30 January 2012

Department of Planning and Infrastructure
Mining and Industry Projects
GPO Box 39
SYDNEY NSW 2001

Attention: Mr Colin Phillips

Dear Sir

Subject: Teralba Quarry Project (10_0183)

Lake Macquarie City Council comments on Environmental Assessment

Rhondda Road, Teralba

In response to your letter of 1 December 2011 requesting Council's comments on the Teralba Quarry Project, the following information is provided.

Following Council's initial review of the documentation for the issue of DGR's and the Preliminary Environmental Assessment, the final Environmental Assessment (EA) has addressed some but not all issues. The following is a review of those matters that remain outstanding, and new matters that are raised.

Flora and Fauna

Existing Approvals

The proposal includes the removal of habitat for a number of threatened species. This habitat is identified as high value by Council's Lifestyle 2020 Strategy. It is recommended that the total area of additional quarrying not exceed the area already approved under the 1964 consent.

It is noted that the previous request to verify whether approval exists to destroy threatened species habitat under the Threatened Species Conservation Act 1995 (if no Part 4 approval has been issued under the Environmental Planning and Assessment Act 1979), has not been adequately addressed in the documentation. This confirmation is again requested to be raised with the applicant.

Survey Effort

Targetted Survey for Threatened Owls - Threatened owl roost and nest trees are rare within the City of Lake Macquarie. Section 5.3.1.3 of Council's Flora and Fauna assessment guidelines recommends survey from late February to mid May for threatened owls as this period corresponds with the onset of breeding. The owl survey completed was for September, November, and December. It is requested that a revised survey from late February to mid May be required as part of the EA and the footprint adjusted to minimise impact to any significant habitat identified.

Habitat Hollows – The survey effort for habitat trees (see Figure 10) did not cover the entire site. It is likely that significant trees such as potential threatened owl roost and nest trees (i.e. particularly for the barking owl that was recorded during survey) may have been missed. It is requested that the survey be redone over the entire site (including transmission line relocation) prior to any determination and the footprint adjusted to minimise impact to any significant habitat identified.

Endangered Ecological Community Lower Hunter Spotted Gum Forest in the Sydney Basin Bioregion – Section 5.4.5.3 concludes that the EEC LHSGF is unlikely to occur within the study area however this appears inconsistent with mapping completed by Bell (2009) (See Figure 1 below). The impact on LHSGF should be reassessed as part of the EA and in accordance with Figure 1 below, and the footprint adjusted to minimise impact to any significant habitat identified.

Figure 1 – Extract from Figure 2 (Bell 2009) showing location of LHSGF in relation to the Metromix site.

Amelioration – Rehabilitation

Mechanisms proposed to ensure that the site is successfully rehabilitated have not been adequately provided. It is expected that rehabilitation of the site will take some 20 – 30 years and the method of funding is sought. The long term future use proposed for the site should also be addressed, together with the intention of un-revegetated areas identified in Section 2.19.

If the proposal is to proceed it is requested that a Voluntary Planning Agreement (VPA) or other similar mechanism be investigated prior to determination, to include a Vegetation Management Plan that is consistent with Council's Vegetation Management Plan Guideline as well as funding arrangements and guarantees to ensure this work is completed.

Compensation - Proposed Offset

Tetratheca juncea - Approximately 68 clumps (or 36%) of *Tetratheca juncea* identified is to be impacted. Council's *Tetratheca juncea* management plan requires any impact to be not more than 25% of local populations and that *Tetratheca juncea* retained be protected within a 20 metre buffer. This has been consistently applied throughout the LGA. It is requested that

the proposed impact in this regard be reduced so that it is consistent with Council requirements.

Offset Area – OEH offset principle 7 (App 2 of the Guidelines for Biodiversity Certification of Environmental Planning Instruments – Working Draft DECCW 2007) states that *'Offsets must be enduring – they must offset the impact of the development for the period that the impact occurs …'offsets should be agreed prior to the impact occurring'.* It is unclear what mechanism is being used to secure and fund ongoing maintenance of the offset area in perpetuity. Ideally, the offset area would be set aside as national park or equivalent. It is recommended that that a VPA or similar mechanism be negotiated and finalised prior to any determination to address this matter.

Traffic, Transport and Roads Maintenance

The analysis carried out for the intersection of Pitt and York Streets, Teralba does not take into account the proposed residential subdivision of 600 lots at the end of Pitt Street, which has been approved by Council (DA/3478/2002/B). The analysis should be re-done taking this into account.

Whilst the proposal does not increase the traffic generated by the development, community expectations in relation to traffic noise have changed. In this regard, trucks should not be permitted to go through Teralba until 7:00am, rather than the current 6:00am. Heavy vehicles on residential road reduce the perceived level of safety for residents using active transport such as cycling or walking.

With regard to the proposed traffic routes intended for the transport of material to and from the site, the following table indicates proposed routes, Council Roads affected, general condition and length of Council road that is influenced by truck movements.

Route	Suburb	Street	LMCC ID No	Blk No's	General Condition	Length Klm's
Route 1/11 & Route 2/12	Wakefield	Wakefield Road	17961	1	Poor	1.16
Route 1/11 & Route 2/12	Killingworth	Wakefield Road	10625	1_6	Fair	1.71
Route 1/11 & Route 2/12	Barnsley	Northville Drive	10617	1_8	Fair	1.36
Route 1/11 & Route 2/12	Edgeworth	Northville Drive	12826	1_3	Fair	1.23
Route 6/16	Wakefield	Wakefield Road	17961	2_12	Poor	7.52
Routes 1/11, 2/12 & 6/16	Teralba	Rhondda Road (West)	15716	7_8	Poor	1.64
Route 3/13	Teralba	Rhondda Road (East)	15716	1_6	Good	1.56
Route 3/13	Teralba	Railway Street	15715	2_4	Good	0.64
Route 3/13	Teralba	William Street	15721	4	Fair	0.16
Route 3/13	Teralba	Short Street	15718	1	Fair	0.06
Route 3/13	Teralba	York Street	15722	1_5	Good	1.05
Route 3/13	Teralba	Toronto Road	11419	7_8	Fair	0.28
						18.37

Several road sections that are on the proposed routes have major maintenance issues regarding continued need to repair failures caused by heavy vehicles. It is recognised that an open cut mine is nearby and may contribute some traffic into the area, however the bulk of heavy transport appears to be from the Metromix plant.

The loss of economic life for the above roads and the ability to fund the roads replacement at a time that meets the communities' expectation needs to be addressed in this application. The increased traffic usage will deteriorate the roads quickly and maintenance funds will not permit adequate intervention to be sustained. It is expected that with the proposed development sections marked as poor, will require extensive rehabilitation. Roads marked as fair will deteriorate faster with increased truck movements. A full estimate to undertake this work would need a pavement investigation and design.

Empty and loaded trucks cause damage to roads by bouncing over rough sections. An increase in complaints regarding noise from trucks travelling along the roads will place added pressure onto Council to carry out a higher than normal maintenance intervention.

In order for Council to maintain roads effectively for the duration of the plants operation, a maintenance levy per kilometre of road that material is transported on Lake Macquarie City Council maintained road network would be required.

The mechanism for this cost recovery as a direct result of the proposal should be investigated as part of this application and assessment, and should reflect a Deed of Agreement or similar mechanism that addresses the direct impact of the development on Council infrastructure (see below).

In addition Council require a monthly report indicating the gross tonnage carried over its roads and the routes used to transport material outside of the LGA boundary.

The above issues could be overcome by Metromix using the coal haulage road on its boundary. The coal haulage road would give the greatest benefit for trip heading south by eliminating the need for heavy vehicles to travel through Teralba, Fennell Bay, and Toronto.

Contributions Mechanism

Council requires a contribution for the maintenance of the local road network over the operational life of the proposal. To enable this to occur, Council requires the applicant to enter into a Deed of Agreement with Council to ensure the ongoing maintenance of the local road network prior to consent being issued. This agreement must specify, but not be limited to the following:

- A base contribution rate per tonne of material multiplied by the length of the haulage routes, including consideration of both loaded and unloaded vehicle movements;
- Reporting mechanisms for vehicle movements;
- Appropriate calculations for the indexation of the base contribution rate;
- Details on frequency and methods of payment; and
- Enforcement provisions.

It is recommended that the applicant contact Council's Contribution Officers immediately to commence negotiations.

Air Quality

The Air Quality Assessment (AQA), Specialist Consultant Studies Compendium Volume 2, Part 7, dated November 2011, prepared by SLR Consulting Pty Ltd., has been reviewed.

The AQA predicts the impacts of particulate matter less that 10 micrometres diameter (PM_{10}), particulate matter less that 2.5 micrometres diameter (PM_{10}), total suspended particulates (TSP), and deposited dust.

The AQA has been reviewed with reference to both the *National Pollutant Inventory, Emission Estimation Technique Manual for Mining,* Version 2.3 (NPI EETM, 2001) referred to in the AQA, (Table 10, page 7-37), as well as the updated Version 3.0, (NPI EETM, July 2011).

The AQA predicts air quality impacts within the criteria for Total Suspended Particles (TSP), PM_{10}, $PM_{2.5}$ and deposited dust at sensitive receptors. However, these impacts are conditional upon the operation of dust control measures, which aim to achieve control factors of 50% for emissions of TSP and 95% for emissions of PM_{10} and $PM_{2.5}$. Although the AQA provides a list of typical dust control measures, the study lacks a detailed site-specific environmental management plan for dust control.

Further, the following concerns are raised based on the review of the AQA:

1. The potential for exceedences of criteria onsite and offsite at locations other than sensitive receptors; and

2. The potential anomalies in emissions inventory data and modelling inputs for emissions, which in turn raise concern regarding the reliability of input data and modelling results.

The following explains the above issues in more detail.

1. The potential for exceedences of criteria onsite and offsite at locations other than sensitive receptors

1.1. The AQA predicts the following exceedences:

1.1.1. PM_{10} annual average concentrations, onsite, for all three scenarios, as indicated in Appendix 1 (Figure 20, page 7-64; Figure 21, page 7-65, Figure 22, page 7-66)

1.1.2. PM_{10} 24-hour average concentrations, onsite, for all three scenarios, and offsite in the vicinity of the northern boundary for two of three scenarios, as indicated in Appendix 1 (Figure 23, page 7-67; Figure 24, page 7-68, Figure 25, page 7-69)

1.2. Although not discussed in the AQA, inspection of AQA Figure 17 (page 7-61), Figure 18 (page 7-62), and Figure 19 (page 7-63), suggests the potential for exceedences of the criterion for TSP annual average concentrations. For example, these figures display a highest-value contour, which is labelled 50 micrograms per cubic metre ($\mu g/m^3$). A note below the figure captions states that the guideline criterion is 90 $\mu g/m^3$ and confirms that the contour values exclude background concentrations. Given that the background TSP annual average concentration used in the assessment is 39.3 $\mu g/m^3$ (Table 9, page 7-29), it follows that the highest value contour represents a concentration of 89.3 $\mu g/m^3$ (50 + 39.3 = 89.3) and that areas within the contour potentially experience concentrations above the guideline of 90 $\mu g/m^3$.

2. The potential anomalies in emissions inventory data and modelling inputs for emissions, which in turn raise concern regarding the reliability of model input data and modelling results

2.1. Given that, by definition, TSP incorporates PM_{10}, it follows that the emission rate for TSP is greater than the emission rate for PM_{10}. However, the emissions inventory data (Section 7.2, AQA, Table 11, page 7-38; Table 12, page 7-39; and Table 13, page 7 - 40) for the major emission source, Screening activity, show a lower emission rate for TSP (46,100 kg/annum) compared to PM_{10} (65,700 kg/annum). The AQA lacks a discussion of this anomaly.

2.2. A minor observation is that typographical errors exist in references to tables of emissions factors and emissions summary data in Section 7.2. That is, in Section 7.2, third paragraph, the references to Table 11, Table 12, Table 13, Table 14 and Table 15 require correction to Table 10, Table 11, Table 12, Table 13, and Table 14, respectively.

2.3. A potential anomaly exists between the discussion and the values for operating hours for Scenario 1B. That is, Section 7.1.1 (AQA page 7-30), suggests that fugitive emission sources in the Southern Extension area operate during the hours of 6am to 10pm, that is, 16 hours per day. In contrast, Table 11 (AQA page 7-38) indicates that fugitive emission sources operate for 11 hours.

2.4. More significantly, the application of algorithms to fugitive emissions values in the Scenario 1B emissions inventory, presented in Table 11, failed to derive the model input values presented for Scenario 1B in AQA Appendix 3.

For example, considering the major emission source, Screening activity, an emission rate of 46,100 kg/annum converts to a model input of 7.99 kg/h, rather than 0.0201 kg/h, as presented in Appendix 3.

That is:

Considering the major emission source, Screening activity:

Table 11 Scenario 1B Emissions Inventory, shows Screening values as follows:
Operating hours = 2,882 per annum;
TSP control factor = 50%; and
TSP annual emissions of 46,100 kg, and

Appendix 3, page 7-38, Scenario B model input, shows Screening value of 2.01E-02 (that is 0.0201 kg/h).

If ER_M (kg/h) = ER_I (kg/annum) x OpHrs (h/annum) x CF (%)

Where:

ER_I = Emission inventory (kg/annum)
OpHrs = Operating Hours (h/annum)
CF = Control Factor = 50%

And, from Table 11;

ER_I = 46,100 kg/annum
OpHrs = 2,882 h/annum
CF = 50%

Then:

ER_M (kg/h) = 46,100 (kg/annum) x 2,882 (h/annum) x 50 (%)

= 7.99 kg/h

Rather than 0.0201 kg/h, as presented in Appendix 3.

Regarding wind erosion sources, the relationship between the values in the emissions inventories and the values of model inputs is unclear.

For example, considering the Western Stockpile Area, the application of a simple algorithm to the value in Appendix 3, the TSP model input emission rate (kg/m^2/h) fails to derive the value of emissions in Table 14 (kg/annum), as follows:

Given that Table 14 (page 7-14), shows the Western Stockpile Area:

Area = 66,700 m^2, and
TSP emission = 1,900 kg/annum

While,

Appendix 3 (page 7-83), shows the Western Stockpile Area:

TSP model input emission rate = 4.00E-06 kg/m^2/h, continuous emission.

And, assuming that:

Annual TSP emission of Western Area Stockpile (kg/annum) = TSP Model input (kg/m^2/h) x Area (m^2) x 8760 (hours in 1 year)

Where:

TSP Model input (kg/m^2/h) = 4.00E-06 kg/m^2/h, continuous emission
Area (m^2) = 66,700 m^2

Then,

Annual TSP emission of Western Area Stockpile (kg/annum)
= 4.00E-06 (0.000004kg/m^2/h) x 66,700 (m^2) x 8760 (hours in 1 year)
= 2,337 kg/annum

Rather than 1,900 kg/annum, as presented in Table 14 (AQA, page 7-41).

2.5. Also, it is unclear why the activity units and emissions for fugitive sources, other than hauling, remain constant in all three modelled scenarios, as shown in Table 11, Table 12 and Table 13 (AQA pages 7-37 to 39).

It is concluded that the predicted impacts in the AQA cannot and should not be relied upon, given the issues discussed above.

References

NPI, (2011) *National Pollutant Inventory, Emission Estimation Technique Manual for Mining,* Version 3.0, June 2011, Department of Sustainability, Environment, Water, Population and Communities, Australian Government http://www.npi.gov.au/publications/emission-estimation-technique/mining.html accessed 10/1/12

NPI, (2001) *National Pollutant Inventory, Emission Estimation Technique Manual for Mining,* Version 2.3, 2001, Department of Sustainability, Environment, Water, Population and Communities, Australian Government www2.unitar.org/cwm/publications/cbl/prtr/.../Australia_**mining**.pdf -accessed 10/1/12

Creeks and Watercourses

It is noted that the existing operations of the quarry have resulted in regular exceedances of the ANZECC standards for nutrients (phosphorus and nitrogen) at the surface water discharge sites. It is requested that the assessment process for this application include a review of the existing Environment Protection Licence to include concentration limits for nutrients.

The applicant should provide calculations or modelling for each extraction stage to demonstrate that the proposed surface water treatment system is capable of achieving both the ANZECC and Environmental Protection Licence standards.

It is requested that the proponent provide greater detail on the influence of the final land-use and landform on both surface and groundwater and any subsequent ecological impacts. In particular, any changes to natural flow direction and volume.

Strategic Planning

Proposed transmission and distribution line relocation environmental assessment not included

The application makes reference to a (i) 33 kV electricity transmission line, and a (ii) 11 kV electricity distribution line that will be relocated in order for development to commence in the proposed extraction areas. The relocation of the transmission and distribution lines are likely to be located on land zoned 7(2) Conservation (Secondary) by the Lake Macquarie Local Environmental Plan 2004. The proposed relocation is anticipated to:

- require clearing of native vegetation that could include threatened species of flora such as *Tetratheca juncea;* and
- be located outside the project boundary and within a proposed biodiversity offset area.

Despite the potential for significant impacts an environmental assessment of the proposed relocation is not included as part of the Part 3A application. The transmission and distribution lines are identified in the EA Report as being owned by Energy Australia[1] and the relocation is not part of the application. However, without assessing the environmental impacts the application fails to adequately outline the direct or indirect environmental impacts related to the proposal. As a result, a complete assessment of the environmental impacts associated with the proposal has not been undertaken.

It should be noted, a similar case involving a Part 3A proposal to modify the boundaries of an existing mine and relocate a transmission line includes the Mangoola Coal Mine (see DoPI major projects register Bayswater to Mt Piper transmission line relocation MP 10_0002). In that case, the transmission line relocation was required to be considered as part of the application.

Additionally, Council has received advice from the Department regarding the expansion of the Awaba Waste Treatment Facility and the need to include assessment of off-site infrastructure in any application to the Department.

[1] Ownership of the lines need to be confirmed in the context of the recent disaggregation of Energy Australia into separate transmission (Transgrid) and distribution (Ausgrid) infrastructure companies.

Significant visual impact on critical scenic values

The proposal is located in an area designated by the Lake Macquarie Development Control Plan No. 1 as an area of the highest scenic quality (refer to map 1 presented in this letter). This is an area of critical value to the scenic image of the City and one most vulnerable to loss through development.

The southern quarry extension component of the proposal is anticipated to have significant impacts on the scenic values of the Lake Macquarie area. A zone of visual influence mapping assessment and photomontage modelling has been conducted to determine the visual impacts of the proposal (refer to map 1 and photomontage 1 below). The assessment and modelling indicates that the southern quarry extension will significantly modify the landscape by removing a prominent ridgeline from the landscape via quarrying activities. The southern quarry extension will be visible in the following residential areas:

- Speers Point;
- Teralba;
- Warners Bay; and
- Eleebana.

Regionally significant viewing locations within these areas include Lake Macquarie park, The Esplanade road, pedestrian and cycleway and adjacent foreshore parkland, and the Lake Macquarie waterway.

The EA briefly addresses the proposal's visual impact and presents visual screening measures. However, the visual assessment and the details of the mitigation are inadequate including:

- The visual assessment is misleading with Plate 5.2 indicating that the southern quarry extension will be located behind a vegetated ridge. However, the EA Report also states that the proposal will be visible from Speers Point as outlined in Figure 5.22;

- The EA states that visual impacts from other locations are not anticipated. However, the assessment and modelling of the visual impacts by LMCC would indicate that significant impacts could occur in a range of other locations such as Teralba, Warners Bay, and Eleebana;

- To mitigate visual impacts rehabilitation of exposed rock benches are proposed as outlined in Section 5.8.4 of the EA. However, a detailed, proven proposal and management plan to rehabilitate exposed rock benches has not been provided. In addition, a visual assessment of the effectiveness of the above measures to ameliorate the removal of the natural ridgeline has not been undertaken.

Recommendations to address these issues are as follows:

- Engage a qualified landscape architect to conduct a detailed visual impact assessment of the proposal that includes photomontage modelling of the proposed impacts of the quarry with and without mitigation measures from key vantage points;

- Include in the visual assessment a scenario to retain the eastern portion of the south quarry extension to provide visual screening of the quarry with the natural ridgeline; and

- Re-exhibit the visual assessment to permit the community and stakeholders to provide comment on an accurate assessment of the visual impacts proposed by the southern quarry extension.

Assessment of consistency with the strategic planning framework

Environmental Planning and Assessment Act 1979

The proposal is inconsistent with the Director-General's Requirements (DGR) issued under Section 75F of the Environmental Planning and Assessment Act 1979. This includes:

- The proposal does not meet the DGR General Requirements as an environmental assessment of the proposed transmission and distribution line relocation has not been undertaken;
- The proposal does not meet the DGR Biodiversity requirements as accurate impacts on biodiversity values from the proposed transmission and distribution line relocation have not been undertaken, including the impact on threatened species of flora; and
- The proposal does not meet the DGR Visual requirements as the proposal has not provided an adequately detailed description of the measures that would be implemented to minimise the visual impact of the project.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

The proposal is inconsistent with the following clauses under Part 3 of this SEPP:

Clause 12 Compatibility of proposed mine, petroleum production or extractive industry with other land uses

The proposed southern quarry extension will have a 30 year life and is located adjacent to land zoned: 3(1) Urban Core, 2(1) Residential, 2(2) Residential (Urban Living), and visible from land zoned 2(1) Residential and 6(1) Open Space under the Lake Macquarie Local Environmental Plan 2004. The above mentioned land uses are the long-term preferred land uses for the area. Without modification to the proposal these areas will be affected by significant and unacceptable visual impacts.

Clause 13 Compatibility of proposed development with mining, petroleum production or extractive industry

The proposal intends to quarry down to the Great Northern coal seam, however, a letter of consent from Oceanic Coal – the resource lease holder – has not been provided.

Clause 14 Natural resource management and environmental management

The proposed transmission and distribution line relocation impacts have not been provided as part of the EA. *(Note: Clause 11 (2)(a) of the SEPP identifies that electricity line modifications are deemed complying development if they are located on the site of an approved extractive industry. The proposed transmission and distribution line relocations are not considered to be deemed complying development as they are located outside the 'project site boundary' detailed in Figure 1.2 on page 1-8 of the EA. The relocation also has the potential to require assessment under the Threatened Species Conservation Act 1995).*

Lower Hunter Regional Strategy

The proposal is consistent with the strategy being located in an area of Non Coal Extractive Resources in Natural Resources Map 2.

Newcastle-Lake Macquarie Western Corridor Planning Strategy

The proposal is outside the strategy area.

Lifestyle 2020

The proposal is located next to Teralba, an identified 'Local Centre' (Neighbourhood) and adjacent to land indicated as an 'urban area', by the Lifestyle 2020 Urban Structure Map. The proposal is also located in an area of high value habitat by the Green System Map. Lifestyle 2020 provides *strategic direction 5.1.1 - Avoiding development that adversely impacts on areas of ecological and visual significance*. The visual impacts associated with the proposal's southern quarry extension are currently inconsistent with this strategic direction.

Lake Macquarie Local Environmental Plan 2004 (LMLEP 2004)

The proposal is located on land zoned 4(1) Industrial (Core) and 9 Natural Resources by the LMLEP 2004. The proposal is compatible with uses permitted with consent by the 4(1) Industrial (Core) zone and 9 Natural Resources zone. However, the southern quarry extension is inconsistent with the following objectives of the 9 Natural Resources zone:

(a) provide land that has dual values as an economic natural resource and for environmental protection, and

(b) recognise the dual values of the land and integrate economic use of the land with ecological sustainability

The values of the land for environmental protection (scenic values) are not adequately maintained by the proposal.

(e) rehabilitate disturbed land to a natural state, reflective of its long term value

The proposal does not mitigate or rehabilitate the land to reflect the long-term scenic value of the land.

(f) minimise earthworks while enabling productive use of the land,

The proposal does not minimise earth works as part of productive use of the land. The proposal could potentially win material from the site in a visually sensitive manner by retaining the eastern portion of the south quarry extension. This would enable the natural ridgeline to visually screen the quarry.

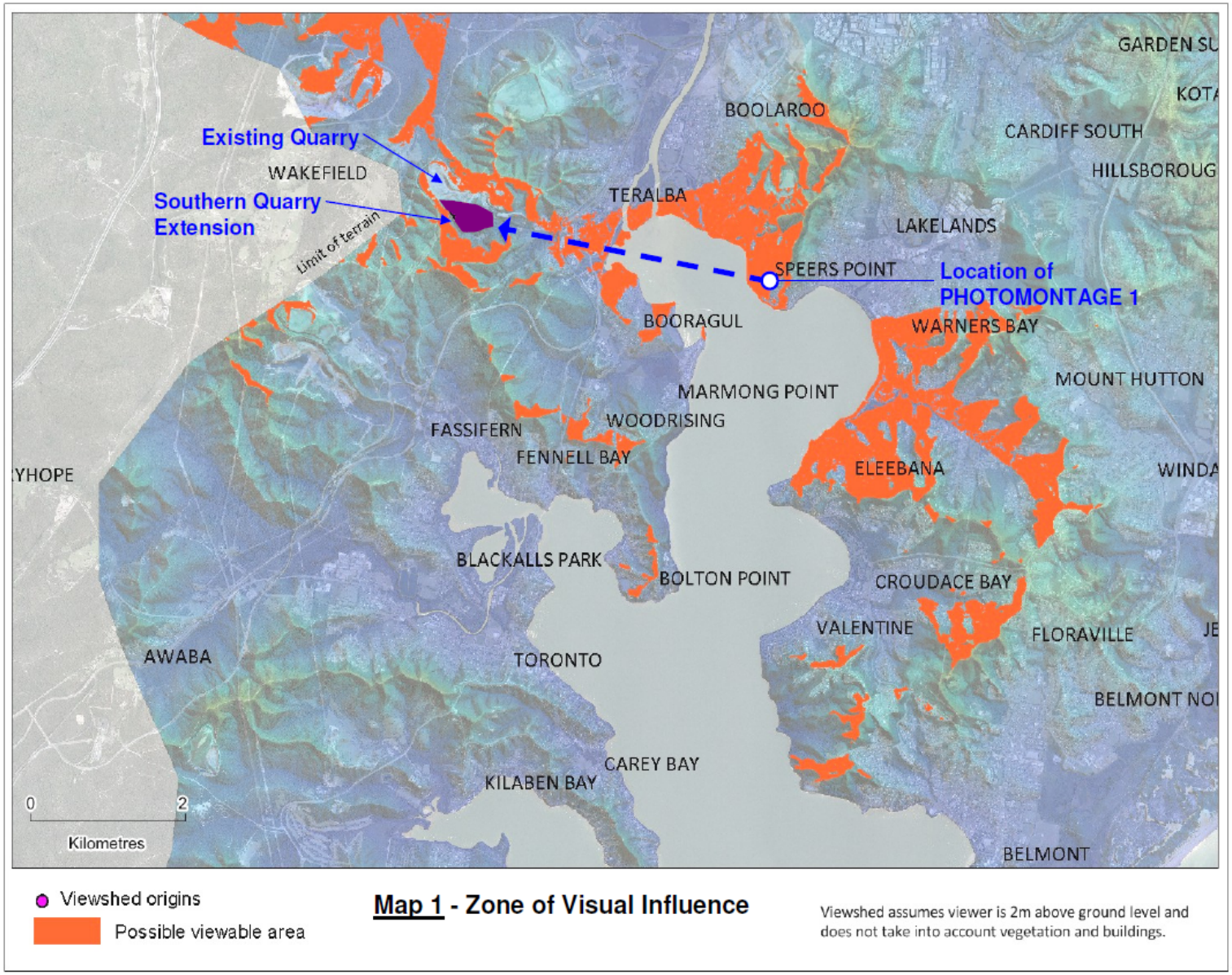
Lake Macquarie City Council Scenic Quality Guidelines 2004

The proposal is located in the following zone: *Zone A is assigned to areas where highest Scenic Quality and Visual Accessibility coincide. These areas are of critical value to the scenic image of the City and are the most sensitive to development change.* The objectives of this zone are to: "*Protect the natural character of all ridgelines and the dominant natural character of hillsides by ensuring the visual impact of development is minimised*. The strategies for this zone include that the: *"visual impact of development is restricted to retain areas in their existing condition and the very high scenic quality applicable to these areas is maintained".* The proposal is inconsistent these objectives and strategies as the proposal will significantly modify the natural character of the ridgelines and hillsides.

Due to continued inadequacies associated with the (1) proposed transmission and distribution line relocation environmental assessment, and (2) visual impact assessment and mitigation measures, the proposal is inconsistent with the strategic planning framework.

It should be noted the above mentioned issues were identified during the adequacy review of the EA however, have not been resolved.

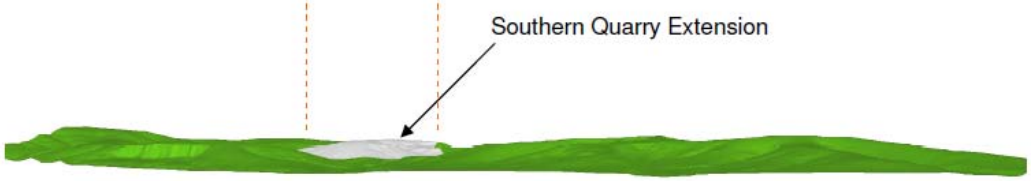
Our Ref: *MISC/43/2011*



Map 1 - Zone of Visual Influence

Viewshed assumes viewer is 2m above ground level and does not take into account vegetation and buildings.

Photomontage
(3D model superimposed over photograph)



3D Terrain Model

<u>Photomontage 1</u> – Intersection of Thompson Road and Short Street

Acoustic Impact

The Noise and Vibration Assessment, number 559/13 dated 2011, prepared by Spectrum Acoustics has been reviewed.

The report includes data logging, attended monitoring and computer software modelling of the existing operations and cumulative development.

The acoustic consultant has determined that there may be minor noise impact to residents in Railway Parade Teralba from trucks exiting the quarry via the eastern road exit at the southern end of Railway Parade during the early morning between 6.00am to 7.00am which is a night time shoulder period. The consultant's response to that noise impact potential is to restrict the trucks to a 15km/hr exit speed and ensure that those trucks be fitted with suspension air bags, otherwise, they will need to exit via the quarry western access road. It is however recommended that the hours of operation on these roads be limited to begin at 7:00am to mitigate the acoustic disturbance.

Blasting events should comply with the NSW OEH and ANZECC guidelines for residential occupant amenity and building structural integrity, provided that the blasting powder volumes are weight restricted in accordance with Section 6.6 of the consultants report.

There are no operational noise issues according to the consultant associated with the general quarry operation which would affect the amenity of residents, providing that their recommendations are incorporated into the working design.

Whilst the consultant has carried out a comprehensive modelling, attended compliance monitoring will be necessary during the first three month commissioning of the southern and northern extensions.

Heritage Conservation

The Aboriginal and European Heritage sections in the submitted in the Aboriginal Heritage Assessment and Section 5.11 of the Environmental Assessment have been reviewed.

The conclusions of the report, the methodology used and the investigations undertaken are supported.

The following conditions, as proposed in the Aboriginal Heritage Assessment and by the Office of Environment and Heritage shall to form part of any consent issued:

1. *If Aboriginal cultural objects are uncovered due to the development activities, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and Aboriginal community representatives must be contacted to determine the significance of the object(s). The site is to be registered in the AHIMS (managed by OEH) and the management outcome for the site included in the information provided to the AHIMS. It is recommended that the Aboriginal community representatives are consulted in developing and implementing management strategies for all sites, with all information required for informed consent being given to the representatives for this purpose.*

2. *If human remains are located during the project, all works must halt in the immediate area to prevent any further impacts to the remains. The NSW Police, the Aboriginal community and OEH are to be notified. If the remains are found to be of Aboriginal origin and the police consider the site not an investigation site for criminal activities, OEH should be contacted and notified of the situation and works are not to resume in the designated area until approval in writing is provided by OEH. In the event that a*

criminal investigation ensues, works are not to resume in the designated area until approval in writing has been received from NSW Police and OEH.

3. *All reasonable efforts must be made to avoid impact to Aboriginal cultural heritage values at all stages of the development works. If impacts are unavoidable, mitigation measures are to be negotiated with the Aboriginal community and OEH.*

Furthermore, the following European heritage condition is required to be placed on any consent issued with regard to the identification and protection of historical European relics.

1. *Excavation – Historical Relics*

   Should any historical relics be unexpectedly discovered then all excavations or disturbance to the area shall cease immediately and the Heritage Council of NSW shall be informed in accordance with Section 146 of the Heritage Act, 1977.

   The applicant is advised that depending on the possible significance of the relics, an archaeological assessment and an excavation permit under the Heritage Act, 1977 may be required before any further work can be recommenced in that area of the site.

Erosion and Sedimentation Control

No Soil and Water Management Plan (SWMP) accompanied the EA. Such Plan is required at this stage of the process to allow for site planning for the appropriate measures for each stage.

Although the EA makes reference to the intention for all erosion and sediment control measures and actions to be in accordance with the Blue Book (2004), many of the statements about proposed measures and actions are not. For example, stockpile heights and management. The report needs to identify which erosion and sediment control measures will be used, when and where, and how they will be removed and rehabilitated. The visual plan should show the location of measures and ensure that adequate area has been allowed for the measures.

The EA lacks detail about Erosion and Sediment Control for each stage of extraction for each site of extraction. This is required as a complete assessment cannot be undertaken without that detail.

In section 16.3 Draft Statement of Commitments, no timing is given for the documentation for a SWMP, however this is required.

The EA states that the site has already exceeded the Total Suspended Solids Limit several times in discharges from Mine Adit Dam. As some exceedences appear to occur during and after rainfall, it demonstrates that the current system is not preventing pollution of Lake Macquarie.

In addition, the proposed construction of a diversion drain to bypass Mine Adit Dam will need measures to prevent sediment laden water reaching Lake Macquarie and will require monitoring.

Surface Water Assessment – Erosion and Sediment Control

The current system of ponds and basins appears to be an adhoc system which may not prevent the release of sediment laden water from the site with the increased disturbed area.

The report lacks Construction Drainage diagrams for existing and proposed water flow and management for each stage in each extraction area.

From Figure 3.2, 113ML is proposed to be discharged from Sediment Dams B to F & H. The report does not specify how this water will be treated to bring turbidity levels to less than 50mg/L.

Section 5.4.2 states that the sediment dams should be designed to sediment Type D. Therefore the water captured in any basins needs to be treated prior to release. The report does not specify how this water will be treated to bring turbidity levels to less than 50mg/L.

Table 5.2 needs to provide individual dam information.

To assess dam size appropriateness, the calculations used for dam volume need to be provided.

As the current Site Water Management Plan (GHD, 2007) referred to in the EA was not provided, this could not be assessed.

The data provided in Figure A1-3 ends on 23/9/08. Data should be provided from then to November 2011 as it has been in other Figures in the same Appendix.

Table A2-1 does not list a Guideline for Total Suspended Solids.

Table A2-2 does not list Total Suspended Solids when it must be monitored.

Conclusion

It is of concern that if the development proceeds in its current form, there will be a significant impact on the water quality of Lake Macquarie, in terms of Total Suspended Solids.

More information is required to be presented in the form of a SWMP covering all stages, extraction sequences and extraction areas.

The reference used for erosion and sediment control must be the current reference used by the erosion and sediment control industry. This may not be the Blue Book (2004) in coming years.

Conclusion

Based on the above comments and review of the EA, Lake Macquarie City Council is not in a position to support the proposed expansion of the Teralba Quarry Project at this stage.

Additional information and clarification of existing information is required to enable a full and proper environmental assessment of the application.

The information requested is particularly relevant for aspects of the proposal and impacts on flora and fauna, air quality, scenic impact, traffic and transportation, developer contributions, and soil erosion and sedimentation.

It is noted that previous comments associated with the DGRs and Preliminary Environmental Assessment raised with the Department by Council have not been addressed by the applicant. Given the time and resources allocated to review the documentation, this is particularly disappointing.

Council requests that the concerns raised in this letter be conveyed to the applicant and considered b the Department in any assessment of the application.

Should you require further information, please contact the undersigned on 4921 0311 or by e-mail on cbdwyer@lakemac.nsw.gov.au.

Yours faithfully

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