



ABN: 82 003 061 890

Response to Submissions

for the

Wallerawang Quarry (DA 344-11-2001)

July 2017

Prepared by:



R.W. CORKERY & CO. PTY. LIMITED



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Wallerawang Quarry (DA 344-11-2001)

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1. INTRODUCTION

An *Environmental Assessment* supporting an application by Walker Quarries Pty Limited (“the Applicant”) to modify DA 344-11-2001 for the Wallerawang Quarry (“the Quarry”) was publically exhibited between 29 May and 12 June 2017. The application to modify DA 344-11-2001 was made under Section 75W of the *Environmental Planning & Assessment Act 1979* (EP&A Act) as the development consent is considered an approval under the now repealed Part 3A of the EP&A Act by virtue of Clause 8J(8)(c) of the *Environmental Planning & Assessment Regulation 2000* (EP&A Reg).

Submissions on the proposed modification were received by the Department of Planning and Environment (DPE) from seven government agencies or public authorities. No submissions have been received from the general public and it is noted, as documented in the *Environmental Assessment*, there has been little to no negative public sentiment towards the Quarry operations.

All government agency submissions, which are provided in full in **Appendix 1** of this document, were forwarded to the Applicant by the DPE requesting a response to the issues raised. Notably, the submissions of the NSW Environment Protection Authority (EPA) and NSW Roads and Maritime Services (RMS) did not raise any objection nor request any further information and these submissions have not been considered further. Sections 2 to 6 discuss each of the remaining government submissions, identify the issues raised and provide a response.

2. DIVISION OF RESOURCES AND GEOSCIENCE

2.1 INTRODUCTION

The Division of Resources & Geoscience (DRG), of the DPE, has suggested that the assessment requirements for rehabilitation were not adequately addressed in the Environmental Assessment with additional information required to demonstrate that sustainable rehabilitation outcomes can be achieved.

In responding to the specific comments of the DRG, it is noted that the primary area of disturbance associated with the proposed modification, namely the Western Stockpile Extension Area (WSEA) was included as part of Domain 5E within the Quarry Mining Operations Plan (MOP) for the period 14 August 2016 to 14 February 2018 (RME, 2016). This document was reviewed and approved by the DRG, indicating satisfaction with the planned final landform, rehabilitation objectives, schedule, methods, measurement and management. The disturbance area associated with the ESEA represents a very minor increase in disturbance, with rehabilitation objectives, methods, criteria, measurement and management to replicate that for the WSEA and other stockpile management domain areas for the Quarry.

Contrary to the comments contained within DRG's submission which states "*It is appropriate for references to the content of the current MOP to be removed from the EA and the relevant information added directly to the EA*", we remain of the belief that the fact that the proposed rehabilitation objectives, methods, criteria and measurement have been previously reviewed and approved to be highly relevant and not inappropriate to the current assessment. DRG's comment that "*the MOP must be consistent with the Development Consent, and therefore the MOP approved final landform should in no way influence the final landform approved in the Development Consent*" is acknowledged. However, we reiterate the point noted above that the DRG, who are principal regulator of rehabilitation on mining leases, has previously considered the proposed final landform, rehabilitation objectives, methods, management and measurement to be satisfactory.

It is therefore with some surprise that the DRG's submission has been received as it seems quite sensible and appropriate that the discussion on rehabilitation contained within the Environmental Assessment build upon the current and approved rehabilitation methods of the former EIS (Pacrim, 2001) and the MOP (RME, 2016).

The above notwithstanding, the following sections provide appropriate responses to the specific comments raised by the DRG with respect to post mining land use, rehabilitation methodology, monitoring and research, post closure maintenance, and barriers or limitations to effective rehabilitation.

2.2 POST MINING LAND USE

Comment

Assessment of post mining land use options and justification for the selected option needs to be provided, including justification for retaining the access road which was proposed to be removed in the 2001 Environmental Impact Statement – Indicative SEARs (mining) (2015) (a)(b).

Response

This requirement is considered unnecessary as the post-mining land use options for the Quarry have been previously considered, documented and included in post-approval documentation, i.e. MOPs prepared and approved for the Quarry (Sitegoal, 2006, RME, 2016).

Section 2.8.3 of the *Environmental Assessment* documents this in stating:

“In keeping with the commitments made in the EIS (Pacrim, 2001) and MOP (RME, 2016), the proposed final land use for the Quarry Site, including the rehabilitated stockpile extension areas would be nature conservation. Specifically, the Quarry Site would be revegetated to re-establish the native open forest community which previously occurred across the areas disturbed.”

The retention of access roads onto the property was nominated in Section 4.2 of the Quarry MOP (RME, 2016), however, it is acknowledged that Section 4.3 of the Quarry MOP refers to the removal of all bitumen roads on the mining lease. Whilst the retention of the current sealed access road would increase the options available for use of the land post-mining, the Applicant agrees to the decommissioning and rehabilitation of this access road to a single lane access track commensurate with a landform where the principal land use is biodiversity conservation.

2.3 REHABILITATION METHODOLOGY

Comment

Details of rehabilitation scheduling are to be included – Indicative SEARs (mining) (2015) (f).

Response

Sections 2.8.4 and 2.8.5 of the *Environmental Assessment* include detail on rehabilitation management and implementation. In accordance with *ESG3: Mining Operations Plan (MOP) Guidelines September 2013* (MOP Guidelines), separate domains are established across the Quarry, each with specific performance management criteria for each distinct phase of rehabilitation (decommissioning through to ecosystem and land use sustainability).

The level of detail supplied in the *Environmental Assessment* is considered adequate given:

- The proposed rehabilitation associated with the WSEA, ESEA and additional processing infrastructure has either already been included, or represents a minor extension / addition to rehabilitation included in the MOP (RME, 2016); and
- The current MOP was prepared in accordance with the MOP Guidelines which was recently reviewed and approved by the DRG.

It is considered unnecessary to repeat sections of text included in the MOP to demonstrate that the minor modifications to Quarry operations could be rehabilitated in accordance with established and approved methods.

2.4 MONITORING AND RESEARCH

Comment

Details of Monitoring programs, the process for triggering intervention and adaptive management measures, and detail of any rehabilitation research or trials, need to be provided – Indicative SEARs (mining) (2015) (h)(i)(j). Also see paragraph under ‘Further Rehabilitation Comments’ in reference to the Mining Operations Plan (MOP).

Response

As noted in previous sections, it is considered unnecessary given the minor nature and demonstrated integration of rehabilitation associated with the proposed modification into the overall rehabilitation of the Quarry contained in the MOP to replicate this information in the *Environmental Assessment*.

The above notwithstanding, the following provides information on planned rehabilitation monitoring, intervention and adaptive management, and rehabilitation research or trials.

Rehabilitation Monitoring

The following monitoring activities will be used throughout the MOP period to test the success or otherwise of the rehabilitation:

1. Once every month, an inspection of the rehabilitated (infilled, reshaped, revegetating) areas will be done to check site stability, erosion and sedimentation, weeds, presence of native animals and the extent and health of vegetation regrowth. The results will be documented in a diary. Action will be taken to ameliorate any problems found and to stop them recurring.
2. Monitoring of sites within rehabilitated areas, as well as sites surrounding the disturbance areas will be monitored by a qualified ecologist on an annual basis. This monitoring will review the success of rehabilitation against the performance targets of the MOP, as well as the re-establishment of native Blackthorn plants which is habitat for the threatened Purple Copper Butterfly.

Research and Rehabilitation Trials

The Applicant has commenced annual monitoring of vegetation within analogue sites surrounding the disturbance area in order to ensure that future rehabilitation is measured against criteria established in the remnant vegetation surrounding the Quarry.

Intervention and Adaptive Management

Threats to rehabilitation include the following.

- Non-conformance of the final landform to the approved final landform.
- Targeted vegetation communities do not become established.
- Vegetation community is not self sustaining.

- Prolonged drought.
- Insect plagues (e.g. locusts) and disease, e.g. Phytophthora.

Table 1 provides a Trigger Action Response Plan (TARP) for these identified threats.

Table 1
Trigger Action Response Plan

Threat	Trigger	Response / Action	Reason / Justification for Response	Mitigation / Remediation
Non-conformance of the final landform to the approved final landform	Slopes too steep to be effectively rehabilitated.	1. Slopes of the landform (other than the void) to be reduced until all slopes are less than 18°.	Environmental Assessment and MOP commitment.	As for Response / Actions.
Vegetation communities are different to analogue sites	Species on the final landform different to analogue sites.	1. Engage a qualified ecologist or revegetation expert to assess reasons for divergence of species mix. 2. Implement recommended actions in consultation with Division of Resources and Energy.	Best practice / adaptive management.	Review results of modified actions within 12 months.
Vegetation is not self sustaining	Monitoring indicates progress towards completion criteria is slower than anticipated or non existent.			
Prolonged drought	Mortality >10% on rehabilitation areas between monitoring periods.	1. Buy water and spray weekly over Rehabilitating areas. 2. Notify DRG.	Reduced vegetation over rehabilitation areas is contrary to the Rehabilitation objectives.	Undertake infill planting with tube stock during next planting season (mature plants are more drought tolerant).
Insect plague or disease	Observed pest infestation or plant mortality (other than by water stress [drought]).	1. Seek advice from DPI Pest and Feral Animal Unit in Orange. 2. Instigate Hygiene protocols at Quarry entrance to prevent the introduction of disease. 3. Consult the Department (DRE).	Best Practice / adaptive management.	Review and rest rehabilitation goals of the MOP.

Source: Modified after RME (2016)

2.5 POST CLOSURE MAINTENANCE

Comment

A description of how post-rehabilitation areas will be actively managed and maintained in accordance with the intended land use(s) in order to demonstrate progress towards meeting the rehabilitation objectives and completion criteria in a timely manner, needs to be provided – Indicative SEARs (mining) (2015) (k).

Response

The Applicant would continue to monitor rehabilitation, as described in Section 2.4, until achievement of closure criteria can be demonstrated. **Table 1** illustrates how failure to achieve important rehabilitation outcomes will be identified and managed.

2.6 BARRIER OR LIMITATIONS TO EFFECTIVE REHABILITATION

Comment

A review of aspects of the site or operations which may present barriers, limitations or risks to effective rehabilitation needs to be included. Also additional detail about the rehabilitation strategy to meet the target vegetation community(s) should be included, including methods of seeding/planting and species mix. Justification should be provided for the use of slopes up to 25 degrees (Table 14 of the EA) – Indicative SEARs (mining) (2015) (l)(o)(p).

Response

Table 1, which follows from Section 9.2 of the MOP, identifies the potential threats to rehabilitation success and identifies the proposed triggers and actions to be undertaken to remediate or manage these threats.

Revegetation would be undertaken initially by direct seeding, i.e. dispersal of seeds over a landform which has been profiled and spread with topsoil and available vegetation mulch. Seeding would be undertaken between September and November each year, concurrent with the best germination and growth period in the local setting.

To increase the potential for establishment of vegetation commensurate with local vegetation communities, soil from areas to be stripped ahead of quarry development would be immediately placed over completed sections of the final landform (as available). This would promote germination of seed from the existing seed bank. Natural regeneration of vegetation would also be enhanced by placing cleared vegetation, either directly or after mulching, over the respread soil. This will not only allow for the spread of seed from this vegetation, but promote water retention and organic matter within the soil.

Seed mix and seeding rate would be evaluated on an annual basis considering the relative density of vegetation in analogue sites, natural revegetation from the soil seed bank, density of specific vegetation in previous rehabilitation campaigns and specific features of the landform to be revegetated. This notwithstanding, the seed mix would likely include a variety of the following species.

- Trees / overstorey: Ribbon Gum, Snow Gum, Mountain Gum and Black Sally.

- Shrubs / mid-storey: Broom Heaths, Wattles, Finger Hakea, Narrow-leaved Geebung and Cherry Ballart.
- Groundcover: Snow Grass, Three-awn Eargrass, Wallaby Grass, Forest Hedgehog Grass and Kangaroo Grass.

Seed will be collected, where possible, from vegetation cleared in advance of the Quarry. The remaining cleared material will be placed on rehabilitated areas to promote natural regeneration of vegetation. The seed will be stored at a local nursery (Lithgow Community Nursery), with a proportion germinated to produce tube stock for infill and landscape planting.

If following monitoring, the diversity or density of vegetation remains below significantly different to that of the analogue site, or is not tracking effectively towards achievement of closure criteria, the Applicant would undertake in-fill planting of tube stock.

Slopes of up to 25° have been proposed for sections of the WSEA to:

- a) reduce the overall disturbance required to create the final landform; and
- b) replicate slopes in the immediate vicinity of the Quarry.

By limiting the earthworks required to create the landform, the risk of detrimental impacts on the growth medium are minimised. By replicating natural landforms, the likelihood of replicating the vegetation communities of the local setting would be increased. In particular, Native Blackthorn, which is habitat for the threatened Purple copper butterfly, prefers sloping landforms with northerly aspect. The proposed landform of the WSEA attempts to replicate these conditions.

The above notwithstanding, should DRG require the landform be reduced to a slope of 18°, the Applicant would comply.

2.7 FURTHER REHABILITATION COMMENTS

Comment

It is noted that within Appendix 1 of the EA is an "Approved Final Landform" from the MOP. It should be noted that the MOP must be consistent with the Development Consent, and therefore the MOP approved final landform should in no way influence the final landform approved in the Development Consent.

It is appropriate for references to the content of the current MOP to be removed from the EA and the relevant information added directly to the EA. Ideally, the proponent would prepare and provide a checklist outlining how each of the Indicative SEARs (mining) (2015) have been addressed in the EA, or why they are not applicable.

Response

A response to these statements is included in Section 2.1. In summary, however, we remain of the belief that the fact that the proposed rehabilitation objectives, methods, criteria and measurement have been previously reviewed and approved to be highly relevant and not

inappropriate to the current assessment. We reiterate the point that the DRG, who are principal regulator of rehabilitation on mining leases, has previously considered the proposed final landform, rehabilitation objectives, methods, management and measurement to be satisfactory.

2.8 RESOURCE STERILISATION

Comment

Should there be a requirement to establish biodiversity offset areas (if the proposed modification is approved) the Division requests that consideration be given to potential resource sterilisation when selecting future offset areas.

Response

This comment is noted and will be considered in the investigation of a Biodiversity Offset refer to Section 3) for the proposed modification.

2.9 CONDITIONS OF CONSENT

Comment

As requested by the Division at the EA requirements stage, a condition of the modified development consent should be the provision of annual production data to the Division, including tonnages for each size fraction of aggregates produced.

Response

The Applicant does not object to this condition.

3. NSW OFFICE OF ENVIRONMENT AND HERITAGE

3.1 INTRODUCTION

The NSW Office of Environment and Heritage (OEH) has made four recommendations with respect to the development of a detailed Biodiversity Offset Strategy (Section 3.2), additional survey for Purple copper butterfly habitat (Section 3.3) and referral to the Commonwealth Government Minister for the Environment and Energy.

3.2 BIODIVERSITY OFFSET STRATEGY

Recommendation 1

The proponent should lodge an expression of interest for the required credits on the BioBanking Expression of Interest Register immediately and provide evidence of this in the RTS report.

Response

The Applicant recognises that as the disturbance associated with the stockpile extension areas is additional to that for which approval was originally granted, this disturbance requires offsetting in accordance with the *NSW Biodiversity Offsets Policy for Major Projects* (“the Policy”) (OEH, 2014a).

On review, the consultancy responsible for the preparation of the Biodiversity Impact Assessment has identified that the IBRA sub-region considered when calculating offset credit requirements was incorrect (the Oberon sub-region was referenced when the site is located within the Capertee Part B IBRA sub-region).

A revised BioBanking Credit Report has been completed (see **Appendix 2**) which has resulted in a minor increase in the number of ecosystem credits generated by the disturbance.

- Ecosystem Credit Requirements.
 - HN515 (PCT 732) (1.9ha) = 120.
 - HN570 (PCT 1093) (0.5ha) = 34.
- Species Credit Requirements.
 - Purple Copper Butterfly = 146.

Further justification for the restriction in species credits to those generated by disturbance to the WSEA is provided in Section 3.3 along with details of further monitoring to be undertaken to confirm this.

The Applicant lodged a ‘Credits Wanted’ form to the OEH for the required ecosystem and species credits on 7 July 2017 (see **Appendix 3**). In addition, the Applicant has completed a search of the OEH EOI register with the prospect of retiring ecosystem credits through establishment of a BioBank Site. Initial results indicate there may be ecosystem credits available to offset the disturbance to HN515 and HN570, either directly or as equivalent vegetation communities (see **Table 2**).

Table 2
EOI Search Results

Offset Option	CMA Sub Region	Adjoins?	LGA	LINK ¹
HN515 - Broad-leaved Peppermint - Ribbon Gum grassy open forest in the north east of the South Eastern Highlands Bioregion				
HN506	Capertee Part A	Yes	Lithgow	http://www.environment.nsw.gov.au/BIMS/PRAPP/EOIDetails.aspx?ID=66
HN515	Oberon	No	Oberon	http://www.environment.nsw.gov.au/BIMS/PRAPP/EOIDetails.aspx?ID=52
HN514 & HN543	Burraborang (Part A)	No	Wingecarribee	http://www.environment.nsw.gov.au/BIMS/PRAPP/EOIDetails.aspx?ID=2
HN614	Nil			
HN573	Nil			
HN570 - Red Stringybark – Brittle Gum – Inland Scribbly Gum dry open forest of the tablelands, South Eastern Highlands Bioregion				
HN570	NIL			
HN543	Burraborang (Part A)	No	Wingecarribee	http://www.environment.nsw.gov.au/BIMS/PRAPP/EOIDetails.aspx?ID=2
HN543	Burraborang (Part A)	No	Wingecarribee	http://www.environment.nsw.gov.au/BIMS/PRAPP/EOIDetails.aspx?ID=160
Note 1: It is noted the credits referenced in each link have not been verified by OEH, and therefore are only an estimation of the type vegetation, patch size and therefore number of credits that could be generated at the location				
Source: Aquila Ecological Surveys – EOI Request (4 July 2017)				

While a number of potential locations were identified, none of these included OEH verified ecosystem or species credits. That is, none of the locations identified through the EOI have evidence of having a BioBank Statement completed or verification of the credit value attributable. As such, these locations would require further assessment to establish the quantum of available credits.

No species credits for Purple copper butterfly are currently available.

Recommendation 2

The RTS report should provide a detailed process outlining how the required credits would be secured if the EOI process is unsuccessful.

Response

In previous correspondence to OEH (16 June 2017), the Applicant has indicated a preference to utilise the OEH managed market system where this provides the required credits. As nominated above, the Applicant has completed and submitted a 'Credits Wanted' form to the BioBanking website of the OEH (see also **Appendix 3**) and identified possible sources of credits within the applicable and other relevant CMA sub-regions through a search of the OEH EOI Register. The potential sources of BioBank Credits identified through this search are summarised in **Table 2**, however, it is noted that further assessment would be required before any of these could be confirmed as appropriate for the retirement of ecosystem credits.

Alternatively, or in the event that the required credits are either not available or not obtainable at the locations nominated in **Table 2**, the Applicant plans to identify and retire credits either:

- through the establishment of a biodiversity offset site on private land; or
- payment into the Biodiversity Conservation Fund (under Part 6, Division 6 of the *Biodiversity Conservation Act 2016*).

The proposed approach to identifying and retiring the ecosystem and species credit requirements generated by the disturbance associated with the proposed modification are provided below (as Steps 1 to 4). The proposed timing of each step, several of which would be undertaken concurrently, is included.

The following provides the proposed approach to offsetting.

1. Retire credits through establishment of a BioBank Site containing available and verified credits.

In response to the 'Credits Wanted' form submitted to the OEH, the Applicant may receive correspondence from an independent party seeking to establish a BioBank Site including the ecosystem or species credits the Applicant wishes to retire.

In the event the Applicant is contacted by a potential source of the nominated offset credit (either by direct like for like or through variation rules), the Applicant would negotiate with the holder of these credits and within **6 months of approval** of the proposed modification either:

- a) confirm purchase and retirement of the ecosystem and/or species credit requirements;
- b) review relative merits of EOI identified credits against alternative (on-site) credits (see Step 2 below); or
- c) commence methods of identifying alternative credit retirement options.

2. On-site investigations for available credits.

As noted in responding to OEH's previous request for additional information, there remains approximately 17.5ha of vegetation likely to be equivalent in community type on the property owned by the Applicant.

Within **6 months of approval** of the proposed modification, and concurrent with investigations / negotiations into the availability of credits on the BioBanking EOI Register, the Applicant proposes to complete additional survey in accordance with the *Framework for Biodiversity Assessment* (FBA) (OEH, 2014b) to confirm the type and condition of this vegetation and availability of ecosystem and species credits.

As discussed in previous correspondence to OEH, the Applicant proposes to undertake these surveys and calculations in spring (October / November) when Purple Copper Butterfly are most likely to be on the wing, thereby providing the best opportunity to determine if offsetting of species credits in the immediate vicinity to disturbance is possible.

Where ecosystem and/or species credit requirements can be met through protection, conservation and/or enhancement of biodiversity on Applicant owned land, the Applicant would:

- a) review the relative merits of credits identified through the EOI process against those of the on-site offset and nominate a preferred method of offset; and
- b) nominate the preferred method of offset and seek confirmation from OEH as suitable.

This nomination of the preferred method of offsetting disturbance, including a detailed assessment against the requirements outlined in *Table 22* of the FBA, would be completed and supplied to OEH within **6 months of approval** of the proposed modification.

In the event that ecosystem and/or species credit requirements are unable to be met by protection, conservation and/or enhancement of biodiversity on Applicant owned land, the Applicant would complete investigations into the availability of external properties for offsetting purposes (see Step 3 below).

3. Off-site investigations for available credits.

In the event ecosystem and/or species credit requirements are not able to be retired through Steps 1 or 2, the Applicant would identify and investigate alternative locations for establishing an offset site. As noted above, an EOI for the required ecosystem and species credits was lodged on 4 July 2017 identifying a number of potential locations where ecosystem credits could be available.

Within **6 months of approval** of the proposed modification, the Applicant would supply a review of possible offset options developed by application of the following methods.

- Correspondence and liaison with the owners of the locations identified through the 4 July 2017 EOI search (see **Table 2**).
- Correspondence and liaison with OEH personnel, Forestry Corporation NSW personnel and relevant officers of Lithgow City, Bathurst Regional and Oberon Councils to obtain a list of potential sites that meet the requirements for offsetting.
- Completion of a search of properties for sale in the Lithgow City, Bathurst Regional and Oberon Council areas by a qualified ecological consultant who will overlay aerial photography and vegetation community mapping data to identify sites with the potential to provide the required offset credits.
- Preparation of a short-list of up to five properties for further consideration.

If, after 6 months following approval of the proposed modification, offset credits for ecosystem and/or species cannot be retired following the EOI (Step 1) or on-site offset establishment (Step 2) methods, the Applicant would confirm the short-list of potential offset sites with the OEH. Once the short list has been confirmed as suitable, the Applicant would commence further investigations on these properties.

The investigations would be sequential, i.e. commence and complete investigations with the site(s) considered most likely to provide an offset site before proceeding to the next most likely site. The investigations would involve an initial visual inspection of the property, followed by a more detailed BioBanking Assessment if the initial inspection indicates appropriate vegetation or habitat features are present.

If a site is identified as providing the offset credit requirements required, the Applicant would investigate the establishment of an offset site on the property with the owner (either through acquisition or establishment of a BioBank Site). If an agreement can be reached with the owner, the Applicant would nominate the site for offsetting purposes, including a detailed assessment against the requirements outlined in *Table 22* of the FBA, and supply this to OEHL. This nomination would be provided to the OEHL within **12 months of approval** of the proposed modification. As noted in the Policy, if a site is identified as suitable for offsetting, the Applicant would proceed to an agreement unless it can be demonstrated establishment of the offset site is not feasible. Evidence of why offset sites are not feasible may include:

- the unwillingness of a landowner to sell or establish a biobank site; or
- an asking price significantly above market rates.

The Applicant would confirm the purchase / agreement and retire the offset credits within **3 months of OEHL confirmation** of suitability.

Where no short-list of properties can be established, no suitable site identified or agreement reached with the owner, the Applicant would utilize the Biodiversity Conservation Fund under Part 6, Division 6 of the *Biodiversity Conservation Act 2016* (BC Act) (see Step 4 below).

4. Payment into the Biodiversity Conservation Fund.

Division 6 of Part 6 of the BC Act states:

Division 6 Payment into Biodiversity Conservation Fund as alternative to retirement of biodiversity credits

6.30 Payment as alternative to retirement of biodiversity credits

- (1) A person who is required under this or any other Act (including under an instrument, approval or agreement) to retire biodiversity credits may satisfy that requirement by instead paying an amount into the Biodiversity Conservation Fund determined in accordance with the offsets payment calculator established under this Division.*
- (2) If that amount is paid into the Fund, the requirement to retire biodiversity credits is satisfied.*

It is noted that there is no statutory requirement to utilize this option for offsetting only after other options have been exhausted. However, it does provide a certainty of offsetting where other options may fail to provide adequate offsetting arrangements. This is considered most relevant in relation to offsetting species credits generated by disturbance to Purple Copper Butterfly habitat.

Within **6 months of approval** of the proposed modification, the Applicant will complete an investigation into the estimated cost of meeting the credit requirements by contributing to the Biodiversity Conservation Fund and provide (to OEH) a report commenting on the feasibility of this option. The investigation, coinciding with the completion of Steps 2 and 3, will nominate this as the preferred or alternative method of retiring offset credits.

The Applicant would complete payment into the Biodiversity Conservation Fund within **3 months of confirmation** (by OEH) of this being accepted for offsetting purposes.

3.3 ADDITIONAL SURVEY FOR PURPLE COPPER BUTTERFLY HABITAT

Recommendation 3

Additional evidence should be provided to justify why it is unlikely that blackthorn occurred in the ESEA. This should include as a minimum surveying within 100 metres of the ESEA boundary for occurrences of blackthorn and reporting the results in the RTS report.

Response

In addition to the BioBanking plot that was located near the north-eastern corner of the ESEA (see *Figure 13* of the *Environmental Assessment*), meanders were conducted through adjacent woodland during which searches were undertaken for Blackthorn and the PCB (see **Figure 1**). No Blackthorn was recorded near the ESEA during these searches which came within 50m of the perimeter of the ESEA. It is also noted that two 100m² monitoring plots were established by Lesryk near the ESEA in September 2016. No Blackthorn were recorded in these plots with the closest recorded location of Blackthorn mapped approximately 80m to the south of the ESEA, within the cleared powerline easement, by the Wildthing survey of 2002. The results of these surveys support the assessment made in the Biodiversity Impact Assessment (Lesryk, 2017) and *Environmental Assessment* (RWC, 2017) that the ESEA did not include habitat of the Purple copper butterfly.

As noted above, the Applicant proposes to undertake further survey on Lot 6 DP872230 during spring in order to identify a potential offset site on the property. This survey is proposed to be undertaken in spring (October / November) coinciding with scheduled flora/fauna monitoring of the Quarry during the period when Purple Copper Butterfly is most likely to be on the wing. Notwithstanding the additional evidence provided which supports the ESEA as not representing Purple copper butterfly habitat, the Applicant agrees to include survey for Blackthorn within 100m of the ESEA and beyond within the mining lease area as part of the spring monitoring. Consistent with OEH's *Guide to Surveying Threatened Plants*, the Blackthorn survey in the vicinity of the ESEA would employ traverses 10m to 15m apart to ensure the area is covered adequately. Elsewhere in the lease area, a combination of random meander and targeted traverses would be employed



Source: Lesryk Environmental Pty Ltd

Legend



Lesryk PCB/Blackthorn survey transect – September 2016



Locations of Blackthorn found by Lesryk – September 2016



Vegetation monitoring quadrats in vicinity of ESEA – September 2016

Figure 1
Field Survey – Purple Copper Butterfly and Blackthorn

3.4 COMMONWEALTH REFERRAL

Recommendation 4

The proponent should refer the project to the Australian Government Minister for the Environment and Energy for consideration under the Environmental Protection and Biodiversity Conservation Act 1999.

Response

A Referral to the Minister for the Environment and Energy for consideration under the *Environmental Protection and Biodiversity Conservation Act 1999* will be submitted.

4. LITHGOW CITY COUNCIL

Comment(s)

Council requests that more consideration is undertaken relating to the visual impacts from the Great Western Highway to the Quarry site, specifically in relation to the timeline as to when the vegetation would be planted and the construction of the bund wall.

Response

The Applicant plans on undertaking landscape plantings and other earthworks in accordance with a Landscape Planting Plan (LPP). This LPP is regularly reviewed and updated to reflect status of operations, seed availability or other factors. The Applicant will provide a copy of any modifications to the LPP to Council for review and implement any reasonable recommendations.

5. DEPARTMENT OF PRIMARY INDUSTRIES – OFFICE OF WATER

Comment(s)

DPI recommends that any approval for the project include a condition of consent requiring the proponent to prepare an updated Water Management Plan for the quarry in consultation with DPI Water (water.referral@dpi.nsw.gov.au), within 12 months of the modification determination.

Response

The Applicant is comfortable with the recommended condition of consent.

6. WATER NSW

Comment(s)

WaterNSW recommends that the Department modify Condition 2.29 of the consent as follows: Before the modification works are implemented, the Water Management Plan shall be updated in consultation with Water NSW.

Response

The Applicant is comfortable with the recommended condition of consent.

7. REFERENCES

- Lesryk Environmental (2016).** *Purple Copper Butterfly Targeted investigation Walker Quarry, Wallerawang, NSW*, October 2016.
- Lesryk Environmental (2017).** *Ecological Investigation: Walker Quarry, Wallerawang, NSW*, March 2017.
- NSW Office of Environment and Heritage (OEH) (2014a).** *NSW Biodiversity Offsets Policy for Major Projects*. September 2014.
- NSW Office of Environment and Heritage (OEH) (2014b).** *Framework for Biodiversity Assessment: NSW Biodiversity Offsets Policy for Major Projects*. September 2014.
- NSW Trade & Investment (2013).** *ESG3: Mining Operations Plan (MOP) Guidelines September 2013 (MOP Guidelines)*.
- Pacrim Environmental (Pacrim) (2002).** *Supplementary Report to the EIS for the Proposed Wallerawang, Quarry*, Prepared for Sitegoal Pty. Limited, July 2002 (Report 02/206.1).
- Rangott Mineral Exploration Pty Ltd (RME) (2016).** *Wallerawang Quarry Mining Operations Plan, for the period 14 August 2016 to 14 August 2018*.
- RW Corkery & Co. Pty Limited (RWC) (2016).** *Flora and Fauna Management Plan for the Wallerawang Quarry*. September, 2016.
- RW Corkery & Co. Pty Limited (RWC) (2017).** *Environmental Assessment for Modification to Operations at the Wallerawang Quarry (DA 344-11-2001)*, May 2017. Prepared on behalf of Walker Quarries Pty Ltd.
- Sitegoal Pty Ltd (Sitegoal) (2006).** *Mining Operations Plan for the Wallerawang Quarry, October 2006*.
- Wildthing Environmental Consultants (Wildthing) (2002).** *Paralucia spinifera (Bathurst Copper Butterfly) Survey for the Proposed Wallerawang Quarry near Wallerawang NSW*.

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Appendices

(Total No. of pages including blank pages = 30)

- Appendix 1 Government Agency Submissions (14 pages)
- Appendix 2 Revised BioBanking Credit Report (8 pages)
- Appendix 3 Credits Wanted Form (6 pages)

Note: A colour version of the Appendices is available on the digital version of this document

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Appendix 1

Government Agency Submissions

(Total No. of pages including blank pages = 14)

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OUT17/23220

Sarah Fabian
Student Planner
Resource Assessments & Planning Services
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Sarah.Fabian@planning.nsw.gov.au

Dear Sarah

**Wallerawang Quarry – MOD 1
Environmental Assessment Exhibition - Adequacy**

I refer to your email dated 25 May 2017 inviting the Division of Resources & Geoscience (the Division) to provide comments on the Wallerawang Quarry – MOD 1 Project (the Project) Environmental Assessment (EA) submitted by Walker Quarries Pty Ltd (the Proponent).

The Division has reviewed the adequacy of information supplied relation to the abovementioned Project and provides the following advice:

The Division advises that the EA requirements for rehabilitation have not been adequately addressed in the Project EA dated May 2017.

Additional information is required to demonstrate that sustainable rehabilitation outcomes can be achieved as a result of the project.

The required additional information is as follows.

Post Mining Landuse

- i. Assessment of post mining land use options and justification for the selected option needs to be provided, including justification for retaining the access road which was proposed to be removed in the 2001 Environmental Impact Statement – Indicative SEARs (mining) (2015) (a)(b).

Rehabilitation Methodology

- ii. Details of rehabilitation scheduling are to be included – Indicative SEARs (mining) (2015) (f).

Monitoring and Research

- iii. Details of Monitoring programs, the process for triggering intervention and adaptive management measures, and detail of any rehabilitation research or trials, need to be provided – Indicative SEARs (mining) (2015) (h)(i)(j). Also see paragraph under 'Further Rehabilitation Comments' in reference to the Mining Operations Plan (MOP).

Post Closure Maintenance

- iv. A description of how post-rehabilitation areas will be actively managed and maintained in accordance with the intended land use(s) in order to demonstrate progress towards meeting the rehabilitation objectives and completion criteria in a timely manner, needs to be provided – Indicative SEARs (mining) (2015) (k).

Barrier or limitations to effective rehabilitation

- v. A review of aspects of the site or operations which may present barriers, limitations or risks to effective rehabilitation needs to be included. Also additional detail about the rehabilitation strategy to meet the target vegetation community(s) should be included, including methods of seeding/planting and species mix. Justification should be provided for the use of slopes up to 25 degrees (Table 14 of the EA) – Indicative SEARs (mining) (2015) (l)(o)(p).

Further Rehabilitation Comments

It is noted that within Appendix 1 of the EA is an "Approved Final Landform" from the MOP. It should be noted that the MOP must be consistent with the Development Consent, and therefore the MOP approved final landform should in no way influence the final landform approved in the Development Consent.

It is appropriate for references to the content of the current MOP to be removed from the EA and the relevant information added directly to the EA. Ideally, the proponent would prepare and provide a checklist outlining how each of the Indicative SEARs (mining) (2015) have been addressed in the EA, or why they are not applicable.

It is noted that Section 5.4 of the EA currently refers to Caloma open cut. This needs to be modified.

Resource Sterilisation

There are no resource sterilisation issues highlighted in the EA in regard to the proposed placement of the Western and Eastern Stockpile Extension Areas. Should there be a requirement to establish biodiversity offset areas (if the proposed modification is approved) the Division requests that consideration be given to potential resource sterilisation when selecting future offset areas.

Condition of Consent

As requested by the Division at the EA requirements stage, a condition of the modified development consent should be the provision of annual production data to the Division, including tonnages for each size fraction of aggregates produced. The statistical data collected is of great value to Government and industry in planning and resource management, particularly as a basis for analysing trends in production and for estimating future demand for particular commodities or in particular regions. Production data for individual operations is kept strictly confidential.

Should you have any enquires regarding this matter please contact:
Adam Banister, Acting Senior Advisory Officer - Royalties & Advisory Services on (02) 4931 6439.

Yours sincerely



Adam W. Banister
A/Senior Advisory Officer
15 June 2017

for
Zane West
Manager Royalties & Advisory Services



DOC17/314742
DA 344-11-2001 MOD1

Ms Sarah Fabian
Student Planner, Resource Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Fabian

Wallerawang Quarry Modification 1

I refer to your email dated 25 May 2017 to the Office of Environment and Heritage (OEH) inviting comment on the proposed modification for the Wallerawang Quarry.

We note that the modification application is seeking to address the unauthorised clearing of 2.4 hectares of native vegetation for two stockpile areas outside of the approved footprint of DA 344-11-2001. The SEARs that OEH provided to the proponent dated 20 February 2017 clearly stated that the Framework for Biodiversity Assessment (FBA) should be used to assess the biodiversity values of the habitat adjacent to the unauthorised clearing. The proponent has not provided a Biodiversity Assessment Report (BAR) or a Biodiversity Offset Strategy (BOS) as required by the FBA. Failure to provide the required information in the correct format made our review more difficult and time-consuming. In order to complete our review, we requested, and received, additional information that was fundamental to our assessment of the biodiversity impacts of the project.

Upon provision of the additional data by the proponent we have reviewed the information and provide a summary of recommendations (**Appendix A**) and detailed comments (**Appendix B**).

If you have any questions regarding this matter please contact Renee Shepherd, Conservation Planning Officer, on 02 6883 5355 or renee.shepherd@environment.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'P. Christie'.

PETER CHRISTIE
Director North West
Regional Operations Division

26 June 2017

Contact officer: RENEE SHEPHERD
02 6883 5355

PO Box 2111 Dubbo NSW 2830
Level 1, 48-52 Wingewarra Street Dubbo NSW 2830
Tel: (02) 6883 5330 Fax: (02) 6884 8675
TTY [Click here to enter text.](#)
ABN 30 841 387 271
www.environment.nsw.gov.au

Attachment 1

Summary of OEH Recommendations

List of acronyms used in this response:

EA	Environmental Assessment
EEC	endangered ecological community
EOI	expression of interest
ESEA	Eastern Stockpile Extension Area
OEH	Office of Environment and Heritage
PCT	plant community type
RTS	Response to Submissions
WSEA	Western Stockpile Extension Area

Recommendations:

1. The proponent should lodge an expression of interest for the required credits on the BioBanking Expression of Interest Register immediately and provide evidence of this in the RTS report.
2. The RTS report should provide a detailed process outlining how the required credits would be secured if the EOI process is unsuccessful.
3. Additional evidence should be provided to justify why it is unlikely that blackthorn occurred in the ESEA. This should include as a minimum surveying within 100 metres of the ESEA boundary for occurrences of blackthorn and reporting the results in the RTS report.
4. The proponent should refer the project to the Australian Government Minister for the Environment and Energy for consideration under the *Environmental Protection and Biodiversity Conservation Act 1999*.

Attachment 2

OEH Detailed Comments

Wallerawang Quarry Modification 1

A detailed Biodiversity Offset Strategy should be submitted

Recommendations:

1. The proponent should lodge an expression of interest for the required credits on the BioBanking Expression of Interest Register immediately and provide evidence of this in the Response to Submissions (RTS) report.
2. The RTS report should provide a detailed process outlining how the required credits would be secured if the EOI process is unsuccessful.

OEH acknowledges that Section 4.2.5.2 of the Environmental Assessment (EA) and the additional information provided by the proponent on 19 June 2017 provide three options for a biodiversity offset. However, the proponent has not provided a definitive offset strategy that OEH can assess for its appropriateness to offset the required credits, nor have they indicated the process they intend to follow to secure the required credits.

The proponent states that no market-based ecosystem or species credits were available for purchase at the time of the submission of the EA however the proponent has not demonstrated that they have undertaken all reasonable steps to find like for like offset credits. We recommend that the proponent lodges an expression of interest (EOI) for the required credits on the BioBanking EOI register immediately to allow the proponent to consider the offsetting variation rules once all reasonable steps have been completed.

In the event that no credits are available for purchase at the end of the mandatory six-month all reasonable steps period, the proponent should provide a detailed process in the RTS report outlining how they intend to secure the required credits. This process needs to include sufficient information to allow OEH to assess whether the proposal will fulfil the credit requirement. This should include:

- Evidence of commencing investigations into suitable offset sites as outlined in Section 2, Appendix A of the NSW Biodiversity Offsets Policy for Major Projects.
- Details of the variation rules that would apply, including an indication as to whether the credit requirements could be currently met under these rules.
- An investigation into the estimated cost of meeting the credit requirements by contributing to the Biodiversity Conservation Fund and providing commentary on whether this is a feasible alternative for the proponent. Costs can be estimated using the Draft Offsets Payment Calculator on the NSW Government land management website
- Evidence to support the potential to establish an offset site on the proponent's land, or the land adjoining the site as proposed by the proponent. The proponent should address the minimum information requirements outlined in Table 22 of the Framework for Biodiversity Assessment (FBA).

Additional survey for purple copper butterfly habitat is required

Recommendation:

3. Additional evidence should be provided to justify why it is unlikely that blackthorn occurred in the ESEA. This should include as a minimum surveying within 100 metres of the ESEA boundary for occurrences of blackthorn and reporting the results in the RTS report.

The proponent states that it is likely that the Western Stockpile Extension Area (WSEA) contained purple copper butterfly habitat, and a credit liability has been generated as a result. The proponent has also assessed that the project may have had a significant impact on the purple copper butterfly. However, the proponent argues that as blackthorn was not recorded in the Eastern Stockpile Extension Area (ESEA) surrogate plot or two other vegetation monitoring plots to the north and west, then it is assumed that the ESEA did not contain potential habitat. OEH does not consider this to be sufficient evidence to assume that purple copper butterfly habitat was absent.

Neither of the monitoring plot locations were identified by the proponent in the Ecological Investigation, and it appears that no random meander transect was undertaken around the ESEA. Many blackthorn and purple copper butterfly records exist within or immediately adjacent to the quarry site. Figure 13 of the Environmental Assessment (main report) indicates that some blackthorn sites may be located within 100 metres of the ESEA.

The proponent should provide additional evidence to support their claim as to why habitat was unlikely to have been present. This should include as a minimum searching within 100 metres of the ESEA boundary for the occurrence of blackthorn and reporting the results in the RTS report.

The project should be referred to the Australian Government Minister for the Environment and Energy

Recommendation:

4. The proponent should refer the project to the Australian Government Minister for the Environment and Energy for consideration under the *Environmental Protection and Biodiversity Conservation Act 1999*.

Section 6.1 of the Ecological Investigation states that the clearing of the WSEA may have had a significant impact on the purple copper butterfly. It further concluded that if a biodiversity offset plan is prepared then the project does not need to be referred to the Australian Government Minister for the Environment and Energy for consideration under the *Environmental Protection and Biodiversity Conservation Act 1999*.

Implementation of a biodiversity offset plan does not extinguish the significant impact that the clearing may have created on a Matter of National Environmental Significance. It is not the role of the proponent to determine whether a proposed biodiversity offset will mitigate the impacts of a particular action. The proponent should refer the matter to the Commonwealth and allow the Department of Environment and Energy to undertake their own assessment.



1501469: LGS
Environment & Development Dept.

13 June 2017

Attention: Sarah Fabian
Major Projects
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Sarah.Fabian@planning.nsw.gov.au

Dear Sir/Madam,

Wallerawang Quarry, DA 344-11-2001 Modification 1-Stockpiles and Washing Plant, Great Western Highway, Wallerawang

I refer to the abovementioned project and your request for submissions for the proposed modified development.

Council Officers consider the Environmental Assessment adequately highlights the relevant issues, and has no objection to the project subject to Council's original conditions remaining on the consent. The matter, however, will be reported to Council's Ordinary Meeting of 26 June 2017.

Council requests that more consideration is undertaken relating to the visual impacts from the Great Western Highway to the Quarry site, specifically in relation to the timeline as to when the vegetation would be planted and the construction of the bund wall.

Please do not hesitate to contact Miss Lauren Stevens who is available between 8:15am and 10:30am Monday to Friday on (02) 63549999, in Council's Environment & Development Department should you have any queries in relation to this matter.

Yours sincerely



A Muir
GROUP MANAGER ENVIRONMENT AND DEVELOPMENT



PO Box 398, Parramatta NSW 2124
Level 14, 169 Macquarie Street
Parramatta NSW 2150
www.watnsw.com.au
ABN 21 147 934 787

Ref: D2017/74146

Sarah Fabian
Student Planner
Resource Assessments
NSW Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Fabian

Wallerawang Quarry Modification 1 (DA 344-11-2001 MOD 1)

I refer to your email received 6 June 2017 requesting WaterNSW to provide comment on the Environmental Assessment (EA) for the Wallerawang Quarry Modification 1. WaterNSW appreciates the opportunity and offers the following comments for consideration.

WaterNSW notes that the EA has addressed the matters raised by WaterNSW for inclusion in the Secretary's Environmental Assessment Requirements (SEARs). WaterNSW considers the carrying out of the proposed modification would have a neutral or beneficial effect on water quality provided the proposed mitigation measures are implemented.

WaterNSW notes that the silt dams, sediment dam (SB3) and some dirty water diversion drains in Figure 2, Page 3 of the main report appear to be within the approved extraction area as shown in Figure 8, Page 31 of the main report. WaterNSW requests that the updated Water Management Plan address this matter.

WaterNSW recommends that the Department modify Condition 2.29 of the consent as follows:

- Before the modification works are implemented, the Water Management Plan shall be updated in consultation with Water NSW.

If you wish to discuss this letter or the project more generally please do not hesitate to contact Miles Ellis, Catchment Assessments Officer on 9865 2502.

A handwritten signature in black ink, appearing to read "Malcolm Hughes".

MALCOLM HUGHES
Manager Catchment Protection

16/6/17



Department of
Primary Industries

OUT17/23169

Ms Sarah Fabian
Resource Assessments
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Sarah.Fabian@planning.nsw.gov.au

Dear Ms Sarah Fabian

**Wallerawang Quarry (DA 344-11-2001 MOD 1)
Comment on the Environmental Assessment**

I refer to your email of 25 May 2017 to the Department of Primary Industries (DPI) in respect to the above matter. Comment has been sought from relevant divisions of DPI. Views were also sought from NSW Department of Industry – Lands and Forestry that are now a division of the broader Department and no longer within NSW DPI. Any further referrals to DPI can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

DPI has reviewed the Environmental Assessment and provides the following comments:

While it is noted that the proponent considers the current modification does not propose any change to activities which could result in aquifer interference, DPI does not consider that this has been adequately established. The previously approved DA 344-11-2001 did not require the proponent to assess groundwater impacts or monitoring. As such there is no readily available information on groundwater for DPI to undertake proper assessment of groundwater impacts for this project.

DPI recommends that any approval for the project include a condition of consent requiring the proponent to prepare an updated Water Management Plan for the quarry in consultation with DPI Water (water.referral@dpi.nsw.gov.au), within 12 months of the modification determination.

Additionally the proponent should notify Department of Industry – Lands (lands.ministerials@industry.nsw.gov.au) of annual reporting to confirm that no discharges are occurring on adjacent Crown land and Crown waterway (Coxs River).

Yours sincerely

A handwritten signature in blue ink, appearing to read 'G White'.

Graeme White
A/Director, Planning Policy & Assessment Advice
21 June 2017

DPI appreciates your help to improve our advice to you. Please complete this three minute survey about the advice we have provided to you, here:
<https://goo.gl/o8TXWz>

NSW Department of Primary Industries
Level 11, 323 Castlereagh Street Sydney NSW 2000
Tel: 02 9934 0805 landuse.enquiries@dpi.nsw.gov.au ABN: 72 189 919 072



Your reference :
Our reference : SF17/8656; DOC17/124478-03
Contact : Mr Allan Adams; (02) 6332 7610

Sarah Fabian
Resource Assessments
Level 22, 320 Pitt St
GPO Box 39
Sydney NSW 2001

13 June 2017

Dear Ms Fabian

Wallerawang Quarry – Modification 1

I refer to your offer to comment on the Wallerawang Quarry (DA 344-11-2001 MOD 1). The Environment Protection Authority (EPA) understands that the modification involves the "recording" of several activities within the development consent that were undertaken at the premises prior to consent.

The EPA has reviewed the Environmental Assessment for 'Modifications to Operations at the Wallerawang Quarry (May 2017)' with specific reference to potential air, noise and water impacts associated with the modification. The EPA notes that Mod 1 for purpose of recording several activities in the consent, does not require any modification to the environment protection licence (EPL) for the Wallerawang quarry. As such, the EPA has no comment regarding MOD 1.

Should you have any further enquiries in relation to this matter please contact Mr Allan Adams at the Central West (Bathurst) Office of the EPA by telephoning (02) 6332 7610.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Darryl Clift'.

DARRYL CLIFT
Head Central West Unit
Environment Protection Authority



Transport
Roads & Maritime
Services

6 June 2017

SF2017/112228; WST08/00090/01

The Manager
Resource Assessments
Department of Planning & Environment
GPO Box 39
Sydney, NSW 2001

Attention: Sarah Fabian

Dear Ms Fabian,

DA 344-11-2001; Wallerawang Quarry; Modification 1

Thank you for your email on 25 May 2017 referring DA 344-11-2001 (MOD1) to Roads and Maritime Services for comment.

The documentation submitted in support of MOD 1 has been reviewed. Roads and Maritime notes the proposed modification includes the following:

- Extensions to the existing footprint of the quarry, and;
- Extraction of additional materials

Roads and Maritime notes the proposed modification will not change traffic volumes and types generated by existing quarry operations. The proposed modification will have minimal impact on the transportation and road related components of the approved development. Roads and Maritime does not object to the proposed modification and makes no submission.

Should you require further information please contact the undersigned on 02 6861 1453.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Andrew McIntyre'.

Andrew McIntyre
Manager Land Use Assessment
Western

Roads and Maritime Services

51-55 Currajong Street Parkes NSW 2870 |
PO Box 334 Parkes NSW 2870 DX 20256 |

www.rms.nsw.gov.au | 13 22 13

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Appendix 2

Revised BioBanking Credit Report

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Biodiversity credit report



This report identifies the number and type of biodiversity credits required for a major project.

Date of report: 7/07/2017

Time: 3:29:55PM

Calculator version: v4.0

Major Project details

Proposal ID:	226/2017/4495MP
Proposal name:	Walker Quarries Wallerawang
Proposal address:	Lot 6, Great Western Highway Wallerawang NSW 2845
Proponent name:	Walker Quarries
Proponent address:	Lot 6, Great Western Highway NSW Wallerawang NSW 2845
Proponent phone:	02 6351 2931
Assessor name:	Paul Burcher
Assessor address:	24 Alberta Ave Cowan NSW 2081
Assessor phone:	9456 3853
Assessor accreditation:	226

Summary of ecosystem credits required

Plant Community type	Area (ha)	Credits created
Broad-leaved Peppermint - Ribbon Gum grassy open forest in the north east of the South Eastern Highlands Bioregion	1.90	120.00
Red Stringybark - Brittle Gum - Inland Scribbly Gum dry open forest of the tablelands, South Eastern Highlands Bioregion	0.50	34.00
Total	2.40	154

Credit profiles

1. Broad-leaved Peppermint - Ribbon Gum grassy open forest in the north east of the South Eastern Highlands Bioregion, (HN515)

Number of ecosystem credits created

120

IBRA sub-region

Capertee (Part B)

Offset options - Plant Community types	Offset options - IBRA sub-regions
<p>Broad-leaved Peppermint - Ribbon Gum grassy open forest in the north east of the South Eastern Highlands Bioregion, (HN515)</p> <p>Blakely's Red Gum - Yellow Box - Rough-barked Apple grassy woodland of the Capertee Valley, Sydney Basin Bioregion, (HN506)</p> <p>Broad-leaved Peppermint - Red Stringybark grassy open forest on undulating hills, South Eastern Highlands Bioregion, (HN514)</p> <p>Yellow Box - Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion, (HN614)</p> <p>Ribbon Gum - Yellow Box grassy woodland on undulating terrain of the eastern tablelands, South Eastern Highlands Bioregion, (HN573)</p>	<p>Capertee (Part B)</p> <p>and any IBRA subregion that adjoins the IBRA subregion in which the development occurs</p>

2. Red Stringybark - Brittle Gum - Inland Scribbly Gum dry open forest of the tablelands, South Eastern Highlands Bioregion, (HN570)

Number of ecosystem credits created

34

IBRA sub-region

Capertee (Part B)

Offset options - Plant Community types	Offset options - IBRA sub-regions
Red Stringybark - Brittle Gum - Inland Scribbly Gum dry open forest of the tablelands, South Eastern Highlands Bioregion, (HN570) Inland Scribbly Gum - Brittle Gum low woodland of the eastern tablelands, South Eastern Highlands Bioregion, (HN543)	Capertee (Part B) and any IBRA subregion that adjoins the IBRA subregion in which the development occurs

Summary of species credits required

Common name	Scientific name	Extent of impact Ha or individuals	Number of species credits created
Purple Copper Butterfly, Bathurst Copper Butterfly	Paralucia spinifera	1.90	146

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Appendix 3

Credits Wanted Form

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Environment,
Climate Change
& Water

Credits wanted form

The 'List of wanted credits' allows prospective purchasers of biodiversity credits (such as developers and philanthropic organisations) to inform current and prospective credit holders of the type, location and number of credits that they require.

The details of the credits wanted will be placed on the BioBanking website within 1–2 working days of this form being received. Submitting this 'Credits wanted form' does not carry any obligation, and is free of charge.

This is an interactive form – please click on boxes and type in responses (each field has unlimited characters). When completed, print the form and sign where appropriate. This form can also be printed and filled in by hand.

Prospective purchaser's details (e.g. developer, philanthropist, government agency)

If an individual			
Category	<input type="checkbox"/> Private individual		<input type="checkbox"/> Partnership
Title	<input type="checkbox"/> Mr	<input type="checkbox"/> Ms	<input type="checkbox"/> Miss <input type="checkbox"/> Mrs <input type="checkbox"/> Dr
Last name			
First name			
If a company			
Company	WALKER QUARRIES		
ABN	82 003 061 890	GST registered	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Street address			
Address	Lot 6 Great Western Highway		
Town	Wallerawang		
State	NSW	Postcode	2854
Mailing address (if different from above)			
Address	PO Box 307		
Town	Lithgow		
State	NSW	Postcode	2790
Contact details			
Name	MR DAVID WALKER		
Phone	02 6351 2931	Mobile	0429 272 148
Fax		Email	davidm@walkerquarries.com.au

Credits wanted

Ecosystem credits		
Vegetation type options	CMA subregion(s)	Number of credits required
<p>Broad-leaved Peppermint - Ribbon Gum grassy open forest in the north east of the South Eastern Highlands Bioregion, (HN515)</p> <p>AND/OR</p> <p>Blakely's Red Gum - Yellow Box - Rough-barked Apple grassy woodland of the Capertee Valley, Sydney Basin Bioregion, (HN506)</p> <p>AND/OR</p> <p>Broad-leaved Peppermint - Red Stringybark grassy open forest on undulating hills, South Eastern Highlands Bioregion, (HN514)</p> <p>AND/OR</p> <p>Yellow Box - Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion, (HN614)</p> <p>AND/OR</p> <p>Ribbon Gum - Yellow Box grassy woodland on undulating terrain of the eastern tablelands, South Eastern Highlands Bioregion, (HN573)</p>	CAPEERTEE PART B, CAPEERTEE PART A, WOLLEMI, BATHURST, UPPER SLOPES, HILL END	126
<p>Red Stringybark - Brittle Gum - Inland Scribbly Gum dry open forest of the tablelands, South Eastern Highlands Bioregion, (HN570)</p> <p>AND/OR</p> <p>Inland Scribbly Gum - Brittle Gum low woodland of the eastern tablelands, South Eastern Highlands Bioregion, (HN543)</p>	CAPEERTEE PART B, CAPEERTEE PART A, WOLLEMI, BATHURST, UPPER SLOPES, HILL END	34
<p>Purple Copper Butterfly, Bathurst Copper Butterfly (<i>Paralucia spinifera</i>)</p>	CAPEERTEE PART B, CAPEERTEE PART A, WOLLEMI, BATHURST, UPPER SLOPES, HILL END	146

Species credits		
Scientific name	Common name	Number of credits required
Paralucia spinifera	Purple Copper Butterfly, Bathurst Copper Butterfly	146

I understand that the preferred means of contact for receiving inquiries from potential credit buyers (listed below) will be displayed on the BioBanking web page. The name of the company or organisation will not be displayed on the list, unless you specifically request to show this information.

<input checked="" type="checkbox"/> Please list the biodiversity credits above on the 'List of wanted credits' on the DECCW website with the email address indicated below.			
<input type="checkbox"/> Please send an email to the BioBanking database regarding the biodiversity credits wanted.			
Preferred contact for credits (choose one only)			
<input checked="" type="checkbox"/> Designated email address* (please specify) davidm@walkerquarries.com.au			
<input type="checkbox"/> DECCW to receive initial inquiries from potential buyers and forward these to the purchaser			
Signature	<i>David W Murray</i>	Signature	
Name	<i>David W Murray</i>	Name	
Date	<i>7/7/17</i>	Date	

*Note: Designated email address will be displayed on the website. If you wish to remain anonymous, we advise you to provide an email address that **does not include your name**. If you do not have email, or would simply prefer not to receive responses directly, you can select to use the BioBanking email address.

Please send your completed form to:

Biodiversity and Vegetation Programs
Department of Environment, Climate Change and Water NSW
PO Box A290
Sydney South NSW 1232
Phone: 131 555
Fax: (02) 9995 6795
Email: biobanking@environment.nsw.gov.au

Withdrawal of credits wanted listing

When you have purchased the required credits or no longer wish the information to be displayed, please email biobanking@environment.nsw.gov.au.

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