



Department of Primary Industries

OUT13/37061

Mr Brendan Liew
Mining Projects
NSW Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Brendan.Liew@planning.nsw.gov.au
Carl.Dumpleton@planning.nsw.gov.au

Dear Mr Liew,

Bringelly Brickworks expansion (SSD-5684) Response to exhibition of Environmental Assessment

I refer to your email dated 29 October 2013 requesting advice from the Department of Primary Industries (DPI) in respect to the above matter.

Comment by NSW Office of Water

The NSW Office of Water (Office of Water) has reviewed the Environmental Impact Statement and provides detailed comments at **Attachment A** and the following comments:

- The project needs to be assessed against the Aquifer Interference Policy to demonstrate that the project will have an acceptable impact on groundwater;
- The project should more accurately quantify groundwater inflows to enable the Office of Water to advise on any licensing requirements associated with the proposed take of water;
- The Office of Water should be part of a reporting and notification process in relation to groundwater management;
- The project needs to clarify the proposed setback between the quarry footprint and Thompsons Creek;
- The groundwater monitoring program should be undertaken on a quarterly basis rather than biannually;
- Rehabilitation activities on the site should include the rehabilitation of the riparian zone along Thompsons Creek and once quarrying ceases it is

recommended the rehabilitation plan considers the removal of the online dam 6.

The Office of Water suggests that a meeting may be beneficial to discuss the aquifer interference assessment requirements.

For further information please contact Janne Grose, Planning and Assessment Coordinator (Penrith office) on (02) 4729 8262, or at: Janne.Grose@water.nsw.gov.au.

Comment by Fisheries NSW

Fisheries NSW advise no comments.

For further information please contact Carla Ganassin, Conservation Manager (Wollongong office) on 4254 5527, or at: carla.ganassin@dpi.nsw.gov.au.

Comment by Agriculture NSW

Agriculture NSW advise the environmental assessment has addressed the issues within the Department of Primary Industries publication *Agriculture Issues for Extractive Industries Guidelines* (found at: http://www.dpi.nsw.gov.au/data/assets/pdf_file/0005/367763/Agriculture-issues-for-extractive-industry-development.pdf).

For further information please contact Andrew Docking, Resource Management Officer (Parramatta office) on 8843 1122, or at: andrew.docking@dpi.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Tony Heffernan', written in a cursive style.

Tony Heffernan
A/Executive Director Business Services

Attachment A

Bringelly Brickworks Project (SSD 5684) Response to exhibition of EIS Additional comments by NSW Office of Water

Groundwater

Aquifer Interference Policy

The project is an aquifer interference activity in accordance with the definition in the *Water Management Act 2000* and the project needs to be conducted in accordance with the *NSW Aquifer Interference Policy* (available on-line at <http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference>).

The EIS does not include a detailed assessment against the Aquifer Interference Policy (AIP) and it is recommended the project is assessed using the Office of Water's Aquifer Interference Assessment Framework to confirm that the likely impacts are acceptable. The framework is available online at the above link.

The Office of Water requests that it is provided with a copy of the results of this assessment.

Quantification of expected inflows

The Groundwater Assessment report states "*the project will generate low volumes of seepage from the Bringelly Shale and the modelled total groundwater inflow to the final quarry pit is estimated to range between 0.1L/s and 1L/s with a likely inflow of 0.1L/s*" (page 51). There is a need for the proponent to more accurately quantify the estimated inflow in accordance with the Aquifer Interference Policy to enable the Office of Water to advise on the proposed take of water and to determine if an authorisation is required.

There is a significant range between the quoted lower and higher estimated inflows. The low end of the range may not need a licence but the high end would need a licence from the Office of Water. The Office of Water can advise on the need for an authorization once more accurate information is available on the expected groundwater inflows.

Reporting and Notification

As a licensing agency, the NSW Office of Water needs to be part of any groundwater reporting and requests it is provided with a copy of the annual report. The Office of Water also needs to be part any notification process any incidents occur that may impact on groundwater.

Setback from Thompsons Creek

Section 7.1.4 of the EIS states the project restricts the expanded quarry footprint at least 100 m from Thompsons Creek (page 66) but the Groundwater Impact Assessment indicates the quarry expansion will be closer to the creek with a minimum setback of 40 m (page 52). The Ecological Assessment also indicates the quarry expansion would be approximately 40 metres from Thompson Creek dam. The Office of Water seeks clarification on the proposed setback between the quarry expansion footprint and the creek. The Office of Water is concerned that if the footprint encroaches too close to the creek and there are unidentified fractures in the shale between the creek and the quarry, there is potential for surface water to transfer to the quarry pit. It is recommended this issue is investigated further to demonstrate that the likelihood of any interference is negligible. If surface water was found to be leaking to the pit during the operation of the quarry expansion this would need to form part of the notification process.

Groundwater Monitoring

Section 7.7.5 of the EIS indicates Boral will engage a regular biannual water quality sampling and groundwater level monitoring program and the depth to groundwater will be measured and reported during each monitoring event (page 134). It is recommended the monitoring is undertaken quarterly rather than on a biannual basis to detect seasonal changes.

Section 7.7.5 also notes trigger levels regarding decline in groundwater levels will be established to

manage the potential impacts as part of the project environmental management plan (page 134). It is unclear what an acceptable decline in groundwater water level may be and it is recommended this is identified in accordance with the AIP.

The EIS includes a mitigation measure that *“where monitoring results indicate levels in excess of trigger values an investigation appropriate to the situation will be conducted to assess the need to implement management /mitigation/remedial measures”* (page 134). The Office of Water requests it is provided with a copy of any proposed management /mitigation measures that are to be implemented.

Table 5 of the Rehabilitation Strategy (Appendix D) includes a proposed monitoring program for the monitoring of the rehabilitation works for the rehabilitation and post quarry land use (page 27). It is recommended the monitoring includes the monitoring of the groundwater level.

It is requested that the groundwater monitoring results are provided to the Office of Water and the proposed groundwater mitigation and monitoring measures as outlined in Table 9-65 are amended to include the following:

- *The Proponent shall report the results of the Groundwater Monitoring Program within an Annual Environmental Monitoring Report.*
- *The Proponent shall implement appropriate groundwater management measures as indicated by the Monitoring Program in consultation with the NSW Office of Water and as agreed by the Director-General.*

Watercourse and Riparian Land

The Ecological Assessment indicates the construction of a new driveway in the north eastern corner of the study area would be undertaken as close as 10 metres from Thompson Creek (page 67). Clarification is required as to whether the new driveway will encroach into the riparian corridor and disturb remnant native riparian vegetation. Table 9-65 in the EIS includes a mitigation measure that *“vegetation will be retained and disturbance will be avoided in riparian areas...”* (page 199) but the Ecological Assessment notes a small amount of riparian vegetation along the creek (0.05 ha) will be impacted by the proposal (page 64). It is recommended the project/new driveway avoids the riparian corridor in accordance with the mitigation measure in Table 9-65 but if this is not possible, an offset area will need to be provided along the riparian corridor in accordance with the Office of Water Guidelines for Controlled Activities to offset any encroachment.

The EIS notes the southern portion of the site adjacent to Thompsons Creek is leased for the agistment of stock and grazing (section 2.2, page 8). The Ecological Assessment notes there is severe disturbance by cows trampling through the creek on the east and severe bank erosion in the south west (page 51). It is recommended the project includes the following mitigation measures:

- A Vegetation Management Plan (VMP) is prepared to provide details on the rehabilitation of the riparian corridor
- access to the creek by stock is prevented, or it is restricted to appropriate access locations.
- stream bank erosion on the site is rehabilitated as part of this proposal. The stream bank erosion measured should comprise soft engineering solutions where practical.

The EIS notes any rehabilitation plan will consider maintenance of flow regimes on Thompsons Creek (section 5.3.8, page 47). It is suggested the proposed Flora and Fauna Management Plan considers the maintenance of flow regimes. It is noted no changes to Dam 6 on Thompsons Creek are proposed as part of the quarry expansion. It is suggested the rehabilitation plan considers the removal of the dam 6 once quarrying ceases to improve the flow regime and the creek is rehabilitated to mimic a natural stream system.