



Rockley Falls Quarry

REQUEST FOR MODIFICATION TO PROJECT APPROVAL

- 4 September 2009

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Abigroup Project Number: 221330
RTA Project Number: D/00310/T/SA
SKM Project Number: IN90304



A Team consisting of RTA, Abigroup and SKM
to duplicate the Hume Highway from Woomargama to Table Top

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Executive Summary

The Rockley Falls Quarry is supplying aggregate material to the HHSa duplication project, and is currently being operated by the HHSa (on behalf of Abigroup) under project approval 07-0078 (dated 16 June 2008) and environment protection licence (EPL) No. 12884 issued by the Department of Environment and Climate Change (DECCW).

The HHSa participants (as the Woomargama alliance) have been selected to deliver the Woomargama bypass project which, subject to approval, is anticipated to commence construction in 2010. To ensure materials production at Rockley Falls quarry is able to meet demand of the Woomargama bypass project, in terms of volume and product quality, the HHSa proposes to continue crushing and stockpiling activities following the cessation of supply to the Woomargama to Table Top Project. For this to be achievable, additional land is required for the stockpiling of aggregate material. It is proposed that an adjoining cleared parcel of land which also forms part of Lot 113 on DP753340 will be used for this purpose. The proposed additional area is outside of the current approved project boundaries identified in project approval 07-0078 and EPL12884.

This submission has been prepared to support a request for a modification to the existing project approval, specifically to extend the stockpile area and enlarge an existing sediment basin. Impacts to the environment from the proposal have been identified and discussed in section 3. The proposed extended stockpiling operations are not anticipated to significantly increase dust or noise emissions above the levels that were described in the environmental assessment and/or which have been measured during the operation of the quarry to date. The proposed works are also not likely to result in any other significant impacts above current conditions. Safeguards and management measures for the proposed works are also discussed also in section 3.

1. Introduction

1.1. Background

In June 2008, approval was granted to Abigroup Contractors Pty Ltd (Abigroup) to establish and operate Rockley Falls quarry (the quarry) near Holbrook, New South Wales (NSW). The approval was based on the environmental assessment report for the (the EA) prepared by Blueprint Planning, February 2008. Abigroup is a participant of the Hume Highway Southern Alliance (HHSA) that has been formed to construct the duplication of the Hume Highway between Woomargama and Table Top. The quarry is supplying material to the HHSA duplication project, and is operated by the HHSA (on behalf of Abigroup) under project approval 07-0078 (dated 16 June 2008) and environment protection licence (EPL) No. 12884 issued by the Department of Environment, Climate Change and Water (DECCW). The approval allows for the extraction and processing of 700,000 t of material each year until 2012 when it would scale back to 100,000 t per year.

The HHSA participants (re-formed as the Woomargama alliance) have been selected to deliver the Woomargama bypass project which, subject to approval, is anticipated to commence in late 2009/early 2010. To ensure aggregate production at the quarry is able to meet the demand of the Woomargama bypass project, in terms of volume and product quality, the HHSA proposes to continue crushing and stockpiling activities following the cessation of supply to the Woomargama to Table Top project. For this to be achievable, additional land is required for the stockpiling of aggregate material. HHSA proposes to use an adjoining cleared parcel of land which also forms part of Lot 113 on DP753340. The proposed additional area is outside of the current approved project boundaries identified in the project approval.

On 10 July 2009, the Department of Planning (DoP) advised HHSA that the proposed extension of the stockpile area was not considered consistent with the existing approval. DoP also advised that the enlargement of the existing sediment basin for these works was not considered consistent with the existing approval. HHSA has prepared this submission to support a request for a modification to the existing project approvals to extend the stockpile area and enlarge the existing sediment basin.

1.1. Content of this submission

The report addresses the following aspects:

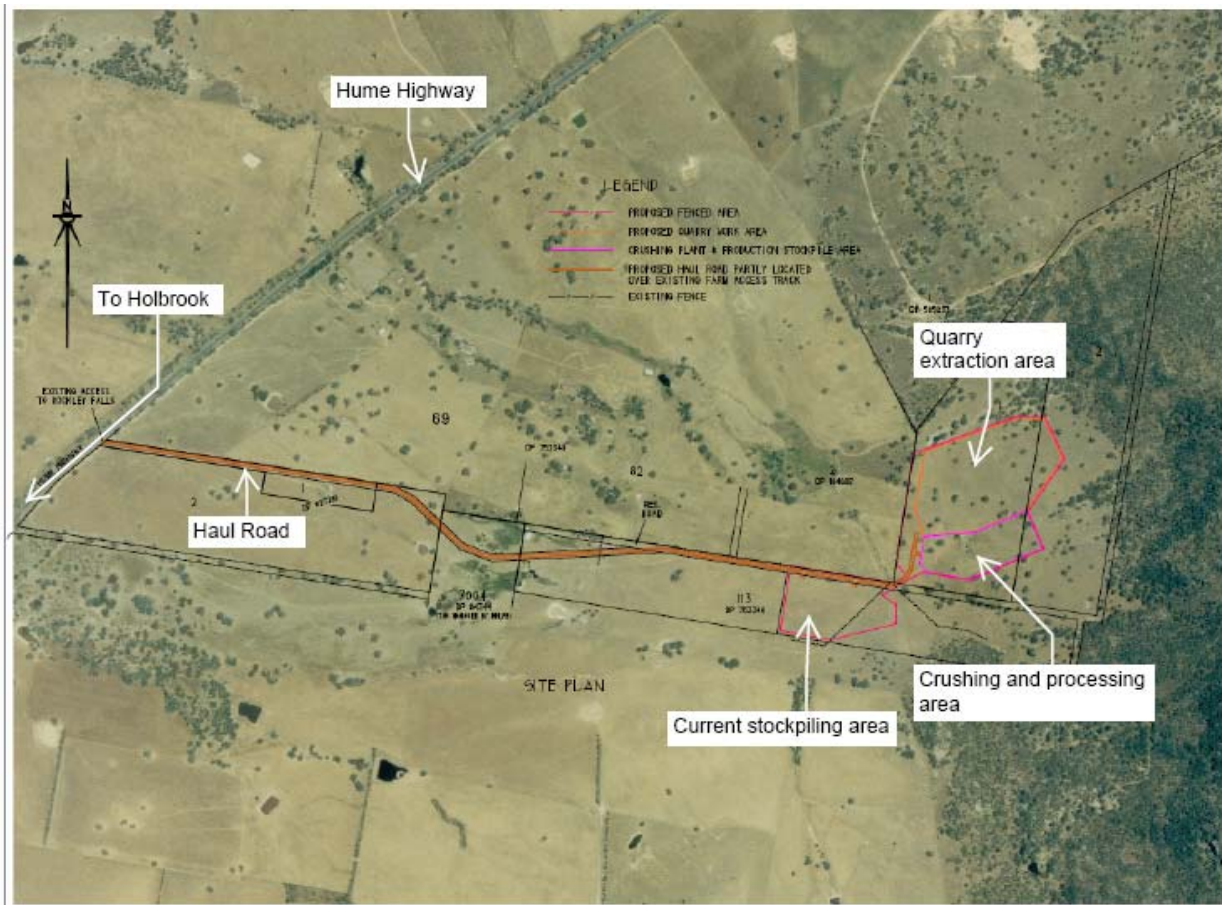
- Scope and justification of the proposal;
- Assessment of environmental impacts and proposed mitigation measures;
- Consultation.

2. Scope and justification of the proposal

2.1. Location

The quarry is situated approximately 4 kilometres northeast of Holbrook on the western escarpment and foothills of the 'Cromer Hills' as shown in **Figure 2-1**. The quarry and surrounding area have been extensively modified and used for agricultural purposes, primarily grazing of sheep and cattle. To the west of the quarry, neighbouring properties are dominantly pastoral with cropping increasing to the west of the Hume Highway.

■ Figure 2-1 Site location



Quarry operations are currently approved under the project approval and EPL to occur on Lots 1 & 2 DP1116210, Lot 113 on DP753340, Lot 7004 on DP94344 and Lots 1 & 2 on DP827281. As outlined in Section 1.1, HHSA proposes to use an adjoining parcel of land which forms part of Lot 113 on DP753340. **Figure 2-2** shows the extent of the currently approved project boundary and the proposed stockpile extension area. The proposed stockpile extension area covers approximately 5.4ha and will be leased from the landowner.

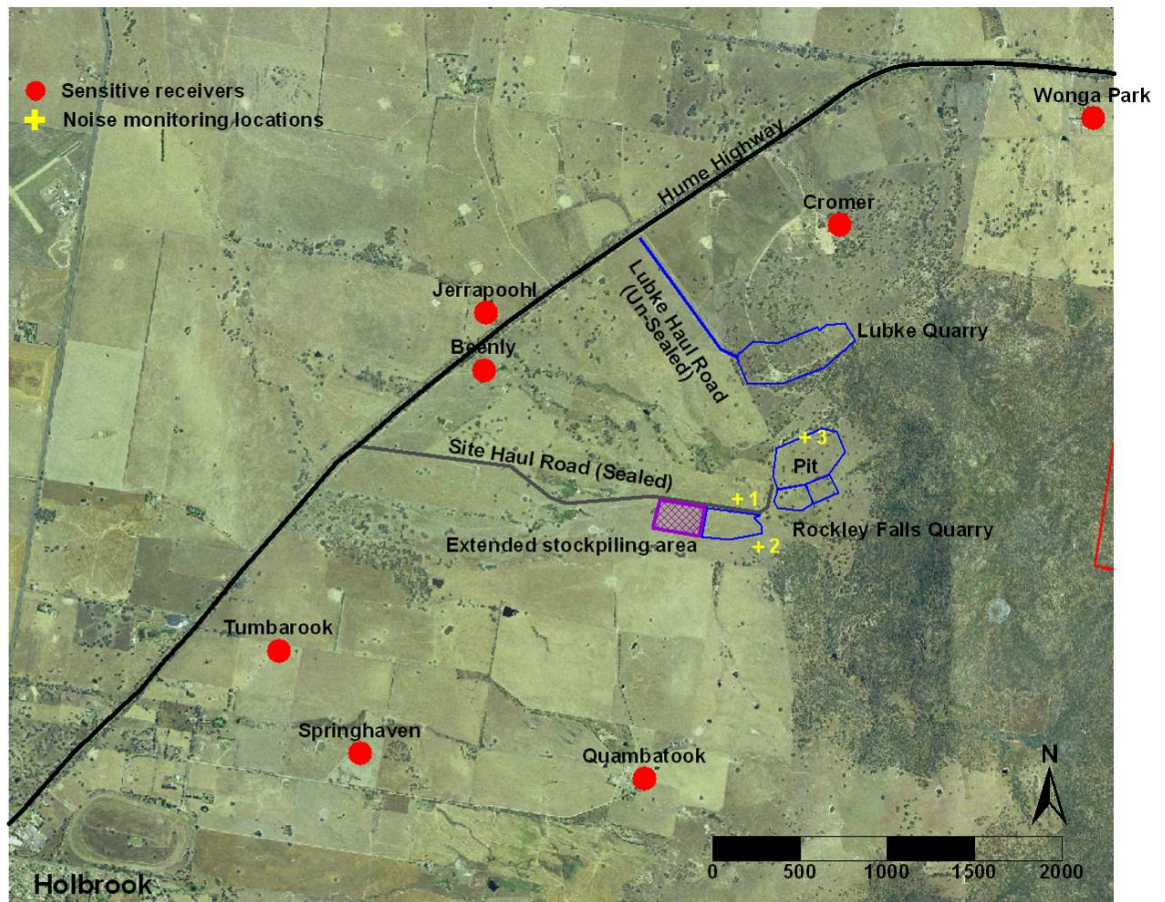
2.2. Sensitive receivers

The EA identifies seven sensitive receivers within 3 km of the quarry, with the nearest, non-quarry-owned receiver, “Cromer” located approximately 1300 m to the north of the pit. A summary of receivers provided in **Table 2-1** shows the layout of the quarry and the proposed extended stockpile area in relation to sensitive receivers. The EA did not consider the dwelling located within the quarry boundary as a sensitive receiver because it was under the same ownership as the quarry, and it is not included in this assessment.

■ **Table 2-1 Summary of sensitive receivers within 2.5 km of quarry**

Reference	Receiver	Orientation from quarry operating area	Distance from quarry operating area (m)
1	Wombah Park	NE	2500
2	Cromer	N	1300
3	Jerrapoohl	NW	2000
4	Beenly	NW	1900
5	Tumbarook	SW	3000
6	Springhaven	SW	2800
7	Quambatook	S	1800

■ **Figure 2-3 Site layout**



2.3. Justification

The HNSA participants (as the Woomargama alliance) have been selected to deliver the Woomargama bypass project which, subject to approval, is anticipated to commence in late 2009 / early 2010. Aggregates from the quarry will be used for this project. HNSA is planning ahead for the anticipated aggregate supply required for the bypass project in order to minimise the risk of supply delays to the project.

As such, HNSA proposes to continue crushing and stockpiling aggregates following the cessation of supply to the Woomargama to Table Top project. Processing this material prior to commencement of the Woomargama bypass should reduce the likelihood of extended quarry operational hours (i.e. to 10pm Mon-Fri) during construction of the project. It also provides the time to ensure the quality of the product is to a high standard. The extra land required to stockpile the additional aggregates will also accommodate space for more recycling of the waste sand stockpile.

Forward planning and management of material is consistent with efficient use of resources, can be undertaken in accordance with the approved production limits and is likely to have the advantage of avoiding or minimising potential out of hours work.

3. Assessment of environmental impact

3.1. Noise

This section demonstrates that current operating conditions do not exceed the relevant operating conditions for noise and that extension of the stockpile area is not likely to result in significant increases in noise emissions.

3.1.1. Current operating requirements

In relation to noise impacts, the Ministers Conditions of Approval (MCoA) and EPL require that noise from the project does not exceed the noise impact assessment criteria listed in **Table 3-1**.

- **Table 3-1 Noise impact assessment criteria**

Receiver	L _{Aeq, 15 minute} (dB(A))
Cromer	45
Quambatook	35
Beenly	36
Tumbarook	35
Jerapoohl	35

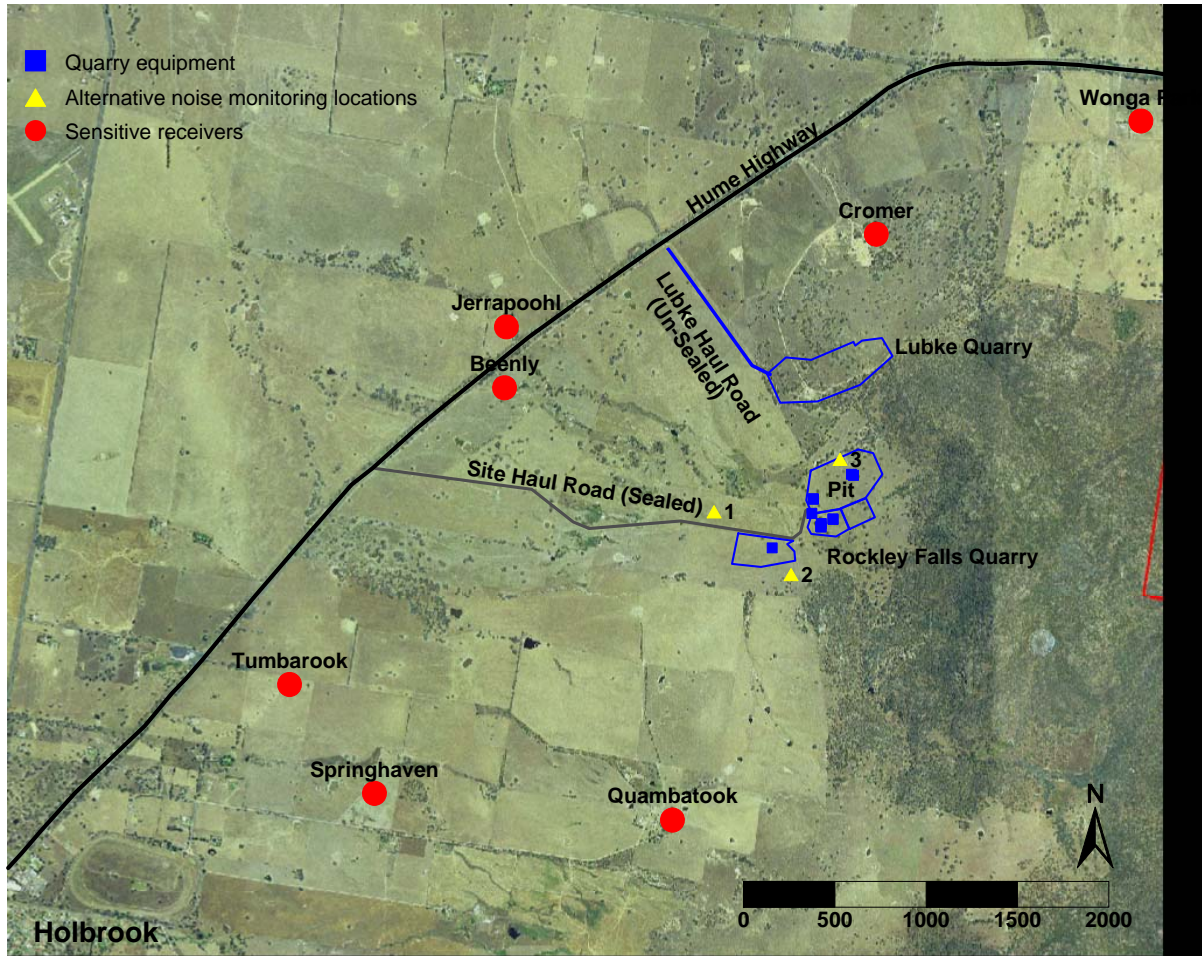
The above noise criteria are based on operational hours of:

- between 7 am and 6 pm Monday to Saturday; and
- at no time on Sundays or public holidays.

3.1.2. Current noise impacts

Attended noise monitoring is conducted on a monthly basis at each of the three monitoring locations shown in **Figure 3-1**. These locations have been selected to ensure monitoring data adequately capture the noise contribution from quarry operations and are not influenced by extraneous sources. Noise monitoring data are then extrapolated to get the levels at the receivers. Noise is measured using an Aclan model Type 2 SLM, with an accuracy suitable for field use, as recommended in *AS 1055.1—1997, Acoustics—Description and measurement of environmental noise Part 1: General procedures*.

■ **Figure 3-1 Noise monitoring locations**

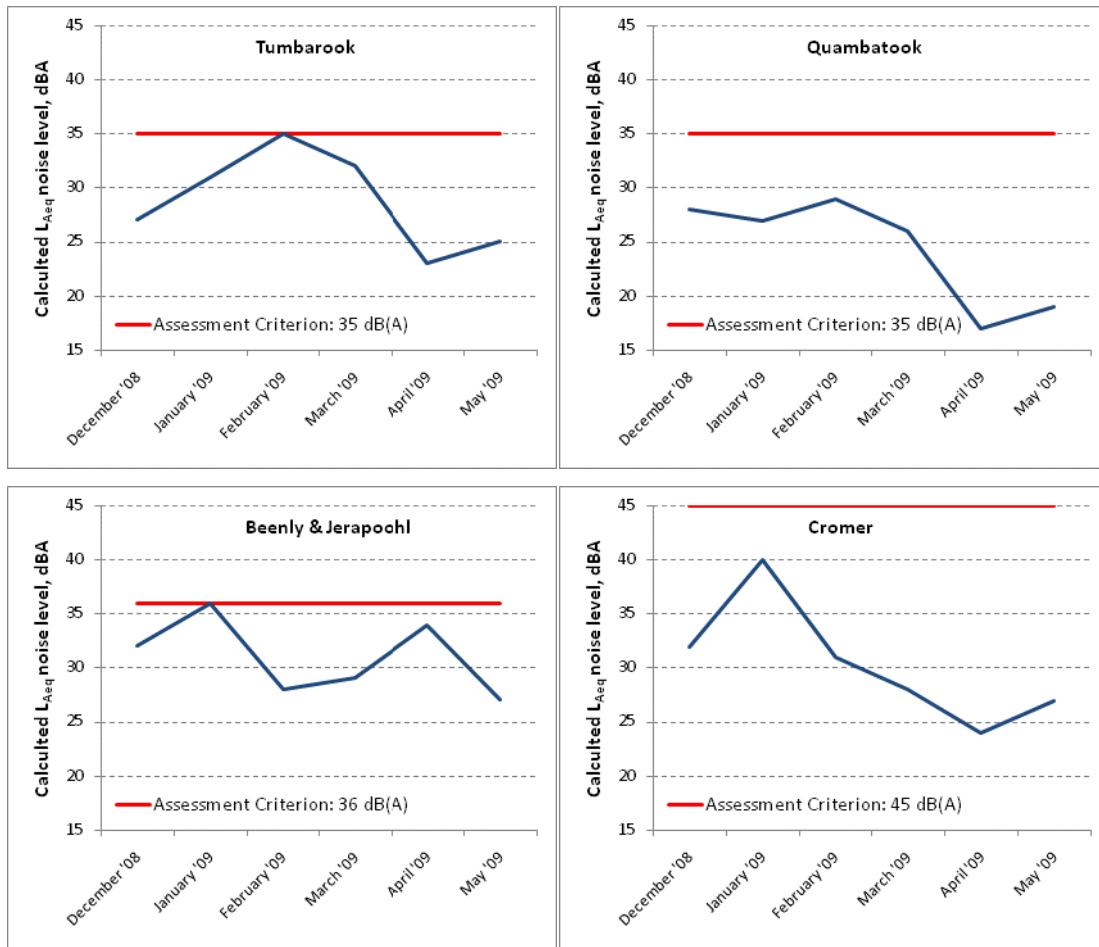


Although meteorological conditions vary for each monitoring period, they are generally appropriate for the assessment, with winds noted as less than 5 m/s for all measurements and any strong winds that would affect the measured levels excluded from assessment.

Figure 3-2 summarises the $L_{Aeq, 15 \text{ minute}}$ measurement results and compares them against the relevant daytime noise criteria. No modification factors are deemed necessary for the quarry noise, which is typically dominated by engine noise (crushers, trucks and loaders).

Monitoring results demonstrate that quarry noise is compliant with the noise limits, with a decrease in noise levels observed since February 2009. This coincides with a reduction in the number of crushing plant operations.

■ **Figure 3-2 Noise monitoring data**



3.1.3. Predicted Noise Impacts

The likely noise impacts of the stockpile area extension were predicted based on the noise emissions of one crusher, haul trucks and loaders. Measurements of the quarry plant and equipment were undertaken while in operation and their sound power levels estimated:

- Crusher: full operation - 118 dB(A)
- Loader: pushing up stockpiles - 115 dB(A)
- Haul truck: loaded up hill - 115 dB(A)

A comparison between the noise impacts of the current and proposed extended stockpile areas is presented in **Table 3-2**. The predicted noise levels incorporate attenuation due to geometric divergence as well as ground and air absorption. Additional reductions would be observed with structural and topographical screening; however these have not been included in the comparison. Hence, these results are not intended to reflect measured noise levels at sensitive receivers but rather provide a comparison between the two operations.

It is expected that the crushing operation would continue to be undertaken in the crushing area and that no additional haul trucks or loaders would be used in comparison with current operations. That is, the same number of mobile plant would service both the existing and proposed extended stockpile areas.

Results of the noise prediction are summarised in **Table 3-2**. It can be seen that there is little to no difference between the two scenarios and such a small change would be indiscernible to receivers. This is due to the relatively small change in distance between the proposed and current stockpile areas.

Management of emissions from the activities associated with the proposed extended stockpiling area would however be undertaken in accordance with the Rockley Falls Quarry Environmental Management Plan (RFQEMP), including as a minimum:

- operating within approved hours;
- ensuring effective maintenance of mobile equipment, including mufflers;
- continuing to monitor noise to ensure compliance with DECCW and DoP conditions; and
- placing stockpiles between mobile equipment and sensitive receivers, where practical, to act as noise barriers.

■ **Table 3-2 Comparison of noise levels at receivers**

Receiver	Approximate distance (m) to:			Calculated noise levels from existing situation, dB(A)*			Calculated noise levels from future situation, dB(A)*			Difference between two scenarios, dB(A)
	Proposed extended stockpiling area	Current stockpiling area	Crushing area	Current stockpiling area	Crushing area	Total	Proposed extended stockpiling area	Crushing area	Total	
Wonga Park	3311	3160	2792	25	30	31	24	30	31	0
Cromer	1928	1860	1602	33	37	38	32	37	38	0
Jerapoohl	1621	1849	2054	33	34	36	34	34	37	1
Beenly	1403	1653	1910	34	35	38	36	35	39	1
Tumbarook	2414	2659	3067	28	28	31	29	28	32	1
Springhaven	2274	2471	2878	29	29	32	30	29	33	1
Quambatook	1516	1526	1824	35	36	38	35	36	38	0

*For comparative purposes only. These calculations do not include screening from stockpiles, noise walls and typography and hence will be lower in practice.

3.2. Dust

Extension of the stockpile area, including additional exposed surfaces and material handling, has the potential to result in increased dust impacts on sensitive receivers. However, this section demonstrates that current operating conditions do not exceed the relevant operating conditions for air quality and that extension of the stockpile area is not likely to result in significant increases in dust emissions.

3.2.1. Current operating requirements

In accordance with the MCoA, dust generated by the quarry operations shall not exceed the criteria listed in **Table 3-3** at any residence on privately owned land and that visible air pollution generated by the project shall be assessed regularly. In addition, quarrying operations are to be relocated, modified and/or stopped as required to minimise air quality impacts on private land.

■ **Table 3-3 Air quality assessment criteria**

Pollutant	Averaging period	Maximum increase from this project	Maximum acceptable level
TSP	Annual	70 µg/m ³	90 µg/m ³
PM ₁₀	Annual	20 µg/m ³	30 µg/m ³
PM ₁₀	24-hour	25 µg/m ³	50 µg/m ³
Deposited dust*	Annual	2 g/m ² /month	4 g/m ² /month

* Deposited dust is measured as insoluble solids in accordance with AS 3580.10.1 – 1997.

With regard to air quality, the EPL requires that activities occurring in or on the premises must be carried out in a manner that will minimise the generation or emission from the premises of wind-blown or traffic-generated dust. All areas of the quarry are required to be maintained in a condition that minimises the generation of dust, including trafficable areas, stockpiles, material handling areas and rehabilitated areas. In addition, a condition of the EPL is that all trucks entering and leaving the premises that are carrying loads must completely cover these loads at all times, except during loading and unloading.

3.2.2. Current dust impacts

Nuisance, or deposited, dust has been monitored at sensitive receiver locations since commencement of operations. The locations include:

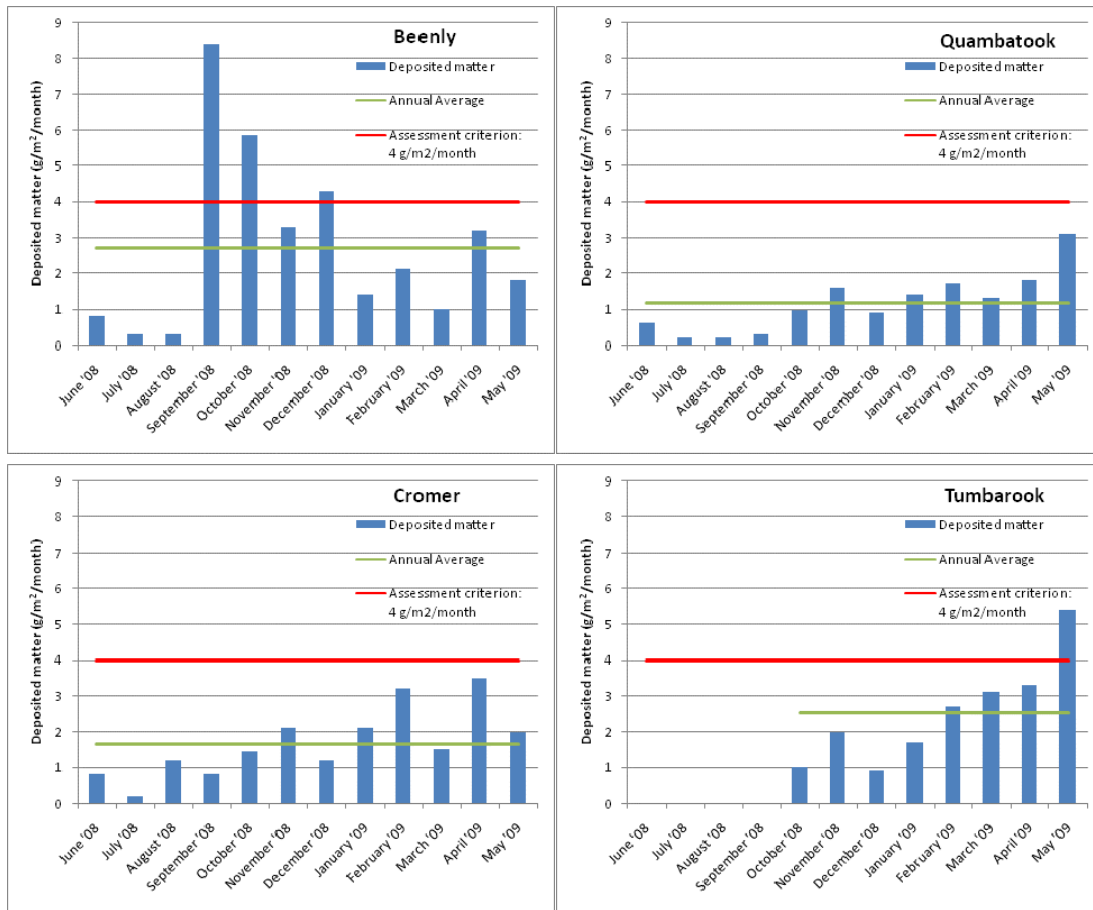
- Cromer
- Beenly
- Quambatook
- Tumbarook (from October 2008)

Samples are collected on a monthly basis and analysed for insoluble solids at Charles Sturt University.

Monthly results are presented in **Figure 3-3** for each location and demonstrate that the annual average dust levels (green line) resulting from operation of the quarry at all monitored sensitive receivers comply with the assessment criterion (red line).

It should be noted that a dust storm in October 2008 resulted in significantly elevated results, hence has been excluded. For annual average purposes, the October result has been taken as an average of September and November results.

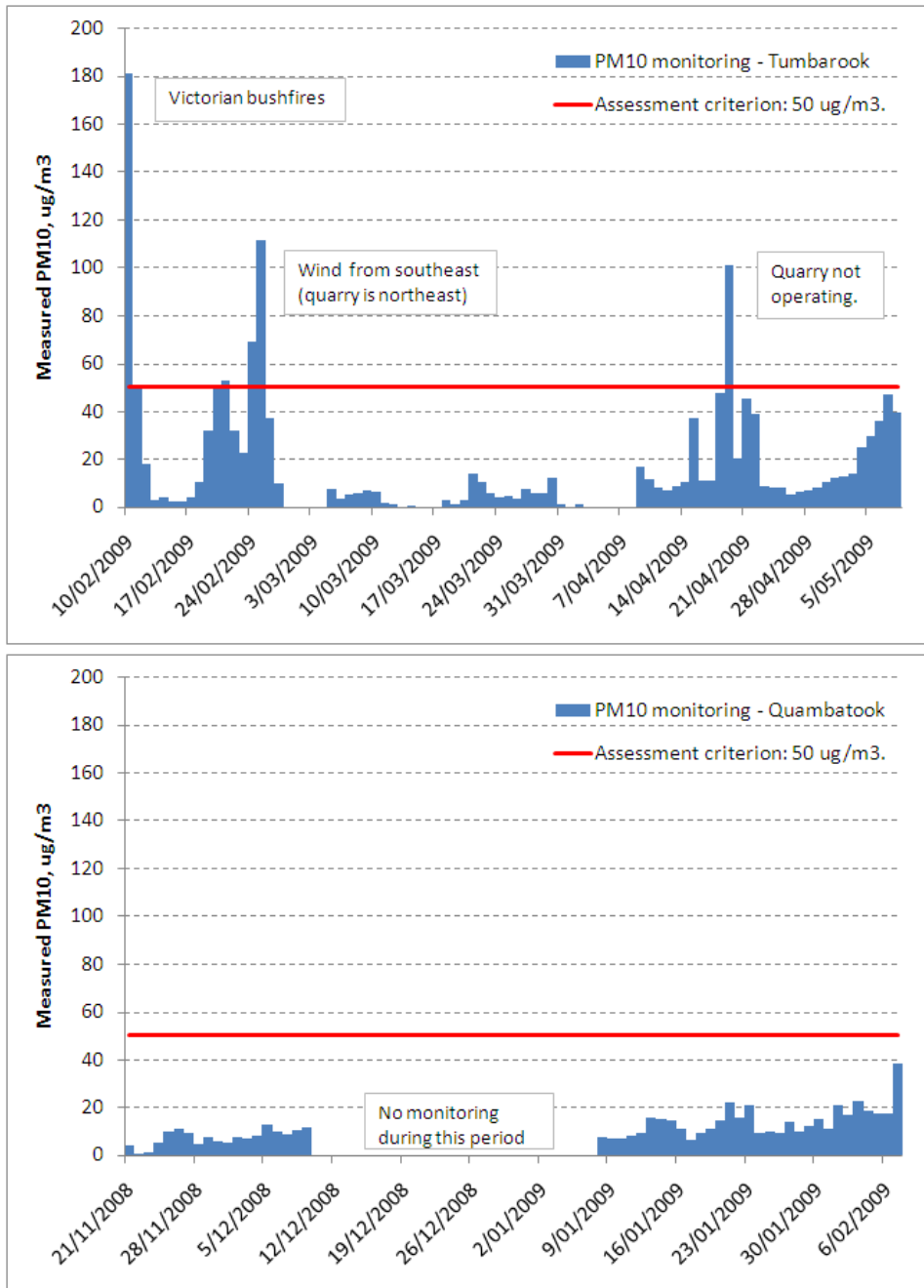
■ **Figure 3-2 Measured dust levels since commencement of quarry operations**



Concentrations of fine particulate, as PM₁₀ were monitored using a DustTrak aerosol monitor at the Tumbarook and Quambatook properties, located to the southwest and south of the quarry respectively (refer **Figure 3-1**).

Results of monitoring are presented in **Figure 3-4** and demonstrate that the 24-hour assessment criterion of 50 µg/m³ was not exceeded by quarry operations during the monitoring period. Recorded exceedances are attributed to the Victorian bushfires and general ambient dust levels when the quarry was not operational.

▪ **Figure 3-3 Summary of measured PM₁₀ concentrations at Tumbarook and Quambatook**



3.2.3. Predicted dust impacts

The extended stockpile area would present a greater exposed surface for wind generated emissions as well as material handling emissions in slightly closer proximity to receivers. Modelling of PM₁₀ and deposited dust was undertaken using Ausplume, a computer based Gaussian dispersion model, to compare dust emissions of the current and proposed stockpiling operations.

Table 3-4 summarises the sources incorporated in the model. Wind generated dust from exposed surfaces such as stockpiles, haul roads and processing areas were assumed to be present on a 24-

hour basis. Point sources such as the crusher, haul trucks and materials handling were assumed to operate between 7 am and 10 pm.

■ **Table 3-4 Summary of dust emissions sources from current and proposed stockpiling operations**

Current stockpiling operation	Proposed stockpiling operation
Wind generation from exposed surfaces	
<ul style="list-style-type: none"> ■ Rockley Falls Pit ■ Top soil stockpile area ■ Crushing area (surface) and crusher ■ Existing product stockpile area ■ Lubke pit and haul road 	Sources of current stockpiling operations plus: <ul style="list-style-type: none"> ■ Proposed extended stockpile area
Wheel generated and handling emissions	
<ul style="list-style-type: none"> ■ Material handling in the Rockley Falls Pit ■ Haul trucks (empty and loaded) ■ Material handling at the crusher and existing stockpile area 	<ul style="list-style-type: none"> ■ Material handling at the proposed extended stockpile area

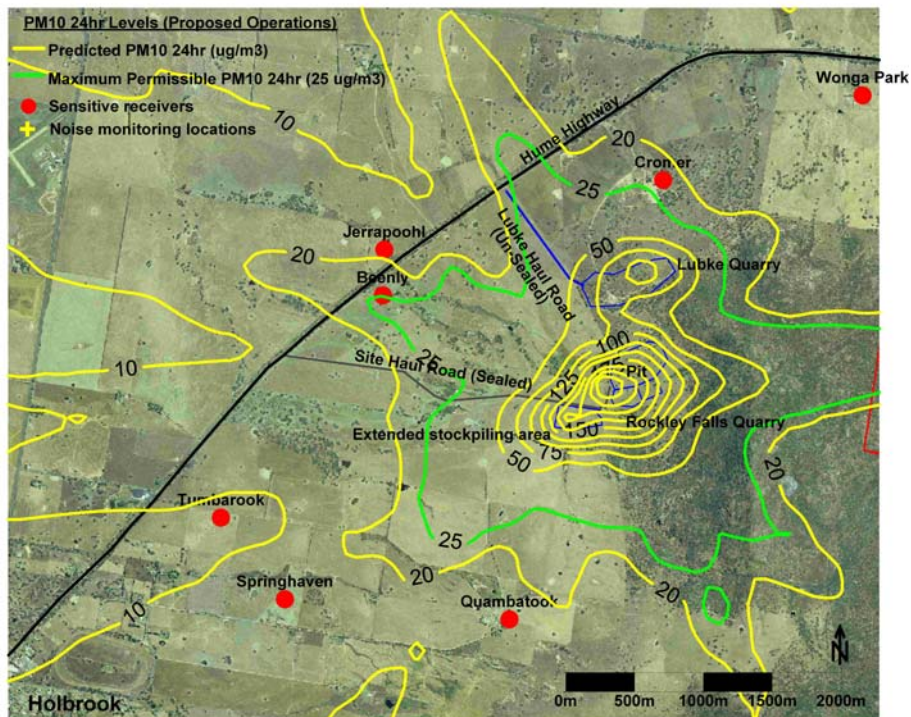
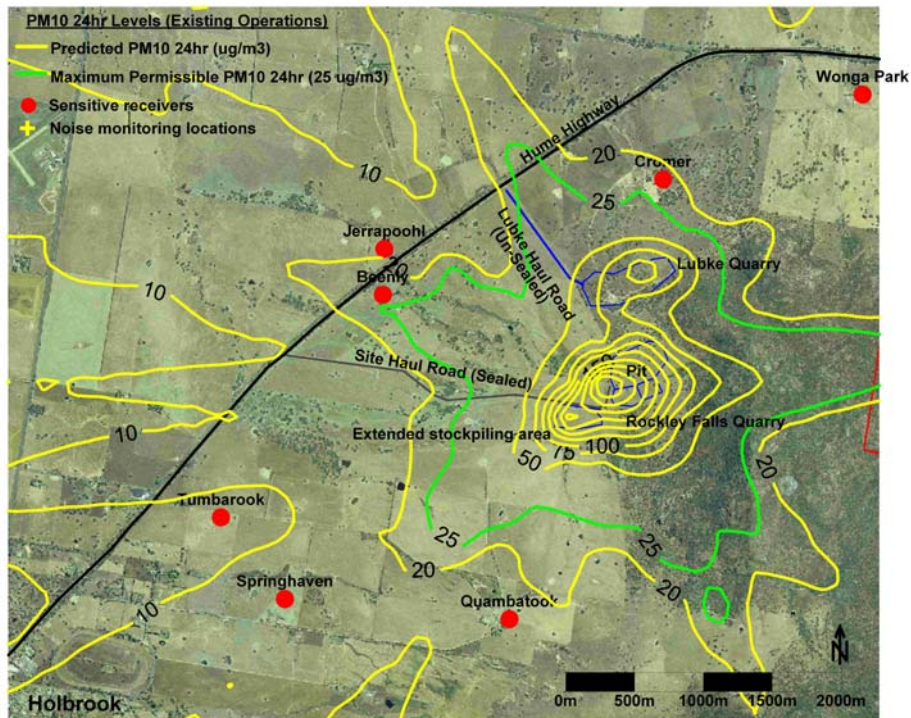
Modelling results are summarised in **Table 3-5** and illustrated in **Figure 3-5** and **Figure 3-6**. It is evident that the proposed extended stockpiling operations are not likely to significantly increase dust emissions above current levels. However, management of emissions from the proposed extended stockpile area would be undertaken in accordance with the RFQEMP, including as a minimum:

- control dust generation through application of water as required,
- continue to monitor deposited dust and PM¹⁰ to ensure compliance with DECCW and DoP conditions, and
- decrease or cease dust generating activities where meteorological conditions, such as wind, result in visible dust plumes in the direction of sensitive receivers.

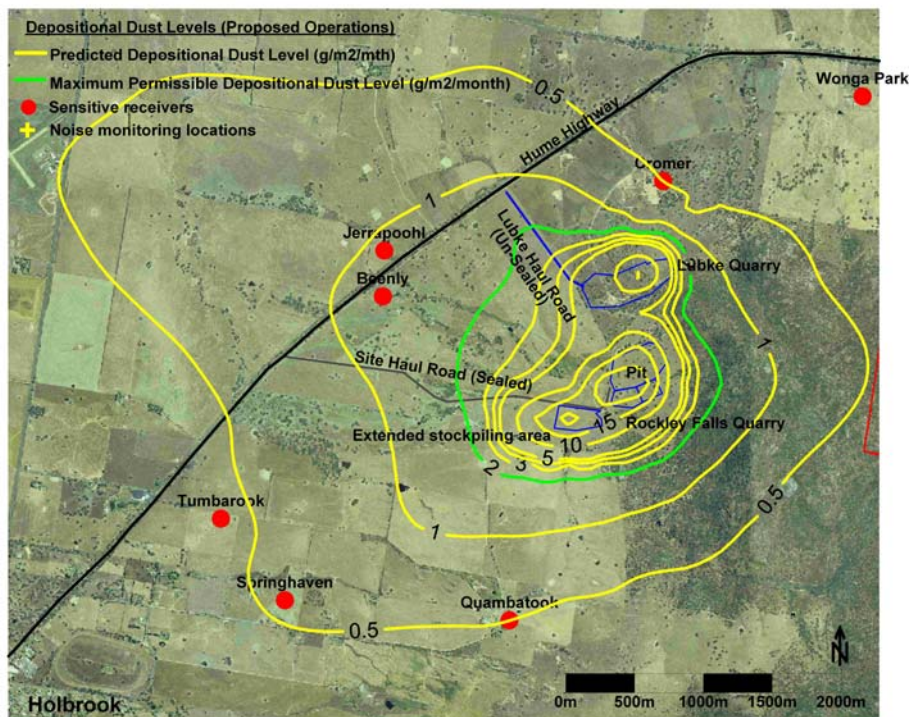
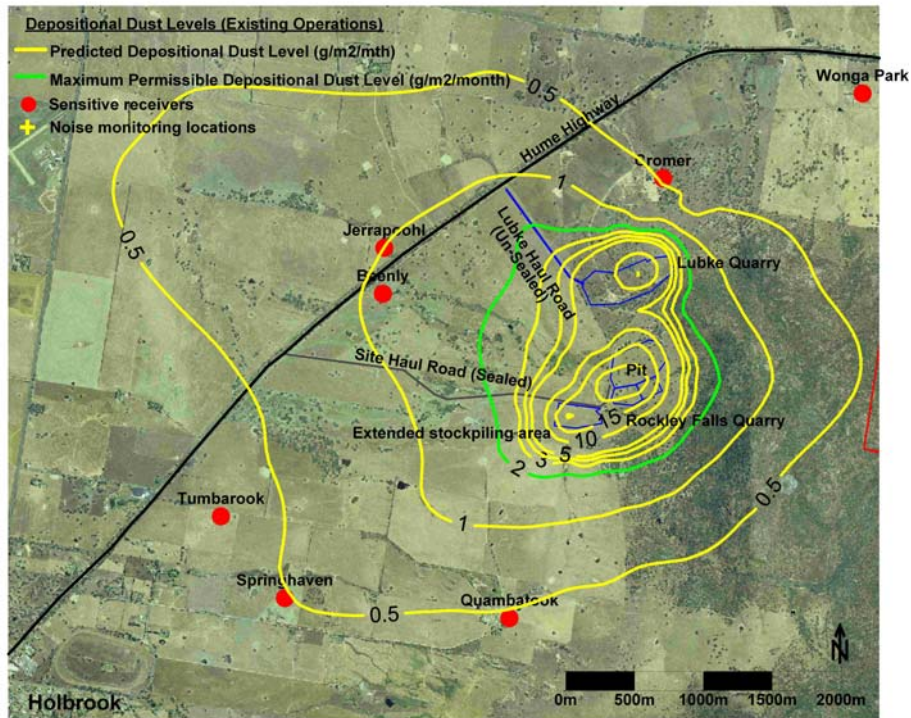
■ **Table 3-5 Summary of dust monitoring data for existing and proposed stockpiling operations**

Receiver	PM ₁₀ 24 hour average, µg/m ³		Deposited dust, monthly average, g/m ² /month	
	Current operation	Proposed operation	Current operation	Proposed operation
Wonga Park	11.61	12.47	0.2	0.2
Cromer	21.08	21.59	0.5	0.5
Jerapoohl	16.05	16.28	1.0	1.1
Beenly	23.58	23.88	1.1	1.2
Tumbarook	8.286	9.211	0.4	0.4
Springhaven	16.44	17.65	0.5	0.5
Quambatook	18.85	18.95	0.5	0.5

- Figure 3-4 Comparison of predicted PM₁₀ 24 hour dust emissions from current operations (top figure) and proposed extended stockpile (bottom figure).



- Figure 3-5 Comparison of predicted deposited dust from current operations (top figure) and proposed extended stockpile (bottom figure).

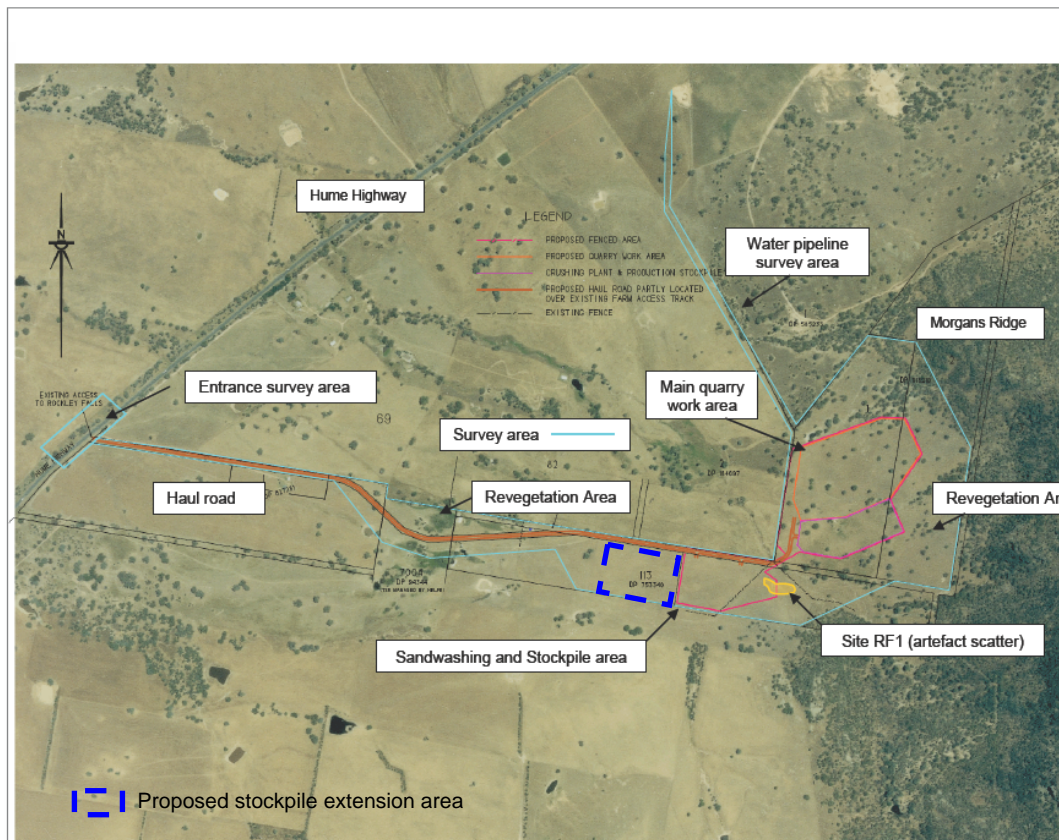


3.3. Aboriginal & non-Aboriginal heritage

3.3.1. Potential Impacts

Figure 3-7 shows the full extent of land previously surveyed by Kelleher Nightingale Consulting (KNC) Pty Ltd at the quarry (i.e. the light blue survey area line). As can be seen, no areas or items of Aboriginal archaeological heritage were identified in the proposed stockpile extension area. Figure 3-7 also shows that the only identified Aboriginal archaeological heritage area is located well to the east of the proposed extended stockpile area. Documentation of KNC's survey is included in Appendix A.

■ Figure 3-6 Aboriginal archaeological survey area



Kate Waters for Waters Consultancy has also confirmed that there are no areas of Aboriginal cultural heritage within the proposed stockpile area (refer to **Appendix B**).

There is no identified non-Aboriginal heritage in the immediate vicinity of the proposed works.

Based on the above information, the proposal is not anticipated to have any impact on Aboriginal or non-Aboriginal heritage and therefore no further site specific safeguards are proposed.

3.4. Soil and water impacts

Potential impacts

Topsoil would be removed from the area and stockpiled for later reuse onsite. A hardstand area would then be created to minimise the risk of soil erosion. The area would be shaped such that any run-off from the area is directed towards the existing licensed sedimentation basin (i.e. Sediment basin 2). The HNSA propose to enlarge sediment basin 2 to accommodate the extended catchment area of the proposed extended aggregate stockpile area. Approximately 1249 m³ of dirt would be removed to enlarge this basin to approximately 2539 m³. This material would be reused to form the hardstand area. Minor excavations are also required to construct 'dirty-water' drains which would lead to sediment basin 2. **Appendix C** includes a concept erosion and sediment control plan for this extended stockpile area.

This hardstand area would also serve to prevent any spills arising from trucks and machinery infiltrating into the soil.

The proposed stockpile extension area is required to stockpile additional aggregates. Overburden material from the quarry is currently being reused to form select material which is being used on road construction projects. Currently there is limited overburden stockpiled at the quarry and it is anticipated that any additional overburden will continue to be reused for road construction.

Impacts on landform, soils and water are expected to be negligible and remain compliant with the predictions made for the initial scope of the works in the EA.

Site specific safeguards

Vegetation disturbance would be kept to a minimum and adequate erosion and sediment controls would be established prior to any disturbance to prevent sediment moving off-site and sediment laden water entering any water course or drainage lines. Sediment basin 2 would be enlarged to accommodate the extended catchment area of the proposed extended stockpile area. The basin would be enlarged in accordance with the guideline '*Managing urban stormwater: soils and construction, Volume 1, 4th Edition, 2004*' with the 95th percentile design criteria being adopted which is in accordance with the existing basin design.

3.5. Biodiversity

Potential impacts

A botanical survey of the proposed stockpile extension area indicated that the area has been heavily grazed and consists of approximately 50% native grass and 50% exotic species (mainly broad-leaved herbs) (**Plate 1**). The native grasses recorded in the proposed extended stockpile area (Speargrass and Wallaby Grass) are both common and widespread in the region, being typical of poorer soils which have not been pasture improved. A total of 12 species (4 native and 8 exotic) were recorded in this area (**Table 3-6**).



■ **Plate 1 Proposed extended stockpile area**

Although there are native grasses present, this area is considered to have limited biodiversity value given the relatively low proportion of native species overall and the dominance by several environmental weed species (e.g. Onion Grass and Paterson's Curse). It is unlikely that this area would provide any habitat for threatened flora and fauna.

Two mature trees adjacent to the proposed stockpile area and on the other side of the boundary fence would not be impacted.

■ **Table 3-6 Species recorded during site inspection**

Common Name	Species	Native (N) / Exotic (E)
Capeweed	<i>Arctotheca calendula</i>	E
Couch	<i>Cynodon dactylon</i>	E
Curled Dock	<i>Rumex crispus</i>	E
Onion Grass	<i>Romulea rosea var. australis</i>	E
Paspalidium	<i>Paspalidium distans</i>	N
Paterson's Curse	<i>Echium plantagineum</i>	E
Perennial Ryegrass	<i>Lolium perenne</i>	E
Sheep Sorrel	<i>Acetosella vulgaris</i>	E
Slender Pigeon Grass	<i>Setaria gracilis</i>	E
Speargrass	<i>Austrostipa scabra</i>	N
Tall Speargrass	<i>Austrostipa bigeniculata</i>	N
Wallaby Grass	<i>Austrodanthonia spp.</i>	N

Site specific safeguards

The proposed stockpile extension area is surrounded by an existing wire boundary fence. Regular environmental inspections will be undertaken to ensure that works do not encroach beyond this fence. No additional offset measures or biodiversity mitigation measures are proposed for the development of the stockpile extension area due to the location's extremely limited biodiversity value. The land will be rehabilitated to farming land upon completion of quarry activities.

3.6. Waste

Management of waste at the site is carried out and recorded in accordance with MCoA 40 and RFQEMP ECP 6: Waste Management. Reuse and recycling of materials would occur where possible. Any excavated topsoil and subsoil as part of this proposal would be reused on site. As stated above, the extra land made available by this proposal would also allow the room for more recycling of the waste sand stockpile.

No additional impacts relating to waste management are expected to occur as a result of this proposal.

3.7. Socio-economic considerations

Views of the quarry from surrounding receivers and the Hume Highway are limited due to the low lying nature of the quarry site and the trees between the quarry and the highway. The proposed stockpile extension area is unlikely to result in any significant additional visual impacts to highway users. It will however be visible from two of the sensitive receivers (Tumbarook and Beenly). These receivers currently have views of the existing stockpiling area and therefore the extended stockpiling area is not likely to significantly decrease their existing amenity. Community consultation has also occurred with these receivers and they have not raised any objections to the proposal. Therefore no additional mitigation measures are proposed for this proposal.

4. Consultation

HHSA has consulted with DECCW regarding the proposed stockpile extension area. Per correspondence dated 8 July 2009, DECCW advised that it supported the proposal, noting that dust and stormwater management are the critical issues for HHSA to manage (refer to **Appendix D**).

HHSA has also consulted with the sensitive receivers surrounding the quarry and no objections have been raised to the proposal.

5. Consideration of State & Commonwealth environmental factors

5.1. Clause 228(2) Factors (NSW Legislation)

The factors which need to be taken into account when considering the environmental impact of an activity are listed in Clause 228(2) of the *Environmental Planning and Assessment Regulation, 2000*. Those factors have been addressed in the following table to ensure that the likely impacts of the proposed activities on the natural and built environment are fully considered.

Factor (NSW Legislation)	Impacts
<p><i>a. Any environmental impact on a community?</i></p> <p><u>Comments:</u></p> <p>As demonstrated in Section 3, there is minimal risk of the proposed works having any additional impact on the community beyond that already approved.</p>	Nil
<p><i>b. Any transformation of a locality?</i></p> <p><u>Comments:</u></p> <p>The works would entail minor modification of the existing environment from agricultural land to an aggregate stockpile site. This change is temporary in nature and would be remediated following completion of quarry operations.</p>	Minor short term negative
<p><i>c. Any environmental impact on the ecosystems of the locality?</i></p> <p><u>Comments:</u></p> <p>The proposed works are not anticipated to have any additional environmental impact on the ecosystems of the locality. As stated in Section 3, sediment basin 2 would be enlarged to accommodate the additional disturbed area and hence reduce any additional impact on the surrounding environment. Noise and dust emissions are not likely to significantly increase above current levels. The site would be managed in accordance with the current conditions and procedures and in accordance with the RFQEMP.</p>	Nil
<p><i>d. Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?</i></p> <p><u>Comments:</u></p> <p>The proposed stockpile extension area is unlikely to result in any significant additional visual impacts to highway users. It will however be visible from two of the sensitive receivers (Tumbarook and Beenly). These receivers currently have views of the existing stockpiling area and therefore the extended stockpiling area is not likely to significantly decrease their existing amenity. Community consultation has also occurred with these receivers and they have not raised any objections to the proposal. Therefore no additional mitigation measures are proposed for this</p>	Minor short term negative

proposal. The works are not anticipated to cause any other reduction on the aesthetic, recreational, scientific, or other environmental quality or value of the locality.	
<i>e. Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations?</i> <u>Comments:</u> As discussed in Section 3, the proposed works are not anticipated to impact on any heritage items.	Nil
<i>f. Any impact on the habitat of any protected fauna (within the meaning of the National Parks and Wildlife Act, 1974)?</i> As discussed in Section 3, the proposed works are to be conducted on a cleared parcel of land with very limited biodiversity value. As such it is not anticipated to impact on habitat of any protected fauna.	Nil
<i>g. Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?</i> <u>Comments:</u> The proposed works are not anticipated to result in any endangering of any species of animal, plant or other life form.	Nil
<i>h. Any long-term effects on the environment?</i> <u>Comments:</u> The proposed works are not expected to have an adverse long term effect on the immediate or surrounding environment nor any effect on any threatened species as they are minor and temporary in nature and do not involve any vegetation clearing. An investigation of the area has concluded no places or items of Aboriginal or non-Aboriginal heritage occurring in the immediate vicinity of the proposed works.	Nil
<i>i. Any degradation of the quality of the environment?</i> <u>Comments:</u> The proposed works are not anticipated to result in any degradation of the environment as all necessary erosion and sediment controls and dust/noise management measures would be installed during the works. The site would be managed in accordance with the current conditions and procedures.	Nil
<i>j. Any risk to the safety of the environment?</i> <u>Comments:</u> The proposed works represent minimal risk to the environment as they would be undertaken in previously cleared areas. With the implementation of the recommended safeguards outlined in Section 3 the risk to the environment will be	Minor short term negative

minimal.	
<p><i>k. Any reduction in the range of beneficial uses of the environment?</i></p> <p><u>Comments:</u></p> <p>There are not expected to be any reduction in the range of beneficial uses of the environment. The site would temporarily be modified from agricultural land to a stockpile site. Upon completion of quarry operations, this area can be restored to agricultural land.</p>	Nil
<p><i>l. Any pollution of the environment?</i></p> <p><u>Comments:</u></p> <p>The proposed works represent a potential risk for pollution of the environment through dust, noise and water pollution. However, the sediment basin would be enlarged and all other necessary erosion and sediment control measures would be installed and maintained to ensure the risk of pollution is minimised. Dust and noise would be managed in accordance with the current procedures outlined in the RFQEMP which would minimise the risk of any additional emissions. Any fuel spills would be managed in accordance with the RFQEMP.</p>	Minor short term negative
<p><i>m. Any environmental problems associated with the disposal of waste?</i></p> <p><u>Comments:</u></p> <p>The proposed works are not expected to result in the generation of any hazardous materials or any other waste problems.</p>	Nil
<p><i>n. Any increased demands on resources, natural or otherwise which are, or are likely to become in short supply?</i></p> <p><u>Comments:</u></p> <p>The proposed works are not likely to cause any increased demand on resources likely to become in short supply.</p>	Nil
<p><i>o. Any cumulative environmental effect with other existing or likely future activities?</i></p> <p><u>Comments:</u></p> <p>With the implementation of appropriate safeguards as outlined in the RFQEMP and in Section 3 of this document, the proposed works are not expected to have any cumulative impact.</p>	Nil

5.2. EPBC ACT 1999 Factors (Commonwealth legislation)

Factor (Commonwealth Legislation)	Impacts
<p><i>a. Any environmental impact on a World Heritage property?</i></p> <p><u>Comments:</u></p> <p>The works would not be undertaken near any world heritage properties and as such are not expected to have any impact on any world heritage properties</p>	Nil
<p><i>b. Any environmental impact on wetlands of international importance?</i></p> <p><u>Comments:</u></p> <p>There are no wetlands of international significance in the surrounding area. The proposed works are not expected to have any impact on any wetlands of international significance.</p>	N/A
<p><i>c. Any environmental impact on Commonwealth listed threatened species or ecological communities?</i></p> <p><u>Comments:</u></p> <p>There are no commonwealth listed threatened species or ecological communities that are expected to be impacted on by the proposed works.</p>	Nil
<p><i>d. Any environmental impact on Commonwealth listed migratory species?</i></p> <p><u>Comments:</u></p> <p>The proposed works would not result in any vegetation removal, and are to be undertaken in an area which is already cleared. As such the proposed works are not expected to have any impact on any habitat for Commonwealth listed migratory species or any actual Commonwealth listed threatened species.</p>	Nil
<p><i>e. Does any part of the proposal involve a nuclear action?</i></p> <p><u>Comments:</u></p> <p>No part of the proposed works involves a nuclear action.</p>	N/A
<p><i>f. Any environmental impact on a Commonwealth marine area?</i></p> <p><u>Comments:</u></p> <p>The proposed works will not have any impact on any wetlands of international significance.</p>	N/A
<p><i>g. Any direct or indirect effect on Commonwealth land?</i></p> <p><u>Comments:</u></p> <p>The proposed works are not expected to have any impact on any Commonwealth Land.</p>	NA

6. Conclusion

The HHSA, on behalf of Abigroup, seeks to modify project approval (07-0078, dated 16 June 2008) to extend the stockpile area and enlarge the existing sediment basin.

Section 3 of this submission examined the proposed works in relation to current operating conditions and considered any additional potential impacts from the proposal. The proposed extended aggregate stockpiling operations are not likely to significantly increase dust or noise emissions above current levels. The proposed works are also not likely to result in any other significant impacts above current conditions. Safeguards for the proposed works have been discussed also in section 3.

Appendix A Correspondence from KNC



6 May 2009

Lisa Kerrigan
Environmental Scientist
Sinclair Knight Merz
Level 4, 100 Christie Street, St Leonards, NSW 2065

Dear Lisa,

Re. Aboriginal archaeological heritage survey of proposed revegetation areas and confirmation of lands surveyed associated with Rockley Falls Quarry, Holbrook

This letter is an addendum to the report, *Rockley Falls Quarry Aboriginal Archaeological Heritage Assessment* Kelleher Nightingale Consulting (April 2008) and should be read in the context of this report.

Following on from previous investigations, Kelleher Nightingale Consulting (KNC) has undertaken an Aboriginal archaeological heritage survey of proposed revegetation areas at Rockley Falls, Holbrook. Matthew Kelleher (KNC) met with Jo Kiddie (Hume Highway Southern Alliance) on 23rd March 2009 and undertook an inspection of the proposed revegetation areas. No Aboriginal archaeological objects or areas of potential were identified during this survey. No new Aboriginal heritage constraints were identified for the area.

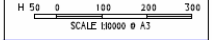
Attached to this letter is a map showing the extent of lands associated with the Rockley Falls Quarry which have to date been surveyed for Aboriginal archaeological heritage. All identified archaeological sites are shown on this plan.

If you have any questions or require further information please contact me. My contact details are:

Office: (02) 9232 5373
Fax: (02) 9232 5316
Mobile: 0400 821 264
Email: Matthew.Kelleher@knconsult.com.au

Yours sincerely

Dr Matthew Kelleher
Director/Archaeologist
Kelleher Nightingale Consulting Pty Ltd



esler
 & ASSOCIATES

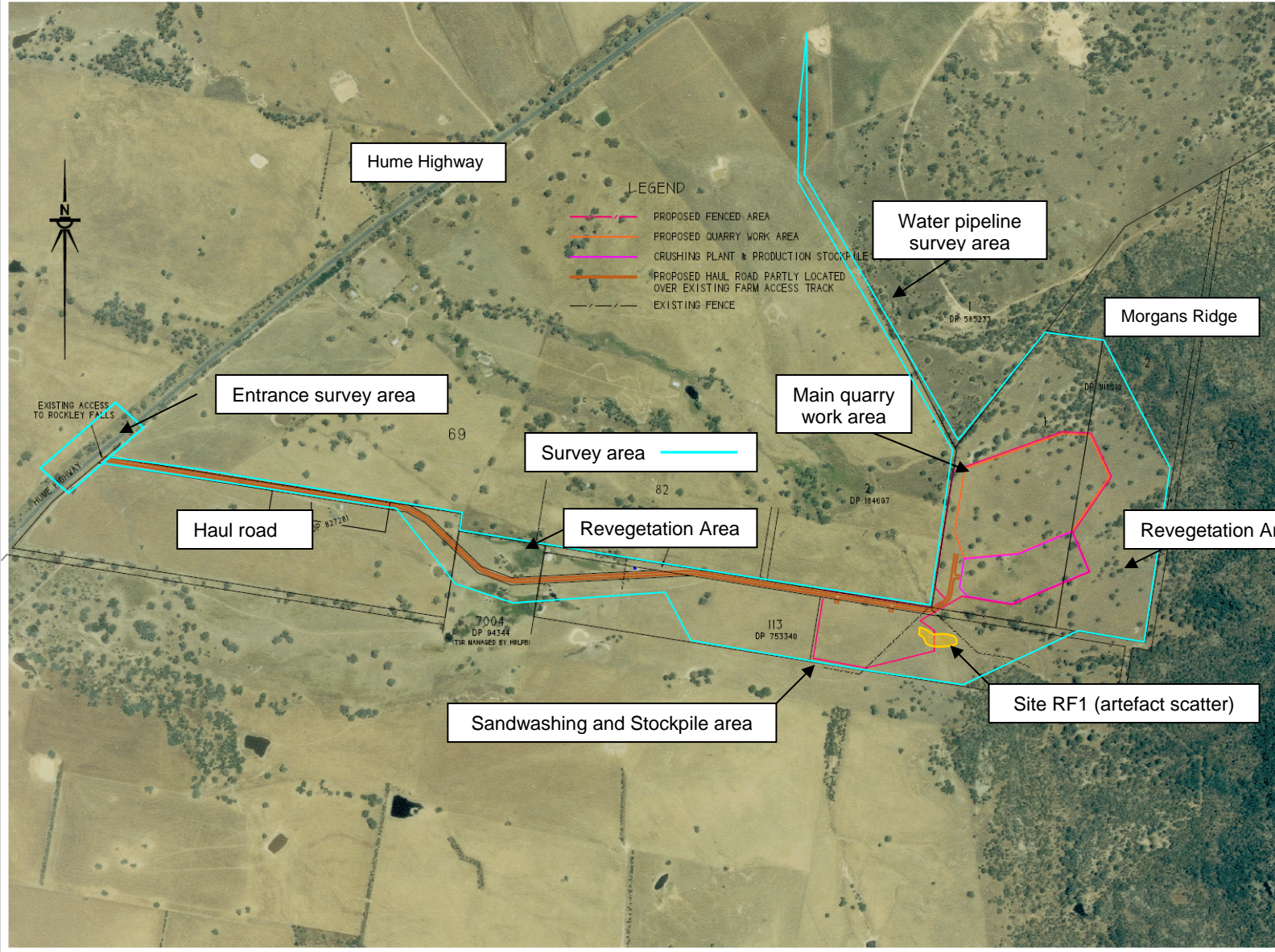
SURVEYORS CIVIL ENGINEERS
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64 Hammond Avenue, Wagga Wagga
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 e: engineering@eslers.com.au



CHECKED:- JL

APPROVED:- JL

DESIGNER RB	REFERENCE NO. FILE 15745_RP0401.vcd
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DATUM A.M.S.	SHEET 2 OF 4

Figure 1a. Aboriginal archaeological survey area around Rockley Falls Quarry



Appendix B Correspondence from Waters Consultancy

5 June 2009

Jenny Butler
Environmental Construction Manager
Hume Highway, Southern Alliance
PO Box 5126, MRMSC, Lavington, NSW, 2708

Re: Extension of Stockpile Site, Rockley Falls Quarry

Dear Jenny,

This letter is an addendum to the *Cultural Heritage Assessment Report: Rockley Falls Quarry (Holbrook)* Waters Consultancy (March 2008) and should be read in the context of this report.

On the basis of the cultural survey work undertaken with the identified knowledge holders for the 2008 report I can confirm that no areas of cultural heritage were identified within the proposed additional stockpile area (as shown in the attached pdf *20090505161450044.pdf* provided by Southern Alliance on the 2nd June, 2009) and that this area was part of that surveyed at that time.

If you have any questions or require any additional information please do not hesitate to contact me, my contact details are below.

Regards,



Kate Waters
Director/Cultural Heritage Consultant

Waters Consultancy Pty Limited
28 Govett Street
Katoomba, NSW, 2780
T & F: 02 4782 7556
M: 0417 438146
E: waters.consult@bigpond.com
ACN: 134 852 314



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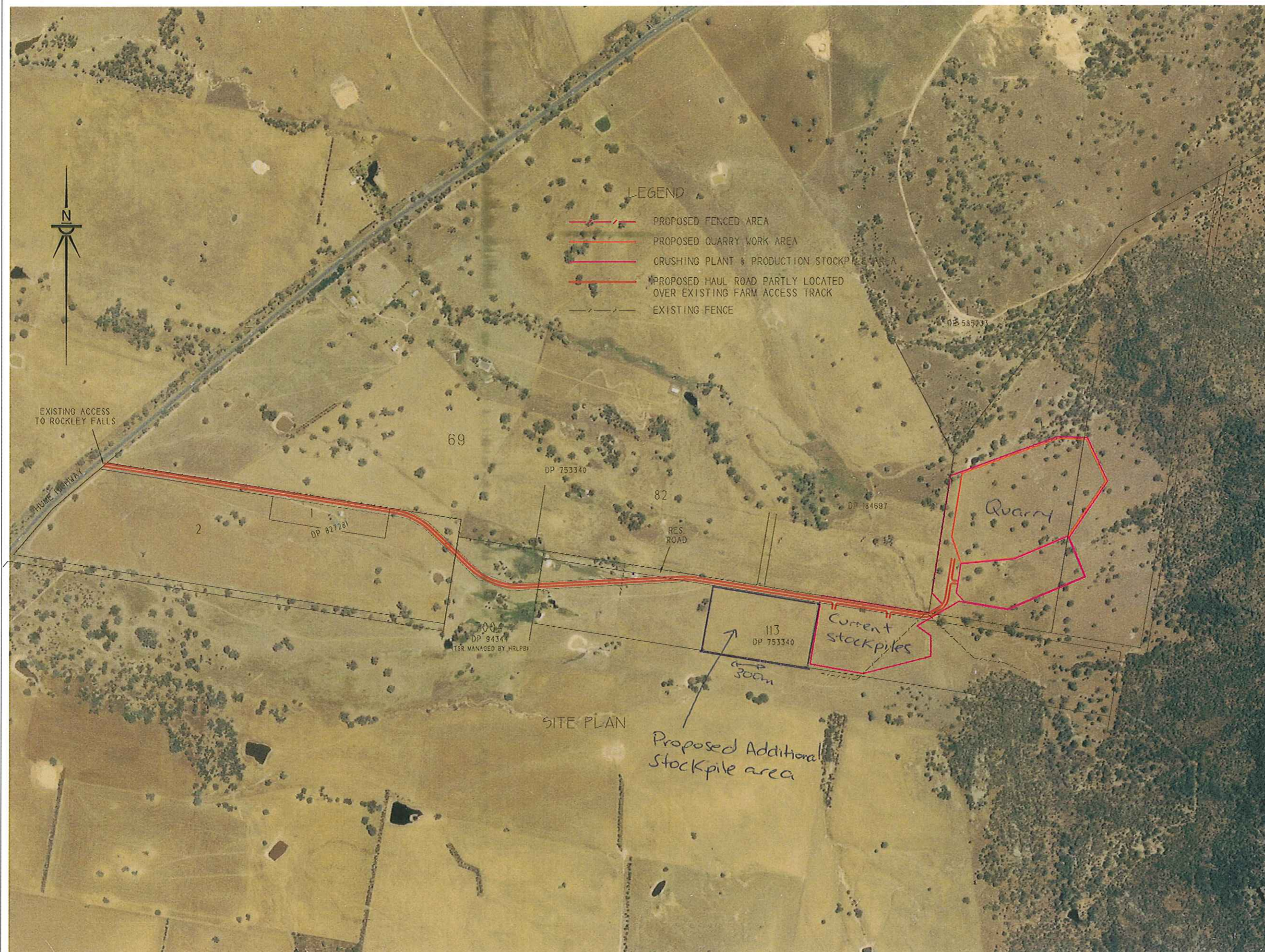
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Appendix C Concept ERSED Plan

**Rockley Falls Quarry
CONCEPT EROSION & SEDIMENT CONTROL PLAN
For
Additional Stockpile Area**



PLAN PREPARED BY J Butler (HESA- ENVIRONMENTAL CONSTRUCTION MANAGER) – 1 July 2009

GENERAL NOTES

1. This Progressive Plan is to be read in conjunction with the relevant sections of the Water Quality, Sedimentation and Erosion Control Plan located within the Environmental Management Plan (EMP) – Rev I
2. The principle of ‘minimum disturbance’ of existing vegetation is to be observed with clearing limits pegged prior to commencement.
3. Activities that could cause erosion and generate sediment include:
 - a. Initial topsoil stripping and stockpiling
 - b. Runoff from early earthworks
 - c. Runoff from hardstand, aggregate/sand/overburden stockpiles
 - d. ‘Clean’ water entering site from ‘uphill’ locations
 - e. The movement of heavy machinery on haul roads

Measures to minimise soil erosion and reduce the potential to transport sediment downstream include but are not limited to:

- a. Topsoil to be stripped and stockpiled. Sediment fence to be used downstream of stockpiles if necessary to treat dirty water runoff. Topsoil stockpiles to be stabilised with cover crop.
 - b. ‘Dirty’ construction runoff to be diverted into sediment basins via temporary drains/banks/bunds and shaping of fill.
 - c. Sediment basin inlets and outlets will be lined with geotextile to reduce erosion.
 - d. Velocity checks will be installed in drains to reduce speed of flow and therefore eroding potential.
4. Temporary controls in addition to those indicated on the plan to be progressively located at ‘key’ locations as necessary.
 5. Water in sediment basins to be managed immediately following rain to maintain design capacity within 5 days. A combination of the following will be implemented:-
 - i. Flocculation with the addition of gypsum (at an approximate rate of 70kg/100m³). Water to be released downstream or to ‘clean’ water dams only after achieving acceptable water quality standards of 50mg/l TSS and pH of 6.5-8.5. Environmental officer only to approve discharge of sediment basin water off site.

ii. Basin capacity will be re-established to <30% within 5days by directly using sediment basin water for dust suppression.

6. Dust to be controlled using water tankers, progressive revegetation etc.
7. All temporary controls to be inspected regularly with maintenance/repairs implemented as necessary (eg desilting, retrenching, re-erecting sediment fence). Weekly Environmental Inspection Checklists will be used to monitor existing controls. An Environment Maintenance Action and Observation List will be completed as required.
8. Removal of any controls will only occur in any of the following situations:
 - a) a minimum of 70% ground cover has been achieved from revegetation
 - b) approval has been given from the Environmental Officer
 - c) quarry closure plan has been implemented
9. This Concept Plan to be revised as necessary.
10. Separate Progressive Plans to be prepared for separate construction works.

Appendix D DECCW Correspondence

Date: Wednesday, 8 July 2009
Our reference: DOC09/32124 LIC07/1790-02
Contact: Chris Burton, 02 6022 0609

Ms Jenny Butler
Environmental Construction Manager
Hume Highway
Southern Alliance
PO Box 5126 MRMSC
LAVINGTON NSW 2708

Dear Ms Butler

Proposed Extension to Stockpile Area, Rockley Falls Quarry

I refer to your email dated 6 July 2009 to the Department of Environment and Climate Change (DECC) seeking support for the proposal to extend the stockpile area at Rockley Falls Quarry.

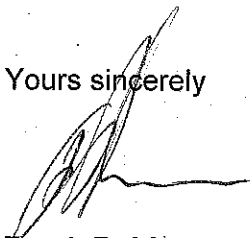
DECC has reviewed the information supplied in the report Rockley Falls Quarry, Proposed Extension to Stockpile Area dated 1 July 2009. Based upon the information supplied we are able to support the proposal.

The main issues that will need to be carefully managed through the extension to the stockpile area are dust and stormwater management.

So that an amendment of the Environment Protection Licence can be made, please provide formal advice from the Department of Planning that the proposed extension is consistent with the existing development consent.

If you have any further enquiries about this matter please contact Chris Burton by telephoning 02 60220609.

Yours sincerely



Frank Robinson
Acting Head of Unit, Albury
Environment Protection and Regulation

