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## CHARTERED PROFESSIONAL ENGINEERS & SCIENTISTS

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OUR REF: S: 09094\_LET16\_PEER REVIEW

YOUR REF: 2011NTH004 KYOGLE COUNCIL - 2011.34

October 4, 2011

Chair

Northern Joint Regional Planning Panel  
GPO Box 3415  
SYDNEY NSW 2001

Attention: Mr Garry West

**Re: Peer Review by Umwelt (Australia) Pty Ltd for Proposed Extractive Industry,  
Lot 12 DP 582916 and Lot 1 DP 366036, 904 Edenville Road, Cedar Point**

Dear Mr West,

We refer to the Peer Review by Umwelt Environmental Consultants (Umwelt) dated September 2011. We note that the Joint Regional Planning Panel have also reviewed and discussed the findings of this report, and recommend that further assessment be undertaken as per outlined in the review.

From our reading of the Umwelt report, it appears that the author has disregarded the General Terms of Approval issued by the Office of Environment & Heritage, which has been provided for a number of the issues that Umwelt has requested additional information for. Furthermore, assessments were in accordance with the NSW Department of Planning Director General's Requirements, and other government departments, such as the Ecological assessment in which Umwelt states that further assessment should be undertaken outside these requirements.

Further assessment will be expensive and it is unlikely that the outcome will change given that:

1. General Terms of Approval has been granted by the Office of Environment and Heritage (OEH) for issues such as dust, noise, water and blasting;
2. Council's assessment report restricts the quarry production to 23,500m<sup>3</sup>;
3. Further conditions of consent can be placed on the development which reflects further requirements as council deem suitable.

We further understand from Peter Carlill that Umwelt have not undertaken a site visit and the assessment that they have undertaken is a desktop study only.

We further note that in Section 3.0 Umwelt state 'for Major Projects of state significance, there have been a number of precedents involving the approval of projects that are likely to have significant noise or dust impacts on private residences or properties'. Therefore, the Umwelt report is treating the proposed development as a Major Project and not an integrated and designated development. Under a Major Project we understand that different legislation would be applicable and hence the requirements of assessment may have been different to what was undertaken for this project (ie Parts 4 and 5 under the Environmental Planning and Assessment Act no longer apply), and a different direction may have been provided in the Director General's Requirements.

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We also note that Kyogle Council in their Development Assessment Report July 2011 have called the proposal a Proposed Major Project. If the development was a Major Project it is our understanding that the JRPP would not be assessing the proposal as it would be referred to the Minister of Planning.

It is our opinion that Umwelt is considering the proposed quarry development detailed in the EIS as a Major Project as there is disregard to other department approvals. The proposal is defined as an integrated development; hence information from relevant authorities was obtained and addressed.

If additional information is provided as requested by Umwelt, does Umwelt become the consent authority over the Office of Environment and Heritage (OEH) who have already provided the General Terms of Approval?

Umwelt state that they acknowledge that it is Council's recommendation that the proposed development is approved, subject to conditions, and that they support many of the recommended conditions.

The following discusses the issues highlighted by Umwelt and our proposed response to their requirements.

### **1. Strategic Planning**

The Council will need to address the relevant planning policy references. However, it was our understanding that the subject site is within the Non Urban 1(A) zone, and not the village zone, hence the draft LEP also reflects this zoning as the plateau is RU1 and the steeper, vegetated sides of the ridgeline are E3.

It is noted that the assessment identifies that potential landuse conflict may occur as development has been permitted in close proximity to the proposed quarry site. However, as identified in the peer review, the site is identified as regionally significant, and the potentially impacted residences are individual houses, and not part of a village. The impacts on these dwellings has been specifically addressed and future, long term monitoring is required to be undertaken during the life of the quarry in order to reduce the potential of land use conflict. The site provides a vital resource of high quality aggregate which is not only suitable for concrete works, but for road material and other uses, and a similar resource is not readily obtained currently within the Kyogle Shire.

The draft LEP has taken into account the significance of the resource in order to allow for the use of the site as a quarry.

### **2. Proposed Development Details**

The proposed development is for an extraction rate of 47 000m<sup>3</sup> per year, over the life of 43 years, hence equating to in the order of 2.021 million cubic metres of material to be extracted. The Development Assessment Report by Kyogle Council indicated a consent for 23500m<sup>3</sup> per year, hence the volume of material to be extracted would be less than that proposed in the EIS.

The actual volume of basalt available within the total resource in the ridgeline is more than 4 million cubic metres, as it extends along the ridge to the north (into a neighbouring property), to the edge of the plateau area and at a depth which is unknown at this stage. It is known that suitable basalt is separated by a layer of agglomerate, and it is proposed that the depth of excavation will be to this layer, which is approximately 20 m depth.

Umwelt have stated that the implications of a reduction of production rate to 23500m<sup>3</sup> per year is required to determine the potential impacts on surrounding private properties.

However, it should be noted that the original EIS was prepared for double the extraction rate, and hence it would be considered that for the reduction in extraction rate can be dealt with as per conditions of consent, as outlined in the Development Assessment Report prepared by Kyogle Council, with the exception to the extent of road works required as noted in our letter dated 2 August 2011.

### 3. Air Quality

Umwelt recognise that the measures proposed to minimise air quality emissions are appropriate for the nature and scale of the development. This has also been supported by Office of Environment and Heritage in their General Terms of Approval. In 'O2 - Dust' of the General Terms of Approval, it states that the operation of the premises '*must be carried out in a manner that will minimise emissions of dust from the premises; loads must be covered and all the management and mitigation strategies as outlined in the EIS for dust control are to be implemented*'.

Umwelt recommends that a further assessment be undertaken, and has stated that consent include specific air quality monitoring criteria, being as follows:

- i. Depositional dust – a maximum total deposited dust level of 4g/m<sup>2</sup>/month and a maximum increase in deposited dust level of 2g/m<sup>2</sup>/month;
- ii. Total suspended particulates (TSP) – a maximum annual average of 90 µ g/m<sup>3</sup>;
- iii. Particulate matter of less than 10 µm (PM10) – a maximum annual average of 30 µg/m<sup>3</sup> and a 24 hour maximum of 50 µg/m<sup>3</sup>
- iv. Specific air quality management as part of the Operational Plan
- v. Include 6 months of background air quality monitoring prior to commencement of quarry operations

We consider that the General Terms of Approval issued by OEHL regarding air quality are more onerous than the above list, as the recommended monitoring by Umwelt provides a definitive figure that cannot be disputed by either the occupant of the nearest receptors nor the quarry operators, as a comparison to baseline figures is to be made.

The six month period to establish baseline levels is considered excessive for the proposed development, given the reduction in size to 23500m<sup>3</sup>, and the OEHL not having requested that this be obtained.

However, it may be suitable to obtain this data over a variety of weather conditions and could the requirements for this can be issued as part of the consent conditions.

### 4. Noise

Umwelt places doubt on the assessment as our report states that quarry operation would rely on mitigation to achieve the acceptable levels. Furthermore, Umwelt states that there is insufficient detail provided for background noise data.

The background noise data collection and interpretation was in accordance with the Office of Environment and Heritage (OEHL) Guidelines.

The Umwelt response states that that they would expect the background noise levels to be lower and which would influence the Rating Background Level (RBL) by making it lower, and this is the noise limit criteria at each of the closest dwellings.

The noise assessment was undertaken in accordance with the Industrial Noise Policy (2000) for the nearest receptors for long term monitoring. The location of the proposed development

is relatively close to the Summerland Way, and hence the noise levels are influenced by continuous traffic, but of also intermittent traffic along the local roads, and general agriculture use throughout the day.

The actual average noise level (L<sub>aeq</sub>) which was heard and monitored over the recording period is between 10 to 20 dB(A) above the background noise level, which is the lower 10% of noise heard (that is for 90% of the time, the actual noise level is above this monitored level). It is considered that the design RBL is quite conservative as the allowable limit of the quarry operation noise will be within the average, ambient noise levels of the locality and hence would not be considered to be an annoyance.

Furthermore, the Industrial Noise Policy state that the acceptable amenity levels for rural areas during the day are 50 dB(A).

Unwelt state that further noise assessment is required, as outlined in a number of points (page 4.5 and 4.6).

Our assessment undertook modelling using SoundPlan which is an industry accepted noise modelling software. Umwelt do not indicate that they have undertaken any calculations that contradict the findings of our assessment, and it appears that they are being speculative with their advice.

The noise source data has been monitored as sound pressure levels at certain distances from the machinery, and converted to sound power levels for the calculations using SoundPlan the noise monitoring software, as detailed in the Noise Impact Assessment.

The Noise Impact Assessment has not just considered the monitoring locations, but also the receptors, as shown in the Noise Contour Maps presented in Appendix B of the Noise Impact Assessment.

Further assessment could be undertaken, however, it is most likely the results would be similar to that obtained within our assessment, which has been approved by Environment and Heritage in their General Terms of Approval which have accepted the design goals for the closest receptors which is based on the RBL as undertaken in accordance with the Industrial Noise Policy (2000).

It should be noted that if the quarry does operate outside the criteria then further mitigation measures must be put in place to achieve the criteria as set by the OEHL in their General Terms of Approval.

## **5. Blasting**

Umwelt recommend if the quarry is approved, that the dwellings within 500 m are to be notified and measures in place to ensure that there are no safety risks posed by flyrock at the dwellings nor public roads.

It is considered that this condition can be achieved, as notification to the nearest neighbours was always proposed, and given that the basalt type it is expected that there will be limited fly rock.

## **6. Traffic**

Umwelt question why Council has recommended to halve the production rate given that the traffic assessment did not present delays or queuing.

Umwelt recommend:

- Provide additional analysis of post development traffic volumes for the reduced production rate at the intersection of Summerland Way and Omagh Road;
- Review of contribution assumptions by Council, as Umwelt calculate a higher contribution is payable annually.

Our requirements are considered to be adequate as stated in the EIS as we had undertaken the assessment on higher number of vehicles, and as Council halved it, the new calculations would likely show even less roadworks to be required, not more.

Furthermore, the conditions for upgrading of the intersections was only on advice of the RTA (based on the full proposed extraction rate), however, RTA stated that they are not the Road Authority for this locality and hence returned the \$250 fee for the assessment, but offered advice for the road works to approve safety on the roads. It is most likely that RTA would offer these recommendations of upgrade and improvements due to the current condition of the roads without any proposed development. However, the applicant acknowledges that the proposed quarry has the potential to impact on the local roads and hence proposes to upgrade Edenville Road and provide safe intersection at the site entrance is proposed. The applicant also proposes to undertake work at the intersection of Edenville Road and Summerland Way on the increase of production rates to that of 47000m<sup>3</sup>.

### **7. Groundwaters**

Umwelt agree in general with the recommendations of groundwater monitoring as proposed by our office, and conditioned by Council for various parameters.

Umwelt recommend that monitoring include further:

- Annual monitoring of the three groundwater bores for relative water level also

If OEH and Council deems it appropriate then this condition could be done in addition to the monitoring that we recommended.

### **8. Surface Water**

Umwelt state that the site could be operated as a closed water management system if determined feasible, which is based on rainfall data. The assessment undertaken for the site did not want to alter the hydraulic flows dramatically by damming the site, hence flow from the site is proposed to be undertaken of the treated stormwater only.

Umwelt recommend that monitoring include further:

- Additional background surface water quality monitoring from our proposed fortnightly monitoring over 2 months to that over a period of varying rainfall conditions
- The implementation of a surface water monitoring program for onsite waste storages and natural water bodies including the on-site 'wetland' and surrounding gullies are also to be monitored as well as the water storage
- Further assessment regarding the freshwater wetland which is part of a EEC;
- Soil and Water Management Plan be prepared in consultation with OEH, NSW Office of Water, NSW Department of Trade and Investment, Regional Infrastructure and Services and Council, be approved by Council and include a site water balance, an erosion and sediment control plan, measures to protect the on-site wetland and a surface water monitoring plan

It should be noted that a Soil and Water Management Plan was submitted as part of the EIS which incorporated the majority of the recommendations by Umwelt, and has been accepted by the OEH, therefore as OEH is the recognised authority in this area, we would respectively suggest we follow their requirements.

The wetland which Umwelt refer to is located in the south west of the site, and is separated to the southern extent of the proposed quarry area by a secondary ridgeline which extends to the west. The wetland is located about 450 m from the proposed quarry site, and as the quarry is proposed to be operated as a pit style, only controlled flows of clean water can be discharged to designated final pond areas, before flowing through spill ways to the surrounding areas. As presented in the Quarry Operational Management Plan the water quality of the ponds within the quarry are to be tested and parameters are to be met to discharge to the final ponds outside the quarry work area.

There will not be a need to pump from the Richmond River during normal operation. If a need arises in the future, then application to the appropriate department will be made for the commercial enterprise, but this is not part of this application.

Further monitoring could be undertaken as stated by Umwelt as a condition of consent.

### **9. Heritage**

Umwelt recommend:

- Further consultation in accordance with Aboriginal Cultural Heritage Consultation Requirements for Applicants (OEH, April 2010);
- Umwelt state that a lack of consultation with the broader Aboriginal community has resulted in limited cultural significance assessment;
- Council should seek specific advice from OEH in relation to the Aboriginal Heritage Assessment;
- Additional information is required to address non-aboriginal heritage

No further site artefacts were identified during the site inspection by OEH. The scar trees were identified in the 1990s, and have always been outside the quarry work area. Additional information relating addressing non-aboriginal heritage was indicated in the EIS as the site had been used for summer cropping and grazing of cattle only.

### **10. Ecology**

Umwelt recommends the following:

- further detail is required to ensure that the survey methodology is in accordance with the OEH Draft Guidelines for Threatened Biodiversity Survey and Assessment 2005;
- More detailed SEPP 44 koala habitat assessment due to the presence of koalas at neighbouring properties, and 3 species of koala food trees at the site;
- An assessment of Significance in accordance with Section 5A of EP and A Act, although the ecological assessment was undertaken in accordance with the Draft Guidelines for Threatened Species Assessment under Part 3A of the Environmental Planning and Assessment Act;
- A species impact statement may be required depending on the outcomes of the Assessment of Significance;
- The biodiversity offset package is reviewed by a suitably qualified ecologist prior to determining development, and be prepared in accordance with OEH's Principles for the Use of Biodiversit Offsets in NSW

Umwelt state that the proposed ecological restoration area and proposed offset area does not meet the requirement to improve or maintain ecological values of the proposed quarry footprint.

The Director General Requirements did not say that Section 5A was required, but specific direction to Section 3A, which was undertaken by the consultant. Furthermore, although a 7 part test was not undertaken for species in accordance with S5A, the Ecological report

referred to S5A stating that further assessment was not required as there were no threatened species on the site.

The general comments by Umwelt seem to be outside the requirements set by the DGR.

### **11. Rehabilitation and Final Use**

Umwelt recommends that Council modify the proposed consent condition to refer to the 'Rehabilitation Plan' in the EIS as the current proposed consent condition refers to a non-existent plan.

### **12. Visual**

Umwelt agrees that our conclusion and recommendations of the visual assessment are reasonable. However, recommends:

- Rewording of proposed condition 12 requiring screening between the development and nearest private residences with views of the site, or public place.

It is not clear what 'views of the site' may refer to, and this will need to be clarified.

It is understood that Umwelt have not visited the site and seem to not understand that the quarry work area is a plateau and will form a pit, hence the quarry will not be visible from roads nor receptors.

### **13. Socio Economic**

Umwelt recommends that based on the implications of the proposed development in relation to Edenville Road (Cedar Point) Bridge should be considered further and an appropriate contributions mechanism defined.

No nexus is drawn from Umwelts conclusion in this section and the number of vehicles using the road system.

### **14. Justification for the Proposal**

Umwelt states that although the resource is regionally significant, the proposed development has not been well justified, as there is no review of the existing or future demand and supply with the proposed development's service area in order to demonstrate a need for the proposed development.

Section 7.0 of the EIS discussed the justification of the proposal, which stated that the primary purpose of the quarry was to provide high quality aggregate to the local concrete manufacturing industry, which is operated by Graham's Concrete, and secondary used for road aggregate as required by Council and private enterprise. The quality of the aggregate is better than currently available within the approved quarries within the Kyogle local government area, and currently the aggregate that is used by Graham's Concrete is being purchased from Blakebrook Quarry in the Lismore Local Government area, approximately 40 km from the site.

The cost of the haulage from Blakebrook Quarry is not only impacting the local business, but further impacts local roads where the Kyogle Council does not benefit for on-going levies from that quarry for the upkeep of the roads. Trucks that would use the local roads from the proposed quarry would travel locally, and a levy fund would cover the potential damage to the roads that these trucks would cause. The proposal enhances the fundamental principle of value adding.

Furthermore, the RTA have previously stated that they support the identification and preservation of areas containing essential deposits for future community use, and it is considered that the proposal will provide a wider community benefit as council and civil contractors in this sector of Kyogle local government area can benefit from this high quality product. There are savings to community and transport costs, which Umwelt make no attempt to postulate an alternative.

### 15. Conclusion

The conclusion summaries Umwelt's assessment, and recommends further assessment be undertaken for:

- Clarification of total resource;
- Noise;
- Air quality;
- Blast design;
- Resolution of the trigger for and funding of the upgrade or replacement of Edenville Road (Cedar Point) Bridge;
- Discharge if water off site;
- Consultation of relevant Aboriginal stakeholders;
- Assessment of non aboriginal heritage;
- Clarification of ecology survey methods, assessment of koala habitat and test of significance, review of biodiversity offset;
- Justification of the project

In our opinion, we think Umwelt have introduced issues over and above the requirements of state government authorities such as outlined in the General Terms of Approval and DGR.

We consider that the quarry will meet the General Terms of Approval and many of the requirements suggested by Umwelt, therefore additional assessment and clarification is unlikely to change the outcome of the findings of the original assessment, but provide more information only.

Furthermore, it is considered that this is Umwelt's opinion only as we have taken actual monitoring and calculations and undertaken work in accordance with the DGR and have obtained the General Terms of Approval.

Our clients have indicated that they would accept consent conditions to be provided for further clarification and monitoring upon approval of the quarry. It is considered that the Council Assessment Report is adequate with rewording of the proposed conditions to allow for the inclusion of additional conditions such as air quality monitoring as recommended by Umwelt. This would then override the General Terms of Approval which has been provided by OEH.

If you have any questions, please contact this office.

Yours faithfully,

**Greg Alderson and Associates Pty Ltd**



**Greg Alderson**  
**Chartered Professional Engineer**

CC: Kyogle Shire Council; R and K Graham; P and R Carlill

