

ASSESSMENT REPORT

Section 96(2) and 96(1A) Modifications – Boral Dunmore Quarry, Dunmore, Shellharbour LGA

PURPOSE

To determine proposed section 96(1A) and 96(2) modifications to the development consent for the Dunmore Hard Rock Quarry.

BACKGROUND

Boral Resources (NSW) Pty Ltd (Boral) operates the Dunmore hard rock quarry on Tabbita Road, approximately 12 kilometres northwest of Kiama in the Shellharbour local government area (see Figure 1).

The quarry is bounded by the Princes Highway and the Dunmore Sand and Soils extraction operation to the east. Bushland and a combination of rural and rural-residential properties are to the north, west and south. Rocklow Creek runs along the southern boundary of the quarry and is an ephemeral tributary of the Minnamurra River, which discharges to the Pacific Ocean about 2 km to the east.

The quarry operates under a consent granted in November 2004 by the then Minister Assisting the Minister for Infrastructure and Planning. The consent has been modified on three occasions, December 2005, June 2006 and May 2008. Current approval allows for the production of up to 2.5 million tonnes of hard rock per year which is transported by road and rail to local and regional markets. Boral's truck fleet operates out of a depot located at Port Kembla, approximately 28 km from the Dunmore quarry.

Part of the quarry is located on land owned by RailCorp, which is subject to a lease agreement with Boral. Some sections of the RailCorp land are not covered by Boral's existing consent. Under a recent 'rock swap' agreement, additional latite reserves located on RailCorp land can be accessed by Boral, subject to approval.

Boral is seeking an amendment to the existing consent to allow extraction from the RailCorp land (see Figure 2). Boral is also revising the site Water Management Plan and is seeking amendments to the consent to allow for modifications to the water management system at the quarry.

Furthermore, Boral is seeking to establish the base for the truck fleet at the quarry, by creating a truck parking area for up to 30 trucks to the east of the extraction area

PROPOSED MODIFICATIONS

Boral is seeking two modifications to the Dunmore Quarry consent, under Section 96(1A) and Section 96(2) of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The two applications are described below.

The proposals do not seek to modify the existing approved extraction rate, depth of extraction or extraction processes.

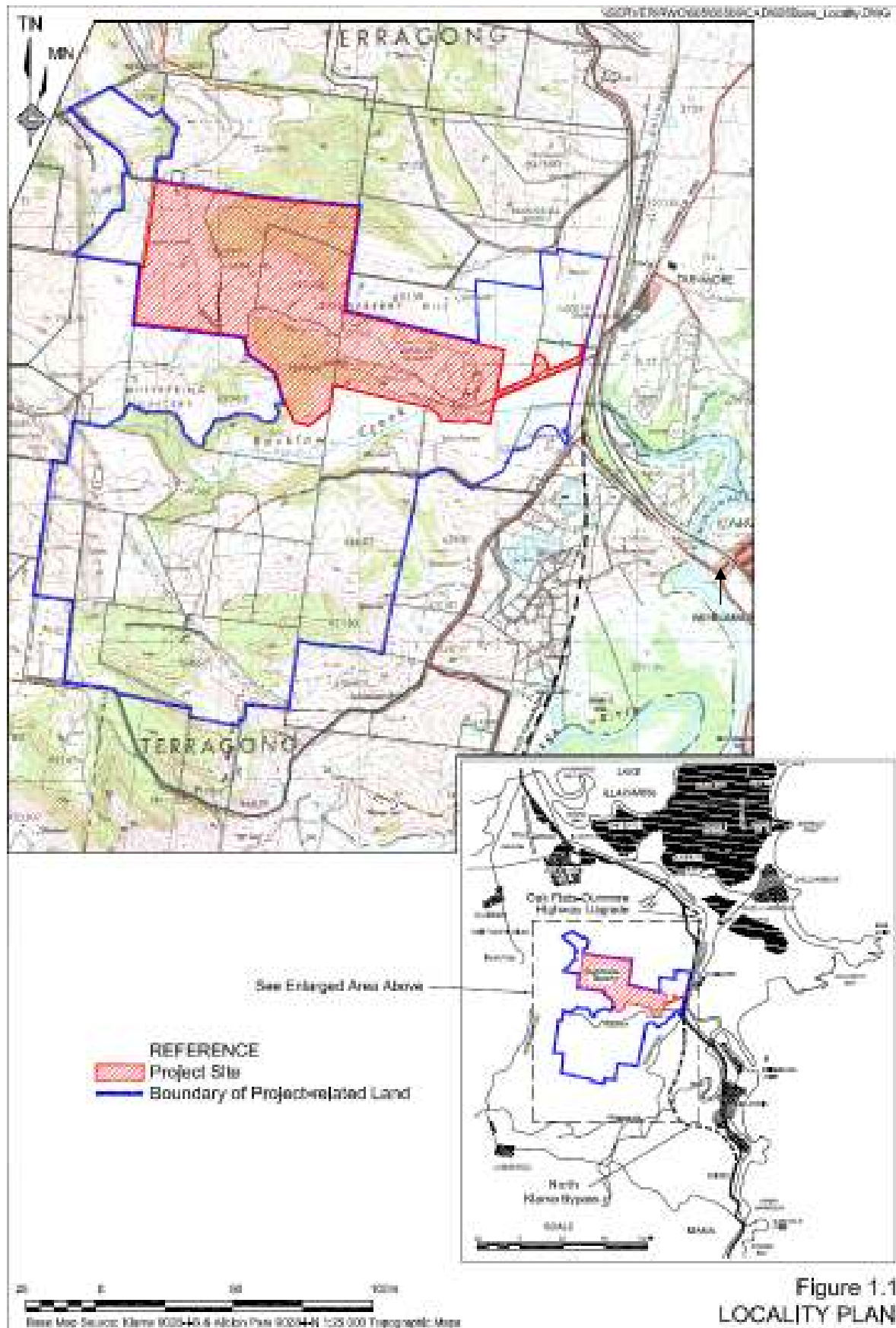


Figure 1: Site Location.

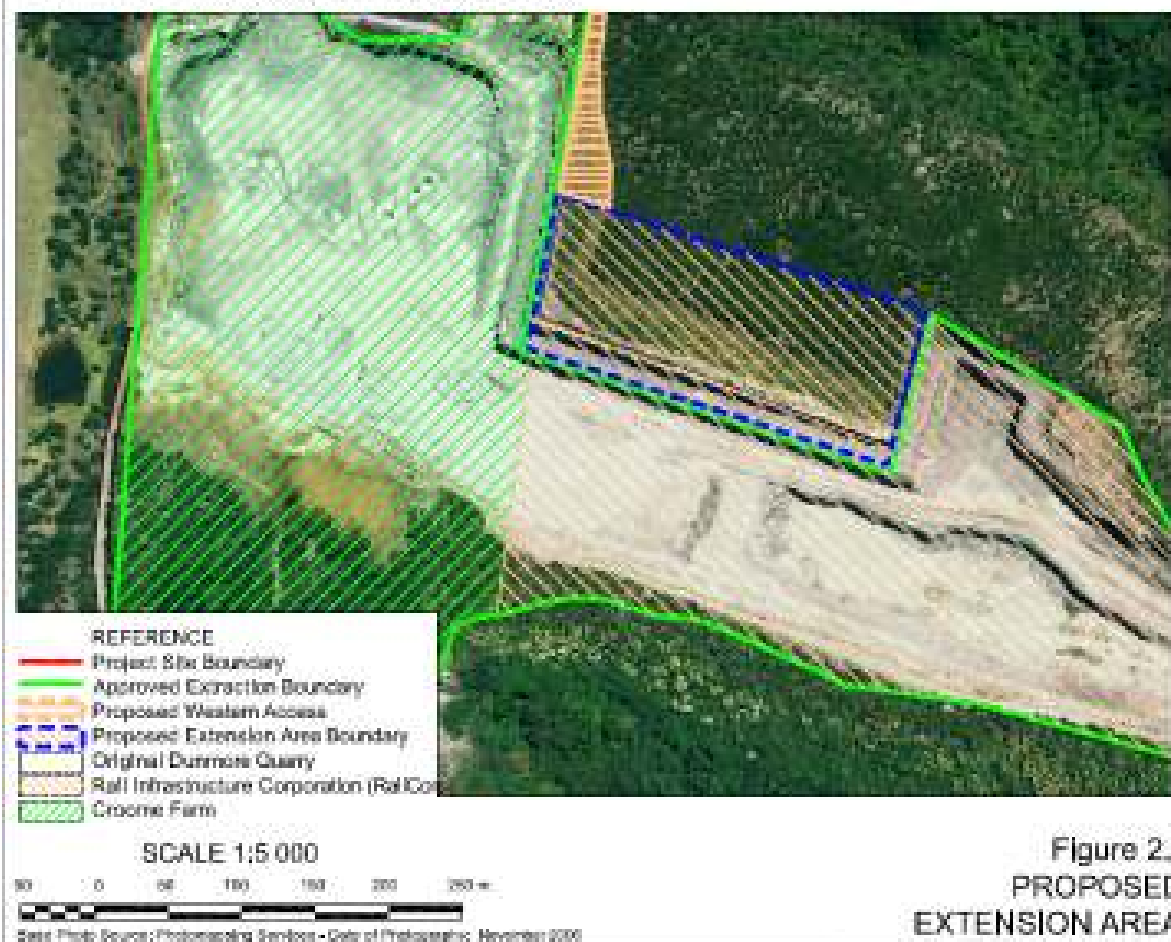
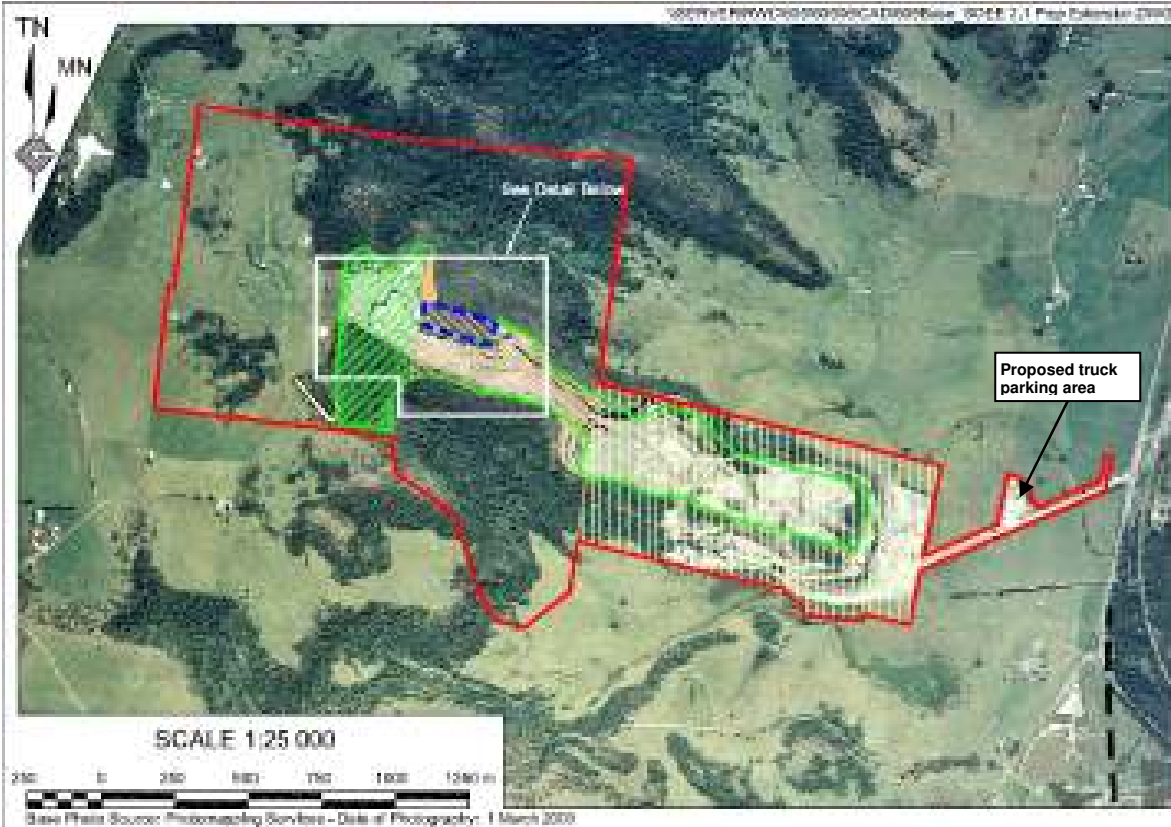


Figure 2.1
PROPOSED
EXTENSION AREA

- Land and Environment Court Consent (1996)
- Minister Consent (2001)
- Proposed modifications

Figure 2: Proposed Extension Area.

Section 96(2) Modification

Following the 'rock swap' agreement between Boral and RailCorp, proposed modifications to the project include:

- increasing the extraction area by 2.82 hectares (ha) and relocating the northern benches of the final landform approximately 90 metres north of the present location (see Figures 2 and 3);
- construction of access ramps to the eastern and western sides of the extension area for hauling rock to primary crusher;
- removal of an additional 3.6 million tonnes of hard rock deposits within RailCorp land and extending the life of the quarry by five years (until 18 November 2034); and
- establishment of a biodiversity offset area comprising a total of 15.8 ha located to the south of the extraction area.

Boral also proposes to amend certain components of the quarry's water management system. The changes follow a revision to the Dunmore Quarry Water Management Plan (WMP), in consultation with the Department of Environment and Climate Change (DECC) and Department of Water and Energy (DWE).

Key components of the revised WMP include:

- upgrading the existing dam to take it off-line from the creek and increase storage;
- two new dams (with 120ML and 40ML capacity);
- pumped transfers between dams and conditions identified to trigger transfers;
- alterations to drainage to direct runoff to certain dams;
- routine monitoring of discharges, water quality and water use on site; and
- alterations to discharge of water from the quarry, including the addition of a bio-filtration swale to treat the controlled discharge, and formal overflow points.

The requested modifications arising from the above include:

- changes to the storm water management design criteria;
- deleting conditions relating to use of flocculant; and
- extending the deadline for the completion of offline dam upgrade works.

Section 96(1A) Modification

Boral is seeking a modification to allow for the provision of up to 30 truck parking spaces, immediately north of the current employee car parking area. To accommodate this:

- the quarry laboratory would be demolished and relocated to the soon to be redundant quarry workshop area; and
- two demountable site buildings would be erected adjacent to the current quarry amenities block. These would comprise a site office and amenities building.

STATUTORY CONTEXT

Consent Authority

The Minister for Planning was the consent authority for the original development application, and is therefore the consent authority for these modification applications. However, under the Minister's delegation of 14 November 2007, the Executive Director Major Project Assessment may determine the applications.

Section 96 of the EP&A Act

Under section 96(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act), a consent authority may modify a development consent if it is satisfied that:

- a) *the proposed modification is of minimal environmental impact, and*
- b) *the development to which the consent as modified relates is substantially the same development for which consent was originally granted and*

before that consent as originally granted was modified (if at all) under this section.

Under section 96(2) of the EP&A Act, a consent authority may modify a development consent if:

“it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified (if at all)”.

The Department has assessed the merits of the application (see below), and is satisfied that those elements considered under the s96(1A) application would have minimal environmental impact.

The Department is further satisfied that the consent as modified would be “substantially the same” as the development approved in the original consent.

Objects of the EP&A Act

The Department has fully considered the objects of the EP&A Act, including the encouragement of Ecologically Sustainable Development (ESD), in its assessment of the proposed modifications. The assessment integrates all significant economic and environmental considerations and seeks to avoid any potential serious or irreversible damage to the social environment, based on an assessment of risk-weighted consequences.

Relevant Environmental Planning Instruments

The following environmental planning instruments are relevant to the proposal:

- *State Environmental Planning Policy (SEPP) 33 – Hazardous and Offensive Development;*
- *SEPP 14 – Coastal Wetlands;*
- *SEPP 44 – Koala Habitat Protection;*
- *Illawarra Regional Environmental Plan No 1;*
- *Shellharbour Local Environmental Plan, 2000; and*
- *Shellharbour Rural Local Environmental Plan, 2004.*

The Department is satisfied that the proposed modifications can be undertaken in a manner that is consistent with the aims, objectives and provisions of these instruments.

CONSULTATION

Quarry Expansion and Water Management System Upgrades

After accepting the Statement of Environmental Effects (SEE) for the proposed modifications, the Department:

- made it publicly available for 14 days, from Friday 6 June 2008 until Monday 23 June 2008:
 - on the Department’s website; and
 - at the Department’s Information Centre, Sydney, the Department’s Wollongong office; and at Shellharbour City Council;
- notified relevant agencies by letter;
- notified submitters to the original development application (DA-470-11-2003); and
- advertised the exhibition in the Illawarra Mercury on 6 June 2008.

During the exhibition period, the Department received submissions from DECC and Department of Primary Industries (DPI) as well as two submissions from the general public.

DECC advised, following detailed site investigations and consultation with Boral, that the proposed modifications, including a revised offset package to accommodate the unauthorised clearing (discussed in the following section), were acceptable.

DPI did not object to the proposal. It requested that Boral provide it with annual production data, which is an existing requirement of the consent.

One public submission objected to the project, and both public submissions raised concerns regarding visual impacts and compensation for the clearing of native vegetation.

The issues raised in submissions are considered in more detail in the assessment section of this report.

Truck Parking Area

The Department is not required to notify applications under section 96(1A) of the EP&A Act.

Given the minor nature of the proposed parking modifications, and their minimal potential for environmental impact, the Department has not undertaken any consultation for the proposal.

ASSESSMENT

The Department has assessed the applications and submissions in accordance with the relevant requirements of the EP&A Act. The key issues for each component of the proposed modification are discussed below.

Flora and Fauna

The proposed water management system upgrades and provision of truck parking would occur in previously disturbed areas.

However, in order to access the additional latite resource on RailCorp land, Boral would need to disturb an area of 3.26 ha (see Figures 2 and 3). This area is vegetated by the Endangered Ecological Community, *Melaleuca armillaris* Tall Shrubland (MATS).



Figure 3: Proposed Extension Area, Looking West.

The MATS has been identified as having a very high conservation priority as it is a rare vegetation type and contains habitat for the threatened flora species *Zieria granulata*, which is listed as Endangered under both the NSW *Threatened Species Conservation Act 1995* and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. The MATS is also potential foraging habitat for native fauna, including a number of threatened species.

The current approved quarry includes a vegetation offset of 12.8 ha as well as requirements for a Compensatory Habitat Management Plan and a Flora and Fauna Management Plan.

Boral originally proposed to offset the 3.26 ha area to be cleared with an additional 6.52 ha offset area (i.e. a 2:1 offset ratio). However, given the significance of the vegetation, and that Boral has cleared a 2 ha area of the site without authorisation, the DECC and the Department considered that the offset was inadequate.

Boral subsequently updated and revised the offset strategy to comprise a 15.8 ha site, approximately 1.4km to the south of the quarry

The proposed offset area includes:

- 8 ha of existing MATS (shown in red in Figure 4). This area would be actively managed and maintained in accordance with the measures outlined in the SEE. The area contains significant numbers of the threatened species *Zieria granulata* (350+ individual plants counted) which adds considerable additional value to the offset area; and
- 7.8 ha of land that includes the Illawarra Lowland Grassy Woodland, Illawarra Subtropical Rainforest and pasture containing many native grasses, (shown in yellow on Figure 4). This area would be fenced off from cattle and be allowed to naturally regenerate. Boral would also explore options for potential external funding (i.e. grants) for ongoing weed management and maintenance of this area in consultation with DECC.

The assessment of significance in the SEE concluded that the proposal would not significantly impact the threatened species likely to utilise the area to be disturbed, subject to the implementation of the offset strategy. Further, the SEE proposes a number of measures to mitigate the impacts of clearing, including pre-clearing surveys, selective timing to avoid breeding/nesting season and supervision during clearing by a qualified ecologist.

The proposed offset package would conserve, maintain, enhance and establish vegetation of conservation significance including MATS, Grassy Woodland and Illawarra Sub Tropical Rainforest. The revised offset is also consistent with strategy outlined in the Shellharbour/Kiama Hard Rock Resource Review, prepared by Eco Logical Australia in April 2007. The Department has recommended conditions to give effect to the proposed offset.

The Department and DECC are satisfied that, subject to the implementation and long term conservation of the offset strategy, the proposal is able to be undertaken in a manner that would maintain or improve the biodiversity values of the area. The Department has recommended conditions that would require Boral to:

- implement the offset strategy;
- provide for the long term conservation of the offset area; and
- update its Flora and Fauna Management Plan to encompass the proposal.

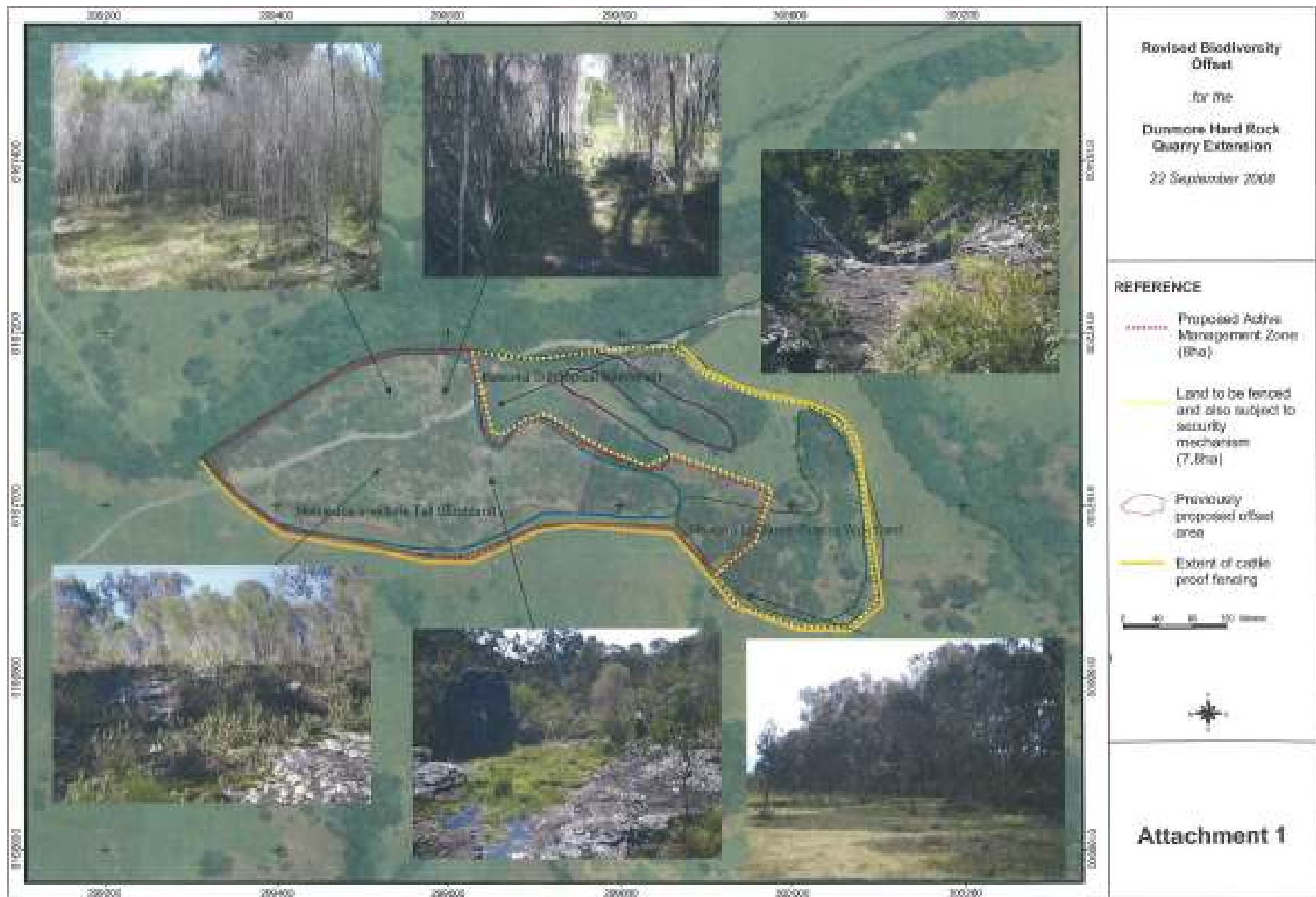


Figure 4: Revised Proposed Biodiversity Offset Package.

Water Quality

Existing site water storages comprise the Lower Dam (15-20ML capacity), the former water cart tank (50,000L capacity) and the dust suppression tanks. Groundwater is generally not encountered on the site. All site runoff is captured in the Lower Dam, which is located in the south-eastern portion of the site. Water is discharged to Rockwell Creek via a man-made channel.

The current consent sets water quality limits for discharges from the quarry, and requires that the water management system capture the 1 in 10 year, 24 hour duration runoff event, and discharge it within 5 days. It also requires the preparation of a Flocculant Management Plan where treatment of captured runoff is necessary to achieve discharge targets.

A Draft Water Management Plan (WMP) prepared for the quarry in April 2008 identified improvements that could be made to site water management based on a more rigorous and realistic water balance approach (see Figure 5 on the following page).

The Draft WMP is based on a number of detailed investigations of water management and geotechnical constraints of the site as well as ongoing consultation with DECC and DWE. The objective of the Draft WMP is to improve water efficiency at Dunmore Quarry by maximising on-site water capture and improving water quality. The Draft WMP includes consideration of the proposed extension.

The increased water storage capacity and improved monitoring that would result from the implementation of the Draft WMP would limit the number of uncontrolled overflows to Rocklow Creek and eliminate the need for the use of flocculant. It is also expected to reduce the need for water extraction from Rocklow Creek and to improve water quality downstream.

Both DECC and DWE consider the Draft WMP to provide superior water management than at present. The Department is satisfied that the implementation of the revised WMP would not lead to any adverse impacts on surface water flows and quality.

Noise and Vibration

Background noise for the quarry has been determined using monitoring data obtained during the assessment for the 2003 consent. This has been supplemented by monitoring in 2007 at the Renton Residence, located to the north west of the project site.

The noise assessment demonstrates that the predicted noise levels would comply with the DECC project specific goals under calm weather, prevailing winds and adverse weather conditions. In addition, air blast and ground vibration levels for blasting have been predicted to meet DECC guidelines at all residential locations surrounding the development with appropriate MIC limits in place. DECC did not raise any concerns regarding potential noise or vibration impacts from the proposed modification.

The Department is satisfied that the noise and vibration impacts associated with the proposed modification are acceptable.

Air Quality

To assess air quality impacts of the proposed extension, the model developed for the original 2003 consent has been re-run. The model assumes a 3% increase in extraction area at the same annual extraction rate for the existing quarry (2.5Mtpa).

Dust level predictions are shown to be slightly higher than the approved development. However, levels are still well within DECC guidelines.

Figure 5: Proposed Water Management.

Boral has indicated that existing safeguards and management measures such as the current deposited dust and high volume air sampling program would continue to be implemented and reported.

With these measures in place, the Department and the DECC are satisfied that any emissions from the project can be managed to ensure compliance with the relevant criteria.

Other Impacts

Other issues raised during the assessment process and the Department's consideration of each are summarised in Table 1 below.

Table 1: Summary of Other Impacts

Aspect	Comment	Conclusion/Recommendation
Rehabilitation	- The extraction floor would blend with the final floor of the adjoining extraction areas and be rehabilitated through placement of overburden/vegetation or retained for a subsequent land use. - The proposal would not alter the approved rehabilitation procedures but would result in a minor alteration of the approved rehabilitation plan and the creation of a biodiversity offset. - To enable RailCorp to continue to extract Latite from their land, the northern benches of the extension and eastern access road would not be rehabilitated.	Recommended conditions require Boral to: - update the Rehabilitation Plan to reflect the extension area; and - revise its rehabilitation and conservation bond to encompass the proposal.
Aboriginal Heritage	- The Aboriginal heritage assessment included a field survey in 2007 involving local Aboriginal groups. - The proposed extension area is on a previously disturbed site with little or no archaeological or cultural significance. The assessment considered it very unlikely that any Aboriginal archaeological sites will be located in the extension area and recommended the extension could proceed with no further archaeological work.	The Department is satisfied that the project is unlikely to result in any significant heritage impacts.
Visual	- It is expected that some activities, particularly those undertaken on the surface of the extension would be visible. Boral considers that the proposed extension would not result in any significant increase in the existing visual intrusion of the quarry. - An existing bund wall and vegetative screening would minimise any potential visual impacts of the proposed truck parking area - Existing visual control measures for the quarry would be retained. - The SEE states that vegetation to the north of the proposed extension would be retained and enhanced if necessary.	The Department is satisfied that the project is unlikely to result in any significant visual impacts, subject to the maintenance of the existing buffer.

Table 1 (cont): Summary of Other Impacts

Aspect	Comment	Conclusion/Recommendation
Traffic	- Provision of on-site truck parking would reduce the number of truck movements (by one movement per truck per day, an estimated 9,360 per year) and increase light vehicle movements by up to 60 per day as drivers access the parking area. Impact on traffic conditions is expected to be negligible. - There are no proposed changes to existing approved road and rail transport. Annual production rates are not proposed to change.	The Department is satisfied that the project is unlikely to result in any significant traffic impacts.

SECTION 79C

Under Section 96 of the EP&A Act, a consent authority is required to consider the relevant matters in Section 79C(1) of the Act when determining an application to modify a development consent.

The Department has assessed the proposed modifications against these matters, and is satisfied that:

- the proposed modifications are generally consistent with the provisions of relevant planning instruments;
- the potential impacts of the proposed modifications can either be mitigated or managed;
- the site is suitable for the development as modified; and
- the proposed modifications are generally in the public interest.

RECOMMENDED CONDITIONS

The Department has drafted recommended conditions for the modifications. Boral has accepted these conditions.

RECOMMENDATION

It is RECOMMENDED that the Executive Director:

- consider the findings and recommendations of this report;
- approve the proposed modifications under the Minister's delegation of 14 November 2007; and
- sign the attached instruments (see Tags A and B).

David Kitto
Director
Major Development Assessment

Chris Wilson
Executive Director
Major Project Assessment