

# Environmental Assessment Report

## Increase in production (Sand Washery)

*Calder Road, Wynyard*

DJ Rowell

*February 2020*



ENVIRONMENT PROTECTION AUTHORITY

## Environmental Assessment Report

Proponent	DJ Rowell
Proposal	Waste Depot (Tailings Storage Facility)
Location	Calder Road, Wynyard
NELMS no.	PCE No. 10177
Permit Application No.	66-2018 (Waratah-Wynyard Council)
Electronic Folder No.	EN-EM-EV-DE-255698
Document No.	M598644
Class of Assessment	2A

## Assessment Process Milestones

15/11/2019	Permit Application submitted to Council
01/05/2019	Referral received by the Board
06/06/2019	Guidelines Issued
7/12/2019	Start of public consultation period
6/1/2020	End of public consultation period
18/01/2020	Date draft conditions issued to proponent
17/2/2020	Statutory period for assessment ends

## Acronyms

Board	Board of the Environment Protection Authority
EER	Environmental Effects Report
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>
LUPA Act	<i>Land Use Planning and Approvals Act 1993</i>
RMPS	Resource management and planning system
SD	Sustainable development
TSF	Tailings Storage Facility
QCP	<i>Quarry Code of Practice 2017</i>

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## Report Summary

This report provides an environmental assessment of DJ Rowell's proposal to increase the quantity of sand that is processed at 791 Calder Road, Wynyard. The site currently operates as a sand washery and sand quarry and contains an approved tailings dam and settling pond. The raw materials (sand) to support the increase in processing will be extracted from the existing mining lease IM/2010 as well as imported from a nearby level 1 extraction area. The imported sand will be transported by truck, washed on site and exported for use in the construction industry.

This report has been prepared based on information provided in the permit application and Environmental Effects Report (EER). Relevant government agencies and the public were consulted and their submissions, representations and comments considered as part of the assessment.

Further details of the assessment process are presented in section 1 of this report. Section 2 describes the statutory objectives and principles underpinning the assessment. Details of the proposal are provided in section 3. Section 4 reviews the need for the proposal and considers the alternatives. Section 5 summarises the public and agency consultation process. The detailed evaluation of environmental issues is contained in section 6. Other issues are discussed in section 7. The report conclusions are contained in section 8.

Appendix 1 includes the table of commitments made by the proponent. Appendix 3 contains the environmental permit conditions for the proposal.

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## I Approval Process

An application for a permit for this proposal under the *Land Use Planning and Approvals Act 1993* (LUPA Act) was submitted to Waratah-Wynyard Council on 15 November 2019.

The proposal is defined as a 'level 2 activity' under clause 2(e), schedule 2 of the *Environmental Management and Pollution Control Act 1994* (EMPC Act), 2. *Manufacturing and Mineral Processing (e) Mineral Works: the conduct of works for processing mineral ores, sands or earths processing 1 000 tonnes or more per year of raw materials.*

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 2 August 2018.

The assessment has been undertaken by the Director, Environment Protection Authority under delegation from the Board.

The Board required that information to support the proposal be provided in the form of an Environmental Effects Report (EER), in accordance with guidelines issued by the Board on 3 September 2018.

Several drafts of the EER were submitted to EPA Tasmania for review against the guidelines before it was finalised. The EER was released for public inspection for 14 days on 7 December 2019. An advertisement was placed in *The Advocate* and on the EPA website. The EER was also referred to relevant government agencies for comment. One representation was received.

## 2 SD Objectives and EIA Principles

The assessment has been undertaken by the Director, Environment Protection Authority under delegation from the Board.

The proposal must be considered by the Director in the context of the objectives of the Resource Management and Planning System of Tasmania (RMPS), and in the context of the objectives of the Environmental Management and Pollution Control System (EMPCS) (both sets of objectives are specified in Schedule 1 the EMPC Act). The functions of the Board are to administer and enforce the provisions of the Act, and in particular to use its best endeavours to further the RMPS and EMPCS objectives.

The Director must assess the proposal in accordance with the Environmental Impact Assessment Principles defined in Section 74 of the EMPC Act.

### 3 The Proposal

The proponent intends to increase the quantity of sand that is processed (washed) on the site, which currently operates as a sand washery with an approved tailings dam and settling pond. The raw materials (sand) will be extracted from the existing mining lease IM 2010 as well as imported from a nearby level 1 extraction area. The imported sand will be transported by truck, washed on site and exported for use in the construction industry.

The main characteristics of the proposal are summarised in Table 1. A detailed description of the proposal is provided in Section 3 of the EER.

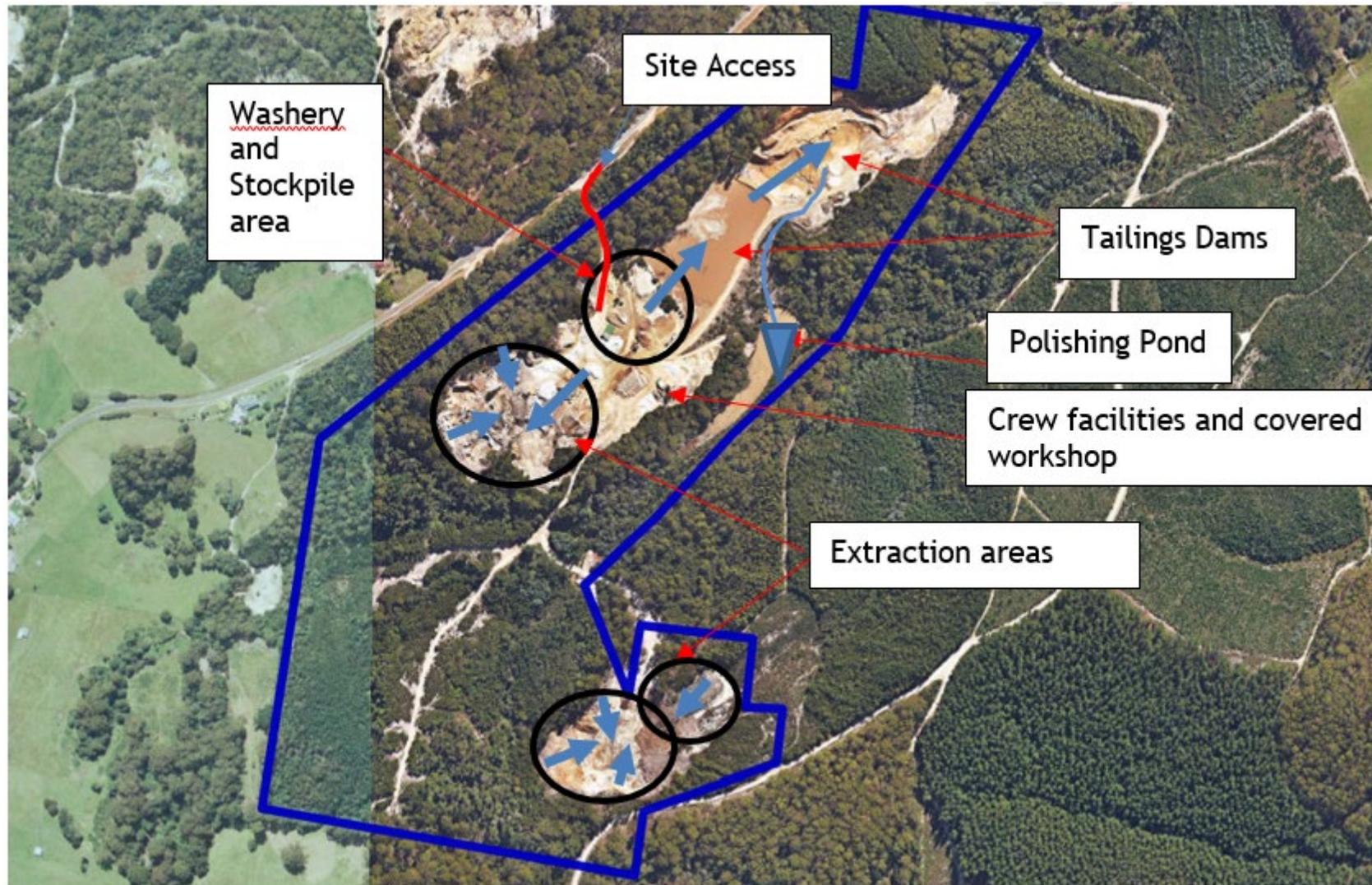
**Table 1: Summary of the proposal’s main characteristics**

Activity	
Increase in sand processing from 12,000m <sup>3</sup> per annum to 20,000m <sup>3</sup> per annum.	
Location and planning context	
<b>Location</b>	Calder Road, Wynyard (PID 3104657, CT 161615/1), as shown in Figure 1
<b>Land zoning</b>	Rural Resource
<b>Land tenure</b>	Permanent Timber Production Zone, owned by Sustainable Timbers Tasmania
<b>Mining lease</b>	IM/2010
Existing site	
<b>Land Use</b>	Sand washery (extractive industry under Schedule 2 of the EMPC Act) and forestry plantations.
<b>Topography</b>	The site is located at 68m AHD, an elevation below Calder Road.
<b>Geology &amp; Soils</b>	According to the ‘Reconnaissance Soil Map Series of Tasmania’, the quarry site is within the Inglis Association: Soils developed on Tertiary quartz gravel and sand on undulating to rolling (3-32%) land.
<b>Hydrology</b>	Beswicks Creek flows through the mining lease in a north-easterly direction. (refer Figure 10 of the EER). Beswicks Creek flows into the existing approved settling pond on site. From this pond the stream flows into Blackfish Creek, which is a permanent creek flowing to the north and into the Inglis River.
<b>Natural Values</b>	<p>The sand processing area is cleared of vegetation. The sand washery is surrounded by <i>Eucalyptus ovata</i> and woodland and plantations. <i>Eucalyptus ovata</i> and woodland is a community listed under the <i>Nature Conservation Act 2002</i>.</p> <p>Within the range of <i>Astacopsis gouldi</i> (Giant Freshwater Crayfish) but no verified sightings.</p> <p>Sightings of <i>Perameles gunnii gunnii</i> (Eastern Barred Bandicoot) and <i>Sarcophilus harrisii</i> (Tasmanian Devil) in surrounding areas.</p> <p>In 2006 an <i>Accipiter novaehollandiae</i> (Grey Goshawk) nest was observed 890 metres from the materials handling activity site.</p>

<b>Local region</b>	
<b>Climate</b>	Annual rainfall averages 975mm, with 180 days of rain on average per year. The largest rainfalls (above 90mm/month) are typically seen in the months of May through to October (inclusive). Prevailing winds are south westerly.
<b>Surrounding land zoning, tenure and uses</b>	The surrounding land is zoned rural resource, with both private and Sustainable Timber Tasmania ownership, and is used for farming and forestry.
<b>Species of conservation significance</b>	There are records of the giant freshwater crayfish, <i>Astacopsis gouldi</i> within 1km of the site of the materials handling activity. This species is listed as vulnerable under State and Commonwealth legislation.
<b>Proposed infrastructure</b>	
<b>Major equipment</b>	The increase in processing will require one additional 14 tonne excavator and one 8 tonne truck.
<b>Other infrastructure</b>	None
<b>Inputs</b>	
<b>Water</b>	The process will involve water which is reused from the existing polishing pond
<b>Energy</b>	Diesel for machinery
<b>Wastes and emissions</b>	
<b>Liquid</b>	Stormwater runoff
<b>Atmospheric</b>	Dust from internal and external traffic, and movement of materials
<b>Solid</b>	Sand
<b>Controlled wastes</b>	None
<b>Noise</b>	Heavy vehicles and processing machinery
<b>Greenhouse gases</b>	Emissions from vehicles
<b>Construction, commissioning and operations</b>	
<b>Proposal timetable</b>	20,000m <sup>3</sup> per annum capacity ongoing.
<b>Operating hours (ongoing)</b>	0700 to 1800 hours Monday to Friday 0800 to 1600 hours Saturday No operations during Sundays or Statewide public holidays



**Figure 1: Location Map**



**Figure 2: Site Plan**

## 4 Need for the Proposal and Alternatives

According to Section 3.4 of the EER, the purpose of the increase in processing is to meet current and future demand for washed sand products in the Tasmanian construction industry.

The site has been used for sand extraction and washery since the mid 1980s. Owing to the location of the resource and established facilities there are no feasible alternatives.

## 5 Public and Agency Consultation

One public representation was received during the public consultation period. The representor raised concerns about potential impacts on water quality in adjacent creeks, and on habitat for the Giant Freshwater Crayfish *Astacopsis gouldi*, and the need to monitor water quality impacts associated with increased material processing. They also raised questions about current conditions regulating the capacity of the existing tailings dam on site and how these would relate to any future permit for increased processing.

The EER was referred to a number of government agencies/bodies with an interest in the proposal. Submissions were received from the following:

- Mineral Resources Tasmania, Department of State Growth
- Sustainable Timbers Tasmania (landowner)

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

- Regulator, EPA Tasmania
- Water Specialist, EPA Tasmania
- Noise Specialist, EPA Tasmania

## 6 Evaluation of Environmental Issues

EPA Tasmania has evaluated environmental issues considered relevant to the proposal. Details of this evaluation, along with the permit conditions required by the Director, are discussed below:

The following issues are discussed:

1. Surface Water and Aquatic Environment
2. Natural Values and Weeds and Diseases
3. Environmentally Hazardous Substances
4. Noise Emissions
5. Air Emissions
6. Decommissioning and Rehabilitation

### 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** Quarry code of practice

<b>Issue 1: Surface Water and Aquatic Environment</b>
<b>Description of potential impacts</b>
<p>The proposal has the potential to impact Beswicks Creek during high rainfall events as a result of sedimentation, particularly from cleared areas. Stormwater from the mining area is currently captured within the existing polishing pond on site. During operations vehicle movements and quarrying could also increase sediment movements, as Beswicks Creek and tributaries are intersected with internal accesses to extraction areas.</p> <p>Beswicks Creek is located 200m in a straight line distance south/south east from the location of the sand washery. This is a small ephemeral stream flowing from the southwest (refer Figure 10 of the EER). The polishing dam, which forms part of the existing sand washery on the land, represents an impoundment in the waterway of Beswicks Creek.</p> <p>The increase in processing will increase water use on site. Washery water that enters the tailings storage facility is currently detained to allow the sand to settle out of suspension. Once the water reaches the top of the outfall pipe, it travels along the pipe to the existing polishing dam. There is a potential for surface water runoff originating from the existing cleared areas within the mining lease, which may lead to pollution of the aquatic environment from sediment and other water borne contaminants, such as oil, if not appropriately managed.</p>
<b>Management measures proposed in EER</b>
<p>Commitment 3: Stormwater will be managed on site to ensure it is directed to the tailings dam from the extraction areas, washery and operational areas. Stormwater from extraction areas will be controlled by localised ponds and shaping the floor of the extraction area to encourage containment, detention and soaking into the sandy soils.</p> <p>Commitment 4: Water from the polishing pond will be recycled through the sand washery.</p>
<b>Public and agency comment</b>
<p>One public representation was received during the consultation period. The representor raised questions regarding potential impacts on water quality in adjacent creeks. They also raised a question about current regulatory conditions on the existing tailings dam on site, and how these would relate to any future permit for increased processing. The issue of downstream monitoring for sediment was raised through the representation and specifically the representor suggested a requirement to monitor downstream for sediment from the settling pond. The potential presence of Giant Freshwater Crayfish, <i>Astacopsis gouldi</i> within the surrounding waterways was also raised.</p> <p>EPA Tasmania's Water Specialist stated that the sand washery was 'low risk'. Assessment advice regarding the potential impacts on water quality associated with the construction of the tailings dam (permit issued January 2019) in this location was that 'owing to the location and surrounding land uses, the potential receiving environments are not particularly sensitive and that the sandy-gravel nature of the area might be so permeable to rainfall soaking into the ground that surface run-off during heavy rainfall events may be quite limited.'</p>
<b>Evaluation</b>

The proponent has stated that the settling pond currently overflows “rarely” and clarified that this was in the order of “once or twice per year”. There is no apparent history of issues associated with discharge from the settling pond downstream into Beswicks Creek or subsequently into Blackfish creek. These waterways join the Inglis River in an agricultural area approximately 2 kilometres above the river mouth into the ocean. There are no records of *Astacopsis gouldi* within either Beswicks Creek below the junction of Blackfish Creek or the Inglis River below Blackfish Creek. Because the sandwashing process re-uses water from the settling pond, the increase in processing will not result in an increase in the total volume of water entering the settling pond. The main source of potential sedimentation comes from the existing cleared areas within the mining lease. The extent of cleared land is considered under Issue 6 in this report, resulting in **Condition DC3** requiring the proponent to rehabilitate existing cleared areas and retain a smaller total area of cleared land than currently. The potential for large volumes of sediment to flow from the site will therefore be reduced from the current scenario.

The requirement for water quality monitoring and mandatory reporting has been considered. Given that this proposal will not result in any additional vegetation clearance, no expected increase in water discharge, reduction in cleared areas through rehabilitation, improved stormwater infrastructure and an absence of any apparent historical issues regarding discharge, mandatory monitoring is not considered practical or necessary. Inspection of stormwater flows into Beswicks Creek during rainfall events is encouraged. The proposed and conditioned on-site management of surface water is consistent with the acceptable standards of the Quarry Code of Practice (EPA Tasmania, May 2017) (QCP) in regard to drainage and erosion control.

**Condition E1** requires that cut-off drains be constructed and maintained to prevent movement of sediment will reduce water quality impacts to Beswicks Creek and the aquatic environment, including any threatened aquatic species. To limit the potential for uncontrolled sediment-laden water to enter Beswicks Creek during heavy rainfall, the proponent will be required under **conditions E2** and **E3** to ensure appropriate stormwater infrastructure is in place to control sediment where vehicle tracks and extraction areas drain to Beswicks Creek.

**Conclusion**

- The proponent will be required to comply with the following conditions:
- G2** Incident response
  - E1** Perimeter drains or bunds
  - E2** Stormwater
  - E3** Maintenance of settling ponds

**Issue 2: Natural Values and Weed & Diseases**

**Description of potential impacts**

Land clearing and other impacts associated with extractive industries can lead to disturbance and loss of natural values such as threatened communities.

While records of threatened flora and fauna have been found within 1 kilometre of the processing location, there are no records within the mining lease. There is potential for some species to traverse the sand washery site, however there is limited feeding and breeding habitat given that the location of the sand washery process is within an existing cleared and highly disturbed area. There are records within 500m of the mining lease for the Tasmanian devil (*Sarcophilus harrisii*) and grey goshawk (*Accipiter novaehollandiae*) both listed as endangered under both the *Threatened Species Protection Act 1995* and the *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA). It is likely that the entire Wynyard area is used by devils for foraging and/or breeding habitat by the Tasmanian Devil. The mining lease contains areas of *Eucalyptus ovata* and woodland (DOV), a community listed under the *Nature Conservation Act 2002*. The development is within the range for the giant freshwater crayfish (*Astacopsis gouldi*).

The site does contain a population of the listed weed species *Cortaderia* sp. (Pampas Grass). Waratah Wynyard is listed as a 'Zone A' (eradication) municipality for Pampas under the *Weed Management Act 1999*. Owing to the increase in vehicle movements and export of materials from the site, the proposal has the potential to spread weeds or diseases that may affect native flora and fauna.

There is potential impact relating to sediment run off from the site into natural waterways particularly following high rainfall. Surface water management is addressed in Issue 1.

**Management measures proposed in EER**

Commitment 1: No DOV will be disturbed during sand extraction. The site does contain listed weed species and the proponent is required to manage these species to prevent their spread.

Commitment 2: A weed management plan will be developed consistent with DPIPW guidelines within 6 months of approval.

**Public and agency comment**

According to the EER, the proposed increase in processing will not require any vegetation clearing. PCAB commented during Guideline preparation that provided there is no clearing of vegetation within this area, it is unlikely the native vegetation community will be impacted by the increase in processing. PCAB also commented that an increase in vehicle movements could pose a risk to populations of the Tasmanian devil (*Sarcophilus harrisi*). It was recommended that the proponent determine whether the proposal is likely to generate an increase in night-time traffic on Calder Road of more than 10% as this could be considered significant in regard to likely impacts on the Tasmanian devil.

PCAB also recommended that the proponent include a commitment to survey for, and manage, weeds and diseases on the property and to prepare and implement a Weed and Disease Management Plan in accordance with the DPIPWE (2015) *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* which can be found at: <http://dpiuwe.tas.gov.au/invasive-species/weeds/weed-hygiene/weed-and-disease-planning-and-hygiene-guidelines>.

The public representation raised concerns regarding water quality impacts in the context that local rivers and streams in this general area are home to the endangered *Astacopsis gouldi*, the Tasmania giant freshwater crayfish, which is known to be very sensitive to water quality issues.

Further advice was sought from PCAB who provided the following response:

“The development is within the range for the giant freshwater crayfish (*Astacopsis gouldi*), listed as vulnerable under the *Threatened Species Protection Act 1995* (TSPA) and the *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA). Increased sedimentation of waterways is a current, ongoing threat to the giant freshwater crayfish. PCAB supports the commitment to preventing turbid water discharging off site through the multiple contingencies the existing operation has in place (as detailed in the draft Environmental Effects Report) and recommends that this is included as a condition of approval by the EPA. There is no indication in the report that there will be any alterations to stream flow, runoff, removal or destruction of riparian vegetation, bank erosion, removal of snags or the creation of culverts or dams, which are all current threats to the giant freshwater crayfish. As aquatic organisms are sensitive to runoff of agricultural chemicals, any removal of weeds requiring the use of herbicides should be further investigated to ensure that their use does not have an impact on the giant freshwater crayfish habitat. It would be preferable to employ physical control of weeds”.

## Evaluation

The absence of vegetation clearing from the proposed development limits the potential for impacts to the nearby listed *Eucalyptus ovata* and woodland community (threatened). To ensure that no clearing does occur, **Condition FF2** is imposed. The site has limited potential to be key habitat for threatened flora or fauna species listed under State or Commonwealth legislation. The Grey Goshawk nest record identified on the Natural Values Atlas is over 10 years old and, if active, is unlikely to be impacted based on distance, the vegetation barrier and the ongoing historic operation of the sand washery.

Movement of vehicles does have the potential to bring weeds and diseases onto the site and the existing population of Pampas Grass must be removed. In order to address weed and disease management **Condition OPI** has been imposed, to require maintenance of the land free from weeds and **Condition FFI** is also imposed to require machinery washdown procedures.

The proponent has stated that the proposed increase in vehicle movements are 2 per day, below the 10% threshold where it may be necessary to impose night time vehicle restrictions.

With regard to potential impacts on water quality and potential habitat for *Astacopsis gouldi*, the increase in materials handling on the site is not expected to increase discharge due to the reuse of water through the washery process and as a result of conditions imposed regarding surface water management and rehabilitation (see Issue 1).

### Conclusion

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

- OPI** Weed management
- FFI** Machinery Washdown
- FF2** Protection of *E. ovata* and woodland.

<b>Issue 3: Environmentally hazardous substances</b>
<b>Description of potential impacts</b>
Spills of oils, fuels, or other environmentally hazardous substances have the potential to result in contamination of soil and water if not adequately contained. According to the EER, no dangerous goods or chemicals will be used on site other than oils, lubricants and fuels. All handling of oils, lubricants and fuels will be within a bunded area. Spill kits will be available on site.
<b>Management measures proposed in EER</b>
Commitment 8. Ensure a spill kit remains on the fuel trailer at all times.
Commitment 9. Ensure the fuel trailer is parked in the bund when on site, except when refuelling machinery, and all hazardous liquids are stored in the bund.
<b>Public and agency comment</b>
No comment was received.
<b>Evaluation</b>
Given that the location is within the catchment of Beswicks Creek, and to ensure the protection of the local environment, it is important that all oil, lubricant and fuel is handled and stored appropriately. <b>Condition H2</b> is therefore required. <b>Condition H1</b> will require a spill kit appropriate to the task is maintained on site to ensure any spill is appropriately managed. <b>Condition H3</b> is imposed to address the refuelling of mobile vehicles on site.
<b>Conclusion</b>
The proponent will be required to comply with the following conditions: <b>H1</b> Spill Kits <b>H2</b> Storage of handling of hazardous materials <b>H3</b> Handling of hazardous materials - mobile

<b>Issue 4: Noise Emissions</b>
<b>Description of potential impacts</b>
<p>Noise emissions from extractive industries have potential to cause nuisance to neighbouring properties if not appropriately mitigated or managed. Additional noise as a result of increasing the quantity of sand processed on site relates almost entirely to an increase in truck movements and an additional excavator on site. The site is located within forestry land and is bordered by forest on all sides. The nearest residence is approximately 150m to the North West of the washery facility. It has no line of sight due to topographic and vegetative barriers.</p> <p>The movement of sand laden water will not require, pumps or other machinery as it has been designed to allow the use of gravity.</p>
<b>Management measures proposed in EER</b>
<p>All activities on site will occur during the following hours.</p> <ul style="list-style-type: none"> <li>• 0700-1800 Monday to Friday</li> <li>• 0800-1600 Saturday</li> <li>• No works on Statewide public holidays or Sundays</li> </ul>
<b>Public and agency comment</b>
<p>Comments from EPA Tasmania’s Noise Specialist at the Guidelines stage indicated that the main noise considerations relate to the slight increase in heavy vehicle movements.</p>
<b>Evaluation</b>
<p>Based on the nature of the activity, the location of the nearest sensitive receptor and topographic and vegetation barriers, noise impacts at this location are not considered to be significant. The operating hours are consistent with the requirements of the <i>Quarry Code of Practice 2017 (QCP)</i> and represents the existing operating hours of the sand washery.</p> <p>In order to manage potential noise impacts <b>Condition NI</b> is imposed.</p>
<b>Conclusion</b>
<p>The proponent will be required to comply with the following conditions:</p> <p><b>NI</b> Operating hours</p>

<b>Issue 5: Air Emissions</b>
<b>Description of potential impacts</b>
Processing and transport of sand will generate air emissions in the form of dust. This may affect sensitive receptors if not appropriately managed. The nearest residence is located 150m from the site and is well separated by topographic and vegetative barriers.
<b>Management measures proposed in EER</b>
<p>Commitment 5: Operations will cease in hot, dry and windy conditions if dust is observed migrating beyond the mining lease.</p> <p>Commitment 6: Water from the washery will be used to wet down trafficable areas to prevent localised dust issues</p>
<b>Public and agency comment</b>
None.
<b>Evaluation</b>
Given the site topography and vegetation surrounding the boundary of the mining lease, there is limited potential for dust to travel outside the boundary and affect sensitive receptors. This is also supported by the prevailing winds being in the opposite direction to the nearest sensitive receptor. However, given that windy conditions during operations may result in some dust emissions <b>Condition A2</b> has been imposed to ensure that dust is managed to prevent impacts off-site. <b>Condition A1</b> is also required to ensure that escape of materials during transport does not become a nuisance.
<b>Conclusion</b>
<p>The proponent will be required to comply with the following conditions:</p> <p><b>A1</b>    Covering of vehicles</p> <p><b>A2</b>    Control of dust emissions</p>

<b>Issue 6: Decommissioning and Rehabilitation</b>
<b>Description of potential impacts</b>
<p>The mining lease area comprises approximately 15 hectares of quarried land. This cleared land has the potential to result in sediment movements and is subject to progressive rehabilitation to replace topsoil and allow for native regeneration.</p>
<b>Management measures proposed in EER</b>
<p>The proponent has committed to a maximum area of 9 hectares of ‘open area’ within the mining lease. This will be achieved through:</p> <ul style="list-style-type: none"> <li>• Worked areas shaped to ensure adequate benching and safety.</li> <li>• Stripped topsoil spread over the extraction area.</li> <li>• Stripped vegetation laid over the topsoil to encourage local species to repopulate and provide a stable landform that is less erosion prone until vegetation is well established.</li> <li>• Oversight and management by the proponent to supplement rehabilitation activities, including weed management.</li> </ul> <p>The EER also describes the actions to be undertaken in the instance of cessation of activities. These include:</p> <ul style="list-style-type: none"> <li>• EPA notified and kept up to date with any short term cessation</li> <li>• All machinery removed from the site</li> <li>• All diesel/oil/lubricants removed from the site</li> <li>• Worked areas made safe, drop offs reduced</li> <li>• Signage updated with current phone numbers for the proponent</li> <li>• Boundaries made secure and the boom gate at the entry locked</li> <li>• Continuous oversight from the proponent and locally based employees to ensure the site remains safe and secure and no environmental risks arise e.g. tailings dams are checked</li> </ul> <p>Commitment 10: A decommissioning and rehabilitation plan will be provided within 12 months after approval is granted for increase in processing.</p> <p>Commitment 11: Worked out areas will be rehabilitated to maintain the open area to a maximum of 9 ha</p>
<b>Public and agency comment</b>
<p>No specific comments were received.</p>
<b>Evaluation</b>
<p>Quarry, tailings dam and operational area decommissioning and rehabilitation is expected to occur at cessation of the sand washery activity. Addressing environmental impacts on cessation is conditioned through <b>DC4</b>. More immediately, a condition is imposed requiring a Mining and Rehabilitation Plan (MRP) to ensure progressive rehabilitation to maintain a maximum 9 hectare ‘open area’.</p>

An Environment Protection Notice will be issued under the EMPC Act to consolidate the environmental conditions of the existing sand washery permit with those applying to the current proposal to increase processing. To effectively manage the impacts of future closure, **Conditions DC1** and **DC5** have been imposed to require notification in the event that the TSF and/or the sand washery ceases operation and to specify how the activity is to be rehabilitated to prevent ongoing environmental risks.

Progressive rehabilitation of the extraction areas within the existing mining lease may not always be feasible due to the constrained site, however rehabilitation should be implemented where sections of the quarry are genuinely worked out or disused. To ensure rehabilitation is undertaken progressively, **Condition DC 3** requires the current disturbed area (~15 hectares) to have a maximum disturbed area of 9 hectares ongoing. **Condition DC2** requiring the stockpiling of surface soils is imposed to support effective rehabilitation. To ensure appropriate rehabilitation and standard requirements relating to cessation and suspension **Conditions DC4** and **DC 5** are implemented. **Condition DC6** is imposed requiring a mining and rehabilitation plan be submitted to inform the process of reducing the disturbed area.

### Conclusion

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

- DC1** Notification of cessation
- DC2** Stockpiling of surface soils
- DC3** Progressive Rehabilitation
- DC4** Rehabilitation on cessation
- DC5** Temporary suspension of activity
- DC6** Mining and rehabilitation plan

## 7 Report Conclusions

This assessment has been based on the information provided by the proponent, DJ Rowell, in the permit application and the case for assessment (the EER).

This report incorporates specialist advice provided by EPA Tasmania scientific specialists and regulatory staff, other Divisions of DPIPWE and other government agencies.

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 proposed activity has been undertaken in accordance with the Environmental Impact Assessment Principles; and
3. the proposed activity is capable of being managed in an environmentally acceptable manner such that it is unlikely that the objectives of the *Environmental Management and Pollution Control Act 1994* (the RMPS and EMPCS objectives) would be compromised, provided that the Permit Conditions - Environmental No. 9955 appended to this report are imposed and duly complied with.

Following granting of a planning permit by Waratah-Wynyard Council, it is expected an Environment Protection Notice will be issued under the EMPC Act to consolidate the sand washery and TSF environmental conditions. This will allow EPA Tasmania to regulate under a single statutory instrument for the Land.

## 8 Report Approval

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



Wes Ford

**DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY**

**Acting under delegation from the Board of the Environment Protection Authority**

Date: 17 February, 2020

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## 9 References

Environmental Services & Design; *791 Calder Road Tailings Storage Dam, Project No. 6092 Environmental Effects Report* (dated 14/12/2017), prepared for DJ Rowell, Devonport, Tasmania.

## 10 Appendices

Appendix 1 Table of proponent commitments

Appendix 2 Permit conditions - Environmental

## Appendix I – Table of proponent commitments

Table 6: Summary of Management Commitments

Commitment No	Commitment	Responsibility	Timeframe
1	No DOV will be disturbed during sand extraction.	Site Manager	Always applies
2	A weed management plan will be developed consistent with DPIPWE guidelines within 6 months of approval.	Site Manager and machinery operators	When new heavy machinery is brought on site
3	Stormwater will be managed on site to ensure it is directed to the tailings dam from the extraction areas washery and operational areas. Stormwater from extraction areas will be controlled by localised ponds and shaping the floor of the extraction area to encourage containment, detention and soak into the sandy soils.	Site Manager	Always applies
4	Water from the polishing pond will be recycled through the sand washery	Site Manager	Always applies
5	Operations will cease in hot, dry and windy conditions if dust is observed migrating beyond the ML	Site Manager	As required
6	Water from the washery will be used to wet down trafficable areas to prevent localised dust issues	Site Manager	As required
7	Operations will only occur during permitted hours	Site Manager	Always applies
8	Ensure a spill kit remains on the fuel trailer at all times	Site Manager	Always applies

9	Ensure the fuel trailer is parked in the bund when on site, with the exception of refuelling machinery and all hazardous liquids are stored in the bund	Site Manager	Always applies
10	A decommissioning and rehabilitation plan will be provided within 12 months after approval is granted for increase in processing.	Site Manager	Provided to EPA within 12 months of approval and implementation of approved plan as required
11	Worked out areas will be rehabilitated to maintain the open area to a maximum of 9 ha	Site Manager	Always applies

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## **Appendix 2 – Permit conditions – Environmental – PCE No. 10177**



ENVIRONMENT PROTECTION AUTHORITY

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**PERMIT PART B**  
**PERMIT CONDITIONS - ENVIRONMENTAL No. 10177**

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

Activity:           **The operation of a sand processing facility (ACTIVITY TYPE: Crushing, grinding, milling or separating into different sizes (rocks, ores or minerals))  
CALDER ROAD SANDWASHERY, CALDER ROAD  
WYNYARD TAS 7325**

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:                   **WARATAH/WYNYARD**  
Permit Application Reference:   **DA 146/2019**  
EPA file reference:               **258173**

Date conditions approved:       17th February 2020

Signed:                                 
**DELEGATE FOR THE BOARD OF THE ENVIRONMENT  
PROTECTION AUTHORITY**

## DEFINITIONS

Unless the contrary appears, words and expressions used in this Permit Part B have the meaning given to them in **Schedule 1** of this Permit and in the EMPCA. If there is any inconsistency between a definition in the EMPCA and a definition in this Permit Part B, the EMPCA prevails to the extent of the inconsistency.

## ENVIRONMENTAL CONDITIONS

The person responsible for the activity must comply with the conditions contained in **Schedule 2** of this Permit Part B.

## INFORMATION

Attention is drawn to **Schedule 3**, which contains important additional information.

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## Attachments

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Attachment 2: Mining Lease and Threatened Vegetation Community (modified: 13/02/2020  
15:13)..... 1 page

## Schedule 1: Definitions

In this Permit Part B:-

**20,000 cubic metres** per year of rocks, ores or minerals processes is deemed to be equivalent to 32,000 tonnes per year of rocks, ores or minerals processed.

**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.

**Director** means the Director, Environment Protection Authority holding office under Section 18 of EMPCA and includes a person authorised in writing by the Director to exercise a power or function on the Director's behalf.

**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.

**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.

**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.

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

**The Land** means the land on which the activity to which this document relates may be carried out, and includes: buildings and other structures permanently fixed to the land, any part of the land covered with water, and any water covering the land. The Land falls within the area defined by:

- 1 Mining Lease: 1M/2010; and
- 2 as further delineated at Attachment 1

**Weed** means a declared weed as defined in the *Weed Management Act 1999*.

**Weed And Disease Guidelines** means the document titled *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania*, by the Department of Primary Industries, Parks, Water and Environment, dated March 2015, and any amendment to or substitution of this document.

## Schedule 2: Conditions

### Maximum Quantities

#### **Q1 Regulatory limits**

- 1 The activity must not exceed the following limits :
  - 1.1 20,000 cubic metres per year of rocks, ores or minerals processed.

### 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.

#### **G6 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 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.

## **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 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.

### **DC3 Progressive rehabilitation**

Worked out or disused sections of The Land must be rehabilitated concurrently with extractive activities on other sections of The Land. Progressive rehabilitation must be carried out in accordance with the relevant provisions of the *Quarry Code of Practice*, unless otherwise approved in writing by the Director. The maximum disturbed area of land which may remain, at any time, without rehabilitation is 9 hectares.

### **DC4 Rehabilitation on cessation**

- 1** Unless otherwise approved in writing by the Director, rehabilitation upon permanent cessation of the activity must be undertaken in accordance with relevant provisions of the *Quarry Code of Practice* and in accordance with the following:
  - 1.1** rehabilitation earthworks must be substantially completed within 12 months of cessation of the activity; and
  - 1.2** rehabilitated areas must be monitored and maintained for a period of at least three years after rehabilitation works have been substantially completed, after which time the person responsible for the activity may apply in writing to the Director for a written statement that rehabilitation has been successfully completed.

### **DC5 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



**E3 Maintenance of settling ponds**

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.

**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.

**FF2 Protection of Eucalyptus ovata and woodland community(DOV)**

- 1 Unless otherwise approved in writing by the Director:
  - 1.1 there must be no disturbance of the DOV vegetation community as shown in Attachment 2; and
  - 1.2 the activity must be conducted in a manner that does not cause degradation or disturbance (including sedimentation) to the DOV community.

**Hazardous Substances****H1 Spill kits**

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

**H2 Storage and handling of hazardous materials**

- 1 Unless otherwise approved in writing by the Director, environmentally hazardous materials held on The Land must be:
  - 1.1 stored within impervious bunded areas, spill trays or other containment systems; and
  - 1.2 managed to prevent unauthorised discharge, emission or deposition of pollutants:
    - 1.2.1 to soils within the boundary of The Land in a manner that is likely to cause serious or material environmental harm;
    - 1.2.2 to groundwater;
    - 1.2.3 to waterways; or
    - 1.2.4 beyond the boundary of The Land.

**H3 Handling of hazardous materials - mobile**

- 1 Where mobile containment of environmentally hazardous materials is utilised for the fuelling or servicing of mobile or fixed plant on The Land, all reasonable measures must be implemented to prevent unauthorised discharge, emission or deposition of pollutants:
  - 1.1 to soils within the boundary of The Land in a manner that is likely to cause serious or material environmental harm;
  - 1.2 to groundwater;
  - 1.3 to waterways; or
  - 1.4 beyond the boundary of The Land.
- 2 Reasonable measures may include spill kits, spill trays/bunds or absorbent pads, and automatic cut-offs on any pumping equipment.

**Noise Control****N1 Operating hours**

- 1 Unless otherwise approved by the Director, activities associated with the extraction of rock, gravel, sand, clay or minerals, and loading of product, and screening/crushing must not be undertaken outside the hours of 0700 hours to 1900 hours on weekdays and 0800 hours to 1600 hours on Saturdays.
- 2 Notwithstanding the above paragraph, activities must not be carried out on public holidays that are observed Statewide (Easter Tuesday excepted).

**Operations****OP1 Weed management**

The Land must be kept substantially free of weeds to minimise the risk of weeds being spread through the transport of products from The Land.

## Schedule 3: Information

### Legal Obligations

#### **LO1 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.

#### **LO2 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.

#### **LO3 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.

### Other Information

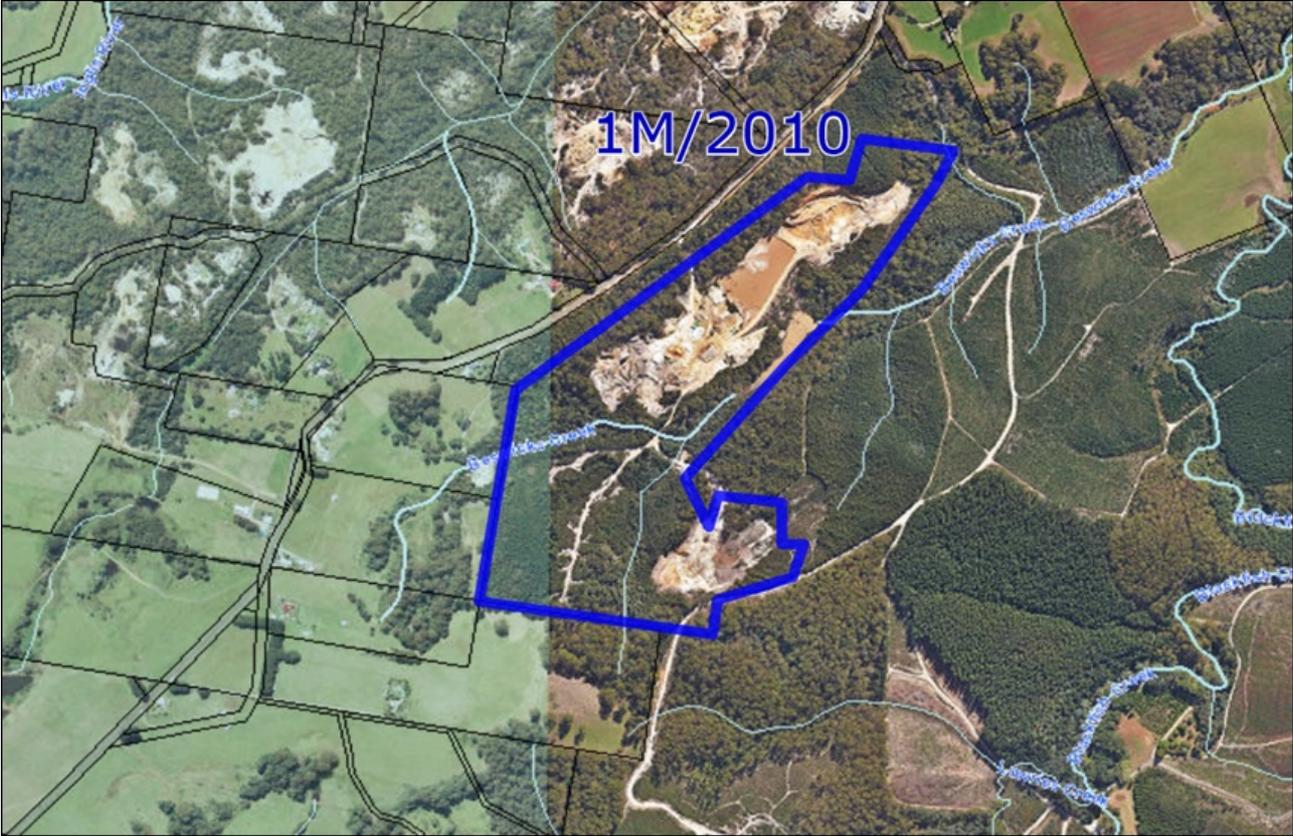
#### **OI1 Notification of incidents under section 32 of EMPCA**

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).

#### **OI2 Waste management hierarchy**

- 1 Wastes should be managed in accordance with the following hierarchy of waste management:
  - 1.1 waste should be minimised, that is, the generation of waste must be reduced to the maximum extent that is reasonable and practicable, having regard to best practice environmental management;
  - 1.2 waste should be re-used or recycled to the maximum extent that is practicable; and
  - 1.3 waste that cannot be re-used or recycled must be disposed of at a waste depot site or treatment facility that has been approved in writing by the relevant planning authority or the Director to receive such waste, or otherwise in a manner approved in writing by the Director.

**Attachment 1: The Land**



## Attachment 2: Mining Lease and Threatened Vegetation Community

