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Our Ref: 2238/JM/SF/JM/100111

10 January 2011

The Director General  
NSW Department of Planning  
PO Box 39  
SYDNEY NSW 2001

Attn: Kane Winwood

Dear Kane

**Re: Response to Submissions - Modification to Lynwood Hard Rock Quarry  
(DA 128-5-2005 Mod 2)**

The following response to submissions made in regard to the proposed modification to the approved Lynwood Quarry near Marulan NSW (DA 128-5-2005 Mod 2) is provided on behalf of Holcim (Australia) Pty Limited (Holcim).

Four submissions were received in regard to the proposed modification including:

- Goulburn Mulwaree Council (Council);
- the NSW Department of Industry and Investment (I&I);
- the NSW Office of Water (NOW); and
- one objection from a community member.

A response to each of these submissions is provided below.

Goulburn Mulwaree Council

The Council submission notes that Council does not object to the proposed modification. Council also notes that there will be some increase in construction phase traffic and that this traffic will follow a different route due to the NSW Roads and Traffic Authority (RTA) closing south-bound access to the highway at Portland Avenue. The submission states that Council considers that both of these are fairly minor concerns and that the mitigation proposed seems reasonable.

Council also identifies that Holcim is no longer proposing to sell and transport product from the site before the opening of the new interchange on the Hume Highway and requests that this commitment be conditioned into any consent.

Holcim addressed this issue in the Environmental Assessment (EA) Statement of Commitments which stated that:

**Construction Phase Traffic**

10. *To minimise the potential impacts from increased heavy vehicle traffic volumes, and the alternate access routes now required for the Project, Holcim will commit to the following management measures in relation to the proposed modifications:*

- *no product for sale will be transported from the site prior to the commissioning of the Hume Highway Interchange;.....*

Holcim would be comfortable with this commitment being incorporated into the consent.

No other issues were raised in the Council submission.

#### NSW Department of Industry and Investment

The I&I submission notes that there are no concerns regarding minerals issues, however, there are some comments related to Fisheries.

The submission identifies that I&I concurs with the proposed safeguards, monitoring and mitigation measures to minimise environment impacts, in particular those related to ecology and surface water detailed in sections 6.2 and 6.4 of the EA. The submission states that:

“all the proposed safeguards, monitoring and mitigation actions listed in the EA and Appendices should be included in any project approval, and listed in the Construction and Operation Environmental Management Plans (CEMP and OEMP) and fully implemented by the proponent and its contractors”.

The I&I submission also recommends that:

“any project approval require that the design and construction of new or upgraded access road crossings of Joarimin Creek must be undertaken in accordance with I&I NSW's *Policy and Guidelines for Fish Friendly Waterway Crossings* (2004) and *Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings* (2004)”.

Holcim is committed to implementing the controls as outlined in the EA as an integral component of the project. The existing consent conditions address these requirements by requiring Holcim to prepare Riparian Area Management Plans for all works to be undertaken within riparian zones on the site. The Riparian Area Management Plans are required to be prepared by a suitably qualified hydrologist (approved by the Director-General) and must include detailed design of the proposed works (following relevant standards), including all required design features, controls, rehabilitation requirements and monitoring. The plans are required to be prepared in consultation with Council, the Department of Climate Change and Water and the NSW Office of Water and are subject to the approval of the Director-General of the NSW Department of Planning (DoP). It is considered that these existing requirements of the consent provide adequate controls to ensure that all works within riparian zones are appropriately designed and implemented, including appropriate consideration of measures to maintain fish passage.

#### NSW Office of Water (NOW)

The NSW Office of Water (NOW) submission, dated 10 December 2010, raised some issues relating to water management at Lynwood Quarry. A general response to the issues raised is included below and a more detailed response is attached as **Attachment 1**.

As noted in the EA, the modifications will not require significant changes to the detailed water management system designed for the project and outlined in detail in the EIS (Umwelt, 2005a) and the approved WMP (Umwelt, 2007g). All relevant guidelines and legislation were also considered in the surface water assessment. Two potential impacts were noted: the potential to impact on the site water balance due to increasing stockpile dust suppression water demands associated with the proposed increase in stockpile areas on site; and the potential to influence flooding in Joarimin Creek due to the proposed changes to the site infrastructure. These two issues were assessed in the EA and the relevant mitigation measures identified in order to minimise the potential impacts of the modification.

As part of the approval process and subsequent to the approval of Lynwood Quarry (DA 128-5-2005) in 2005, Holcim, then Readymix, developed a Water Management Plan (WMP) (Umwelt, 2007), as required by Condition 20 of the Development Consent. As noted in Section 1.3 of the WMP, the plan was prepared in consultation with the Department of Environment and Climate Change (DECC) (now DECCW), Department of Water and Energy (DWE) (water section renamed as NOW) and Sydney Catchment Authority (SCA). A draft copy of the WMP was provided to these agencies prior to submitting the WMP to the Department of Planning (DoP) for approval. The DoP approved the WMP in August 2007. As noted in a letter to the DoP from Umwelt, dated 23 May 2007, a copy of the draft Water Management Plan was provided to DWE in February 2007. Comments were received from

DWE and SCA regarding the monitoring programs, however, no comments were received on the draft Water Management Plan.

As required by Condition 20, Holcim consulted with DWE (water section renamed as NOW) prior to submitting the WMP to DoP for approval. As such, it is our understanding that the conditions of consent in regard to the WMP have been met and any requirement restricting the commencement of construction based on a subsequent NOW review of the approved WMP is not considered appropriate. It should be noted that the EA for the Proposed Modification to Lynwood Quarry, Section 6.4, outlines that the WMP will be updated should the modification be approved and this commitment has been included in the Statement of Commitments in the EA. Any update to the WMP would include consultation with NOW as required by the current consent conditions. It should also be noted that the consultation process undertaken for the approved WMP, included extensive consultation as part of the original approval process for Lynwood Quarry. This included a site meeting with DECC and DWE personnel that included specific discussions regarding site water management.

In regard to potential impacts on riparian corridors, it is noted that extensive work and consultation with NOW in this regard has been undertaken by Holcim. Lynwood Quarry was approved under Part 4 of the *Environmental Planning and Assessment Act 1979* and is therefore not exempt from obtaining approvals under the *Water Management Act 2000*. As outlined below, the permits required from NOW to undertake the currently approved works have been obtained with the proposed modifications involving relatively minor changes to these approved works.

The approved Rehabilitation and Landscape Management Plan (Umwelt, 2006) for the Lynwood Quarry project includes Riparian Area Management Plans for Joarimin Creek, Lockyersleigh Creek and Marulan Creek, which have been developed for the Lynwood Quarry to satisfy Conditions 44 and 45 in Schedule 3 of the Lynwood Quarry Development Consent, DA 128-5-2005. These management plans provide the framework for the management of the riparian zones within the Lynwood Quarry project area. The plans include the management of works within "protected land" as defined by the then *Rivers and Foreshores Improvement Act 1948* (RFI Act) (act now repealed) that was approved as part of the Lynwood Quarry project (DA 128-5-2005). The management plans were also provided to NOW as supporting documents to the required Part 3A permit applications for works within these riparian zones. These permit applications were assessed by NOW, including all relevant design considerations, and approved and remain in force. The reference on the Part 3A Permits for works in or near waterways associated with the Lynwood Quarry project is: ERM 2005/03881.

The Riparian Area Management Plan for Joarimin Creek will be revised to incorporate the modifications should approval be granted, with the other plans not affected by the proposed modifications. These revisions will be undertaken in consultation with the relevant agencies, including NOW. Holcim will also apply to NOW to vary the current approvals in place for riparian works in Joarimin Creek should the modification be approved.

A further detailed response to NOW's submission is provided in **Attachment 1**.

### Community Submission

There was one community submission received in regard to the project. This submission objected to the proposed modification and raised the following issues:

- a) *The Environmental Assessment has failed to address the noise generated from the construction traffic on Brayton Rd and George St. The traffic on Brayton Road has increased from 10 heavy vehicles to 45 heavy vehicles.*

As outlined in the EA, Holcim has no choice but to change the construction traffic site access arrangements due to changes to the road network made by the RTA since the approval of the project. These road network changes mean that it is no longer possible to access the site via the previously approved construction traffic route. Holcim has therefore had to identify an alternative route to allow the construction of the project. Holcim recognises that the currently proposed construction traffic arrangements are less desirable than those previously planned and is committed to managing these impacts to as low as possible. This has included rescheduling the project to bring forward the construction of the Hume Highway interchange so that this intersection is completed as soon as possible. Once this intersection is complete, all site access will be via the interchange, removing all quarry related traffic from Marulan Township.

The proposed increase in traffic movements on Brayton Road is to allow for material to be brought from site to be used as fill material for construction of the interchange on/off ramps. The increase will occur over an approximately 90 day period when this material will be transported to the interchange construction area. If the material was not sourced from site it would need to be sourced from another quarry. The two nearest quarries are the Holcim owned Johniefelds Quarry which is located on Brayton Road and the Gunlake Quarry which is currently under construction further west off Brayton Road. Both of these quarries are approved to use Brayton Road to access the Hume Highway and currently transport material along Brayton Road. Therefore, it is highly likely that should the fill material for the interchange not come from Lynwood Quarry and be sourced elsewhere, it would still be transported along Brayton Road.

In regard to the potential noise impacts of the construction phase traffic, an assessment was completed in the Lynwood Quarry Project Environmental Impact Statement (Umwelt, 2005) indicating that the construction phase traffic noise impacts would comply with relevant guidelines. That assessment did not specifically look at impacts on Brayton road, instead looking at the main construction access route. In response to this enquiry, SLR Heggies has undertaken a further assessment of construction noise impacts looking at each of the routes to be used. This assessment is included as **Attachment 2**. The assessment concludes that the construction phase traffic noise impacts will comply with relevant noise criteria on all routes including both Brayton Road and George Street.

Holcim is committed to minimising the construction phase traffic impacts and to achieve this:

- has rescheduled the construction phase to reduce the construction timeframe of the interchange and fast-track removing project related traffic from Marulan Township;
- will consult with the Marulan community regarding construction traffic arrangements and necessary controls prior to commencing each phase of construction;
- will limit heavy vehicles to accessing the site via George Street outside of school zone times (i.e. 8:00 am to 9:30 am and 2:30 pm to 4:00 pm on school days) wherever practicable, unless under escort; and
- will prepare and implement a Construction Traffic Management Plan that will identify the controls that need to be put in place to minimise construction traffic impacts. This plan will be prepared in consultation with the RTA, Goulburn Mulwaree Council and the Department of Lands and will be approved by the Department of Planning.

*a) The Environmental Assessment has failed to address the amenity impacts associated with the increased construction traffic.*

The noise amenity issues are addressed in the above response, with the assessment finding that the construction phase traffic noise impacts will comply with relevant noise criteria on all routes.

In regard to other potential amenity impacts, it is acknowledged that using the currently proposed construction traffic routes is less desirable than the previously approved routes, however, due to the changes to the road network by the RTA, it is no longer possible to use the previously approved routes. Holcim has committed to a number of controls to minimise the impacts of construction phase traffic and it is considered that with these controls in place, potential amenity impacts will be effectively managed. It is noted in this regard that Council's submission states that:

"Council notes there will be some increase in construction traffic and that traffic will have a somewhat different route due to the RTA closing south-bound access to the highway at Portland Ave. Both of these are fairly minor concerns and the mitigation proposed seems reasonable.

Of major benefit is that the proponent is now proposing not to transport product until the new interchange with the highway is constructed, thereby alleviating this impact on Marulan township."

*b) The Environmental Assessment has failed to address the cumulative traffic impacts associated with the increased construction traffic.*

The assessment of construction phase traffic noise impacts discussed above included consideration of cumulative impacts. The assessment concluded that the construction phase traffic noise impacts will comply with relevant noise criteria on all routes.

In regard to other potential cumulative impacts, as discussed above, the project and the construction phase traffic arrangements have been designed to minimise impacts. Holcim has also committed to a number of further controls to reduce impacts including:

- upgrades to and maintenance of the road network;
- not selling any product from the site until the opening of the interchange to reduce overall heavy vehicle traffic movements;
- oversized loads will be transported according to the requirements of the RTA and Police, and have the appropriate approvals and escorts, as required;
- all loaded vehicles entering or leaving the site will be covered at all times in order to prevent spillage and dust generation;
- all loaded vehicles leaving the site will be cleaned of materials that may fall on to the road before leaving the site;
- the construction phase induction will cover mechanisms to reduce the potential for transport impacts on the Marulan township, including noise minimisation, appropriate driver behaviour, fatigue management and the controls outlined in this CTMP. Periodic toolbox talks will be undertaken to reinforce these controls;
- heavy vehicle movements along George Street will be limited to outside of school zone times (i.e. 8:00 am to 9:30 am and 2:30 pm to 4:00 pm on school days) wherever practicable, unless they are done under escort;
- heavy vehicle loads with the potential to cause significant traffic disruptions (e.g. oversized loads) will be delivered outside of the peak traffic hours for the local road network (i.e. excluding the Hume Highway) being 8:00 to 9:00 am, 12:00 to 1:00 pm and 5:30 to 6:30 pm, wherever possible;
- parking for all construction related vehicles will be on Holcim Australia land or on land subject to an agreement between Holcim Australia and the landowner;
- prior to the commencement of construction, Holcim will consult with the Marulan community regarding construction phase traffic arrangements and the controls that will be implemented to reduce impacts; and
- Holcim will provide the local residents with at least 7 days notice prior to any significant traffic disruptions.

These controls minimise potential cumulative impacts associated with Holcim's construction traffic movements. Once the construction of the Hume Highway interchange is complete, all traffic entering or leaving Lynwood Quarry will be via the interchange, avoiding impacts on Marulan Township. As also indicated above, Council as the relevant roads authority for the local road network, has stated that it considered that the increase in construction traffic and the change in traffic route are:

"fairly minor concerns and the mitigation proposed seems reasonable".

*The applicant has proposed to defer assessment of the above issues in a Construction Traffic Management Plan, however in order for the Minister to determine an application he must have before him material which enables him to finally and properly consider the effect of an application.*

*Given that the Environmental Assessment has failed to address the above, it is in this circumstance that the proposed modification must be refused.*

This issue is addressed by the responses included above. It is considered that with the assessment provided in the EA and the additional assessment information included in this response to submissions, the Minister has sufficient information to determine the modification application.

Should you have any questions regarding this response to submissions or should you require any additional information, please don't hesitate to contact Steven Farrar or myself on 4950 5322.

Yours faithfully



per John Merrell  
Associate

# **ATTACHMENT 1**

## ATTACHMENT 1

### DETAILED RESPONSES TO NOW COMMENTS ON ENVIRONMENTAL ASSESSMENT HOLCIM PROPOSED LYNWOOD QUARRY MODIFICATION (DA 128-5-2005 MOD2)

#### **Legislation**

##### **Water Management Act 2000 and the Water Sharing Plans**

*The Water Management Act 2000 (WMA) allows for sustainable and integrated management of water sources of the State. While the Environmental Assessment (EA) for the proposed Holcim (Australia) Pty Ltd Lynwood quarry modification states in section 6.4.3 that they have secured additional water from an external source, the Greater Metropolitan Region Unregulated River and Groundwater Source Water Sharing Plan is due to come into effect in early 2011 and this will have implications for licensing the take of groundwater and unregulated surface water in the project area. The proponent needs to clarify that the external water source secured meets the requirements under NSW water legislation in the project area. A condition has been recommended to address this issue.*

The potential impacts of the *Greater Metropolitan Region Unregulated River and Groundwater Source Water Sharing Plan (WSP)* will be considered when the WSP has been gazetted and is enforceable. If this is to occur in early 2011 as indicated by NOW the requirements of the WSP will be addressed in the revisions to the Water Management Plan (WMP) for Lynwood Quarry should the modification be approved.

As outlined in Section 3.4.1.1 of the WMP, Holcim has secured an external water source for the project. This source has been secured via agreement with the owner of the existing industrial allocation (74 ML/year) at Johniefelds Dam, in regard to future use of this water allocation at Lynwood Quarry. Holcim has since been issued an allocation licence, number 10SA002545, by NOW for this external water source.

Holcim will continue to investigate options for purchase and use of other existing allocations to provide additional contingency for periods of extended drought, to provide a high level of water supply security. In addition to the Johniefelds Dam allocation that Holcim has secured access to, there are a number of other existing water allocations within the Wollondilly and Shoalhaven catchments, in close proximity or upstream of the project area, that may be able to be purchased and converted to industrial allocations in consultation with NOW as required for the project. Should any further licences be purchased for use at Lynwood Quarry, Holcim will consult with NOW regarding these allocations and their use at the Quarry.

#### **Riparian Protection**

*Riparian corridors form a transition zone between terrestrial and aquatic environments and perform a range of important environmental functions. The protection or restoration of vegetated riparian areas is important to maintain or improve the geomorphic form and ecological functions of watercourses through a range of hydrologic conditions.*

*Although Part 3A Major Projects are exempt from requiring a controlled activity approval (s75U of the EPAA 1979) the proponent is required to take into account the objects and water management principles of the WMA 2000 and the Guidelines for Controlled Activities (August 2010). The guidelines recommend the following minimum Core Riparian Zone (CRZ) widths:*

- a) **CRZ of 10 metres** (on both sides of the watercourse) for:
  - Any first order watercourse where there is a defined channel where water flows intermittently;
- b) **CRZ of 20 metres** (on both sides of the watercourse) for:
  - Any permanently flowing first order watercourse, or
  - Any second order watercourse where there is a defined channel where water flows intermittently or permanently;



- c) **CRZ of 20 – 40 metres** (on both sides of the watercourse) for:
- Any third order or greater watercourse where there is a defined channel where water flows intermittently or permanently. Includes estuaries, wetlands and any parts of rivers influenced by tidal waters – (merit assessment based).

In addition to the above recommended CRZ widths an additional **vegetated buffer of 10 metres** should be provided on both sides of the watercourse measured from the outer edge of the CRZ to allow for edge effects.

The asset protection zone is not to form part of the CRZ or vegetated buffer.

The EA states in section 6.4.4.2 that there will be some changes as part of the proposed modification that will increase peak water levels in some areas and decrease channel velocities in Joarimin Creek. Proposed works need to be undertaken in line with NOW Guidelines for Controlled Activities (August 2010). NOW has recommended conditions to ensure impacts to riparian corridors and water courses are minimised.

In regard to potential impacts on riparian corridors, it is noted that extensive work and consultation with NOW in this regard has been undertaken by Holcim. Lynwood Quarry was approved under Part 4 of the *Environmental Planning and Assessment Act 1979* and is therefore not exempt from obtaining approvals under the *Water Management Act 2000*. As outlined below, the permits required from NOW to undertake the currently approved works have been obtained with the proposed modifications involving relatively minor changes to these approved works.

The approved Rehabilitation and Landscape Management Plan (Umwelt, 2006) for the Lynwood Quarry project includes Riparian Area Management Plans for Joarimin Creek, Lockyersleigh Creek and Marulan Creek, which have been developed for the Lynwood Quarry to satisfy Conditions 44 and 45 in Schedule 3 of the Lynwood Quarry Development Consent, DA 128-5-2005. These management plans provide the framework for the management of the riparian zones within the Lynwood Quarry project area. The plans include the management of works within “protected land” as defined by the then *Rivers and Foreshores Improvement Act 1948* (RFI Act) (act now repealed) that was approved as part of the Lynwood Quarry project (DA 128-5-2005). The management plans were also provided to NOW as supporting documents to the required Part 3A permit applications for works within these riparian zones. These permit applications were assessed by NOW, including all relevant design considerations, and approved and remain in force. The reference on the Part 3A Permits for works in or near waterways associated with the Lynwood Quarry project is: ERM 2005/03881.

The Riparian Area Management Plan for Joarimin Creek will be revised to incorporate the modifications should approval be granted, with the other plans not affected by the proposed modifications. These revisions will be undertaken in consultation with the relevant agencies, including NOW. Holcim will also apply to NOW to vary the current approvals in place for riparian works in Joarimin Creek should the modification be approved.

### **Site Water Supply and Balance**

The EA states in section 6.4.3.1 “The deficit will need to be met from water sourced externally from the site. Holcim has obtained a water allocation for an external water source to address this predicted water deficit”. As the modification is heavily reliant on the access to additional water for increase dust suppression requirements, NOW requires more specific detail regarding the volume and source of the additional water. Additionally as identified by the EA Holcim will need to ensure that all surface water and groundwater license requirements are met in accordance with the provision of the *Water Management Act 2000* and the *Water Act 1912*.

As outlined above, Holcim has secured an industrial water allocation of 74ML/year from the Johniefelds Dam, allocation number: 10SA002545. This external water source, when carefully managed in combination with onsite water storages, and considering the currently predicted ramp-up of production to meet market demands, is address the water demand requirements of Lynwood Quarry. As previously discussed, Holcim will continue to investigate opportunities for purchase of further water licences as required and will consult with NOW regarding any such purchases and the use of these allocations at Lynwood Quarry.

Section 6.4.3.2 of the EA outlines the impact of the proposed modification on the site water balance, due to increased areas of stockpile requiring dust suppression. While the site water balance for dry, average and wet years has been detailed in a table 6.6, the EA does not provide a detailed water balance for the inflows, onsite usage and outflows. A condition has been recommended to address this.

A detailed water balance for the project was included in the original EA and also in the approved WMP. As outlined in the EA, the proposed modifications will result in only minimal changes to the water balance due to changes in stockpiling capacity as outlined in the EA. The site water balance in the WMP will be updated if the modification is approved. As outlined above, the revision of the WMP will be undertaken in consultation with the relevant agencies including NOW.

## **RESPONSE TO NOW'S RECOMMENDED CONDITIONS OF PROJECT APPROVAL HOLCIM PROPOSED LYNWOOD QUARRY MODIFICATION (DA 128-5-2005 MOD2)**

### **General**

1. *That all statements of commitments are adopted as project approval conditions except where NOW specific conditions require an earlier timeframe or more detailed assessment.*

Holcom would welcome the adoption of the Statement of Commitments into the consent. Specific responses to NOW's recommended conditions are included below.

### **Protection of Watercourses**

2. *The Proponent shall ensure mining operations do not interfere with the geomorphic stability of the Joarimin Creek, Lockyersleigh Creek and Marulan Creek, and creek lines located outside the area of mining operations.*

The approved Riparian Area Management Plans include the measures to ensure the stability of the relevant creeks is maintained throughout the project. These plans were prepared in consultation with NOW and were provided to NOW in support of permit applications for works in riparian zones. These permits have subsequently been granted by NOW and remain in force for the approved works. There are only minor changes required to some of these permits due to the proposed modifications and approval for these changes will be sought from NOW should the proposed modifications be approved.

3. *The Proponent shall ensure all construction in regards to waterways is undertaken utilising the Guidelines for Controlled Activities (August 2010).*

This condition is covered by existing Condition 2 of Schedule 3, which states:

*"The Applicant shall not carry out any development in the riparian zone of Joarimin, Lockyersleigh or Marulan Creek without the written approval of DWE. Any such development shall be carried out in accordance with an approved Riparian Area Management Plan (see conditions 44 and 45)."*

As NOW is required to approve any development in the riparian zones of the relevant creeks, and in accordance with the Riparian Area Management Plans, also prepared in consultation with NOW, the new condition is not considered necessary. In addition, as stated above, the Riparian Area Management Plan for Joarimin Creek will be revised and application made to NOW to vary the existing permits for works in riparian zones as required should the proposed modifications be approved.

### **Water Management Plan**

4. *The Proponent shall review and amend their site Water Management Plan to the satisfaction of the Director-General. This plan must:*

- a) *be reviewed in consultation with NOW by a suitable qualified expert whose appointment has been approved by the Director-General;*
- b) *be submitted to the Director-General for approval within 6 months of this approval and prior to any construction of modified works or otherwise agreed by the Director-General; and*
- c) *include:*
  - I) *an amended site water balance, which includes but is not limited to details of water sources and security of water supply, site water use and management, off site water transfers, measures to minimise water use and maximises reuse of saline and contaminated waters.*
  - II) *A program for review of groundwater modelling annually (unless triggered earlier by exceedances of set trigger levels for aquifers) that includes assessment of the short and long-term changes to groundwater levels and groundwater quality;*
  - III) *A surface water monitoring program that includes:*
    - *Detailing ongoing monitoring of surface water flows and water quality in the watercourses that could be affected by the project and associated baseline data,*
    - *Surface water impact assessment criteria, including trigger levels for investigating potentially adverse surface water impacts of the project; and*
  - IV) *A groundwater monitoring program that includes:*
    - *Detailing ongoing monitoring of groundwater levels and quality in the aquifers that could be affected by the project and associated baseline data.*
    - *Groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts of the project; and*
    - *A program to monitor:*
      - *Groundwater inflows to the open cut mining operations; and*
      - *Impacts of the project on the region's aquifers, any groundwater bores, and surrounding watercourses, and*
  - V) *A surface and groundwater response plan which describes the measures and/or procedures that would be implemented to:*
    - *Respond to any exceedances of the surface and groundwater assessment criteria;*
    - *Account for any unpredicted adverse impacts on groundwater and surface water resources caused by the mining operations.*

The above recommended conditions are covered by existing conditions, particularly Conditions 20 to 24 of Schedule 3 of DA 128-5-2005. As noted in the EA, Holcim has committed to updating all relevant management plans within 12 months if approval is granted. As the modifications do not change the water management principles or overall water management strategy for the approved Lynwood Quarry, do not result in significant changes to the impacts on water systems when compared to the approved project, and the existing management plans have been approved by the Director-General, it is considered that the above recommended conditions, including imposing timeframes on commencing construction activities, are unnecessary and will not improve the overall outcomes at the site. It is also noted that construction of the currently approved works has already commenced under the provisions of the current approved WMP.

# **ATTACHMENT 2**

29 November 2010

30-1938 Construction Traffic 20101124

Umwelt (Australia) Pty Ltd  
PO Box 838  
2/20 The Boulevard  
Toronto NSW 2283

**Attention: John Merrell**

Dear John

## Construction Traffic Noise Assessment Lynwood Quarry

SLR Heggies have been engaged by Umwelt Australia Pty Ltd (Umwelt) to conduct a noise assessment for additional construction traffic for the Lynwood Quarry modification. The proposed additional construction traffic used for the assessment was outlined in the Environmental Assessment (EA) for the project.

### 1 Road Traffic Noise Assessment Criteria

The Department of Environment, Climate Change and Water (DECCW) released the “Environmental Criteria for Road Traffic Noise” (ECRTN) in May 1999. The policy sets out noise criteria applicable to different road classifications for the purpose of defining traffic noise impacts.

Access to the project area during construction will utilise the local road network during the daytime period between 7:00 am and 6:00 pm. The noise criteria applicable to these roadways are outlined in **Table 1**.

**Table 1 Environmental Criteria for Road Traffic Noise**

Policy	Road	Descriptor	Traffic Noise Goal
Land use developments with the potential to create additional traffic on collector roads	George Street	LAeq(1hour) daytime	60 dBA
Land use developments with the potential to create additional traffic on local roads	Portland Avenue Wilson Drive Brayton Road Stoney Creek Road	LAeq(1hour) daytime	55 dBA
Existing school classrooms	Off George Street	LAeq(1hour) daytime	55 dBA external (based on 45 dBA internal)

\* In all cases (where criteria are already exceeded, or where existing noise levels are within 2 dBA of the criterion), traffic arising from the development should not lead to an increase in existing noise levels of more than 2 dBA.

## 2 Prediction of Construction Road Traffic Noise

The predicted traffic noise level from the existing traffic flow with the additional vehicles accessing the project area during the peak of construction is contained within **Table 2**, **Table 3** and **Table 4**.

**Table 2 Construction Traffic Noise Levels Portland Avenue and Wilson Drive**

Description	Predicted Noise Level LAeq(1hour)		
	Light vehicles	Truck	Total
Residential at 40 m from roadway Existing traffic	43.2 dBA	46.9 dBA	48.5 dBA
Residential at 40 m from roadway Existing + construction	48.8 dBA	52.4 dBA	54.0 dBA

**Table 3 Construction Traffic Noise Levels George Street**

Description	Predicted Noise Level LAeq(1hour)		
	Light vehicles	Truck	Total
Residential at 20 m from roadway Existing traffic	57.2 dBA	59.9 dBA	61.7 dBA
Residential at 20 m from roadway Existing + construction	57.8 dBA	60.6 dBA	62.4 dBA
School @ 30 m from roadway Existing traffic	55.0 dBA	57.6 dBA	59.5 dBA
School @ 30 m from roadway Existing + construction	55.5 dBA	58.4 dBA	60.2 dBA

**Table 4 Construction Traffic Noise Levels Brayton Road and Stoney Creek Road**

Description	Predicted Noise Level LAeq(1hour)		
	Light vehicles	Truck	Total
Residential at 18 m from roadway Existing traffic	55.5 dBA	58.4 dBA	60.2 dBA
Residential at 18 m from roadway Existing + construction	56.3 dBA	59.2 dBA	61.0 dBA

The construction traffic noise is predicted to be below the ECRTN limit for traffic generated on Portland Avenue and Wilson Drive of LAeq(1hour) 55 dBA .

For all other roadways the increase in construction traffic noise level over that created by existing traffic is less than 2 dBA and therefore meets the requirements of the ECRTN.

Yours sincerely



JOHN COTTERILL  
Technical Director Acoustics