

Wallerawang Quarry Modification 1 - Stockpiles and Washing Plant (DA 344-11-2001 MOD 1)

Environmental Assessment Report

Section 75W of the *Environmental Planning and Assessment Act 1979*

1. BACKGROUND

Walker Quarries Pty Ltd (Walker), a subsidiary of Sitegoal Pty Ltd, owns and operates the Wallerawang Quarry, located on the Great Western Highway, approximately 8 kilometres (km) northwest of Lithgow, in the Lithgow local government area (see **Figure 1**).

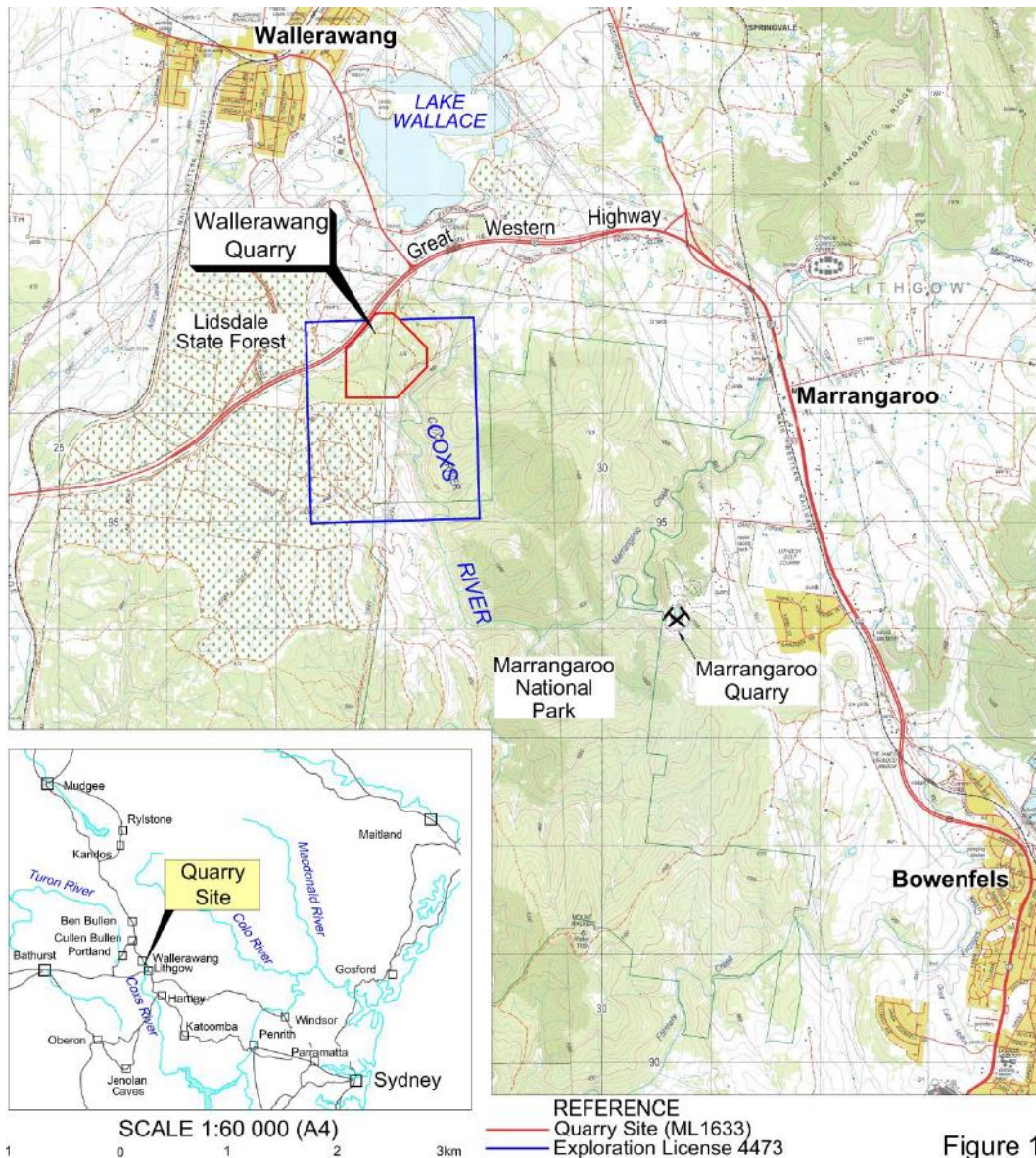


Figure 1

Figure 1: Location of Wallerawang Quarry

Wallerawang Quarry operates under a Ministerial development consent, granted under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 19 October 2004 (DA 344-11-2001). However, extraction activities did not commence at the site until late 2015. All activities associated with the quarry are undertaken within the boundary of an existing mining lease (ML 1633) for the site. The site includes freehold land owned by Sitegoal Pty Ltd and Crown land within the Lidsdale State Forest.

The quarry is approved to extract, process and transport up to 500,000 tonnes per annum (tpa) of quartzite and rock aggregate material. This extracted product is transported by road to the Wallerawang, Lithgow, Blue Mountains and Sydney regions.

2. PROPOSED MODIFICATION

In October 2017, the Department issued Walker with a Penalty Infringement Notice under Section 121B of the EP&A Act, for clearing areas outside the quarry's approved disturbance footprint. These areas include the:

- western stockpile extension area (WSEA) – approximately 1.9 hectares (ha) located to the west of the approved disturbance footprint; and
- eastern stockpile extension area (ESEA) – approximately 0.5 ha located to the east of the approved disturbance footprint.

The Department considered this clearing to be non-compliant with DA 344-11-2001 and issued an order for Walker to rectify these non-compliances.

In November 2017, the Department issued separate correspondence enquiring whether processing operations on site were compliant with DA 344-11-2001. The Environmental Impact Statement (EIS) for DA 344-11-2001 specified that the finest dimensions of rock produced at the quarry would be 5 millimetres (mm) in diameter, whereas the quarry had been producing products of smaller dimension.

Walker considered that DA 344-11-2001 provided flexibility for product size and products less than 5 mm in diameter were within the scope of the approved crushing/processing operations. However, the Department considered the processing activities to be non-compliant and requested the non-compliance to be rectified.

In response, on 18 May 2017, Walker lodged a modification application for DA 344-11-2001 to allow the:

- establishment and operation of the WSEA and ESEA; and
- operation of a screening and washing circuit, and associated silt cells, to enable the production of products less than 5 mm in diameter.

Additionally, the modification application seeks to:

- construct a bund wall around the perimeter of the ESEA and along the north-western boundary of the WSEA;
- construct three additional sediment basins to capture run-off from the stockpile extension areas;
- construct a drying cell to the north of the Top Working Dam (SD2) and install a modularised dewatering unit in this cell;
- pump wet silt from the silt cells to the proposed drying cell or dewatering unit and then use the dried/dewatered silt in blended quarry products or as fill material; and
- replace an existing open clean water drain located along the eastern boundary of the proposed WSEA with a new underground pipeline.

Walker notes that there is increased market demand for a variety of aggregate products including smaller size aggregates and the modification would allow Walker to increase its product diversity to meet some of this demand. The modification would also provide sufficient area to accommodate a greater number of stockpiles.

A detailed description of the modification is provided in Walker's Environmental Assessment (EA, see **Appendix A**).

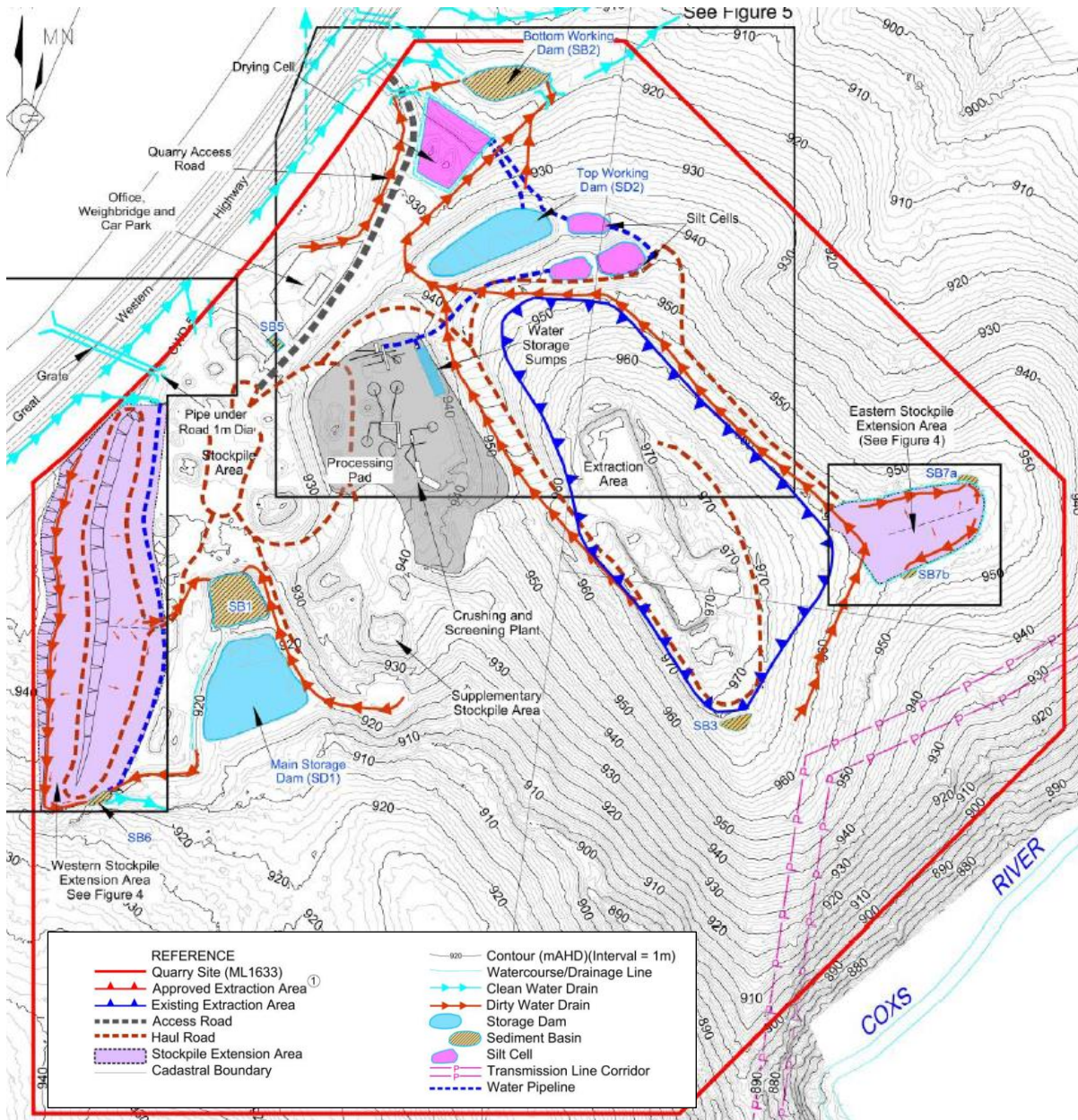


Figure 2: Proposed Quarry Site Layout

3. STATUTORY CONTEXT

3.1 Section 75W

DA 344-11-2001 was granted under Part 4 of the EP&A Act. In accordance with clause 8J(8) of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) and the transitional arrangements under Schedule 6A of the EP&A Act, the modification must be determined under the former section 75W of the EP&A Act.

The Department is satisfied that the proposal can be characterised as a section 75W modification. It does not seek to significantly change the nature or scale of the approved quarry operations.

The Department is therefore satisfied that the proposed modification is within the scope of section 75W and may be determined accordingly.

3.2 Approval Authority

The Minister for Planning is the approval authority for the application. However, the Director Resource Assessments may determine the application under the Minister's delegation of 16 February 2015. As there were no public objections, Council did not object to the proposal and no political donations have been declared by Walker or Sitegoal Pty Ltd.

3.3 Environmental Planning Instruments

A number of environmental planning instruments (EPs) apply to the modification, including:

- SEPP (Mining, Petroleum Production and Extractive Industries) 2007;
- SEPP (Sydney Drinking Water Catchment) 2011;
- SEPP 33 – Hazardous and Offensive Development;
- SEPP 44 – Koala Habitat Protection; and
- Lithgow Local Environmental Plan 2014.

The Department has assessed the proposed modification against the relevant provisions of these instruments. Based on this assessment, the Department is satisfied that the proposed modification can be carried out in a manner that is consistent with the aims, objectives and provisions of these instruments.

3.4 Landowners Consent

The quarry site encompasses freehold land owned by Sitegoal Pty Ltd and Crown land within the Lidsdale State Forest. The activities under DA 344-11-2001 were classified by the Department as 'extractive industry', however, a mining lease (ML 1633) was granted for the site in 2009 for the extraction of quartzite which is prescribed as a 'mineral' under the *Mining Act 1992*.

The Department considers that a modification application relating to a mining project obtains benefit from clause 8F of the EP&A Regulation in that it does not require landowner's consent. Further, the Department notes that clause 14 of Schedule 1 of the *Mining Act 1992* provides that landowners consent requirements under the EP&A Act do not apply for lands subject to a mining lease. On this basis, the Department is satisfied that, although the development is an extractive industry, land owner's consent for the modification is not required.

4. CONSULTATION

After accepting the EA for the proposed modification, the Department:

- publicly exhibited the EA from 29 May 2017 until 12 June 2017 on the Department's website and at:
 - Service NSW centres;
 - Lithgow City Council's office; and
 - Nature Conservation Council's office.
- advertised the exhibition of the EA in the *Lithgow Mercury*, and
- notified relevant State government agencies and Lithgow City Council.

The Department is satisfied that the notification process met the requirements of the EP&A Act and the EP&A Regulation.

The Department received 8 submissions from government agencies in response to the exhibition. This included Lithgow City Council (Council), Department of Primary Industries (DPI), the Department's Division of Resources and Geoscience (DRG), Environment Protection Agency (EPA), Forestry Corporation of NSW (FCNSW), Office of Environment and Heritage (OEH), Roads and Maritime Services (RMS) and WaterNSW. No submissions were received from the public.

A summary of the issues raised in submissions is provided below. Full copies of these submissions and Walker's Response to Submissions (RTS) are provided in **Appendices B** and **C**, respectively.

Council considered that the EA adequately addressed the relevant impacts of the proposed modification and raised no objection, subject to its original recommended conditions remaining in the consent. Council also requested that more consideration be given to visual impacts from the Great

Western Highway and that a timeline for the establishment of the bund wall and its vegetation growth be provided. Walker provided additional information on construction and landscaping scheduling for the bund wall and the Department has considered this matter in **Section 5.3**.

DPI acknowledged that the EIS for DA 344-11-2001 and the EA did not include a groundwater impact assessment, and in absence of this assessment, DPI was unable to comment on potential groundwater impacts or aquifer interference. DPI recommended that Walker be required to update its Water Management Plan in consultation with DPI Water, within 12 months of the determination of the modification. The Department has considered this matter further in **Section 5.2**.

DRG raised concern that the EA did not adequately address rehabilitation requirements. Further information was requested in relation to post mining land use, rehabilitation methodology, monitoring and research programs, post closure maintenance and barriers to effective rehabilitation. Additionally, DRG noted that the 'Approved Final Landform' in the EA was sourced from the Mining Operations Plan (MOP) for ML 1633, and emphasised that the MOP must be consistent with the development consent not vice versa. It was requested that references to the MOP be removed from the EA and only directly relevant information be provided in the EA. The Department considers that the real issue is the quality of the proposed final landform, rather than whether it was initially proposed in the MOP.

DRG requested that additional information be provided in relation to resource sterilisation from any proposed biodiversity offsets, and recommended a condition requiring Walker to provide annual production data to DRG. The Department has considered this matter further in **Section 5.3**.

EPA acknowledged that the proposed modification would not require any amendment to the quarry's Environment Protection Licence (EPL) in relation to air, noise or water. Consequently, EPA had no comments on the proposed modification.

FCNSW noted that the quarry site contains land within the Lidsdale State Forest and expressed dissatisfaction with the limited amount of consultation undertaken with it as a land owner. FCNSW noted that a Compensation Agreement is required for ML 1633 and the sale of any material other than quartzite (as authorised under the mining lease), would require a Forest Materials Licence issued by FCNSW. Walker acknowledged this requirement and noted that only quartzite material would be sold until an agreement is reached with FCNSW.

FCNSW also sought additional information regarding the cleared vegetation for stockpile areas and rehabilitation requirements associated with exploration activities. In its RTS, Walker advised that any cleared vegetation that is not immediately placed over landforms would be stockpiled for future use. Additionally, Walker advised that any exploration activities would be undertaken in accordance with the conditions of its exploration licence under the *Mining Act 1992*. Walker committed to undertaking further consultation with FCNSW regarding site rehabilitation and bushfire management.

Following the lodgement of Walker's RTS, FCNSW provided an additional submission regarding the site's rehabilitation. In particular, FCNSW opposed the retention of the site access road in the final landform, as well as any final void or water storages. The Department advised that a conceptual final landform had already been approved as part of DA 344-11-2001, which included a void in the final landform. This matter is further considered in **Section 5.3**.

OEH raised concern that the EA did not provide a definitive offset strategy. As such, it requested that Walker lodge an expression of interest for required credits on the BioBanking Expression of Interest (EOI) Register, and that detail be provided regarding how credits would be secured if this EOI was unsuccessful. Additionally, OEH questioned the validity of Blackthorn (*Bursaria spinisa ssp lasiophylla*) not occurring in the ESEA and requested additional evidence to support the claim that this habitat was unlikely to be present in this area. As clearing may have had an impact on the Purple Copper Butterfly (*Paralucia spinifera*), which is listed as a threatened species under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act), OEH also recommended that the proposed modification be referred to the Commonwealth Department of Environment and Energy.

In response to Walker's RTS, OEH considered that insufficient evidence was provided regarding why Blackthorn was not present in the ESEA. Consequently, it requested that Walker assume that Blackthorn was present in the ESEA and that credit requirements for the Purple Copper Butterfly be increased accordingly. OEH also requested that analyses of potential offset sites commence immediately. The Department has considered these matters further in **Section 5.1**.

RMS noted that the proposed modification would not change the traffic impacts associated with quarry operations and as such, had no further comments.

WaterNSW considered that the proposed modification would have a neutral or beneficial effect on water quality provided that the proposed mitigation measures are implemented. WaterNSW noted a discrepancy in the location of water management features between different figures in the EA and requested that it be consulted when the Water Management Plan is updated.

5. ASSESSMENT

In assessing the merits of the proposal, the Department considered the EA, all submissions received and Walker's RTS. The Department considers the key assessment issues to be impacts on biodiversity and water resources, with consideration of other impacts provided in **Section 5.3**.

5.1 Biodiversity

The EA included an Ecological Investigation (EI) undertaken by Lesryk Environmental Pty Ltd. As clearing of the two extended stockpile areas, WSEA and ESEA, has already been undertaken, the biodiversity values of these areas could not be directly assessed. The EI provided an assessment of the potential biodiversity impacts based on literature review, vegetation mapping and field surveys of adjacent vegetation (ie surrogate plots).

The extended stockpile areas result in a total disturbance area of 2.4 ha, including 1.9 ha for the WSEA and 0.5 ha for the ESEA. The EI considered that vegetation in the WSEA corresponded to PCT 732 Broad-leaved Peppermint – Ribbon Gum grassy open forest in the north east of the South-Eastern Highlands Bioregion.

Vegetation in the ESEA corresponded to PCT 1093 Red Stringybark – Brittle Gum – Inland Scribbly Gum dry open forest of the tablelands, South Eastern Highlands Bioregion.

Vegetation from both areas was not considered to conform to endangered ecological communities (EEC) or critically endangered ecological communities (CEEC) listed under the Threatened Species Conservation Act 1995 (TSC Act) or the EPBC Act. However, there was a common prevalence of Blackthorn (*Bursaria spinisa* ssp *lasiophylla*) in the WSEA survey area which is an important food source for the Purple Copper Butterfly.

The EI considered that 13 threatened species listed under the TSC Act and /or the EPBC Act occurred or were likely to occur within the cleared areas. These species include the Purple Copper Butterfly, Spotted-tailed Quoll, Scarlett Robin and Varied Sittella.

Due to the small scale of the vegetation clearance, the broad distribution of these species and the adjacent habitat on the project site, it was concluded that the vegetation clearing would not have had a significant impact on any of these species, except for the Purple Copper Butterfly. This insect species is listed as a matter of national environmental significance under the EPBC Act and has previously been recorded on the site. This species is only found in the Central Tablelands of NSW and relies on Blackthorn as an exclusive food source and for reproduction habitat.

Previous studies of the site identify that Blackthorn was recorded in the proposed WSEA. Blackthorn was also recorded during field inspections in the surrogate plot adjacent to the WSEA. It was therefore concluded that the 1.9 ha cleared for the WSEA had a significant impact on the Purple Copper Butterfly. Blackthorn was not found in the ESEA surrogate plot, nor within vegetation monitoring to its north and west in October 2016. Consequently, the EI concluded that the ESEA would not have contained habitat for the Purple Copper Butterfly.

To offset biodiversity impacts to the areas of prior disturbance, Walker calculated the offset credit requirements using the BioBanking credit calculator within the NSW Biodiversity Offsets Policy for Major Projects (OEH, 2014). The credit requirements proposed by Walker are provided in Table 1.

OEH did not consider the survey efforts around the ESEA to be sufficient to conclude an absence of Blackthorn. This is primarily due to the Purple Copper Butterfly and Blackthorn being recorded by Wildthing Environmental Consultants in 2002 at a location 80 metres (m) south of the ESEA. Consequently, OEH requested that a survey be undertaken within 100 m of the ESEA boundary or that Walker provide an additional 38 species credits for the ESEA area.

Table 1: Proposed Offset Credit Requirements

Type	Area (ha)	Credit Requirements
Ecosystem Credits		
PCT 732	1.9 (WSEA)	120
PCT 1093	0.5 (ESEA)	34
Species Credits		
Purple Copper Butterfly	1.9 (WSEA)	146

In response, Walker proposed to undertake this survey in September/October 2017 (which is considered the opportune monitoring period for the Purple Copper Butterfly) and if detected, amend the offset credit requirements accordingly. The Department considers that providing for the offset credit requirements to be amended as a result of these surveys would add unnecessary complexity to the conditioning of this modification. Further, the Department notes that this modification arose from Walker's non-compliant clearing. Since no definitive information about the presence of Blackthorn or Purple Copper Butterfly in the ESEA can ever be provided by Walker, the Department considers that a conservative approach is more appropriate in the circumstances.

As clearing has already taken place and there are differing results from surveys over time, there is uncertainty as to whether Blackthorn existed within the ESEA. The Department considers it appropriate that a conservative approach be undertaken and that species credits for the Purple Copper Butterfly be provided for the maximum potential area of impact (ie both the WSEA and ESEA). This would result in a requirement for Walker to provide 184 Purple Copper Butterfly species credits. The Department has recommended a condition of consent for Walker to offset 154 ecosystem credits (as detailed in Table 1) and 184 species credits for the Purple Copper Butterfly.

Offsets

In its RTS, Walker identified options available to secure the required credits. These options include:

- investigating on-site vegetation to determine whether sufficient credits are available for an on-site offset;
- lodging an Expression of Interest (EOI) on the Biobanking EOI Register and purchasing the necessary credits; and
- contributing funds to the Biodiversity Conservation Fund (when established).

OEH considered that the investigations into the available credits on-site did not meet the minimum information requirements of the Framework for Biodiversity Assessment, and requested that evidence be provided of this site's potential as an offset site. Walker identified that there is approximately 17.5 ha of vegetation on the site that is likely to be equivalent vegetation to that which has been cleared.

The Department acknowledges that Walker has not calculated the credit values associated with the potential offset site, and there is some uncertainty regarding whether or not the required ecosystem and species credits are available at this site. However, it also accepts that the most appropriate time to determine the biodiversity values of this potential site is during spring when the Purple Copper Butterfly would be emerging from their cocoons.

Assessment practice for biodiversity impacts usually requires demonstration that credits are available before any disturbance is undertaken. However, in this case, whether credits are locally available or not would not change the fact that disturbance has already occurred. The Department notes Walker's

proposal to complete investigations for offset arrangements within 6 months of the approval of the modification. The Department has recommended a condition of consent for Walker to provide a definitive offset strategy by 28 February 2017. Following the provision of this strategy, Walker would be required to secure the offsets within 12 months, to the satisfaction of both OEH and the Department.

The Department has also recommended that Walker prepare a Biodiversity Management Plan. This would require Walker to implement specific management measures for the site and offset area/s to restore and enhance native vegetation and fauna habitat, particularly for the Purple Copper Butterfly.

OEH was satisfied with these recommended conditions of consent.

Whilst retrospective assessment and offsetting of biodiversity impacts is an unfavourable approach, the Department is satisfied that the recommended conditions of consent would conservatively make up for the impacts of past disturbance. The regularisation of this disturbance would also require the implementation of a Biodiversity Management Plan, which would ensure management measures are in place for all areas of disturbance and better biodiversity outcomes for the site in the long term.

5.2 Water

Surface Water

The quarry site is located within the Upper Coxs River sub-catchment of the Hawkesbury-Nepean Catchment Area. This forms part of Sydney's drinking water catchment. The extended stockpile areas would reduce the Upper Coxs River sub-catchment area by 2.4 ha. This reduction is approximately 0.0001 % of the Hawkesbury-Nepean Catchment Area. Consequently, the Department considers this reduction in catchment size to be negligible.

The Coxs River is located approximately 50 m from the south-eastern boundary of the site.

The extended stockpile areas would result in an elevated risk of erosion and dirty water runoff from the site, which could affect the site's water balance, water quality and result in additional discharges into the Coxs River. To ensure there would be sufficient capacity for dirty water retention, Walker has proposed to construct additional sediment basins (SB6, SB7a and SB7b) adjacent to the WSEA and ESEA, and increase the capacity of the bottom working dam (SB2) (see **Figure 1**). The capacity of these dams would be sufficient to accommodate a 5-day 95th percentile rainfall event in the Lithgow area and would be constructed in accordance with the requirements of *Managing Urban Stormwater: Soils and Construction Vol 1* (Landcom, 2004) (the 'Blue Book').

Under the *Water Management Act 2000*, Walker is permitted to harvest and use a portion of the site's surface water runoff. Walker noted that the site is heavily reliant on this harvested surface water for dust suppression and product processing. A recalculation of the site's water balance predicted that sufficient water would be available for the site's water demand for the majority of rainfall conditions, with shortfall expected when rainfall is within the 15th percentile.

By increasing the sediment basin capacity on site, Walker would avoid additional discharges to the Coxs River. As such, the proposed modification does not seek to change the existing allowable discharges under the site's EPL. The Department further notes that due to the reliance on surface water runoff for site operations, the need for controlled discharge into the Coxs River has been infrequent, and this should remain the case.

The location of the quarry site in relation to the Coxs River makes the need for adequate erosion controls of vital importance. Walker has proposed conceptual erosion and sediment controls for the proposed modification including:

- low grade earthen bunds surrounding the ESEA and the proposed drying cell/dewatering unit;
- clean water diversions upslope of the WSEA;
- the replacement of an open clean water drain to the east of the WSEA with an underground pipeline and an associated concrete headwall;
- dirty water collection drains located downslope of the stockpile extension areas; and
- sediment fencing downslope of erodible areas.

WaterNSW considered that the proposed modification would have a neutral or beneficial effect on water quality provided that the proposed control measures are implemented. The Department agrees that the controls proposed by Walker are appropriate additions to the site's water management system and would prevent sediment from the quarry site entering the Coxs River. Overall, the Department considers that the surface water impacts of the proposed modification could be appropriately controlled under the site's Water Management Plan. The Department has also recommended a condition of consent requiring Walker to consult with WaterNSW during the preparation of an updated Water Management Plan.

Groundwater

The EIS for DA 344-11-2001 and the EA did not include an assessment of groundwater impacts associated with the quarry as extraction activities were not proposed below the local water table

Walker reviewed the standing water level in the closest registered bores within the DPI Water Monitoring Network. These bores are located between 1 and 3 km north and north-west of the quarry. Standing water levels in these bores ranged between 865 and 920 m Australian Height Datum (AHD).

Walker confirmed that the maximum extraction depth at the quarry is 930 m AHD. Consequently, the quarry is not predicted to intercept groundwater during extraction activities. The proposed modification does not seek to change any extraction activities that could result in aquifer interference.

As a groundwater assessment was not undertaken for DA 344-11-2001, DPI noted that there is no readily available information on groundwater at the site. Consequently, DPI recommended that Walker update its Water Management Plan within 12 months of determination of the modification. The Department has recommended a condition requiring Walker to prepare a Groundwater Management Plan, in consultation with DPI-Water to ensure that appropriate measures are in place to avoid impacts on groundwater resources.

5.3 Other impacts

The Department is satisfied that the other impacts of the proposed modification are likely to be minor. Assessment of these other impacts is summarised in **Table 2** below.

Table 2: Assessment of Other Impacts

Issue	Consideration and Assessment	Recommendation
<i>Rehabilitation</i>	<ul style="list-style-type: none"> • The proposed modification would result in some amendments to the currently approved final landform, including the: <ul style="list-style-type: none"> ○ re-establishment of a sloping landform where the WSEA is to be constructed; ○ reinstatement of the pre-disturbance landform of the ESEA; ○ reinstatement of the open clean water drain to the east of the WSEA; and ○ the retention of the site entrance and access road. • DRG was dissatisfied with the level of information provided in the EA and RTS regarding post-mining land use, consultation with FCNSW, long term safety and stability of slopes, and the general rehabilitation changes proposed to result from the modification. • Additionally, DRG raised concern that the retention of the access road was inconsistent with the EIS and currently approved MOP. • FCNSW also raised concern regarding several components of the final landform including the retention of the access track, final void and water storages. • In its RTS, Walker committed to decommissioning the bitumen access road but retaining a single lane access track commensurate with the final landform. • Walker argued that it was outside the modification's scope to review rehabilitation of the site in its entirety. 	<ul style="list-style-type: none"> • The Department has recommended that the consent's rehabilitation conditions be fully updated to contemporary standards.

Issue	Consideration and Assessment	Recommendation
	<ul style="list-style-type: none"> • The Department considers that the proposed modification would not result in significant changes to existing rehabilitation commitments detailed in the EIS and approved MOP. However, to ensure that sufficient detail is provided for effective site rehabilitation, the Department has recommended that the consent be updated to include specific rehabilitation objectives and a Rehabilitation Management Plan, to be prepared to the satisfaction of DRG and in consultation with FCNSW. • Consultation with FCNSW during the preparation of this management plan would allow FCNSW an opportunity to negotiate some of the final landform components. • FCNSW acknowledged that a conceptual final landform had already been approved and agreed to consult with Walker regarding future rehabilitation outcomes. • DRG was satisfied that the recommended conditions would address its residual concerns. 	
Noise	<ul style="list-style-type: none"> • The EA provided an assessment of noise impacts based on attended noise monitoring undertaken in January 2017. • At this time, the screening and washing circuit for fine aggregates (<5 mm diameter) was operational. • The results of this attended noise monitoring indicated that the quarry was inaudible due to the prevalence of heightened background noise (including traffic on the Great Western Highway). • The construction and operation of the extended stockpile areas have potential to change operational noise on the site. • However, the EA concluded that there would be limited potential for the proposed modification to increase noise emissions as: <ul style="list-style-type: none"> ○ no additional equipment would be required for the extended stockpile areas; ○ the ESEA would only be used on occasion for low volume stockpiling; ○ the WSEA would be located further away from sensitive receivers; and ○ attended monitoring indicates compliance with the noise assessment criteria during operation of the screening and washing circuit for fine aggregates. • The Department considers that these assumptions are reasonable and that it is unlikely that the modification would increase noise emissions beyond the criteria specified in the consent. However, due to the high background noise in the area, it is unclear what noise emissions are actually arising from quarrying operations. • Walker committed to establishing the noise levels of quarrying operations (excluding background contributions) during its next round of monitoring in September 2017. These figures would then be extrapolated to validate project specific noise levels at sensitive receivers. • The EPA raised no concern with the proposed modification, as noise levels at the quarry are not predicted to change. 	<ul style="list-style-type: none"> • The Department is satisfied that the proposed modification would not result in exceedance of the consent's existing noise criteria. • The Department has recommended updating the consent's noise management conditions to the Department's contemporary standards.
Air Quality	<ul style="list-style-type: none"> • The proposed modification could increase dust emissions from the site as a result of: <ul style="list-style-type: none"> ○ larger areas of surface exposure and additional stockpiles; ○ the operation of fine aggregate processing activities; and ○ the operation of silt and drying cells. • Walker provided monitoring data from the site's dust deposition gauges (DDG) for the period of July 2014 to July 2017. The results indicated no exceedances of the 	<ul style="list-style-type: none"> • The Department has recommended contemporary air quality management conditions which would require Walker to review air quality monitoring at the site. • The Department recommends that Walker undertake six months of

Issue	Consideration and Assessment	Recommendation
	<p>annual average criteria of 4g/m²/month. These results included the operation of fine aggregate processing from July 2016.</p> <ul style="list-style-type: none"> Walker noted that current dust mitigation measures implemented at the site have been successful in ensuring compliance with the DDG criteria. These measures include the operation of water carts and a wheel washing facility, progressive rehabilitation, minimising surface disturbance, covering truck loads and enforcing onsite speed limits. As DDG monitoring data indicated levels well below relevant criteria, Walker considered that any increases in dust emissions as a result of the proposed modification would be negligible and below the relevant criteria in the consent. The EPA raised no issues with the proposed modification and it advised that no changes to the EPL would be required. The Department agrees that it is unlikely that the proposed modification would result in exceedances of the consent's air quality criteria. However, dust deposition is not reflective of TSP or PM₁₀ levels and the existing conditions of consent also require Walker to demonstrate compliance with air quality criteria for TSP and PM₁₀. 	<p>monitoring with a High Volume Air Sampler (HVAS) at a suitable location to demonstrate compliance with TSP and PM₁₀ criteria.</p>
Visual	<ul style="list-style-type: none"> The proposed modification would not result in any additional visual impacts to private receivers. However, the WSEA would be visible from the Great Western Highway, in both directions. Walker has designed the WSEA in two tiers. This is considered to be less intrusive than a single steep face and would have greater ability to establish grass coverage due to the tiered face. Walker proposes to construct a vegetated bund wall in between the WSEA and the north-western quarry boundary. This would provide visual screening from eastbound traffic on the Great Western Highway. Additional landscape planting would also be undertaken between the Great Western Highway and quarry site boundary. Council requested that Walker provide a timeline for the proposed bund wall construction and its vegetation planting. In its RTS, Walker advised that the bund wall would be constructed during September 2017 and planting would be undertaken within 12 months, during appropriate seasonal conditions. Council was satisfied with this timeline and requested that it be included as a condition of consent. 	<ul style="list-style-type: none"> The Department is satisfied that visual impacts could appropriately be mitigated by landscape planting and the proposed vegetation bund. The Department has recommended a condition of consent requiring the construction of the bund adjacent to the WSEA, prior to the utilisation of this area. The Department has recommended contemporary rehabilitation management conditions which would require a detailed landscape planting schedule.

6. RECOMMENDED CONDITIONS

The Department has drafted a recommended notice of modification (see **Appendix D**) and a consolidated version of the consent as it is proposed to be modified (see **Appendix E**). The Department considers that the environmental impacts of the project can be appropriately managed through the proposed amended conditions of consent.

The Department has taken the opportunity to review the overall consent for the quarry and to include a fully revised and updated suite of conditions that are consistent with current practice and contemporary standards. Some key changes to the consent include:

- revision, update and consolidation of specific environmental conditions to align with the Department's contemporary standards for noise, air quality, blasting, biodiversity, water and visual impact management;
- update of the annual average PM₁₀ criteria to accord with the *Approved Methods for the Modelling and Assessments of Air Pollutants in New South Wales 2016*; and

- removal of roadworks conditions 2.32 and 2.33, due to their completion.

The Department considers that the environmental impacts of the project can continue to be appropriately managed through the amended conditions of consent.

Walker has reviewed and accepted the recommended conditions.

7. CONCLUSION


The Department has assessed the modification application, EA, submissions and RTS in accordance with the relevant requirements of the EP&A Act. The Department has carefully considered the likely impacts of the proposal on the natural and cultural environment and on nearby residents. The Department is satisfied that the environmental impacts of the proposal would be of a minor nature (except for the impact on known and potential habitat for the Purple Copper Butterfly), and could be appropriately managed by existing, modified and/or updated conditions of consent.

8. RECOMMENDATION

It is recommended that the Director, Resource Assessments, as delegate of the Minister for Planning:

- **consider** the findings and recommendations of this report;
- **determine** that the request falls within the scope of section 75W of the EP&A Act;
- **approve** the modification application DA 344-11-2001 MOD 1, subject to conditions; and
- **sign** the attached notice of modification (**Appendix D**).

Recommended by:



25.8.17

Genevieve Seed
Senior Planning Officer
Resource Assessments

Recommended by:



25.8.17

Megan Dawson
A/Team Leader
Resource Assessments

9. DECISION

Approved by:



Howard Reed
Director
Resource Assessments
as delegate of the Minister for Planning

25.8.17

APPENDIX A: ENVIRONMENTAL ASSESSMENT

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8443

APPENDIX B: SUBMISSIONS

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8443

APPENDIX C: RESPONSE TO SUBMISSIONS

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8443

APPENDIX D: NOTICE OF MODIFICATION

APPENDIX E: CONSOLIDATED CONSENT