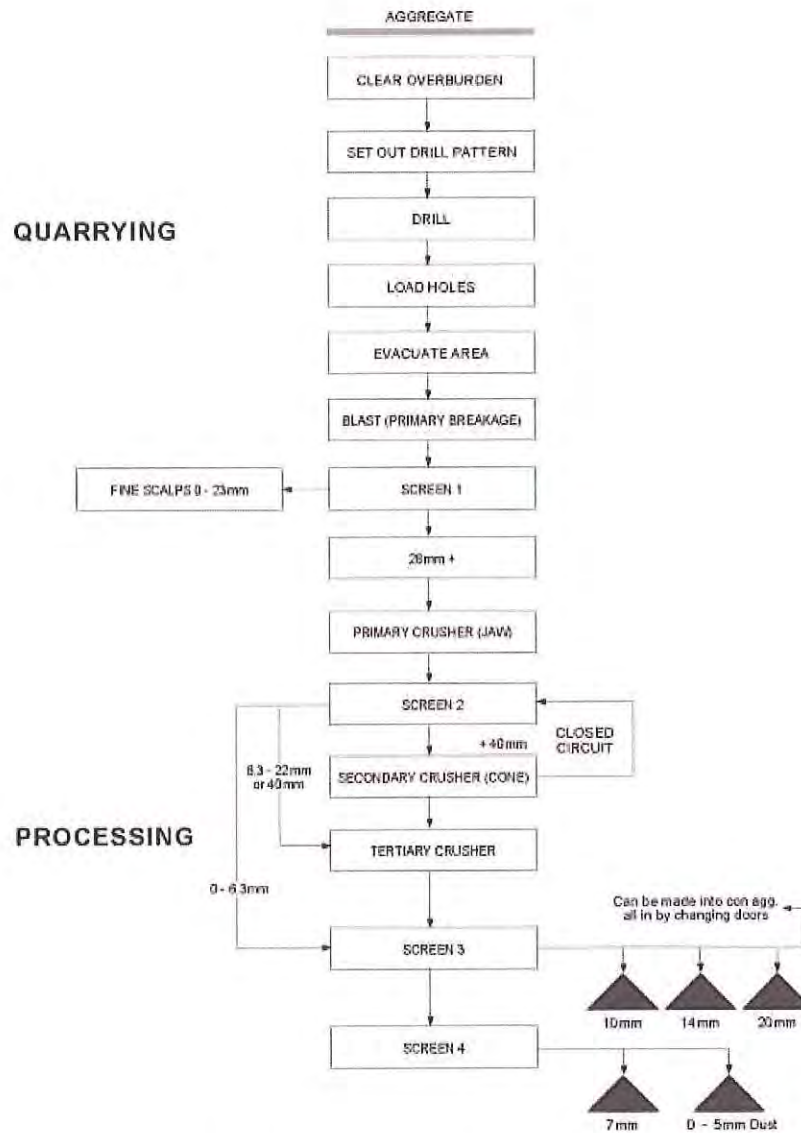


Figure 4: Process overview for aggregate (Figure 2.17 of the DPEMP)



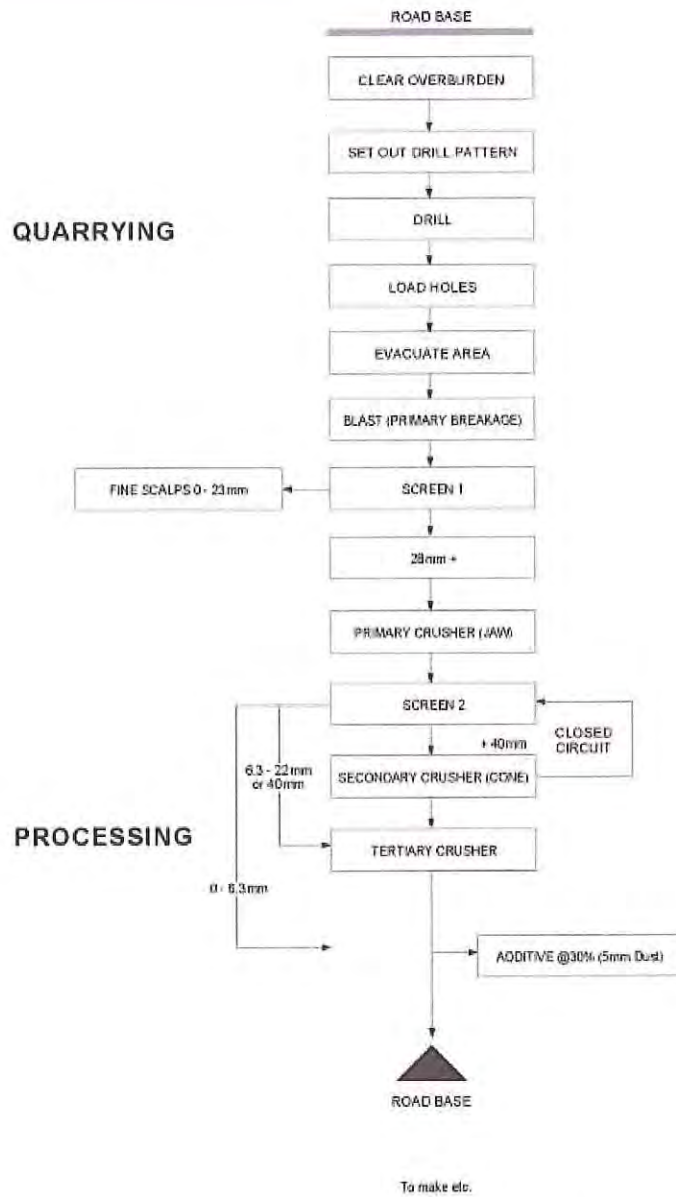


Figure 5: Process overview for road base (Figure 2.18 of the DPEMP)



#### **4 Need for the Proposal and Alternatives**

The DPEMP states that the quarry has been in operation continuously since 1982 and is well located for an operating quarry, having few nearby residences and a transport route that provides close access to the major road networks and avoids residential areas.

The Proponent also states in the DPEMP that the quarry has been an important and reliable supplier to the market for construction materials needed by the community which has been recognised as strategically important by the then Resource Planning and Development Commission (TPC then RPDC) in hearings into local planning scheme amendments and permit application for a residential development in the area.

The DPEMP notes that a reduction in resource reserves caused by the clay intrusion in the existing quarry area now means that the quarry is heading towards closure within the existing lease area in the next five-year plan. Planning for closure has also been considered and plans have been agreed with the landowner. Long-term land use will be level areas suitable for industrial and commercial use or grazing.



## 5 Public and Agency Consultation

A summary of the public representations and government agency/body submissions is contained in Appendix I of this report.

Three public representations were received. The main issues raised in the representations included:

- Dust emissions on adjacent agricultural land, impacting on grazing capacity for animals and crop production.
- No reference to, or consideration of, the *Airports Act 1996*, *Airports (Protection of Airspace) Regulations 1996* or to the National Airports Safeguarding Framework guidelines around aviation safety.
- Potential impacts on prescribed airspace, including:
  - Dust emissions;
  - Fly-rock emissions;
  - Air blast over pressure causing air turbulence and amenity issues;
  - Light emissions interfering with airport safety lighting;
  - Soil / overburden stockpiles causing air turbulence; and
  - Creation of additional sediment ponds and the potential for wildlife strikes.
- Dust emissions, fly-rock emissions and wildlife strikes are controlled actions under the Airports Act and Regulations and require assessment and approval under that Act.
- Aviation Safety Impact Assessment and Wildlife Hazard Management Assessment are required.

The DPMP was referred to several government agencies/bodies with an interest in the proposal, including:

- Department of State Growth
- Mineral Resources Tasmania

The following Divisions/areas of the Department of Primary Industries, Parks, Water and Environment were also consulted and/or provided advice on the DPMP:

- Aboriginal Heritage Tasmania
- Policy, Advice and Regulatory Services Branch (previously the Policy and Conservation Advice Branch)
- Regulatory Officer, EPA Tasmania
- Air Specialist, EPA Tasmania
- Noise Specialist, EPA Tasmania
- Water Specialist, EPA Tasmania

The Supplement to the DPMP prepared by the proponent provides a response to relevant environmental issues raised during public consultation.





## 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
- Blasting impacts
- Air emissions

Each of these issues are discussed in the following subsections.

### General conditions

The following general conditions will be imposed on the activity:

- **G1** – Access to and awareness of conditions and associated documents
- **G2** – Incident response
- **G3** – No changes without approval
- **G4** – Change of responsibility
- **G5** – Change of ownership
- **G6** – Complaints register
- **G7** – Annual Environmental Review
- **G8** – Environmental Management Plan and review thereof
- **G9** – Quarry Code of Practice



## 6.1 Noise emissions

### 6.1.1 Description

Western Junction Quarry is comprised of four separate pits, two of which are currently active, see Figure 2.5 of the DPEMP. The DPEMP estimates that the resource in the two currently operating pits will be depleted in 2-3 years. The crushing and screening plant are located in the main pit, which has ceased extraction. Section 2.1.4 of the DPEMP outlines the current operation of the activity.

This proposal includes increasing the maximum allowable extraction and processing limit from 197,000 cubic meters per annum to 312,500 cubic meters per annum and expanding into a new pit to the west and south west of the main pit.

Noise emissions will be generated from mobile earthmoving equipment (excavators, front wheel loaders, dump trucks, drill rig, haul trucks), blasting and the crushing and screening plant. If not managed appropriately the activity has the potential to cause environmental nuisance to nearby sensitive receptors.

The DPEMP notes that noise emissions from the current operation were monitored and future estimates of noise levels were determined to be in compliance with the noise criteria adopted from the *Quarry Code of Practice 2017*, with the exception of the drill rig in the early stages of the new pit development (i.e. 0-5 years). The DPEMP also notes that, if required, additional management measures will be implemented in the initial years of the extension.

This section does not consider the impacts from blasting, except for noise generated by the drill rig, blasting impacts are further discussed and evaluated in Section 6.2.

### 6.1.2 Management measures

#### Commitment 1

- Maintain a complaint register to record any complaints from the public and the actions taken to address the complaint.

#### Commitment 2

- Advise the Launceston Airport and residents within a 1km radius (or as agreed) 24 hours in advance of any blasting activity; and
- Monitor blasting to ensure compliance with the appropriate standards.

#### Commitment 3

- Maintain attenuation distances to neighbours;
- Monitor noise emissions after operations commence (for the extension); and
- Fit noise attenuation on the drill rig if required.

#### Commitment 4

- Hours of operation will comply with Permit requirements;
- No transportation will occur on Sundays or gazetted public holidays; and
- Transport trucks will be maintained in condition.

#### Commitment 16

- The Proponent will liaise with TasWater regarding their requirements and establish a management plan.





The DPEMP states that when operations commence in the new pit, a noise survey will be conducted within 3 months to confirm the noise predictions and further assess the potential impacts on sensitive receptors.

The DPEMP also states that drilling only occurs for 1-2 days per month and that the residence most impacted by noise, Location B as shown in Figure 4.1 of the DPEMP (page 37), is also subjected to elevated noise levels from aircraft.

### 6.1.3 Public and agency comment and responses

The representations from the Department of Infrastructure, Transport, Cities and Regional Development (DITCRD) and Launceston Airport did not raise noise as an issue.

TasWater provided comments on the DPEMP and indicated that management of potential impacts on its staff should be considered in relation to blasting noise emissions (amongst other things). The Supplement provides an email from TasWater stating that TasWater do not expect the Proponent to submit anything, nor do they want to review any proposed management measures until planning approval is provided.

The Supplement states that Terrock have investigated the potential impact from blasting on TasWater's staff and determined that there is no risk to the staff. The Supplement also notes that as TasWater will need to use the access road within the Mining Lease, its staff will be required to adhere to the quarry OH&S requirements, including signing in and out, which will help ensure staff safety.

No other concerns were raised in relation to noise emissions from the public or other government agencies.

### 6.1.4 Evaluation

A Noise Assessment (Appendix D of the DPEMP) was undertaken for the site based on measurements from the current operation to predict future noise impacts with the intensification and extension of the quarry.

The Noise Assessment indicates that for normal operations, including haulage, crushing, screening and offsite transport of product, noise levels at the nearest sensitive receptors (as detailed in Figure 1 of the Noise Assessment) are below the criteria for the entire life of the quarry. The Noise Assessment goes on to state that when drilling occurs, noise limits are predicted to be exceeded at Location B (Raeburn House) over the first 5 years of operation in Mining Lease 2045P/M.

The Noise Assessment recommends that a noise survey be conducted once operation in Mining Lease 2045P/M has commenced to confirm the predictions of the assessment, in particular the actual drill rig noise levels at Location B. This recommendation is supported and Condition **N2** requires a noise survey to be undertaken within 6 months of operations commencing in Mining Lease 2045P/M. This is supported by Condition **N3** which specifies the requirements for the noise survey method and reporting.

The Noise Assessment also recommends that if drill rig noise exceeds the criteria, a noise mitigated drill rig should be used in the first 5 years of operation within Mining Lease 2045P/M. This recommendation is supported and will be guided by the results of the Noise Survey required by Condition **N2**.

Furthermore, Condition **N1** sets the noise limits that must be met by the activity. The EPA Noise Specialist considers a daytime noise limit of 50dB(A) to be appropriate given the industrial, commercial and aviation related activities also undertaken in the area surrounding the quarry.





Condition **N5** requires that in the event a noise complaint is received, the Director must be notified within 24 hours. The Complaints register required under Condition **G6** must also record all complaints received.

Condition **N4** stipulates operating hours to reduce the risk of noise emissions causing an environmental nuisance to sensitive receptors. The activity's current Licence to Operate Scheduled Premises No. 3374 does not specify operating hours for the activity. The DPEMP states that the activity currently operates from 0600 hours to 1730 hours Monday to Friday and 0700 hours to 1500 hours on Saturday. While outside the operating hours recommended by the Quarry Code of Practice, the hours are considered appropriate given the setting of the activity, the imposition of Condition **N1** also requires that any activity undertaken on The Land prior to 0700 hours must be able to meet a noise limit of 35dB(A).

The conclusions and recommendations of the Noise Assessment are supported. The Commitments made and the conditions imposed are considered appropriate to mitigate the potential for causing environmental nuisance at sensitive receptors. In the event that the noise limits are exceeded, the Director could require further mitigation measures to ensure compliance e.g. drill rig shielding.

#### **6.1.5 Conclusions**

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** Operating hours
- N5** Noise complaints
- N6** Control of noise emissions



## 6.2 Blasting impacts

### 6.2.1 Description

Blasting is required to fracture the rock so it can be removed for processing at the crushing and screening plant. The DPMP states that blasting will occur approximately once a month but may on occasion be required more frequently.

Blasting will result in noise emissions (air blast), ground vibration and fly-rock. These emissions have the potential to cause environmental nuisance, property damage and aviation safety impacts if not managed appropriately. The potential impacts of dust during blasting are further discussed and evaluated in Section 6.3 and the noise impacts from drilling are further discussed and evaluated in Section 6.1.

Another issue of concern is in relation to fly-rock potentially penetrating prescribed airspace.

Terrock Pty Ltd were engaged to provide specialist advice in relation to blast design to ensure the quarry operation meets the relevant air blast and ground vibration limits. The DPMP notes that Terrock have completed several studies in the area and are familiar with the resource.

The Supplement indicates that the revised vertical blast throw of rock would not exceed 28 meters in height, which is below the prescribed obstacle limitation surface (OLS) and therefore does not require a controlled activity application for the purposes of the *Airports (Protection of Airspace) Regulations 1996*.

### 6.2.2 Management measures

#### Commitment 1

- Maintain a complaint register to record any complaints from the public and the actions taken to address the complaint.

#### Commitment 2

- Advise the Launceston Airport and residents within a 1km radius (or as agreed) 24 hours in advance of any blasting activity; and
- Monitor blasting to ensure compliance with the appropriate standards.

#### Commitment 16

- The Proponent will liaise with TasWater regarding their requirements and establish a management plan.

The Supplement also states that as TasWater use the access road in the Mining Lease, its staff will be required to adhere to site OH&S requirements, including signing in and out, which will improve worker safety.

In addition, the DPMP states that Terrock Consulting Engineers were engaged to advise on blast design to ensure that quarry operations meet the relevant ground vibration limits. The DPMP notes that Terrock have completed several studies at the quarries located nearby and have a good understanding of the area.

The DPMP commits to continue monitoring each blast undertaken on The Land.

### 6.2.3 Public and agency comment and responses

TasWater provided comments on the DPMP and indicated that management of potential impacts on its staff and infrastructure should be considered in relation to blasting and fly-rock (amongst other things). The Supplement provides an email from TasWater stating that they do not expect





the Proponent to submit anything nor do they want to review any proposed management measures until planning approval is provided.

The Supplement states that Terrock have investigated the potential impact from blasting on the TasWater infrastructure and safety issues related to fly-rock and determined that there is no risk.

Two of the representations were in relation to the potential for impact on aviation safety at the Launceston Airport from the proposal, including from blasting.

The Proponent engaged a specialist to undertake an aviation safety review for the proposal, as requested by the Department of Infrastructure, Transport, Cities and Regional Development (DITCRD) and Launceston Airport.

The document entitled *Safety Review Report for Proposed Quarry Extension – Launceston Airport*, dated 2 March 2020 and prepared by Mott MacDonald (the Safety Review Report) assesses the potential impacts on aviation safety from the quarry operation, the Safety Review Report includes consideration of the potential impacts that may be caused by blasting.

#### 6.2.4 Evaluation

The DPMP adopts an air blast limit of 115dB(A) for 95% of blasts with an absolute limit of 120dB(A). Similarly, the adopted ground vibration limit is 5mm/s for 95% of blasts with an absolute limit of 10mm/s. This is consistent with the standard noise and vibration limits imposed by EPA. Condition **B2** imposes these limits on the activity. To ensure that these limits are met, Condition **B4** requires that each blast on The Land be monitored at locations agreed to by the Director. The Condition also requires that any exceedance of the limits be reported to the Director within 24 hours.

The Safety Review Report recommends that blasts be undertaken in the Launceston Airport's off-peak hours. The average busy hours were identified as being between 0900 hours and 1100 hours and between 1600 hours and 1800 hours. The standard blasting condition allows for blasting between 1000 hours and 1600 hours. In line with the Safety Review Report's recommendations, condition **B1** is imposed to restrict blasting times to between 1100 hours and 1600 hours Monday to Friday. The condition does allow for the Director to consider allowing one off blasting approvals outside of these hours should the Proponent provide sufficient justification.

The Safety Review Report also considers the potential for fly rock to impact on aviation safety and states that the estimated height available at the location of the quarry extension is 56 meters. The original draft DPMP stated that fly rock could reach a height of 95 meters, which would have penetrated the OLS and may have presented a risk to flight safety. The Safety Review Report also notes that Terrock have reviewed the blast plans and confirmed that the vertical blast throw will not exceed 28 meters. The Safety Review Report states that the original estimate was a conservative worst-case scenario, which can be avoided with industry standard measures and design of blasts. To ensure that blasts are managed appropriately, Condition **B5** is imposed to require a Blast Management Plan to be submitted to the Director for approval, this ensures that the Director has oversight of the blasting design which can be amended if issues arise from blasting activities. Condition **B4** requires the first 5 blasts within Mining Lease 2045P/M to include monitoring of the vertical and horizontal distance fly-rock travels. Furthermore, Condition **B6** requires notification to the Director, EPA, Launceston Airport and the DITCRD in the unlikely event that fly-rock penetrates prescribed airspace. The condition also requires a report to be provided to the Director containing an assessment as to why fly-rock exceeded the predicted maximum extent and outlining any proposed management measures to ensure fly-rock does not penetrate the prescribed airspace again.

The DITCRD provided a letter to the Northern Midlands Council on 11 May 2020 in relation to the issues it had raised and the provision of the Safety Review Report. The Letter states that the





Safety Review Report assesses and considers all the risks to aircraft safety and operations in accordance with the National Airports Safeguarding Framework guidelines and the *Airports (Protection of Airspace) Regulations 1996*. Furthermore, the letter notes the conclusion of the Safety Review Report that none of the issues raised require a controlled activity application as they have been modified to remain below prescribed airspace and that the recommendations made in the Safety Review Report appear sensible to mitigate any residual risk and should be encouraged.

The letter also states that approval should be conditional on the Proponent contacting the Launceston Air Traffic Control (ATC) Line Manager prior to any blasting operations commencing. Condition **B3** stipulates that the ATC Line Manager must be contacted at least 24 hours prior to any blasting operations being undertaken, including drilling activities.

The DPMP also considers the potential for damage to structures from blasting. The DPMP refers to Australian Standard 2187.2 (2006) which suggests a ground vibration limit of 100mm/s for the protection of reinforced concrete and steel structures.

The report entitled *Western Junction Quarry – Quarry Extension – Effects of Blasting*, dated 14 May 2018 and prepared by Terrock Pty Ltd (The Blast Report) estimates, based on data from previous blast monitoring on The Land, that at its closest point to the airport runway, ground vibration levels are predicted to be 6.4 mm/s. The Blast Report considers that ground vibration is unlikely to have a negative impact on property or infrastructure at the Launceston Airport, TasWater's sewerage lagoons or the industrial area.

The activity must meet the 5mm/s ground vibration limit, as specified in condition **B2**, to prevent nuisance at sensitive receptors. The ground vibration limits imposed are considered to be protective of any infrastructure associated with the Launceston Airport, TasWater's sewerage lagoons or the industrial area.

Based on the information provided this conclusion is supported and no specific conditions in relation to property or infrastructure damage are required. The blasting limits imposed are considered to be protective of property and infrastructure.

The Proponent's commitments and the conditions imposed are considered to provide a conservative approach to management of the potential impacts from blasting and provides the Director with the flexibility to manage any issues that may arise due to blasting.

### 6.2.5 Conclusions

The proponent will be required to comply with the following conditions:

- B1** Blasting times
- B2** Blasting – noise and vibration limits
- B3** Notification of blasting
- B4** Blast monitoring
- B5** Blast Management Plan
- B6** Fly-rock



### 6.3 Air emissions

#### 6.3.1 Description

The Western Junction Quarry is comprised of four separate pits, two of which are currently active, see Figure 2.5 of the DPEMP. The DPEMP estimates that the resource in the two currently operating pits will be depleted in 2-3 years. The crushing and screening plant are located in the main pit which has ceased extraction. Section 2.1.4 of the DPEMP outlines the current operation of the activity.

This proposal includes increasing the maximum allowable extraction and processing limit from 197,000 cubic meters per annum to 312,500 cubic meters per annum and expanding into a new pit to the west and south west of the main pit.

The DPEMP states that dust emissions are generated during quarrying from drilling and blasting, loading and haulage of materials on unsealed roads, crushing and screening, stockpiling and loading for offsite transport.

The increase in production will result in an increase to the traffic moving on and off site, to transport product to external customers. The DPEMP indicates that heavy vehicle movements will increase (averaged over a year) from the current 44 movements per day, up to 182 movements per day (2 way).

The DPEMP states that drilling typically occurs for 2 days of each month but may be more frequent at times depending on the stage of pit development.

The new pit will be located closer to the airport and general industrial zone than previous pits, but a similar distance from residences to the north, and further away from residences to the east.

The DPEMP noted that there may be a requirement to relocate or upgrade the crushing and screening plant in the future.

According to the DPEMP the generation of dust from the quarrying activities will depend on the frequency of dust generating activities, meteorological conditions, composition of dust (particle size and moisture content) and the condition of the source.

The DPEMP states that based on the climate data available, the prevailing winds for summer tend to be predominantly from the north and northwest, with subdominant light winds from the south and southeast, meaning that when conditions are more likely to be dry and windy, the prevailing wind direction would move any dust emissions towards agricultural land and not towards any residences.

The DPEMP also states that given the distance to residences and that the road is sealed from the edge of the mining lease boundary, there are unlikely to be any nuisance dust emissions to sensitive receptors. The DPEMP notes that no dust complaints have been received from residents over the life of the quarry.

The DPEMP claims that future operations are not expected to generate significant nuisance dust and that agricultural activities are likely to be a major dust source in the area.

#### 6.3.2 Management measures

Commitment 1 (from Table 6.1 of the Supplement)

- Maintain a complaint register to record all complaints from the public.

Commitment 6

- Operate water sprays on crushing and screening equipment;
- Minimise surface disturbance;





- Progressively rehabilitate disturbed areas that are no longer required;
- Water internal haul roads; and
- Maintain quarry roads routinely.

#### Commitment 7

- Transport trucks will be covered with a tarpaulin if required.

#### Commitment 12

- Audit plant dust control equipment and take remedial action when required.

#### Commitment 13

- Install a dust monitor at the property boundary with a live feedback to plant crew.

The DPEMP states that topsoil and subsoil will be stripped and stored separately or placed on top of the overburden piles and will then be revegetated with grass species. See Photograph 2 of the DPEMP for an example of existing vegetated overburden and topsoil stockpiles.

The crushers, screens and material stockpiles will remain within the original pit floor, which provides some shelter from the wind.

As noted in Commitment 6, the crushing plant is fitted with water sprays to wet the crusher feed and conveyor transfer points to minimise dust emissions and the secondary screens are also fitted with water sprays. In addition, water cannons will be used to minimise dust from product stockpiles if required.

The DPEMP states that over the life of the existing quarry there have been limited complaints from residents mostly regarding blasting impacts, with the majority being over 10 years ago. The DPEMP claims that complaints have decreased significantly in recent years due to improved blasting techniques, with the last complaint received in 2014. The DPEMP also states that the proposed extension is further away from this complainant and therefore the potential for nuisance from blasting should be reduced for this resident.

The Proponent has entered a contract with a neighbouring landowner (who made a representation) adjacent to the southeast to purchase part of his property, thus addressing his concerns regarding dust emissions. However, the Supplement states that should this sale not be completed, a dust monitor will be installed close to the boundary with a live feed back to the plant operator to alert them if there is potentially dust leaving The Land.

### 6.3.3 Public and agency comment and responses

Three representations raised concerns regarding dust emissions.

One representor owns the land to the southeast of the quarry and raised concerns that the current activity deposits dust on his property, preventing successful growing of cereal and specialised crops and grazing of stud sheep. As noted above, the Supplement states that the Proponent has entered into a contract with that landowner to purchase part of the land to mitigate his concerns.

The other two representations were in relation to dust plumes and the potential for impact on aviation safety at Launceston Airport.

The Proponent engaged a specialist to undertake an aviation safety review for the proposal, as requested by the Department of Infrastructure, Transport, Cities and Regional Development (DITCRD) and Launceston Airport.





The document entitled *Safety Review Report for Proposed Quarry Extension – Launceston Airport*, dated 2 March 2020 and prepared by Mott MacDonald (the Safety Review Report) assesses the potential impacts on aviation safety from the quarry operation, the Safety Review Report includes consideration of dust impacts from crushing, screening and drilling / blasting.

#### 6.3.4 Evaluation

The Safety Review Report considered dust emissions from the crushing and screening plant as the primary source with drilling and blasting being a secondary source of dust emissions. The Safety Review Report indicates that the crushing and screening plant are located 1km from the runway and that the Proponent has confirmed the crushing and screening plant will remain in its current location. The Safety Review Report concludes that there is unlikely to be an increase in dust emissions that may impact aviation safety from the crushing and screening plant.

The Safety Review Report notes that blasting will start approximately 600m from the runway and advance towards the runway over time. The Safety Review Report indicates that dust modelling would be quite complex to consider, but states that should dust become an issue over time, mitigation measures can be implemented at that time to address the issues.

The Safety Review Report recommends that blasts be undertaken during the Launceston Airport's off-peak hours. The average busy hours were identified as between 0900 hours and 1100 hours and between 1600 hours and 1800 hours. The standard blasting condition allows for blasting between 1000 hours and 1600 hours. In line with the Safety Review Report's recommendations, condition **B1** is imposed to restrict blasting times to between 1100 hours and 1600 hours Monday to Friday. The condition provides discretion for the Director to consider allowing one off blasting outside of these hours should the Proponent provide a sufficient justification.

The Safety Review Report also recommends that dust generation from blasts should be observed on a regular basis for the next few years to understand the impact on visibility in the approach path after each blast and that if any adverse observations are recorded a review of the mitigation measures should be considered as the pit progresses towards the airport. The Safety Review Report notes that verbal reports indicate there is unlikely to be an issue with dust from blasting or access roads as significant dust emissions would be needed to create visibility issues, but that observations will provide certainty that no impacts are created. Condition **B4** is imposed to require blast monitoring and includes a requirement to contact Launceston Airport after each blast to determine if any issues were experienced, including from dust plumes. The Director must be notified if Launceston Airport raises any concerns.

The DITCRD provided a letter to the Northern Midlands Council on 11 May 2020 in relation to the issues it had raised and the provision of the Safety Review Report. The Letter states that the Safety Review Report assesses and considers all the risks to aircraft safety and operations in accordance with the National Airports Safeguarding Framework guidelines and the Airports (Protection of Airspace) Regulations. Furthermore the letter notes the conclusion of the Safety Review Report that none of the issues raised require a controlled activity application as they have been modified to remain below prescribed airspace and that the recommendations made in the Safety Review Report appear sensible to mitigate any residual risk and should be encouraged.

The measures proposed in the DPMP to mitigate the potential impacts from air emissions are supported.

Condition **A1** requires that vehicles carrying loads of 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, this is in line with the Proponent's Commitment 7.



Condition **A2** is imposed to require dust emissions from The Land by vehicles to be limited or controlled by dampening or other effective measures. This is consistent with the Proponent's Commitment 6 to routinely maintain and dampen internal haul roads.

Condition **A3** requires that dust emissions from The Land must be controlled to the extent necessary to prevent environmental nuisance beyond the boundary of The Land. As noted above, the Proponent has entered into a contract to purchase part of the land adjacent to the southeast of the new pit, which will assist in providing an additional buffer for dust emissions in the direction of prevailing winds. Commitments 6, 12 and 13 are supported to help reduce the potential for dust emissions to leave The Land and cause nuisance or aviation safety impacts.

Furthermore, Condition **A4** is also imposed to require certain measures to control dust emissions produced by the operation of the crushing and screening plant.

The commitments made by the proponent and proposed management of the operation appear reasonable to mitigate potential impacts from dust emissions. The conditions imposed require implementation of the key mitigation measures.

### 6.3.5 Conclusions

The proponent will be required to comply with the following conditions:

- A1** Covering of vehicles
- A2** Dust emissions from traffic areas
- A3** Control of dust emissions
- A4** Control of dust emission from plant
- B1** Blasting times
- B4** Blast monitoring





## **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 Appendix I, Section A.

1. Surface water quality
2. Waste management, dangerous goods and environmentally hazardous substances
3. Natural values
4. Site contamination
5. Decommissioning and rehabilitation

## **8 Other Issues**

The following issues that have been raised during the assessment process are discussed in Appendix I, Section B. These are issues which are more appropriately addressed by another regulatory agency.

1. Aviation safety
2. Traffic impacts





## 9 Report Conclusions

This assessment has been based on the information provided by the proponent, D. N. Hughes, in the permit application, the case for assessment (the DPEMP) and additional Information provided in the form of a Supplement to the DPEMP.

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. 9667 appended to this report are imposed and duly complied with.

The environmental conditions appended to this report are a new set of operating conditions for the entire, intensified activity that will supersede the existing permit conditions (former Licence to Operate Scheduled Premises No. 3374).



## 10 Report Approval

**Environmental Assessment Report and conclusions, including environmental conditions, adopted:**

A handwritten signature in black ink, appearing to be 'Warren Jones', written over a light blue horizontal line.

Warren Jones  
**CHAIRPERSON**  
**BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY**

Meeting date: 6<sup>th</sup> October 2020



## 11 References

John Miedecke & Partners PL (2019); *Western Junction Quarry Extension, Development Proposal and Environmental Management Plan* (dated March 2019). (The DPEMP)

John Miedecke & Partners PL (2020); *Western Junction Quarry Extension, Development Proposal and Environmental Management Plan – Supplement* (dated June 2020). (The Supplement)

Mott MacDonald (2020); *Safety Review Report for Proposed Quarry Extension – Launceston Airport* (dated 2 March 2020). (The Safety Review Report)

Noise Vibration Consulting (2018); *Bis Industries – Western Junction – Quarry Expansion – Noise Impact Assessment* (dated April 2018). (The Noise Assessment)

Terrock Pty Ltd (2018); *Western Junction Quarry – Quarry Extension – Effects of Blasting* (dated 14 May 2018)

Terry Eaton (2018); *Traffic Assessment – Proposed Quarry Material Increase Cartage – Bis Industries – Richard Street, Western Junction* (dated March 2018). (The Blast Report)





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## 12 Appendices

- Appendix 1 Assessment of Other Issues
- Appendix 2 Summary of public and agency submissions
- Appendix 3 Permit Conditions – Environment No. 9667



## Appendix I – Section A – Assessment of other issues assessed by the Board

<b>Issue 1: Surface water quality</b>
<b>Description of potential impacts</b>
Inappropriate management of stormwater has potential to cause the movement of sediment and other contaminants, thereby impacting waterways and potentially causing environmental harm or nuisance.
<b>Management measures proposed in DPEMP</b>
<p>The DPEMP states that the current surface water management strategy is to direct surface drainage to the various settling ponds and then to the Briarly Creek supply pond which overflows into Briarly Creek.</p> <p>The DPEMP also states that any surface water from rainfall in the quarry pit floors gradually infiltrates the basalt fractures and joints and reports to the groundwater. Occasional pumping of water from the pit floor to the supply pond is required.</p> <p>The DPEMP states that the following management measures have historically been adequate for managing surface water and preventing sediment and/or pollution leaving The Land:</p> <ul style="list-style-type: none"> <li>• The quarry perimeter will be graded such that all surface drainage is directed into the pit itself and not offsite, uncontrolled.</li> <li>• Upslope water flows will be directed to a settling basin (1 or more to provide storm surge capacity and reduce flow rates).</li> <li>• The pit floor will be graded to direct surface drainage to the settling basins prior to discharge under the haul road to the Briarly Creek pond (this will also provide storm surge capacity and reduce flow rates).</li> <li>• All maintenance and refuelling areas in the quarry will be bunded and any spillage will be cleaned up. An oil spill kit will be maintained onsite.</li> </ul>
<b>Public and agency comment</b>
The DITCRD and Launceston Airport raised concerns about the potential for attracting wildlife with the construction of additional waterbodies (i.e. sediment retention ponds) within Mining Lease 2045P/M.
<b>Evaluation</b>
<p>The management measures proposed are supported. There has been no history of poor performance regarding surface water management at the activity. The additional area of extraction does not appear to present any new issues from a surface water management point of view that would significantly change the potential impacts, apart from potential groundwater contamination, as discussed in Issue 4.</p> <p>Nevertheless, given the size of the operation and the activities undertaken it is considered appropriate to impose a suite of conditions to ensure that surface water is managed appropriately and can be enforced by the Director.</p> <p>Standard conditions <b>E1</b>, <b>E2</b> and <b>E3</b> are imposed to require perimeter cut off drains / bunds to be constructed on The Land to prevent surface run-off from entering the area used or disturbed in carrying out the activity (<b>E1</b>), settling ponds to be designed and maintained such that sediment will not be transported off The Land by surface run-off (<b>E2</b>), and that polluted stormwater must be collected and treated prior to discharge from The Land to the extent necessary to prevent environmental harm or nuisance (<b>E3</b>).</p> <p>Condition <b>WQ1</b> is imposed to further the above conditions by requiring that any water discharged from The Land must not exceed 30 mg/L of total suspended solids and that during a storm event any plume leaving The Land must not be visibly more turbid than the receiving waters. In addition, the condition</p>





also requires that waters leaving The Land must be visibly free of any hydrocarbon sheen that could arise from a spill or the pre-coat plant. Condition **MI** is imposed to set requirements around who and how measurements may be made, if required.

Condition **DC4** supports maintaining surface water quality by requiring progressive rehabilitation of worked out areas to minimise the area of disturbed land that may be subject to erosion during storm events.

Subsequent to the Safety Review Report being provided, there appears to be a conflict in the management of surface water within Mining Lease 2045P/M. The Safety Review Report suggests that creation of waterbodies within Mining Lease 2045P/M should be avoided to reduce the risk of attracting wildlife that may present a risk to aviation safety, however, the Board must also ensure that surface water is managed appropriately to reduce the risk of environmental harm occurring.

It is understood that the quarry operator has verbally indicated that surface water within Mining Lease 2045P/M can be appropriately managed without the need for additional sediment ponds.

The Supplement has not adequately addressed this matter, therefore, it is considered appropriate that Condition **E4** be imposed to require the Proponent to provide a Surface Water Management Plan for Mining Lease 2045P/M for the Director's approval to ensure the Launceston Airport's needs and the environment are appropriately protected. This issue is discussed further in Issue 1 of Appendix I – Part B – Other issues.

The conditions imposed and the Proponent's commitments are considered appropriate to manage the potential impacts from the activity on surface water quality. The conditions imposed provide the Director with measurable conditions to confirm compliance, without needing to impose unnecessary monitoring requirements on the activity.

As noted in the DPEMP, it is known that there is soil and groundwater contamination from polyfluorinated firefighting foam surfactants located on the adjacent airport land associated with historic airport fire response training area. This issue is considered further under Issue 4 – Site Contamination.

#### Conclusion

The proponent will be required to comply with the following conditions:

- E1 Perimeter drains or bunds**
- E2 Design and maintenance of settling ponds**
- E3 Stormwater**
- E4 Stormwater Management Plan for Mining Lease 2045P/M**
- MI Samples and measurements for monitoring purposes**
- WQI Water quality**





<b>Issue 2: Waste management, dangerous goods and environmentally hazardous substances</b>
<p><b>Description of potential impacts</b></p> <p>Inappropriate use and storage of hazardous substances has the potential to cause environmental nuisance or harm if discharged to the Land or nearby waterways.</p> <p>Wastes produced from the activity also have potential to cause environmental harm or nuisance through pollution of the environment.</p>
<p><b>Management measures proposed in DPEMP</b></p> <p>The DPEMP states that diesel, lubricant, oil, grease, waste oil, oxyacetylene, precoat liquids and truck wash are stored on the Land. The DPEMP also states that all the above-mentioned materials will be stored and transported in accordance with the <i>Australian Code for the Transport of Dangerous Goods by Road and Rail</i>, the <i>Dangerous Goods Act 1998</i> (now <i>Dangerous Goods (Road and Rail Transport) Act 2010</i>) and associated regulations.</p> <p>The DPEMP states that the workshop and equipment are all provided with spill kits.</p> <p>The DPEMP states that the existing septic tank is adequate to manage sewage produced onsite. It also notes that typical solid wastes are generated in relation to machinery and processing plant and that they have adopted a waste management hierarchy to avoid, recycle, reuse, treat and dispose of wastes.</p>
<p><b>Public and agency comment</b></p> <p>No public or agency comments were received in relation to waste management, dangerous goods and environmentally hazardous substances.</p>
<p><b>Evaluation</b></p> <p>The mitigation measures outlined above are supported. To ensure that hazardous materials are appropriately managed the Proponent will be required to comply with conditions <b>H1</b>, <b>H2</b> and <b>H3</b> and spill kits will be required under condition <b>H4</b>. These conditions reflect the commitments made in the DPEMP.</p> <p>In the event of an incident, the Proponent will be required to respond appropriately under condition <b>G2</b>.</p> <p>The proposed management measures and standard conditions are considered sufficient for the appropriate management of wastes, dangerous goods and environmentally hazardous materials on The Land to prevent environmental harm or nuisance occurring.</p>
<p><b>Conclusion</b></p> <p>The proponent will be required to comply with the following conditions:</p> <p><b>H1 Storage and handling of hazardous materials</b></p> <p><b>H2 Hazardous materials (&lt;250 litres)</b></p> <p><b>H3 Spill kits</b></p> <p><b>H4 Handling of hazardous materials – mobile</b></p> <p>The following legal and other information is included in the conditions for the Proponent's information:</p> <p><b>LO2 Storage and handling of dangerous goods, explosives and dangerous substances</b></p> <p><b>OII Waste management hierarchy</b></p>



<b>Issue 3: Natural values and weed and disease management</b>
<p><b>Description of potential impacts</b></p> <p>Inappropriate clearing or disturbance of vegetation has potential to impact on threatened flora, fauna or vegetation communities and result in the introduction and spread of weeds and diseases.</p> <p>Clearing vegetation also has potential to impact on surface water quality through increased erosion.</p>
<p><b>Management measures proposed in DPEMP</b></p> <p>The DPEMP states that quarterly inspection and treatment of weeds and pathogens is undertaken for the activity. Commitment 10 is contradictory and states a yearly inspection program will be implemented.</p> <p>The DPEMP also states that gorse, blackberries, thistles, flat weeds and rice grass exists on The Land and is being treated.</p> <p>In addition, the DPEMP notes that vehicles and machinery are washed in accordance with the Weed and Hygiene Guidelines when transferring to and from susceptible or risky sites.</p> <p>No other management measures were proposed in the DPEMP regarding natural values.</p>
<p><b>Public and agency comment</b></p> <p>The Policy, Advice and Regulatory Services Branch (PARS) stated during consultation for development of the Board's Guidelines that there are no records of flora or fauna on the property listed under the <i>Threatened Species Protection Act 1995</i>. PARS further stated, given the additional area to be cleared is highly disturbed agricultural land next to the existing quarry site, it is anticipated that the activity is unlikely to impact on listed flora and fauna and as such no further action is required.</p>
<p><b>Evaluation</b></p> <p>Based on the information provided and PARS' advice, it is not anticipated that the proposed intensification and extension of the quarry will impact on any listed flora or fauna. Therefore, no conditions regarding flora and fauna will be imposed.</p> <p>Given the weed infestations identified on The Land, it is considered appropriate to impose conditions <b>FFI</b> and <b>OPI</b> to ensure that weeds and diseases are managed appropriately and are not transported on or off the site.</p> <p>Condition <b>FFI</b> requires that before entering The Land, machinery must be washed in accordance with the Weed and Disease Guidelines. Furthermore, condition <b>OPI</b> requires the development of a Weed and Disease Management Plan to be submitted to the Director for approval. This will formalise the inspection and treatment regime that the Proponent must implement to manage weeds and diseases.</p>
<p><b>Conclusion</b></p> <p>The proponent will be required to comply with the following conditions:</p> <p><b>FFI Machinery washdown</b></p> <p><b>OPI Weed &amp; Disease Management Plan</b></p>





<b>Issue 4: Site contamination</b>
<b>Description of potential impacts</b>
It is known that there is soil and groundwater contamination from polyfluorinated firefighting foam surfactants (per- and poly-fluoroalkyl substances (PFAS)) located on the adjacent airport land associated with historic airport fire response training. Should contaminated groundwater enter the quarry pit there is potential for environmental harm and health impacts to workers.
<b>Management measures proposed in DPEMP</b>
Information provided by the Proponent indicates that the main source of contamination is understood to be east and southeast of Launceston Airport runway, more than 1km from the proposed quarry expansion area.  The Proponent met with Airservices Australia in January 2019 to discuss the current findings of the ongoing investigation to determine the extent and magnitude of contamination.  The Proponent indicates that PFAS will be monitored in GW17 on a three yearly basis and that any groundwater ingress into the pit will also be monitored for PFAS.
<b>Public and agency comment</b>
No public or agency comments were received in relation to site contamination.
<b>Evaluation</b>
Due to the contamination source being located on Commonwealth Land, it is managed by the Commonwealth and investigations by Airservices Australia are ongoing to delineate the extent and magnitude of impact from the historic firefighting practices.  The information provided by the Proponent indicates that the closest airport monitoring bore (GW17 – approx. 115m southwest of mining lease 2045P/M's boundary) has a standing water level of RLI60.7.  The quarry pits final reduced level is proposed to be RLI30, meaning that the pit base will be approximately 30m below the standing water level identified in GW17, however, the Proponent has indicated that the interpreted groundwater flow (based on standing water levels recorded by Airservices Australia during groundwater monitoring) is to the southeast, away from The Land and towards Kellys Creek, which flows between the mining lease and the areas known to have the greatest levels of contamination.  While existing quarry operations have not encountered groundwater ingress to the pits, there is potential for ingress to occur in the new extension of the quarry. The Proponent's commitment to monitor groundwater bore GW17 and have any groundwater analysed is supported to ensure the quarry does not provide a conduit for contaminated groundwater to enter Briarly Creek or impact on worker health and safety.  It is understood that Airservices Australia's investigation of PFAS contamination at the Launceston Airport is ongoing and monitoring will continue to be undertaken by Airservices Australia. It is recommended that the Proponent maintains regular contact with Airservices Australia to ensure that any groundwater contamination identified does not affect the quarry operations.  Condition <b>GW1</b> is imposed to require any groundwater ingress into the pit to be sampled and analysed for an appropriate suite of PFAS. The condition also requires that any groundwater encountered must be detained within Mining Lease 2045P/M until proven that it is not contaminated and that in the event contamination is detected the groundwater must be treated or disposed of to the satisfaction of the Director. A report must also be provided to the Director detailing any groundwater sampling results within 14 days of results being received. In addition, Condition <b>M1</b> sets out requirements on the collection and analysis of any samples taken.





While it appears unlikely that groundwater will infiltrate into the new pit, the above conditions are in place as a precautionary measure given the uncertainty of what effects the new pit will have on groundwater flows. It is considered that the conditions are adequate to manage the potential risks.

**Conclusion**

The proponent will be required to comply with the following condition:

**GW1 Sampling of groundwater in Mining Lease 2045P/M**

**M1 Samples and measurements for monitoring purposes**



Issue 5: Decommissioning and rehabilitation
<p><b>Description of potential impacts</b></p> <p>Temporary or permanent cessation of the activity has the potential to cause on-going impacts to the environment if rehabilitation is not managed appropriately.</p> <p>Potential impacts include, increased erosion and transport of sediment offsite to waterways, impacts to biodiversity and uncontrolled dust emissions.</p>
<p><b>Management measures proposed in DPEMP</b></p> <p>The DPEMP states that the recommended rehabilitation plan is as follows (in accordance with the QCoP):</p> <ul style="list-style-type: none"> <li>• Salvage and recycling of redundant plant and equipment;</li> <li>• Profile and contour ripping;</li> <li>• Covering with previously stockpiled materials from the stockpiles; and</li> <li>• Planting tree seedlings, seed and fertiliser application.</li> </ul> <p>The DPEMP states that follow up weed control will be required.</p> <p>Commitment 11 of the DEPMP states '<i>Strip and stockpile topsoil and overburden as per the [QCoP] guidelines. Revegetate quarry walls progressively</i>'.</p> <p>The proposed end use of the pits is a level compacted surface suitable for industrial and commercial use or grazing.</p>
<p><b>Public and agency comment</b></p> <p>Mineral Resources Tasmania raised concerns about what distance from the western boundary of the Mining Lease extraction will cease and that the DPEMP suggests soil/overburden will be stored between the extracted area and Mining Lease boundary.</p>
<p><b>Evaluation</b></p> <p>The commitments made in section 6 of the DPEMP regarding decommissioning and rehabilitation post closure of the activity are supported. Nevertheless, to ensure that appropriate rehabilitation works are undertaken permit conditions will be imposed.</p> <p>Rehabilitation on cessation will be supported by condition <b>DC3</b> which requires surface soil to be retained for future rehabilitation and is consistent with details in the DPEMP.</p> <p>Progressive rehabilitation is encouraged to reduce the risk of large areas of the site being left unrehabilitated should the activity cease, therefore condition <b>DC4</b> is imposed to ensure that the Director can enforce progressive rehabilitation in accordance with the Quarry Code of Practice.</p> <p>Management of temporary cessation will be stipulated under condition <b>DC2</b>. The Proponent will be required to notify of permanent cessation under condition <b>DC1</b> and undertake decommissioning and rehabilitation in accordance with conditions <b>DC5</b> and <b>DC6</b> which includes the preparation and implementation of a Decommissioning and Rehabilitation Plan (DRP). Condition <b>DC5</b> requires that a draft DRP be submitted to the Director for approval within 12 months of these conditions taking effect.</p> <p>The concern raised by MRT is relevant to final decommissioning and rehabilitation and the proximity of the activity to Launceston Airport runway. The Supplement states that final extraction will not occur for approximately 18 years and that the Environmental Management Plan for the activity will undergo numerous revisions during this time and that final extraction will be confirmed later. Nevertheless, Figure 3 of Appendix B in the Supplement provides an indicative distance of 344m as being the closest point at which extraction will occur to the runway. Condition <b>OP2</b> is imposed to require that extraction does not occur any closer than 344m from the western boundary of the Mining Lease, unless</p>



otherwise approved by the Director. This provides certainty on the final extraction point from the runway, but also allows this to be amended later in the activity's life with written approval from the Director.

The standard decommissioning and rehabilitation conditions are considered appropriate to ensure the potential for environmental impacts are minimised through appropriate decommissioning and rehabilitation of the site during temporary closure or permanent cessation.

#### **Conclusion**

The proponent will be required to comply with the following conditions:

- DC1 Notification of cessation**
- DC2 Temporary suspension of activity**
- DC3 Stockpiling of surface soil**
- DC4 Progressive rehabilitation**
- DC5 Decommissioning and Rehabilitation Plan**
- DC6 Implementation of the DRP**
- OP2 Proximity to Launceston Airport runway**





## Appendix I – Section B – Other Issues

<b>Issue I: Aviation safety</b>
<b>Description of potential impacts</b>
The proposal has the potential to impact on aviation safety at the adjacent Launceston Airport, through dust emissions, blasting activities, attraction of wildlife, light pollution and causing air turbulence.
<b>Management measures proposed in DPMP</b>
<p>Commitment I4</p> <ul style="list-style-type: none"> <li>The Proponent will contact the Launceston Air Traffic Control (ATC) Line Manager, Chris Wallace on 0419 289 041 before any blasting operation commencing.</li> <li>The Proponent will provide a detailed annual schedule of blasting operations to Launceston Airport and the Civil Aviation Safety Authority (CASA).</li> </ul> <p>Commitment I5</p> <ul style="list-style-type: none"> <li>Minimise surface water ponding in the quarry.</li> </ul>
<b>Public and agency comment</b>
<p>The Department of Infrastructure, Transport, Cities and Regional Development (DITCRD) and Launceston Airport made representations stating that the proposed use and development of land in Launceston Airport's prescribed airspace is a significant safety issue for aviation operations and objected to the proposal until the issues below were appropriately addressed and approved:</p> <ul style="list-style-type: none"> <li>Refer to the <i>Airports Act 1996</i> (the Act) and <i>Airports (Protection of Airspace) Regulations 1996</i> (the Regulations) in relation to intrusions into prescribed airspace around the Airport.</li> <li>Refer to the National Airports Safeguarding Framework (NASF) which provides guidelines to ensure the safety of aviation operations.</li> <li>The following have been identified as potentially having an impact on the prescribed airspace: <ul style="list-style-type: none"> <li>Dust emissions;</li> <li>Fly-rock emissions;</li> <li>Air blast overpressure causing air turbulence;</li> <li>Soil / overburden stockpiles causing air turbulence;</li> <li>Light emissions; and</li> <li>Creation of additional sediment ponds attracting wildlife.</li> </ul> </li> <li>Dust management is not adequately addressed in relation to the risk to aviation activities. Dust generation is a 'controlled activity' under the Act and requires approval under the Act and Regulations.</li> <li>Blast fly-rock may penetrate the prescribed airspace by a significant margin and is a 'controlled activity' under the Act. Approval must be sought under the Act and Regulations.</li> <li>Air blast overpressure and soil / overburden stockpiles may result in air turbulence, which is a 'controlled activity' under the Act. Further information is required to assess the potential impact and may require approval under the Act and Regulations.</li> <li>NASF Guidelines must be taken into account pursuant to the Standing Council on Transport and Infrastructure agreement of 18 May 2012, in particular Guidelines B, C and F are relevant to the proposal.</li> </ul>





- An Aviation Safety Impact Assessment and a Wildlife Hazard Management Assessment is required to be developed by a suitably qualified and experienced aviation consultant in relation to the proposal's potential impact on Launceston Airport's prescribed airspace and aircraft safety.
- The above assessments must demonstrate that there will be no impact on Launceston Airport's prescribed airspace or the safety of aviation operations.
- Recommended to engage with Airservices Australia, the CASA and the DITCRD regarding the proposal.

#### Evaluation

The Supplement indicates that a meeting was held with Launceston Airport and DITCRD representatives in August 2019. It was requested that additional information be provided and that an independent consultant be engaged to complete an Aviation Safety Impact Assessment.

Furthermore, the Supplement states that the Northern Midlands Council organised a meeting with Launceston Airport, DITCRD and the adjacent landowner in October 2019.

The Supplement notes that a suitable consultant was engaged in January 2020 to prepare an Aviation Safety Impact Assessment, which was completed in March 2020 (the confidential report is entitled *Safety Review Report for Proposed Quarry Extension – Launceston Airport*, dated 2 March 2020 and prepared by Mott McDonald).

The DITCRD provided a letter to Northern Midlands Council on 11 May 2020 in relation to the issues it had raised and the provision of the Safety Review Report. The Letter states that the Safety Review Report assesses and considers all the risks to aircraft safety and operations in accordance with the National Airports Safeguarding Framework guidelines and the *Airports (Protection of Airspace) Regulations 1996*. Furthermore, the letter notes the conclusion of the Safety Review Report that none of the issues raised require a controlled activity application as they have been modified to remain below prescribed airspace and that the recommendations made in the Safety Review Report appear sensible to mitigate any residual risk and should be encouraged.

While aviation safety is not within the Board's scope to assess, it is considered reasonable that certain conditions be imposed regarding environmental issues that may impact on aviation safety. Sections 6.1, 6.2 and 6.3 consider and evaluate the potential impacts from noise, blasting and air emissions and conditions are imposed to require appropriate management of the operation to reduce the risk of causing environmental harm or nuisance or safety risks to aviation operations.

There remain three issues not addressed within this report that were raised, being potential turbulence created from stockpiles, light pollution and attraction of wildlife, specifically birds.

The Safety Review Report notes that at its closest point the Mining Lease is 90 metres from the boundary of the airport. The Safety Review Report refers to Guideline B of the NASF which provides a detailed methodology to determine if any development within the critical area will generate wind shear that may impact on aircraft safety. The Safety Review Report concluded that the soil / overburden stockpiles do not penetrate the prescribes 1:35 surface defined in Guideline B and that no further assessment was required.

The Safety Review Report notes the objection relating to wildlife strike was due to the potential for increased size of waterbodies on The Land. Figure 2.12 of the DPMP indicates that there were three sediment retention ponds proposed for the new extraction area. The Supplement makes a commitment to minimise surface water ponding in the quarry development.

The Safety Review Report notes that additional water ponding near the airport site is a hazard to a certain extent, and the airport has observed increased bird strike incidents after rainfall, suggesting that there need to be some measures in place to not aggravate the situation further.



The Safety Review Report notes that the quarry operator has verbally indicated that the quarry can operate without additional sediment retention ponds in the new extraction area. However, the Supplement does not discuss this.

The Safety Review Report goes on to state that there is a significant waterbody adjacent to the airport relating to wastewater treatment that appears larger than any waterbody that could exist in the quarry and is also far more 'friendly' to wildlife. The Report concludes that the quarry should continue the current practice of designing the quarry to avoid standing water.

As the Supplement has not satisfactorily addressed the issues raised in relation to surface water management from an aviation safety or environmental management point of view, it is considered appropriate to impose Condition E4 to require that before extraction occurs within Mining Lease 2045P/M, a Surface Water Management Plan be submitted to the Director for approval. This allows the Proponent to provide additional information on how surface water will be managed in Mining Lease 2045P/M to eliminate or reduce the potential for ponding of surface water within the quarry pit while still meeting its responsibilities to not cause environmental harm.

The Supplement has not addressed the potential for light pollution and the letter from DITCRD has not raised further concerns around this issue. It is not anticipated that the operation will produce significant light pollution, which is likely to be limited to some vehicle movements and light from plant or buildings during winter.

With the commitments made by the Proponent and the conditions imposed, it is anticipated that the issues raised can be mitigated to ensure that the risk to aviation safety is acceptable, as indicated by the DITCRD.

#### **Conclusion**

No additional conditions are proposed in relation to aviation matters.





<b>Issue 2: Traffic impacts</b>
<b>Description of potential impacts</b>
Vehicle movements offsite have the potential to cause nuisance through noise and dust emissions if not managed appropriately. Impacts from onsite vehicle movement are considered under Sections 6.1 (noise emissions) and 6.3 (air emissions).
<b>Management measures proposed in DPEMP</b>
The DPEMP does not include any management measures, other than those made in relation to noise and air emissions onsite.
<b>Public and agency comment</b>
During the guideline consultation phase of the assessment the State Roads Division of the Department of State Growth indicated that they had no concerns in relation to the proposal as access to Evandale Road is via an existing roundabout which adequately caters for heavy vehicle use.
<b>Evaluation</b>
<p>Condition <b>AI</b> requires vehicles carrying loads containing material which may blow or spill to be equipped with effective control measures to prevent the escape of materials from the vehicles when they leave The Land.</p> <p>A Traffic Assessment (Appendix B of the DPEMP) was conducted for the proposed increase in production and expansion of the quarry.</p> <p>The Traffic Assessment indicates that the average daily traffic along Richard Street is up to 1,300 vehicles per day with approximately 50% comprising heavy vehicles.</p> <p>The Traffic Assessment indicates that light vehicle movements associated with the quarry are not likely to change at around 80 movements per day. However, it also notes that heavy vehicle movements are likely to increase from 45 truckloads per day up to 70 truckloads per day (from 90 to 140 movements to and from the Land per day). The Traffic Assessment indicates that the increase in heavy vehicles from the quarry represents a 5.4% increase of traffic on Richard Street and that a capacity analysis suggests the practical capacity of Richard Street is 3,500 vehicles per day.</p> <p>The Traffic Assessment concludes that an acceptable level of safety can be maintained in the vicinity of the quarry access.</p> <p>The Traffic Assessment highlights the significant volume of heavy vehicles travelling along Richard Street and Evandale Road. This means that any nearby sensitive receptors are already exposed to significant heavy vehicle movements and a 5.4% increase in traffic movements from the quarry is unlikely to significantly impact sensitive receptors.</p>
<b>Conclusion</b>
No specific conditions are proposed in relation to offsite traffic impacts.



**Appendix 2 – Summary of public representations and agency submissions**

Representation No./ Agency	DPEMP section no.	DPEMP Page no.	Comments and issues	Additional information required
1	4.5	53 & 54	<p>Dust emissions from the crusher do not comply with the current permit conditions.</p> <p>Dust emissions from the crusher are covering pasture areas, making it unpalatable to their stud sheep until reasonable rainfalls occur.</p> <p>Contravenes the 'right to farm' Act (<i>Primary Industries Protection Act 1995</i> and <i>Protection of Agricultural Lands Policy</i>).</p> <p>The dust also prohibits the successful growing of cereal and specialised seed crops.</p> <p>A suitable solution to dust emissions needs to be addressed before expansion is approved.</p>	<p>Section 4.5 of the DPEMP does not adequately consider the potential impact of dust emissions on agricultural land.</p> <p>The DPEMP must consider the potential impacts of dust emissions from the activity on nearby agricultural land and detail any additional mitigation measures proposed to minimise any nuisance dust emissions from the activity.</p>
2	4.4, 4.5, 4.6	NA	<p>The proposed use and development of land within the Launceston Airport's (the Airport) prescribed airspace is a significant safety issue to aviation operations. Object to the proposal until the below is appropriately addressed and approved.</p> <ul style="list-style-type: none"> <li>• Refer to the <i>Airports Act 1996</i> (the Act) and <i>Airports (Protection of Airspace) Regulations 1996</i> (the Regulations) in relation to intrusions into prescribed airspace around the Airport.</li> <li>• Refer to the National Airports Safeguarding Framework (NASF) which provides guidelines to ensure the safety of aviation operations.</li> </ul> <p>The following have been identified as potentially having an impact on the prescribed airspace:</p> <ul style="list-style-type: none"> <li>o Dust emissions;</li> <li>o Fly-rock emissions;</li> <li>o Air blast overpressure causing air turbulence;</li> <li>o Soil / overburden stockpiles causing air turbulence;</li> <li>o Light emissions; and</li> <li>o Creation of additional sediment ponds attracting wildlife.</li> </ul>	<p>Reference to the Act and Regulations must be made along with a brief discussion on how the requirements will be met.</p> <p>Including a commitment regarding seeking appropriate approvals under the Act and Regulations would be beneficial.</p> <p>Further consideration of the potential impacts from dust emissions and blasting on the Airport must be included in the DPEMP. The DPEMP should provide details on the proposed procedural processes for engaging with the Airport regarding aviation safety matters and any monitoring that will be undertaken.</p>





<p>Department of Infrastructure, Transport, Cities and Regional Development (DITCRD)</p>	<p>4.4, 4.5, 4.6</p>	<p>NA</p>	<ul style="list-style-type: none"> <li>Dust management is not adequately addressed in relation to the risk to aviation activities. Dust generation is a 'controlled activity' under the Act and requires approval under the Act and Regulations.</li> <li>Blast fly-rock may penetrate the prescribed airspace by a significant margin and is a 'controlled activity' under the Act. Approval must be sought under the Act and Regulations.</li> <li>Air blast overpressure and soil / overburden stockpiles may result in air turbulence, which is a 'controlled activity' under the Act. Further information is required to assess the potential impact and may require approval under the Act and Regulations.</li> <li>NASF Guidelines must be taken into account pursuant to the Standing Council on Transport and Infrastructure agreement of 18 May 2012, in particular Guidelines B, C and F are relevant to the proposal.</li> <li>An Aviation Safety Impact Assessment and a Wildlife Hazard Management Assessment is required to be developed by a suitably qualified and experienced aviation consultant in relation to the proposal's potential impact on the Launceston Airport's prescribed airspace and aircraft safety.</li> <li>The above assessments must demonstrate that there will be no impact on Launceston Airport's prescribed airspace or the safety of aviation operations.</li> <li>Recommended to engage with Airservices Australia, the Civil Aviation Safety Authority (CASA) and the Department of Infrastructure, Transport, Cities and Regional Development (DITCRD) regarding the proposal.</li> </ul>	<p>See comments above.</p>
<p>In addition to sharing and reiterating the concerns raised by Representor 2, the Department also raised light distraction to aircraft as a potential risk from the proposal that should be considered in the DPEMP.</p>			<p>The Department chairs the National Safeguarding Advisory Group (NASAG) which advises Governments on the protection of airports from inconsistent or inappropriate development.</p> <p>The Department is concerned about the expansion of the quarry closer to the airport boundary which may have significant long-term operational impacts for the Launceston Airport.</p> <p>The Department also states that the proposal may be contrary to the National Airports Safeguarding Framework (NASF) developed by the NASAG and agreed to by the State and Territory Ministers (including Tasmania) in May 2012.</p>	

Appendix 2

Environmental Assessment Report – DN Hughes – Western Junction Quarry Expansion, Western Junction





MRT	NA	NA	<p>MRT made the following comments on the DPEMP:</p> <ul style="list-style-type: none"> <li>There is limited discussion around the impacts of the operation with respect to the Launceston Airport and potential impacts to air and ground operations at the airport. How will the two operations interact? MRT is of the view that greater discussion around this is required.</li> <li>It would be useful to see a discussion around CASA's feedback regarding the DPEMP. The DPEMP states CASA were consulted during the Notice of Intent period. However, there is no meaningful discussion of their position or concerns beyond this.</li> <li><b>Section 2.3.2 Basalt Resource</b> – the comments raise questions over the confidence associated with the amount of resource claimed to be available for extraction. The statement that there is approximately 9 million tonnes of basalt available for extraction appears to be speculative. Further modelling, drilling and knowledge of factors such as basement geometry, architecture, geological structures, and alteration facies within the deposit would also need to be further investigated to improve the resource confidence level. The applicant has previously encountered issues with resource dilution due to contamination by weathering.</li> <li>The SRADs appear to have been measured from the centre of the mining lease. SRADs must be measured from the boundary of the mining lease to ensure future sensitive receptors do not fetter access to resources. This significantly changes the potential for interaction with current sensitive receptors and requires further assessment.</li> <li><b>Page 22 part 2.8 Operating hours</b> it states "<i>There are no residences in close proximity to the quarry or transport route</i>". The suggested recommended attenuation distances prescribed for such an activity is 1000m where regular blasting takes place. An SRAD distance of 750 metres is recommended where crushing occurs, 500m SRAD where vibrating and trommel screens alone are used, and where no blasting, crushing or screening occurs an SRAD distance of 300 metres applies. There are several sensitive receptors within the suggested recommended attenuation distances that have not been addressed in the DPEMP.</li> <li>The DPEMP appears to be silent on stating to what distance final extraction will cease to progress beyond with respect to the western boundary of the mining lease. The DPEMP currently suggests the far western area will be used for soil/overburden stockpile storage purposes. It would be useful to</li> </ul>	<p>Provide additional discussion on the basalt resource around the confidence in the resource.</p> <p>The distance to the nearest sensitive receptor must be measured from the Boundary of the Land. The DPEMP must be revised. Discussions on the potential impacts and proposed mitigation measures need to be revised, including relevant maps, to reflect the additional sensitive premises that may potentially be impacted within 1,000m from the boundary of the Land.</p> <p>Similarly, justification for the operating hours must be revised to consider the additional sensitive premises within 1,000m of the boundary of the Land.</p> <p>Please confirm the distance from the south western boundary that extraction will cease.</p>
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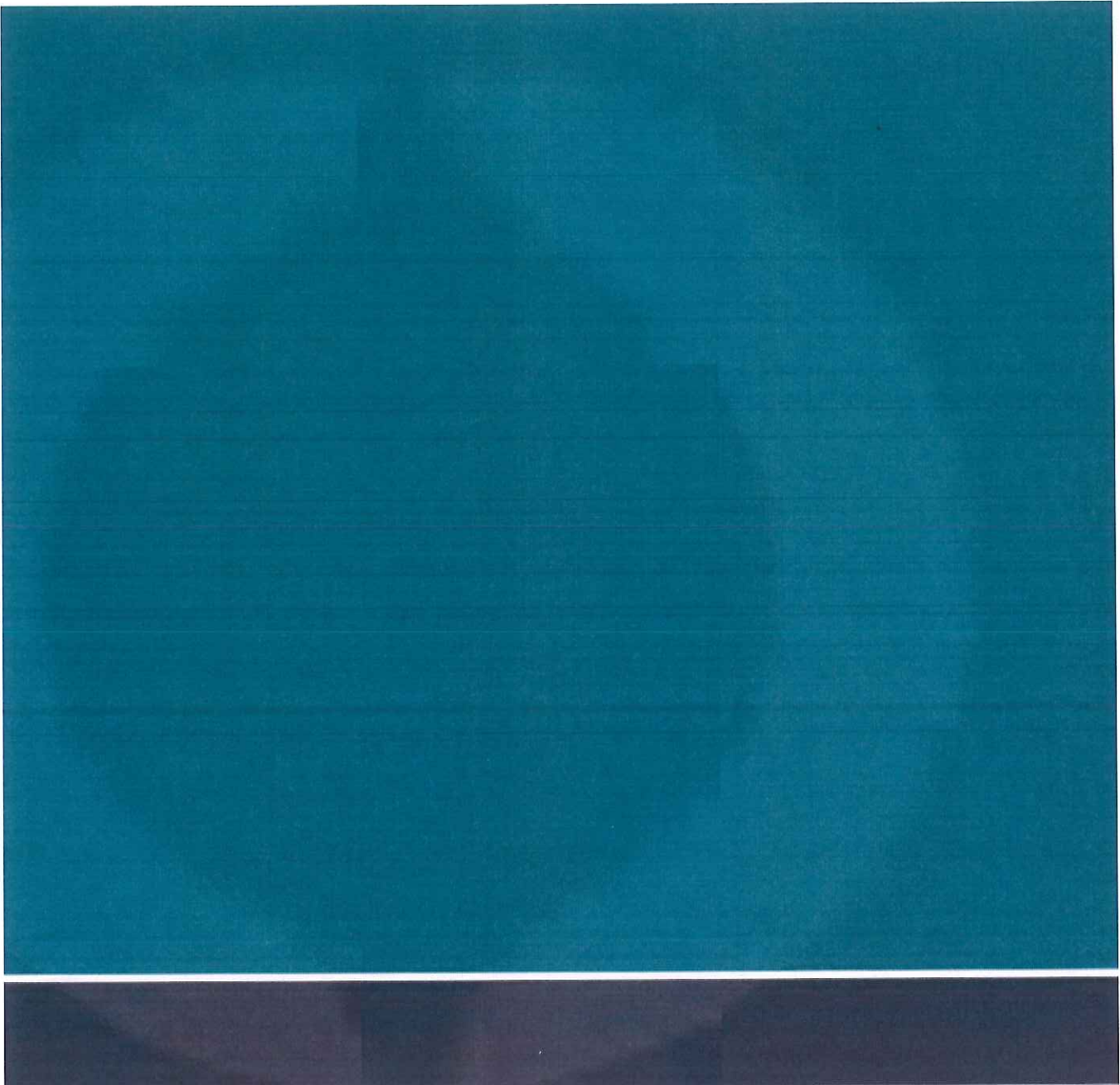
<p>TasWater</p>	<p>have a distance written into the document to ensure clarity around this issue.</p> <p>TasWater have stated that pursuant to the <i>Water and Sewerage Industry Act 2008</i> (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application:</p> <p><b>Protection of TasWater infrastructure</b></p> <p>1. Prior to submitting the Development Proposal and Environmental Management Plan (DPEMP) to the regulating authority for approval, the developer must develop a site management / operation plan for inclusion in the DPEMP to TasWater satisfaction to protect TasWater assets and staff from damage, dilapidation, injury and harm as the case may be for the life of the quarry.</p> <p><b>Development assessment fees</b></p> <p>2. The applicant or landowner as the case may be, must pay a development assessment fee of \$1,139.79 to TasWater, as approved by the Economic Regulator and the fee will be indexed, until the date it is paid to TasWater. The payment is required within 30 days of the issue of an invoice by TasWater.</p>			<p>TasWater have advised their requirements to protect TasWater assets and staff from damage, dilapidation, injury and harm include but are not limited to:</p> <ul style="list-style-type: none"> <li>a. Establishment of on-going liaison protocols with TasWater;</li> <li>b. Management of impacts of dust, noise and vibration emissions on TasWater staff;</li> <li>c. Undertaking dilapidation survey(s) and agreed condition assessments;</li> <li>d. Movement of heavy vehicles over shared accesses;</li> <li>e. Monitoring and management of high ground velocities, ground movement and vibrations arising from blasting;</li> <li>f. Management of fly rock hazards; and</li> <li>g. Rectification of assets deemed to have been damaged by quarrying works as and when required.</li> </ul> <p>Provide additional information in the DPEMP to satisfy TasWater's requirements in relation to the proposal.</p> <p>NB. An email dated 1 June 2020 from TasWater (included in the Supplement) indicates that the 'conditions' were for advice and that they do not expect nor want to review anything prior to the planning permit being issued.</p> <p>Advice should be sought from DPIPWE's Water Management and Assessment Branch regarding any approvals required under the <i>Water Management Act 1999</i>.</p>
<p>EPA</p>	<p>Table 4.11</p>	<p>56</p>		



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## Appendix 3 – Permit Conditions – Environmental No. 9667





PCE 9667 (r1)

1/20

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**PERMIT PART B**  
**PERMIT CONDITIONS - ENVIRONMENTAL No. 9667**

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Issued under the *Environmental Management and Pollution Control Act 1994*

Activity:           **The operation of a quarry and crusher (ACTIVITY TYPE: Crushing, grinding, milling or separating into different sizes (rocks, ores or minerals))  
WESTERN JUNCTION QUARRY, 81 EVANDALE ROAD  
WESTERN JUNCTION TAS 7212**

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:                           **NORTHERN MIDLANDS**  
Permit Application Reference:       **PLN19-0071**  
EPA file reference:                   **252179**

Date conditions approved:

06 OCT 2020

Signed:

  
\_\_\_\_\_  
WARREN JONES  
CHAIRPERSON, BOARD OF THE ENVIRONMENT  
PROTECTION AUTHORITY

CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

PCE 9667 (r1)

2/20

### 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.



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



**Table Of Contents**

Schedule 1: Definitions..... 5

Schedule 2: Conditions.....7

    Maximum Quantities..... 7

        Q1 Regulatory limits ..... 7

    General..... 7

        G1 Access to and awareness of conditions and associated documents..... 7

        G2 Incident response.....7

        G3 No changes without approval.....7

        G4 Change of responsibility..... 7

        G5 Change of ownership..... 7

        G6 Complaints register..... 8

        G7 Annual Environmental Review.....8

        G8 Environmental Management Plan and review thereof..... 9

        G9 Quarry Code of Practice..... 9

    Atmospheric..... 9

        A1 Covering of vehicles..... 9

        A2 Dust emissions from traffic areas.....9

        A3 Control of dust emissions.....10

        A4 Control of dust emissions from plant..... 10

    Blasting..... 10

        B1 Blasting times ..... 10

        B2 Blasting - noise and vibration limits..... 10

        B3 Notification of blasting.....10

        B4 Blast monitoring..... 11

        B5 Blast Management Plan.....11

        B6 Fly-rock..... 11

    Decommissioning And Rehabilitation.....12

        DC1 Notification of cessation.....12

        DC2 Temporary suspension of activity..... 12

        DC3 Stockpiling of surface soil..... 12

        DC4 Progressive rehabilitation.....12

        DC5 Decommissioning and Rehabilitation Plan..... 12

        DC6 Implementation of the DRP.....13

    Effluent Disposal..... 13

        E1 Perimeter drains or bunds.....13

        E2 Design and maintenance of settling ponds.....13

        E3 Stormwater.....14

        E4 Surface Water Management Plan for Mining Lease 2045P/M..... 14

    Flora And Fauna.....14

        FF1 Machinery washdown.....14

    Groundwater..... 15

        GW1 Sampling of groundwater in Mining Lease 2045P/M ..... 15

    Hazardous Substances.....15

        H1 Storage and handling of hazardous materials..... 15

        H2 Hazardous materials (< 250 litres).....16

        H3 Spill kits.....16

        H4 Handling of hazardous materials - mobile..... 16

    Monitoring..... 16

        M1 Samples and measurements for monitoring purposes..... 16



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020

PCE 9667 (r1)

4/20

Noise Control.....	16
N1 Noise emission limits.....	16
N2 Noise survey requirements.....	17
N3 Noise Survey Method and Reporting.....	17
N4 Operating hours.....	18
N5 Noise complaints.....	18
Operations.....	18
OP1 Weed & Disease Management Plan .....	18
OP2 Proximity to Launceston Airport runway.....	18
Water Quality.....	18
WQ1 Water quality.....	18
Schedule 3: Information.....	19
Legal Obligations.....	19
LO1 EMPCA.....	19
LO2 Storage and handling of dangerous goods, explosives and dangerous substances.....	19
LO3 Aboriginal relics requirements.....	19
Other Information.....	19
O11 Waste management hierarchy.....	19
O12 Notification of incidents under section 32 of EMPCA .....	19

*Attachments*

Attachment 1: The Land (modified: 24/09/2020 14:28).....	1 page
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CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



PCE 9667 (r1)

5/20

### Schedule 1: Definitions

In this Permit Part B:-

**312,500 cubic metres per year** is considered to be equivalent to 500,000 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.

**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.

**PFAS** means per- and poly-fluoroalkyl substances.

**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 December of each year.

**Stormwater** means water traversing the surface of The Land as a result of rainfall.

CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



PCE 9667 (r1)

6/20

**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 Leases 975P/M and 2045P/M; and
- 2 as further delineated at Attachment 1.

**Wastewater** means spent or used water (whether from industrial or domestic sources) containing a pollutant and includes stormwater which becomes mixed with wastewater.

**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.



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020

## Schedule 2: Conditions

### Maximum Quantities

#### **Q1 Regulatory limits**

- 1 The activity must not exceed the following limits :
  - 1.1 312,500 cubic metres per year of rocks, ores or minerals processed.
  - 1.2 312,500 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 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.

#### **G3 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.

#### **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.



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



PCE 9667 (r1)

8/20

**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 DPEMP 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;



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



PCE 9667 (r1)

9/20

- 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 Environmental Management Plan and review thereof**

- 1 Unless otherwise specified in writing by the Director, an Environmental Management Plan - Operations ('EMP Operations') for the activity must be submitted to the Director for approval by whichever of the following dates occurs first and at five yearly intervals thereafter:
  - 1.1 In the case of the Director having approved a previous Environmental Management Plan, the fifth anniversary of the date of that approval;
  - 1.2 The fifth anniversary of the date on which these conditions take effect; or
  - 1.3 A date specified in writing by the Director.
- 2 The EMP Operations must include a statement by the General Manager, Chief Executive Officer or equivalent for the activity acknowledging the contents of the EMP Operations.
- 3 The EMP Operations must detail the potential environmental impacts arising from the ongoing operation of the activity over the next 5 years, including a strategic consideration of potential changes to the activity during that period and consideration of opportunities to implement continuous improvement.
- 4 The EMP Operations must separately identify specific commitments, with actions and timeframes, to mitigate or prevent the identified potential environmental impacts. In preparing the EMP Operations the person responsible must take into account the contents of any previous annual environmental reviews including complaints, incidents and monitoring data.
- 5 If the Director issues guidelines for preparation of the EMP Operations, the EMP Operations must address the matters listed in those guidelines.
- 6 Unless otherwise specified in writing by the Director, the activity must be carried out in accordance with the approved EMP Operations, as may be amended or replaced from time to time with written approval of the Director.

#### **G9 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*.

#### **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 Dust emissions from traffic areas**

Dust emissions from areas of The Land used by vehicles must be limited or controlled by dampening or by other effective measures.



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



**A3 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.

**A4 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 1100 hours and 1600 hours Monday to Friday. Blasting must not take place outside of these hours or 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 (BPPEM) 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**

- 1 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.
- 2 The Launceston Airport Air Traffic Control Line Manager must be contacted at least 24 hours prior to any blasting operations, including drilling activities, being undertaken on The Land.



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



PCE 9667 (r1)

11/20

**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 air blast overpressure caused by a blast exceeds a limit imposed by these conditions, the Director must be notified within 24 hours of the blast.
- 4 The first five (5) blasts undertaken within Mining Lease 2045P/M must include monitoring the vertical and horizontal distance fly-rock travels.
- 5 Unless otherwise approved in writing by the Director, after each blast the Launceston Airport must be contacted to determine whether any impacts, such as dust plumes, were noted by the airport.
- 6 In the event that the Launceston Airport raises any concerns, the Director must be notified within 24 hours.
- 7 Blast monitoring records must be maintained for a period of at least two years.

**B5 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. This includes the implementation of recommendations in the report prepared by Terrock Pty Ltd in Appendix E of the DPEMP entitled '*Western Junction Quarry - Quarry Extension - Effects of Blasting*', dated 14 May 2018;
  - 1.2 A monitoring program, including the monitoring parameters to be measured;
  - 1.3 A blast monitoring location map, which includes, but is not limited to, locations designed to enable monitoring of potential impacts including to the Launceston Airport; and
  - 1.4 A list of all properties including Launceston Airport to be notified of blasting times.
- 2 The person responsible must ensure that the approved plan, as amended from time to time with the approval of the Director, is implemented.

**B6 Fly-rock**

- 1 In the event that fly-rock penetrates the prescribed airspace, as described in the document entitled '*Safety Review Report for Proposed Quarry Extension - Launceston Airport*' dated 2 March 2020 and prepared by Mott MacDonald, the Director EPA, Launceston Airport and the Civil Aviation Safety Authority must be notified within 24 hours.
- 2 A report must be provided to the Director within 7 days of the blast and must include, without limitation, the following:
  - 2.1 The details of the blast, including meteorological conditions at the time of the blast;
  - 2.2 An assessment of why the fly-rock travel distance was greater than expected; and
  - 2.3 Recommendations to ensure that future blasts do not cause fly-rock to penetrate prescribed airspace, including an updated Blast Management Plan for approval of the Director.



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



**Decommissioning And Rehabilitation****DC1 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.

**DC2 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.

**DC3 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.

**DC4 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.

**DC5 Decommissioning and Rehabilitation Plan**

- 1 A draft Decommissioning and Rehabilitation Plan (DRP) must be submitted for approval to the Director within 12 months of the date on which these conditions take effect.
- 2 Unless otherwise approved in writing by the Director, a revised DRP must be submitted to the Director for approval:
  - 2.1 when changes to the conduct of the activity are to occur that will result in significant changes to decommissioning and rehabilitation obligations; and
  - 2.2 within 30 days of the Director being notified of the likely cessation of operations; and
  - 2.3 where required by notice in writing, by a date specified in writing by the Director.



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



PCE 9667 (r1)

13/20

- 3 The DRP must be prepared in accordance with guidelines issued by the Director. If no guidelines have been issued by the Director the measures described in this plan must include, but should not necessarily be limited to, the following:
  - 3.1 completion of a site history, site contamination assessment and contamination remediation plan (including consideration of groundwater);
  - 3.2 removal of all equipment, structures and waste materials unless they are considered by the Director to be beneficial to a future use of The Land;
  - 3.3 grading and levelling/recontouring and revegetating (or other approved method of soil stabilisation) of the surface of the disturbed area;
  - 3.4 management of drainage on The Land so as to reduce erosion and prevent release of a pollutant from The Land;
  - 3.5 maintenance of the rehabilitated area for a period of not less than three years from the date of cessation of operations;
  - 3.6 an itemised estimate of the costs of carrying out the works listed in the DRP and a statement of how these costs will be provided for; and
  - 3.7 any other detail requested in writing by the Director.

#### **DC6 Implementation of the DRP**

Following permanent cessation of the activity, the decommissioning of the activity and the rehabilitation of The Land must be carried out in accordance with the most recent Decommissioning and Rehabilitation Plan (DRP) approved by the Director, as may be amended from time to time with written approval of the Director.

#### **Effluent Disposal**

##### **E1 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.

##### **E2 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;
  - 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.



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



**E3 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.

**E4 Surface Water Management Plan for Mining Lease 2045P/M**

- 1 At least 3 months prior to the commencement of extractive activities commencing within Mining Lease 2045P/M, or by a date otherwise specified in writing by the Director, a Surface Water 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 prepared in accordance with any reasonable guidelines provided by the Director.
- 3 Without limitation, the plan must include details of the following:
  - 3.1 how surface water will be managed within Mining Lease 2045P/M, including the need for sediment retention ponds;
  - 3.2 the measures proposed to reduce the likelihood of surface water ponding within Mining Lease 2045P/M;
  - 3.3 the measures proposed to ensure that surface water is managed appropriately and does not cause environmental harm or nuisance;
  - 3.4 any other measures to be put in place to reduce the risk of wildlife being attracted to Mining Lease 2045P/M;
  - 3.5 a table containing all of the major commitments made in the plan;
  - 3.6 an implementation timetable for key aspects of the plan; and
  - 3.7 a reporting program to regularly advise the Director of the results of the plan.
- 4 Written comment from the Launceston Airport must be provided to ensure that they are comfortable with the proposed Surface Water Management Plan for Mining Lease 2045P/M;
- 5 The person responsible must implement and act in accordance with the approved plan.
- 6 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.

**Flora And Fauna****FF1 Machinery washdown**

Prior to entering The Land, machinery must be washed in accordance with the Weed and Disease Guidelines, or any subsequent revisions of that document.



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



PCE 9667 (r1)

15/20

**Groundwater****GW1 Sampling of groundwater in Mining Lease 2045P/M**

- 1 Unless otherwise approved in writing by the Director, any groundwater ingress into the quarry pit must be sampled and analysed for per- and poly-fluoroalkyl substances (PFAS).
- 2 Results of sampling must be reported to the Director within 14 days of being received.
- 3 Unless otherwise approved in writing by the Director, any groundwater encountered within the quarry pit must not be discharged off the Mining Lease until proven not to be contaminated with PFAS.
- 4 In the event that PFAS is encountered in groundwater within the quarry pit, the groundwater must be detained within the quarry pit and either treated or disposed of to the written satisfaction of the Director.

**Hazardous Substances****HI Storage and handling of hazardous materials**

- 1 Unless otherwise approved in writing by the Director, all environmentally hazardous materials, including chemicals, fuels, and oils, stored on The Land in volumes exceeding 250 litres must be stored and handled in accordance with the following:
  - 1.1 Any storage facility must be contained within a spill collection bund with a net capacity of whichever is the greater of the following:
    - 1.1.1 at least 110% of the combined volume of any interconnected vessels within that bund; or
    - 1.1.2 at least 110% of the volume of the largest storage vessel; or
    - 1.1.3 at least 25% of the total volume of all vessels stored in that spill collection bund; or
    - 1.1.4 the capacity of the largest tank plus the output of any firewater system over a twenty minute period.
  - 1.2 All activities that involve a significant risk of spillages, including the loading and unloading of bulk materials, must take place in a bunded containment area or on a transport vehicle loading apron.
  - 1.3 Bunded containment areas and transport vehicle loading aprons must:
    - 1.3.1 be made of materials that are impervious to any environmentally hazardous material stored within the bund;
    - 1.3.2 be graded or drained to a sump to allow recovery of liquids;
    - 1.3.3 be chemically resistant to the chemicals stored or transferred;
    - 1.3.4 be designed and managed such that any leakage or spillage is contained within the bunded area (including where such leakage emanates vertically higher than the bund wall);
    - 1.3.5 be designed and managed such that the transfer of materials is adequately controlled by valves, pumps and meters and other equipment wherever practical. The equipment must be adequately protected (for example, with bollards) and contained in an area designed to permit recovery of any released chemicals;
    - 1.3.6 be designed such that chemicals which may react dangerously if they come into contact have measures in place to prevent mixing; and
    - 1.3.7 be managed such that the capacity of the bund is maintained at all times (for example, by regular inspections and removal of obstructions).



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



**H2 Hazardous materials (< 250 litres)**

- 1 Unless otherwise approved in writing by the Director, each environmentally hazardous material, including chemicals, fuels and oils, stored on The Land in discrete volumes not exceeding 250 litres, but not including discrete volumes of 25 litres or less, must be stored within bunded containment areas or spill trays which are designed and maintained to contain at least 110% of the volume of the largest container.
- 2 Bunded containment areas and spill trays must be made of materials that are impervious to any environmentally hazardous materials stored within the bund or spill tray.

**H3 Spill kits**

Spill kits appropriate for the types and volumes of materials handled on The Land must be kept in appropriate locations and maintained in a functional condition to assist with the containment of spilled environmentally hazardous materials.

**H4 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.

**Monitoring****M1 Samples and measurements for monitoring purposes**

- 1 Any sample or measurement required under these conditions must be taken and processed in accordance with the following:
  - 1.1 sampling and measuring must be undertaken by a person with training, experience, and knowledge of the appropriate procedure;
  - 1.2 the integrity of samples must be maintained prior to delivery to a testing facility;
  - 1.3 sample analysis must be conducted by a testing facility accredited by the National Association of Testing Authorities (NATA), or a testing facility approved in writing by the Director, for the specified test;
  - 1.4 details of methods employed in taking samples and measurements and results of sample analysis, and measurements must be retained for at least three (3) years after the date of collection; and
  - 1.5 sampling and measurement equipment must be maintained and operated in accordance with manufacturer's specifications and records of maintenance must be retained for at least three (3) years.

**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:



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



PCE 9667 (r1)

17/20

- 1.1 50 dB(A) between 0700 hours and 1800 hours (Day time); and
- 1.2 40 dB(A) between 1800 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 by the Director, a noise survey must be carried out:
  - 1.1 within six (6) months from the commencement of operations within Mining Lease 2045P/M; and
  - 1.2 within six (6) months of any change to the activity which is likely to substantially alter the character or increase the volume of noise emitted from The Land; and
  - 1.3 at such other times as may reasonably be required by the Director by notice in writing.

## N3 Noise Survey Method and Reporting

- 1 Prior to undertaking a noise survey as required by these conditions, a proposed noise survey method must be submitted to the Director for approval.
- 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;
  - 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.



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



PCE 9667 (r1)

18/20

**N4 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 0600 hours to 1730 hours on weekdays and 0700 hours to 1500 hours on Saturdays.
- 2 Notwithstanding the above paragraph, activities must not be carried out on public holidays that are observed Statewide (Easter Tuesday excepted).

**N5 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 Weed & Disease Management Plan**

- 1 Within 6 months of the date on which these conditions take effect, 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.

**OP2 Proximity to Launceston Airport runway**

Unless otherwise approved in writing by the Director, extraction must not occur closer than 344m from the Launceston Airport runway.

**Water Quality****WQ1 Water quality**

- 1 Total suspended solids in any run-off discharged from The Land must not exceed a concentration of 30 mg/L.
- 2 During a storm event, any plume leaving The Land must not be visibly more turbid than the receiving waters.
- 3 Waters leaving The Land must be visibly free of any hydrocarbon sheen.



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2022

### 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

##### **O11 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.

##### **O12 Notification of incidents under section 32 of EMPCA**

Where a person is required by section 32 of EMPCA to notify the Director of the release of a pollutant, the Director can be notified by telephoning **1800 005 171** (a 24-hour emergency telephone number).



CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020



Attachment 1: The Land



www.thelist.tas.gov.au

CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

06 OCT 2020

D. N. Hughes

Western Junction Quarry Southern Extension

Development Proposal and Environmental  
Management Plan

**APPENDIX C**

Air Services Australia and CASA Information



## Launceston Airport

Air Services Australia and CASA have indicated that they require the following additional information to complete their assessment of this proposal:

- *\_Coordinates for the site boundaries of the proposed quarry;*

Attached the lease plan with coordinates

- *\_Maximum height in Above Ground Height and Australian Height Datum of any equipment, stockpile and building used for the proposed quarry;*

The highest item will be a Caterpillar 374 excavator. Assuming that the excavator is on or near the lease boundary, which has a maximum RL of 163m, assuming the boom extends as far as it can go, the maximum RL will be approximately 173m.

- *\_Analysis of the rock-blast emission from the new quarry.*

Terrock were commissioned to conduct a new study taking into account the altered quarry boundaries and this report is attached in **Appendix F**

Flyrock from the quarry has been raised as an issue in the past. Figure A (attached) shows the project height of the worst case flyrock trajectory. Possible flyrock does not intrude into the Airport flight space.



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authority of National Survey Solutions.

Nbr: J789-LB-02  
Title: Proposed altered  
lease boundary  
ML 2045P/M  
contours of area

SCALE  
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DRAWN  
JR

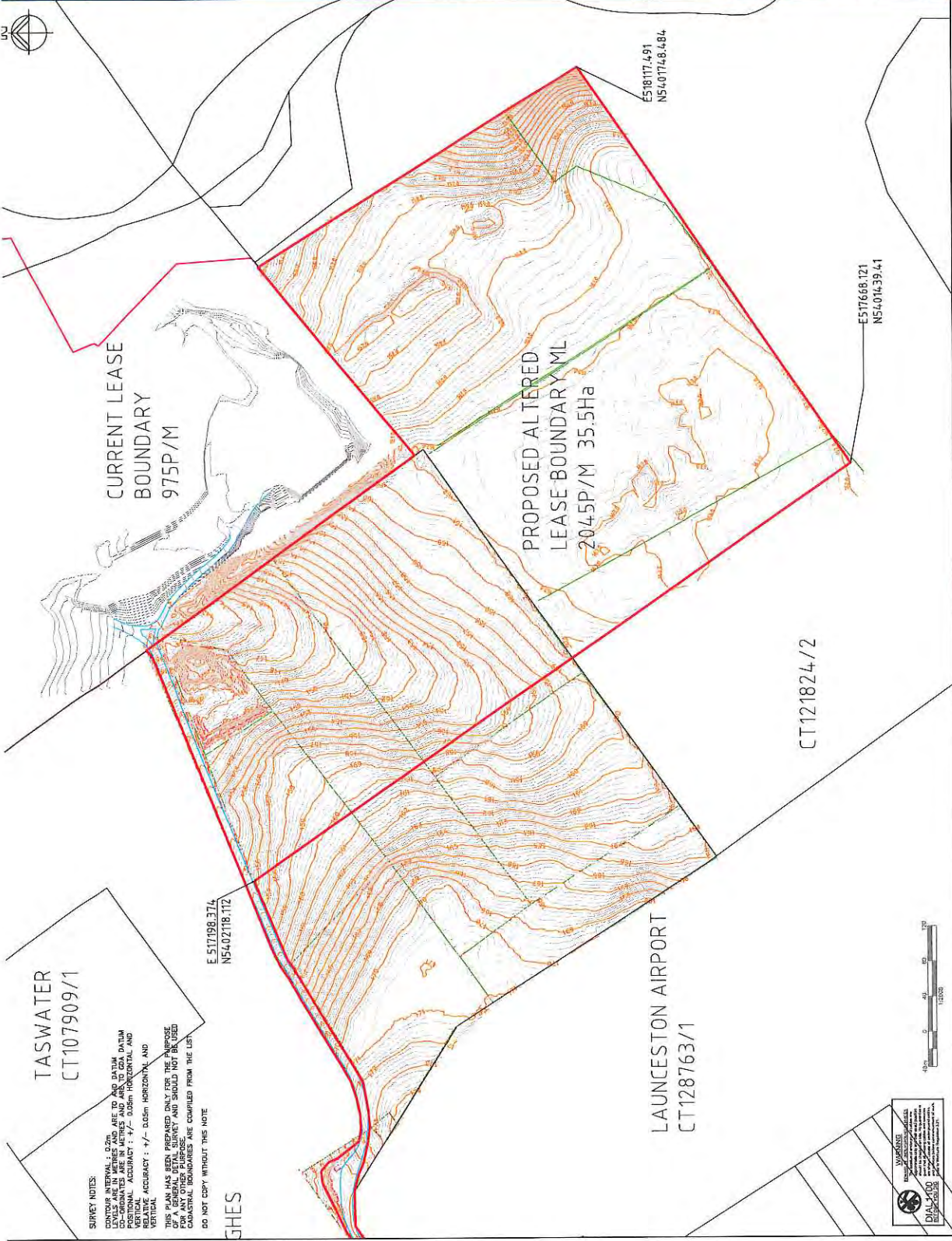
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DATE  
10-09-2021

DRG NO.  
J789-LB-02

REV  
1

SHEET 1 OF 1



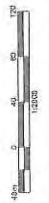
TASWATER  
CT107909/1

**SURVEY NOTES:**  
THIS PLAN WAS PREPARED ONLY FOR THE PURPOSE  
OF A GENERAL DETAIL SURVEY AND SHOULD NOT BE USED  
FOR ANY OTHER PURPOSE WITHOUT THE EXPRESS  
WRITTEN AUTHORITY OF NATIONAL SURVEY SOLUTIONS.  
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LAUNCESTON AIRPORT  
CT128763/1

CT121824/2



PROJECT

Proposed altered  
Lease boundary  
ML 2045P/M  
contours of area



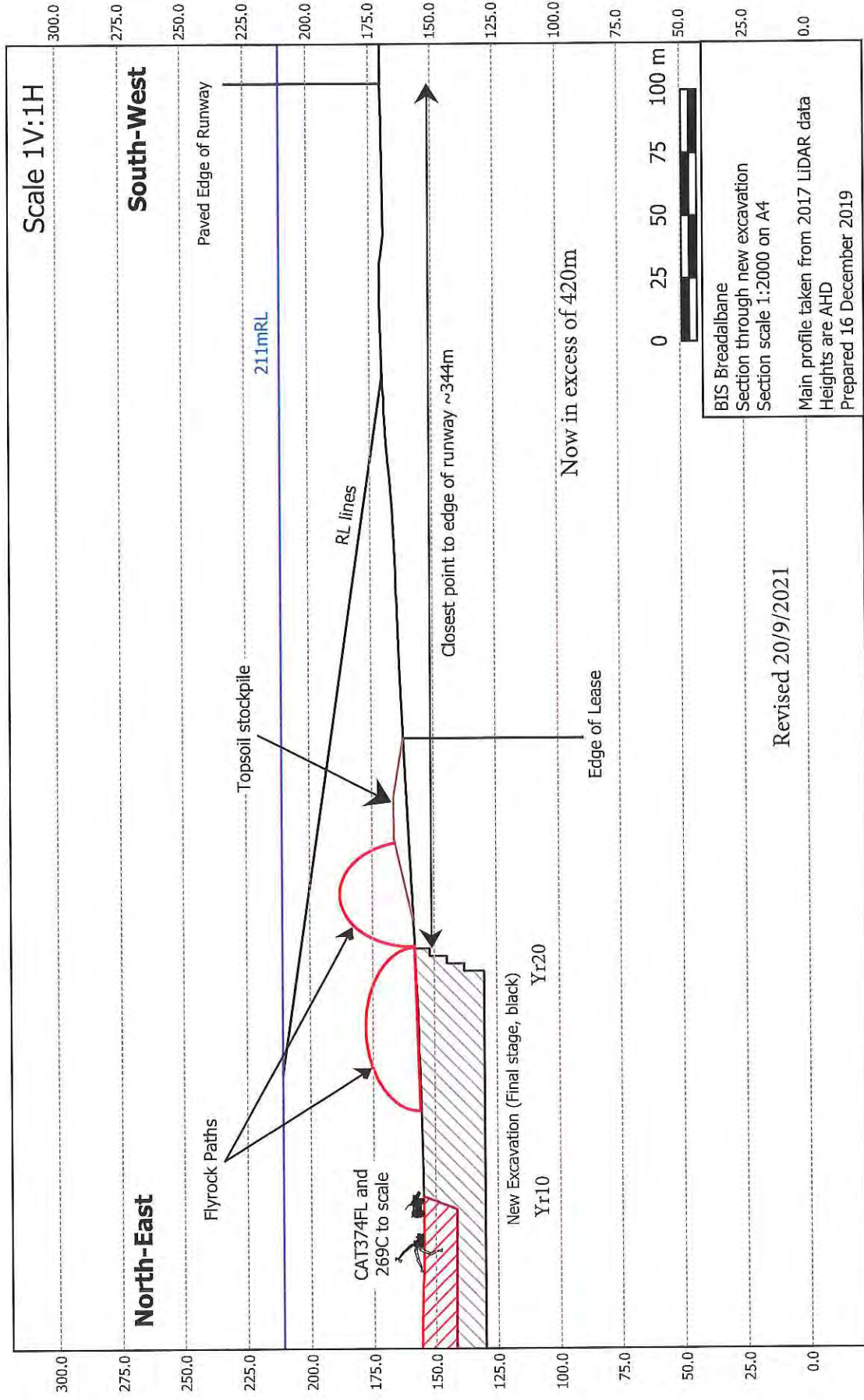


Figure 4: Cross Section - Enlarged

D. N. Hughes

Western Junction Quarry Southern Extension

Development Proposal and Environmental  
Management Plan

**APPENDIX D**

W Cromer Groundwater report





BIS INDUSTRIES  
WESTERN JUNCTION QUARRY  
PROPOSED SOUTHERN EXPANSION  
SUMMARY  
HYDROGEOLOGICAL REPORT

September 2021



**Cover photo**

View south over the active Centre Pit at the Western Junction Quarry. The crushing and screening plant is in the background, and the proposed southern extension of operations is on the higher ground behind.

Photo: Bill Cromer, 31 May 2021

**Refer to this report as**

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## SUMMARY

Conceptual hydrogeological cross sections have been compiled in the vicinity of the Western Junction Quarry and environs (including its proposed southern expansion area).

Flow directions have been inferred for local-, intermediate- and regional scale groundwater systems. Local flows are in all directions to minor creeks (eg Briarty and Kellys Creeks); intermediate flow is towards Rose Rivulet, and regional flow is to the North Esk River.

Groundwater travel times may range from decades for local flows, to millennia for regional flows.

