

ENVIRONMENTAL ASSESSMENT REPORT

Merry Creek Quarry Upgrade

*Merry Creek Road, Billy Taylor Ridge, Upper Blessington
(near Mathinna)*

Break O'Day Council

Board of the Environment Protection Authority

February 2018



Environmental Assessment Report	
Proponent	Break O'Day Council
Proposal	Merry Creek Quarry Upgrade
Location	Merry Creek Road, Billy Taylor Ridge, Mathinna
NELMS no.	PCE No. 9741
Permit application no.	DA 214/2017 (Break O'Day Council)
Folder	EN-EM-EV-DE-252644
Document.	H794959
Class of Assessment	2A

Assessment process milestones	
25/07/2017	Notice of Intent lodged
18/08/2017	EER Guidelines issued
13/10/2017	Permit application submitted to Council
19/01/2017	Application received by Board
20/01/2018	Start of public consultation period
05/02/2018	End of public consultation period

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
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>
QCoP	Quarry Code of Practice (DPIPWE, 2017)
RMPS	Resource management and planning system
SD	Sustainable development

Report summary

This report provides an environmental assessment of Break O'Day Council's proposed upgrade to the Merry Creek Quarry on Merry Creek Road, Billy Taylor Ridge at Upper Blessington, near Mathinna.

The proposal involves the expansion of a current level 1 quarry to extract, by blasting and excavation, and crush up to 10,000 cubic metres per annum of rock and gravel.

This report has been prepared based on information provided by the proponent in the Environmental Effects Report (EER). Relevant government agencies and the public have been consulted and their submissions and comments considered as part of this 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 to the proposal. Section 5 summarises the public and agency consultation process and the key issues raised in that process. The detailed evaluation of environmental issues is contained in section 6. The report conclusions are contained in section 7.

Appendix 1 contains the environmental permit conditions for the proposal. The environmental permit conditions in Appendix 1 are a new set of operating conditions for the entire, intensified activity that will supersede the existing permit conditions.

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1 Approval process

A Notice of Intent in relation to the proposal was received by the Board of the Environment Protection Authority (the Board) on 25 July 2017.

The proposal is defined as two 'level 2 activities' under schedule 2 of the *Environmental Management and Pollution Control Act 1994* (EMPC Act), being:

- a quarry extracting rock and gravel and producing greater than 5000 cubic metres per annum (clause 5(a), schedule 2 of the EMPC Act); and
- the processing of rocks, ores or minerals at a rate in excess of 1000 cubic metres per year (clause 6(a)(ii), schedule 2 of the EMPC Act).

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 Board required that information to support the proposal be provided in the form of an Environmental Effects Report (EER). Several drafts of the EER were submitted to the Department for comment prior to its finalisation and acceptance on behalf of the Board.

An application for a permit under the *Land Use Planning and Approvals Act 1993* (LUPA Act) in relation to the proposal was submitted to Break O'Day Council on 13 October 2017. The final EER was submitted to Council with the permit application. The application was initially received by the Board on 12 December 2017, however a review of documentation identified a number of errors and the application was subsequently referred, with corrected documentation on 19 January 2018.

The EER was released for public inspection for a 14-day period commencing on 20 January 2018. An advertisement was placed in *The Examiner* and a notice was placed on the EPA website. The EER was also referred at this time to relevant government agencies for comment. No public representations were received.

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

2 SD objectives and EIA principles

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 undertake the assessment of the proposal in accordance with the Environmental Impact Assessment Principles defined in Section 74 of the EMPC Act.

3 The proposal

The proposal involves the expansion of a current level 1 quarry to extract by blasting and excavation, and crush up to 10,000 cubic metres per annum of rock and gravel at Merry Creek Quarry, Billy Taylor Ridge, Mathinna.

Quarrying activities will include the following:

- Surface site preparation by soils removal and stockpiling;
- Rock drilling and blasting by a licensed contractor;
- Rock removal by excavator;
- Rock crushing and screening using a mobile crushing plant
- Stockpiling of processed material within the quarry area
- Loading of stockpiled material onto trucks with a wheel loader
- Transport of material by Class 9 trucks (truck and truck trailer combinations) ranging from 12 to 38 metric tonne capacity.

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

Table 1: Summary of the proposal's main characteristics

Activity	
Extraction and crushing of a maximum of 10,000 cubic metres of rock and gravel per annum.	
Location and planning context	
Location	Schulhofs Rd Upper Blessington (also known as Merry Creek Road, Billy Taylor Ridge), as shown in Figure 1 (CT 142604/1)
Land zoning	Rural Resource
Land tenure	State Forest (Permanent Timber Production Zone Land) owned by Sustainable Timbers Tasmania (formerly Forestry Tasmania)
Mining lease	3M/2016
Lease area	6 hectares (max area of disturbance 2.5 hectares)
Bond	\$18,000
Existing site	
Land Use	Existing level 1 quarry and forestry plantations
Topography	The quarry is located on the top of a ridge line at elevation of approximately 700-770m above sea level.
Geology	Geology of the mining lease area is mapped as Ordovician-Devonian-age (Palaeozoic) "micaceous quartz wacke turbidite sequences (Mathinna Group)", Geocode: ODq.
Soils	Moderately permeable and moderately well drained.
Hydrology	Water drains down from the ridge into tributaries of Merry Creek.

Biodiversity	<p>A flora and fauna survey found no flora or fauna species listed as threatened on the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBCA) and/or the Tasmanian <i>Threatened Species Protection Act 1995</i> (TSPA) were detected, or are known from database information, from the mining lease area.</p> <p>The survey noted that the mining lease area may support occasional use by marsupial carnivores (Tasmanian devil, spotted-tailed quoll, eastern quoll).</p> <p>There is a known wedge-tailed eagle nest (RND #1191) located within c. 500 m of the boundary of the mining lease area. There are two additional known wedge-tailed eagle nests (RND #2005 & RND #2006) located northeast of Mathinna Plains Road. One of these is approximately 165 m from the road.</p> <p>One species classified as a “declared weed” within the meaning of the Tasmanian <i>Weed Management Act 1999</i> was detected during the survey within the mining lease area:</p> <p><i>Senecio jacobaea</i> (ragwort): single non-fertile rosette (grubbed out and removed from site).</p>
Local region	
Climate	Rainfall approximately 1,880mm per annum (Mt Victoria weather station). Wind direction predominantly north east with south easterlies sub-dominant.
Surrounding land zoning, tenure and uses	Rural Resource, forestry plantations. Most surrounding land is owned and managed by Sustainable Timbers Tasmania.
Species of conservation significance	Wedged tailed eagle nests in proximity to quarry as detailed above.
Proposed infrastructure	
Major equipment	<p>The main items of equipment to be used at the quarry are:</p> <ul style="list-style-type: none"> • Mobile drilling rig for the purpose of drilling production blast holes. • Komatsu PC 270-8 Excavator • Pegson Jaw Crusher • Pegson Cone Crusher • CAT 950 Wheel Loader or Case 621B Wheel Loader • Gravel Trucks - Class 9 trucks (truck and trailer combinations) ranging in capacity, 12 to 32 metric tons.
Other infrastructure	None
Inputs	
Water	No water supply. Water from sediment ponds.
Energy	No power supply. Diesel fuel for vehicles.
Other raw materials	Explosives for blasting.
Wastes and emissions	
Liquid	Stormwater runoff from extraction and stockpile areas.
Atmospheric	Dust from internal and external traffic, blasting and crushing and blow-off from stockpiles.
Solid	General refuse including food scraps, paper and packaging.

	General inert wastes such as metal waste to be collected periodically.
Controlled wastes	Waste engine oil; contaminated soil. Portable chemical toilet to be used when operations are being undertaken will generate sanitary waste.
Noise	From blasting, crushing and screening equipment, excavator on site, and vehicles on site and going to and from the site.
Greenhouse gases	Emissions from vehicles and equipment.
Operations	
Proposal timetable	Commencement on gaining approvals.
Operating hours (ongoing)	0700 to 1900 hours Monday to Friday 0800 to 1700 hours Saturday Blasting will be conducted between the hours of 10:00am to 5:00pm Monday to Friday.
Other key characteristics	
Operational life of 15 to 20 years. Due to the proximity of known wedge tailed eagle nesting sites, quarry operations will be suspended between August and January (inclusive) to coincide with the species breeding season.	

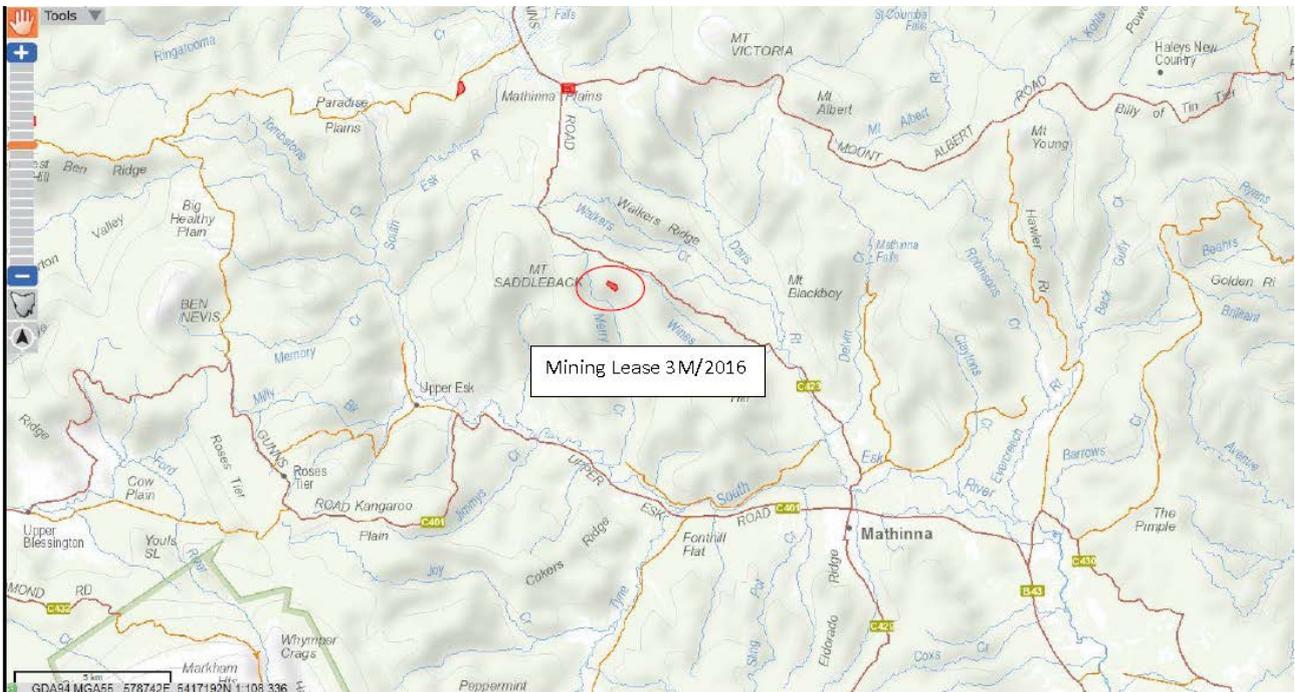


Figure 1: Map and Site Plan (Figure B.3 of the EER)

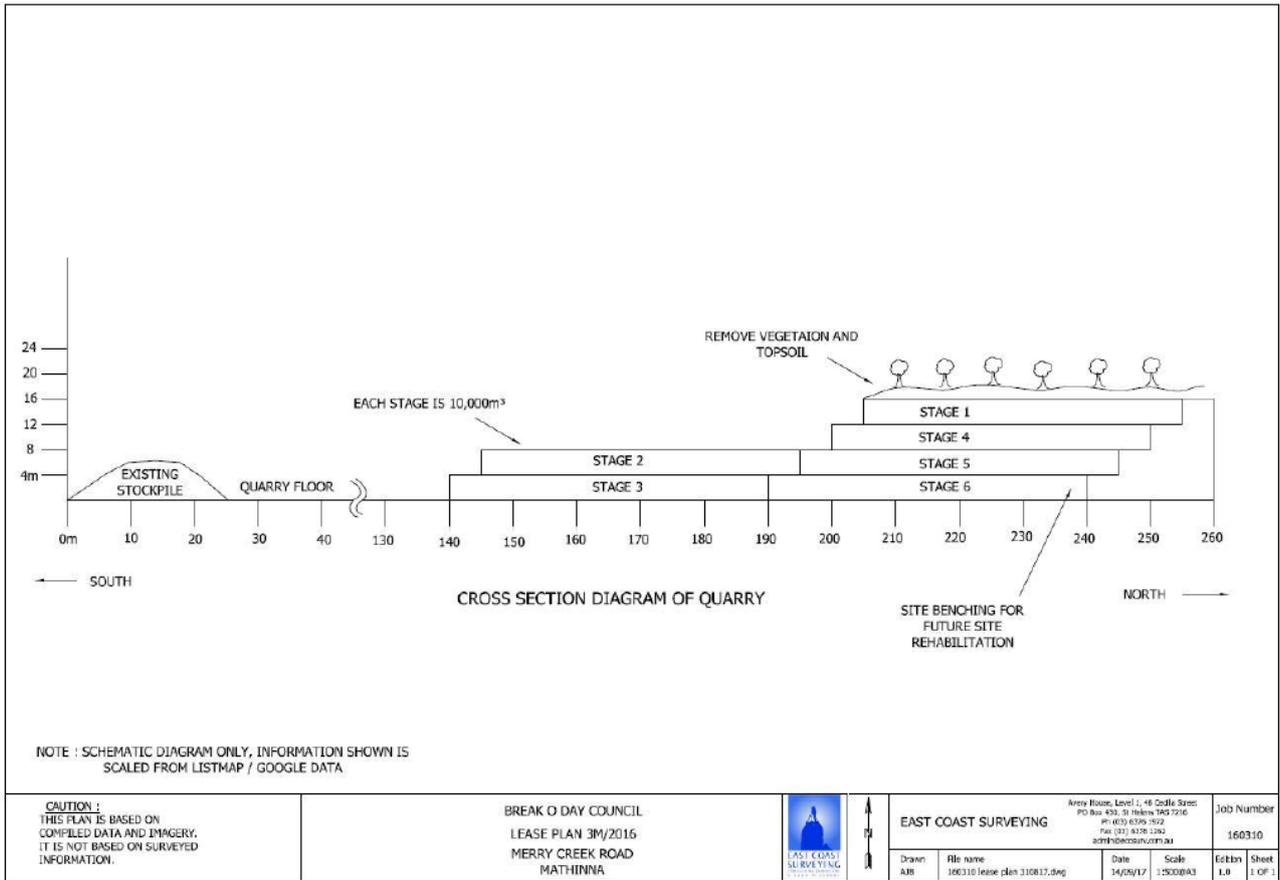


Figure 2: Extraction Staging Plan (Figure B.1.4 of the EER)

MINING LEASE 3M/2016

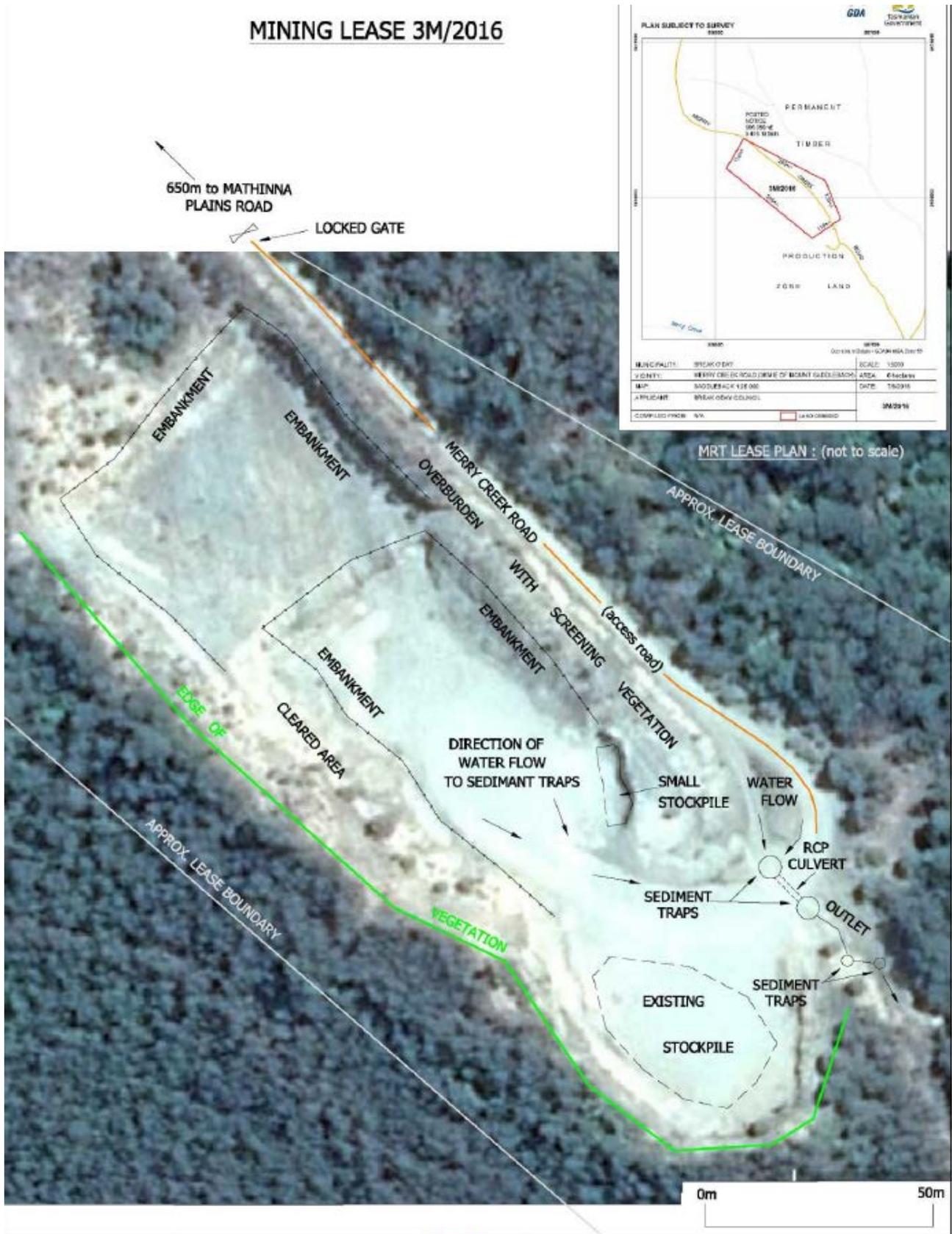


Figure 3: Mining/Site Plan (Figure B.2.4 of the EER).

4 Need for the proposal and alternatives

The EER states that the quarry provides a high quality rock/gravel resource to Council for application as a road re-sheeting material on Council's unsealed road network within an approximate 25 km radius of the site, at Upper Esk, Roses Tier, Evercreech, Tyne Valley, Mathinna and Mathinna Plains.

There is sufficient rock resource within the existing lease to meet the operational needs of Council for the next 15 to 20 years, avoiding the need and associated operational cost to open and manage multiple quarry operations within the Mathinna area.

5 Public and agency consultation

No public representations were received. The EER was referred to a number of government agencies/bodies with an interest in the proposal. Responses were received from the following:

- Mineral Resources Tasmania, Department of State Growth (no issues)
- State Roads Division, Department of State Growth (no issues)

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

- Regulator, Extractive Unit, EPA Tasmania
- Noise Specialist, EPA Tasmania
- Policy and Conservation Advice Branch, Natural and Cultural Division

6 Evaluation of environmental issues

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

Issue 1: Biodiversity & Natural Values
<p>Description of potential impacts</p>
<p>Inappropriate clearing of vegetation has the potential to impact on flora and fauna, including threatened species listed under State and Commonwealth legislation. A flora and fauna survey of the mining lease found it supports the following vegetation communities:</p> <ul style="list-style-type: none"> • <i>Eucalyptus delegatensis</i> dry forest and woodland (DDE); • <i>Eucalyptus delegatensis</i> forest with broad-leaf shrubs (WDB); and • Extra-urban miscellaneous (FUM). <p>None of these communities is listed as threatened under the Tasmanian <i>Nature Conservation Act 2002</i>.</p> <p>The EER identifies that to enable continued development of the quarry work area, 0.6 hectares of <i>Eucalyptus delegatensis</i> dry forest and woodland will be cleared. This vegetation occurs outside of the informal reserve, which falls within an area of Priority Habitat defined under the local planning scheme. The survey found no flora or fauna species listed as threatened on the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBCA) and/or the Tasmanian <i>Threatened Species Protection Act 1995</i> (TSPA). The survey noted that the mining lease area may support occasional use by marsupial carnivores (Tasmanian devil, spotted-tailed quoll, eastern quoll) within the mining lease.</p> <p>There is a known wedge-tailed eagle nest (RND #1191) located within c. 500 m of the boundary of the mining lease area. There are two additional known wedge-tailed eagle nests (RND #2005 & RND #2006) located northeast of Mathinna Plains Road. One of these is approximately 165 m from the road.</p> <p>One species (<i>Senecio jacobaea</i> (ragwort)) classified as a “declared weed” within the meaning of the Tasmanian <i>Weed Management Act 1999</i> was detected during the survey within the mining lease area. The survey did not record evidence on the mining lease of <i>Phytophthora cinnamomi</i> and the area is unlikely to support myrtle wilt due to the observed absence of <i>Nothofagus cunninghamii</i>.</p>
<p>Management measures proposed in EER</p>
<p>Part of Commitment 1 is relevant to management of Wedge Tailed Eagles:</p> <p><i>Quarry operations will be suspended between August and January (inclusive) to coincide with the wedge-tailed eagle breeding season.</i></p> <p>Commitment 2: <i>In the event that a wedge-tailed eagle(s) nest site is discovered outside of the breeding season (February – July inclusive) and the nest is within 500 meters of the quarry operation, all quarrying activity shall cease. The Council shall advise DPIPWE and act in accordance with advice provided by the Department’s specialists.</i></p> <p>Commitment 3: <i>An annual activity check of wedge-tailed eagles nests shall be undertaken each November and activity reported to DPIPWE.</i></p> <p>Commitment 4: <i>Quarry activity shall not be permitted in the small portion of informal reserve that crosses into a small part of the northwest corner of the mining lease zones as Informal Reserve – FT Managed Land. The boundary of the informal reserve within the mining lease shall be survey pegged to ensure that the reserve remains undisturbed.</i></p> <p>Commitment 6: <i>The Weed Management Plan prepared for the quarry will continue to be implemented for the operational life of the quarry.</i></p> <p>A portion of Commitment 15 is also applicable to this issue:</p> <p><i>For the operational life of the quarry, an annual activity check of wedge-tailed eagles nests in the vicinity of the quarry shall be undertaken each November and activity reported to DPIPWE.</i></p>

Public and agency comment

None.

PCAB advised they have assessed the information provided, including the Environmental Effects Report (EER) and Ecological Assessment, and generally support the proposed approach for managing potential impacts to threatened species.

Previous advice from PCAB stated: *The Traffic Impact Assessment estimates that the increased quarry activity will result in an increase in traffic from 60 to 100 trucks per day in peak quarrying periods. However as Mathinna Plains Road is a major forest production road which already experiences moderate traffic levels, it is unlikely that the increase in traffic levels to those indicated in the NOI will have a significant impact on the breeding success of eagles at this nest site. No further action is recommended in relation to this nest or in relation to traffic impacts on Tasmanian devils'.*

Evaluation

No threatened vegetation communities are to be cleared as part of the quarry expansion. Impacts to threatened species, because of vegetation clearance, are also considered unlikely. The commitment to not permit quarry activities in the informal reserve is supported. It is noted this area forms part of Priority Habitat layer which will be assessed by Break O'Day Council under the provisions of the Biodiversity Code under their current planning scheme. No specific conditions in relation to the clearance of vegetation are therefore required.

The implementation of the Weed Management Plan to prevent the introduction and spread of weeds is supported. The Plan submitted as part of the EER (Attachment 12) is considered appropriate and is approved for the purpose of weed management. The implementation of this Plan will be formalised through **condition FF1**. While diseases have not been detected and some are unlikely to establish in this environment, implementation of the Weed Management Plan is likely to help prevent introduction and spread of diseases.

In addition, the proponent will be required to comply with **condition FF2** which requires machinery to be washed down before entering the land.

The proximity of known wedge-tailed eagle (WTE) nests presents the potential for impacts to WTE breeding, particularly from noise and vibration emissions associated with blasting, crushing, screening and transport of material.

The proponent has committed to suspend operation of the quarry between August and January to prevent impacts to the closest eagle nest. PCAB supports this commitment. **Condition N2** is therefore imposed to prevent operation of quarry during these months and prevent impacts to the breeding of the WTEs at this nest site. It is noted that previous PCAB advice indicates impacts from the transport of materials from the quarry is unlikely to impact the other two nests in proximity to the main access route. Limitation of operating hours under condition N1 will also support minimising impacts to any active nests.

The cessation of activity during breeding season is considered sufficient to prevent impacts, particularly from noise and vibration, to any current or future nest sites in the vicinity of the quarry. It is noted the proponent has committed to cease operation if a nest is located outside the breeding season and to seek advice from PCAB. This commitment is supported. It is noted that the EER states on page 33 'Annual checks are in place for this quarry under FPA requirements and where nests are discovered management strategies to minimise potential impact from noise and vibration would be developed'. This current management strategy under FPA requirements is considered sufficient to support this commitment. An annual survey of the activity of known nest sites is also supported to facilitate management of the quarry.

Conclusion

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

- FF1** Weed Management Plan
- FF2** Washdown Guidelines
- N1** Operating hours
- N2** Operating Period

Issue 2: Noise & Vibration
Description of potential impacts
<p>Noise and vibration for quarry activities, including blasting, crushing and the movement of vehicles and machinery, has the potential cause impacts on nearby sensitive receptors including residences unless appropriately managed. It may also impact the behaviour and breeding success of threatened species including the Wedge-tailed eagle where active nests are in proximity to the quarry unless appropriately mitigated or managed.</p> <p>According to the EER, the major noise sources from the quarrying activity have been identified:</p> <ul style="list-style-type: none"> • Topsoil excavation and stockpiling with the excavator; • Rock drilling, blasting, crushing and screening; • Loading trucks with gravel product; • Vehicles arriving and leaving the quarry site; and • Trucks arriving and leaving from the quarry. <p>Secondary blasting of rock with explosives is not permitted at this site.</p> <p>The nearest residence is located approximately 5 km from the quarry. There is a known wedge-tailed eagle nest (RND #1191) located within c. 500 m of the boundary of the mining lease area. There are two additional known wedge-tailed eagle nests located northeast of Mathinna Plains Road. One of these is approximately 165 m from the road.</p>
Management measures proposed in EER
<p>Commitment 1: <i>Quarry operations will occur between February to July inclusive.</i> <i>Operating hours will continue to be in accordance with the requirements of the Quarry Code of Practice, 07:00 and 19:00 (7:00am to 7:00pm), Monday to Friday, and Saturday 08:00 to 17:00 (8:00am to 5:00pm). Blasting will only be conducted between the hours of 10:00am to 5:00pm Monday to Friday.</i> <i>Quarry operations will be suspended between August and January (inclusive) to coincide with the wedge-tailed eagle breeding season.</i></p> <p>Commitment 5: <i>Council will prepare and maintain a complaints register for the activity. All complaints that are relevant to the operation of the quarry will be recorded and investigated upon receipt. Investigations and actions undertaken in relation to each complaint will be recorded in the register.</i></p> <p>Commitment 11: <i>Secondary blasting of rock with explosives is not permitted and the control implemented to eliminate nuisance noise.</i></p>
Public and agency comment
None
Evaluation
<p>The nearest sensitive receptor is at a distance that is unlikely to be impacted on the operation of the quarry. The proponent has committed to continue to operate within the operating hours recommended in the Quarry Code of Practice. Condition N1 will ensure that operations are within the hours committed too and ensure prevention of any impacts. To ensure that any issues are managed and addressed a complaints register will be required under condition G6. This is consistent with commitment 5 of the EER.</p> <p>Noise and vibration impacts on Wedge-tailed Eagles are discussed above in Issue 1.</p>

Conclusion

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

N1 Operating hours

Issue 3: Air Emissions
Description of potential impacts
<p>The activity has the potential to result in air emissions, particularly in the form of dust from quarry activities, including blasting and crushing, as well as the movement of vehicles and machinery and stockpiles.</p> <p>The EER states that the quarry is located away from main roads and houses. The nearest occupied property is 5.0 kilometres from the quarry.</p>
Management measures proposed in EER
<p>The EER states that ‘Contractors operating in the quarry shall provide operators with safe working conditions. “The Mines Work Health and Safety (Supplementary Requirements) Regulations 2012 – Part 6, Section 21 Airborne Dust” applies to operations at the quarry site’.</p>
Public and agency comment
None
Evaluation
<p>The activity has the potential to generate dust. However, as the nearest sensitive receptors are 5 km from the quarry, environmental nuisance from such emissions is considered unlikely. To ensure this is the case the proponent will be required to comply with condition A1, which requires the control of dust emissions to prevent nuisance beyond the boundary of the land. To ensure that the material from the quarry is transported in a manner that prevents dust impacts, the proponent will also be required to ensure vehicles, which are carrying loads that may blow or spill, are covered when they leave the land (condition A2).</p>
Conclusion
<p>The proponent will be required to comply with the following condition:</p> <p>A1 Control of dust emissions</p> <p>A2 Covering of vehicles</p>

Issue 4: Waste Management and Environmentally Hazardous Materials
Description of potential impacts
<p>The inappropriate management of waste and environmentally hazardous materials has the potential to impact the environment, through the discharge of contaminants to land or water. The EER indicates that there are no permanent amenities on site.</p> <p>Unscheduled machinery servicing may be required on-site and could generate solid wastes, such as oil filters, worn or damaged tyres, and worn machinery components.</p> <p>Fuel and oil will be used in the quarry to operate and maintain functional machinery.</p> <p>Permanent storage for fuels, oils, lubricants or any other dangerous good is not permitted at the site. However, fuels, oils and some chemicals, including those for weed spraying, will be stored at the site during operations.</p>
Management measures proposed in EER
<p>Commitment 8: <i>Toilet or other amenities will not be permanently provided onsite. During a blasting and crushing campaign a 'portaloo' will be provided on-site for the duration of the campaign and removed at the conclusion of a campaign. The waste contents of the portaloo will be disposed of at an approved sewerage processing facility.</i></p> <p>Commitment 9: <i>One hydrocarbon spill kit will be stored at the quarry between the operating months of February to July and only when quarry operations are required to be undertaken. Quarry operators and council staff will be trained in how to use the spill kit in the event of a spillage occurring.</i></p> <p>Commitment 10: <i>Machinery will be removed from the site for the purpose of scheduled maintenance (including oil and coolant changes).</i> <i>Unscheduled machinery servicing that may be required on-site, may generate solid wastes, such as oil filters, worn or damaged tyres, and worn machinery components. All solid waste generated will be disposed of in accordance with best practice.</i> <i>General waste generated by quarry workers, such as food and packaging waste will be removed from the site on a daily basis. Waste bins will not be provided for onsite workers.</i></p> <p>Commitment 12: <i>Permanent storage for fuels, oils, lubricants or any other dangerous good is not permitted at the site.</i> <i>Fuel and oil containers will not be stored on-site overnight. Containers shall be removed at the end of each working day by the site workers. Within the quarry, fuel and oil containers will [not] be stored within 10 meters from any on-site drain or sediment pond. Containers will be banded in moveable bunds to a capacity of at least 1.5 times the volume of the container. Chemicals will not be stored within the quarry. The only chemicals that are permitted to be used in the quarry are authorised herbicides for the control of weeds. Weed spraying chemicals will be removed from the site daily.</i></p>
Public and agency comment
None

Evaluation

Small amounts of Environmentally Hazardous Materials are to be stored on-site during quarry operations. To ensure they are stored and handled to prevent environmental impacts, **condition H1** will be imposed. The use of mobile refuelling vehicles also has the potential to result in environmental impacts from accidental spills and discharges. **Condition H2** will be imposed to ensure this activity is managed appropriately. Spill kits will be required to be maintained on-site to prevent impacts in the event of an accidental release of an environmentally hazardous material under **condition H3**.

The activity is likely to produce very limited amounts of waste sources. Commitments 8 and 10 are supported. All waste should be managed in accordance with the Waste Hierarchy, which is detailed in the information schedule of the conditions.

Conclusion

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

- H1** Storage and handling of hazardous materials
- H2** Handling of hazardous materials – mobile
- H3** Spill kits

Issue 5: Water Quality
Description of potential impacts
<p>Inappropriate management of stormwater has the potential to impact the environment through the discharge of sediment and other contaminants to land or water.</p> <p>According to the EER, quarry drainage is managed by directing all stormwater through four sediment traps connected in series by 300mm diameter culvert pipes and table drains at the southern end of the quarry.</p> <p>Drainage water exits the fourth sediment trap on the eastern side of Merry Creek Road and is dispersed through natural vegetation.</p>
Management measures proposed in EER
Commitment 7: Sediment traps shall be cleaned and maintained after every significant rainfall event.
Public and agency comment
None
Evaluation
<p>The existing stormwater infrastructure in the form of sediment traps (ponds), pipes and table drains is considered sufficient to manage stormwater within the quarry. The proponent will be required to ensure that stormwater is appropriately managed under condition SW1. To ensure that the existing ponds are able to manage stormwater events, condition SW2 is imposed to require maintenance. The presence of perimeter drains or bunds is not clear from the EER. Condition SW3 has been imposed to ensure these drains or bunds are present to prevent water entering the quarry and limit any impacts during high rainfall events.</p>
Conclusion
<p>The proponent will be required to comply with the following conditions:</p> <p>SW1 Stormwater</p> <p>SW2 Maintenance of settling ponds</p> <p>SW3 Perimeter drains or bunds</p>

Issue 6: Decommissioning and Rehabilitation
Description of potential impacts
<p>Cessation of the activity has the potential to cause on-going impacts to the environment if rehabilitation is unsuccessful.</p> <p>The EER states that the quarry site will be rehabilitated at the end of its operational life (15 to 20 years). It also notes, that the configuration of the site and mode of quarrying operations does not allow for the progressive rehabilitation of worked areas.</p>
Management measures proposed in EER
<p>Commitment 16:</p> <p><i>The quarry site will be rehabilitated at the end of its operational life (15 to 20 years). The configuration of the site and mode of quarrying operations does not allow for the progressive rehabilitation of worked areas.</i></p> <p><i>Council will prepare a Decommissioning and Rehabilitation Plan for submission to the EPA for consideration within 30 days of a decision made by the proponent to permanently cease activity at the site.</i></p> <p><i>The plan will include detail as to how the proponent shall:</i></p> <ul style="list-style-type: none"> • <i>Rehabilitate the site with specified rehabilitation milestone dates</i> • <i>Establish a monitoring regime that assesses the success of the rehabilitation programme against the agreed MRT and EPA sign-off criterion.</i>
Public and agency comment
None.
Evaluation
<p>The current quarry layout and proposed mining plan support the absence of progressive rehabilitation. Stockpiling of surface soil as required under condition DC1 will facilitate final rehabilitation.</p> <p>Management requirements during temporary cessation are stipulated under condition DC2. The proponent will be required to notify of cessation under condition DC3.</p> <p>Consistent with the commitment of the EER, a Decommissioning and Rehabilitation Plan will be required subsequent to a notification of cessation as detailed in condition DC3. Condition DC5 then requires rehabilitation to be undertaken in accordance with the approved DRP on cessation of the activity.</p>
Conclusion
<p>The proponent will be required to comply with the following conditions:</p> <p>DC1 Stockpiling of surface soil</p> <p>DC2 Temporary suspension of activity</p> <p>DC3 Notification of cessation</p> <p>DC4 DRP Requirements</p> <p>DC5 Rehabilitation following cessation</p>

7 Report conclusions

This assessment has been based on the information provided by the proponent, Break O'Day Council, in the permit application, EER and in correspondence and discussion between EPA Tasmania and the proponent.

This assessment has incorporated specialist advice provided by EPA Division scientific specialists and regulatory staff, other Divisions of DPIPWE and other government agencies.

This assessment has taken into account 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; and
2. the assessment of the proposed activity has been undertaken in accordance with the Environmental Impact Assessment Principles.

It is concluded that 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. 9741 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.

8 Report approval

Environmental Assessment Report and conclusions, including permit conditions, adopted:



Wes Ford

DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY
Acting under delegation from the Board of the Environment Protection Authority

Date: 7-03-2018

9 References

Break O'Day Council; *Merry Creek Quarry Upgrade, Mathinna, Environmental Effects Report* (dated September 2017), St Helens, Tasmania.

10 Appendices

Appendix 1 Permit conditions

Appendix 1 Permit conditions - Environmental

PERMIT PART B
PERMIT CONDITIONS - ENVIRONMENTAL No. 9741

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

Activity: **The operation of a quarry and materials handling (ACTIVITY TYPE: Crushing, grinding, milling or separating into different sizes (rocks, ores or minerals))**
MERRY CREEK QUARRY, BILLY TAYLOR RIDGE
UPPER BLESSINGTON, NEAR MATHINNA TAS 7214

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: **BREAK O'DAY**
Permit Application Reference: **DA214-2017**
EPA file reference: **252644**

Date conditions approved: 7 March 2018

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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Schedule 1: Definitions

In this Permit Part B:-

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.

Authorized Officer means an authorized officer under section 20 of EMPCA.

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.

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.

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.

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 3M/2016 on certificate of title 142604/1; and
- 2 as further delineated at Attachment 1.

Washdown 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.

Weed Management Plan means the document entitled 'Merry Creek Road Quarry (3M/2016) Weed Management Plan' prepared by Break O'Day Council Weed Program Co-ordinator and dated September 2017.

Schedule 2: Conditions

Maximum Quantities

Q1 Regulatory limits

- 1 The activity must not exceed the following limits :
 - 1.1 10,000 cubic metres per year of rocks, ores or minerals processed.
 - 1.2 10,000 cubic metres per year of extraction of rock or gravel.

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 Complaints register

- 1 A public complaints register must be maintained and made available for inspection by an Authorized Officer upon request. 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.

Atmospheric

A1 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.

A2 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.

Decommissioning And Rehabilitation

DC1 Stockpiling of surface soil

Prior to commencement of extractive activities on any portion of The Land, surface soils must be removed in that portion of The Land to be disturbed by the conduct of the activity and stockpiled for later use in rehabilitation of The Land. Topsoil must be kept separate from other overburden and protected from erosion or other disturbance.

DC2 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 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.

DC4 DRP requirements

Unless otherwise approved in writing by the Director, a Decommissioning and Rehabilitation Plan (DRP) for the activity must be submitted for approval to the Director within 30 days of the Director being notified of the planned cessation of the activity or by a date specified in writing by the Director. The DRP must be prepared in accordance with any guidelines provided by the Director.

DC5 Rehabilitation following cessation

- 1 Following permanent cessation of the activity, and unless otherwise approved in writing by the Director, The Land must be rehabilitated including:
 - 1.1 stabilisation of any land surfaces that may be subject to erosion;
 - 1.2 removal or mitigation of all environmental hazards or land contamination, that might pose an on-going risk of causing environmental harm; and
 - 1.3 decommissioning of any equipment that has not been removed.
- 2 Where a Decommissioning and Rehabilitation Plan (DRP) has been approved by the Director, decommissioning and rehabilitation must be carried out in accordance with that plan, as may be amended from time to time with written approval of the Director.

Flora And Fauna**FF1 Weed Management Plan**

Unless otherwise specified in these conditions, the activity must be undertaken in accordance with the approved Weed Management Plan, as may be amended from time to time with written approval from the Director.

FF2 Washdown Guidelines

Prior to entering the land, machinery must be washed in accordance with the Washdown Guidelines, or any subsequent revisions of that document.

Hazardous Substances**H1 Storage and handling of hazardous materials**

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

H2 Handling of hazardous materials - mobile

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

H3 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.

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).

N2 Operating period

Unless otherwise approved by the Director, activities associated with the extraction of rock, gravel, sand, clay or minerals, including drilling and blasting, screening/crushing and loading of product, must not be undertaken between the months of August and January, inclusive.

Stormwater Management

SW1 Stormwater

- 1** Polluted stormwater that will be discharged from The Land must be collected and treated prior to discharge to the extent necessary to prevent serious or material environmental harm, or environmental nuisance.
- 2** Notwithstanding the above, all stormwater that is discharged from The Land must not carry pollutants such as sediment, oil and grease in quantities or concentrations that are likely to degrade the visual quality of any receiving waters outside The Land.
- 3** All reasonable measures must be implemented to ensure that solids entrained in stormwater are retained on The Land. Such measures may include appropriately sized and maintained sediment settling ponds or detention basins.

SW2 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.

SW3 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.

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.

Other Information

OI1 Waste management hierarchy

1 Wastes should be managed in accordance with the following hierarchy of waste management:

1.1 waste should be minimised, that is, the generation of waste must be reduced to the maximum extent that is reasonable and practicable, having regard to best practice environmental management;

1.2 waste should be re-used or recycled to the maximum extent that is practicable; and

1.3 waste that cannot be re-used or recycled must be disposed of at a waste depot site or treatment facility that has been approved in writing by the relevant planning authority or the Director to receive such waste, or otherwise in a manner approved in writing by the Director.

OI2 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).

