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Dear Mr Dumbleton,

BRINGELLY BRICKWORKS AND QUARRY EXPANSION EIS - RESPONSE TO SUBMISSIONS

A detailed environmental impact statement (EIS) to support a development application to increase production at the Bringelly Brickworks and expand the quarry operations was lodged by Boral Bricks Pty Limited (Boral) with the Department of Planning and Infrastructure (DP&I) in October 2013.

The proposed project details are as follows:

- Increase the quarry area by 20.75 ha to a total of 30.65 ha;
- Increase brick production to 263,500 tpa (increase of 103,300 from current consent);
- Construct two 4.5 m high noise bunds along the northern property boundary;
- Import 96,000 tpa raw material;
- Extend the clay preparation building and a small area of the brick manufacturing plant;
- Additional of two recycled water storage tanks;
- Construction of a new driveway; and
- Upgrade the existing bio-cycle sewage treatment plant.

The EIS was placed on public exhibition from 6 November to 9 December 2013 and ten submissions were received. Nine submissions were received from agencies, none of whom objected to the proposed modification. One submission was received from a community member objecting to the proposal.

In accordance with DP&I's requirements, responses to the matters raised in submissions are detailed in Table 1 below.



Table 1 **Response to submissions received on the Bringelly Brickworks and Quarry Expansion Environmental Impact Statement**

Submissions received		Response
Government		
1	<i>Camden Council</i>	
	Environmental	
1.1	The cumulative modelling of both activities when undertaken at the same time will lead to higher exceedances of noise criteria and a requirement for further mitigation. An assessment of cumulative noise should be undertaken.	The modelling scenarios in the Noise Assessment (Appendix E) of the EIS include the cumulative noise impacts of various activities occurring on the site at any one time and hence the noise mitigation measures meet Council's requirements. To clarify, the assumptions used in the noise modelling scenarios are as follows : 1. processing/manufacturing noise – a worst case scenario of all plant in table 6-1 as well as 4 truck movements in a 15 minute period and 4 forklift movements; 2. quarrying noise – a worst case scenario is detailed on page 27 of Appendix E, and includes the production, forklifts and front end loader (FEL) noise from Table 6.3 (ie the processing/manufacturing noise) as well as noise from the quarrying activities listed on page 26. To this end, quarrying noise and production noise has been modelled as a combined noise source for this scenario (ie cumulatively). 3. Sleep disturbance – FEL, forklift and reversing alarm occurring simultaneously. 4. Construction noise – 2 scenarios as detailed in section 8.3 of Appendix E (road realignment works and northern bund barrier construction) 5. Traffic noise – assumes peak hourly traffic flows presented in table 9.1 of Appendix E. Based on the above, cumulative noise impacts have already been taken into account and therefore the suggested mitigation measures are adequate for achieving compliance with the noise criteria.
1.2	Construction of driveway and realignment activities can be controlled either at source or receiver locations with the use of temporary noise	The mitigation measures discussed in Section 8.3 of Appendix E follow best practice in construction noise mitigation. Further, the relatively short duration of construction activities, and by constructing the Greendale Rd noise bund first,



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	barriers.	noise impacts during road realignment work can be minimised. Temporary noise barriers are therefore not considered necessary.
1.3	A separate S68 application under the Local Government Act 1979 for a commercial sewage treatment facility will be required to be submitted to and approved by Council and be supported by documentation from a qualified wastewater consultant.	Noted
	Ecological	
1.4	Proposed offsetting for loss of ENV to be undertaken in accordance with Condition 8 of "Order to Confer Biodiversity Certification on SEPP (Sydney Region Growth Centres) 2006" and address in a management plan.	This has been addressed in Section 7.3 of the Ecological Assessment. The offsetting requirements detailed in Relevant Biodiversity Measure 8 of the Biodiversity Certification Order have been taken into account when determining offsets for the project. The removal of 1.16 hectares of mapped ENV will be offset by the protection of an equal or greater area of ENV (1.93 ha) elsewhere in the Growth Centres (in the certified area in the north-west of the study area). A Biodiversity Management Plan would be prepared for the proposed offset area in consultation with OEH and prior to vegetation clearing for the proposal, and would include details of management methods, fencing, timeframes, costs and monitoring.
1.5	Suitable habitat boxes to replace loss of hollow trees as part of management plan	This has been addressed in Table 25 of the Ecological Assessment. It is proposed to implement a nest box program in woodland habitat in the Study Area with a naturally occurring low abundance of hollows, to prevent impacts to hollow-dependent threatened species potentially occurring at the site. Details of the nest box program will be included in the Flora and Fauna Management Plan (FFMP) for the proposal.
	Traffic	
1.6	A detailed design is required to assess the proposed access, taking into consideration existing/proposed vegetation and the proposed bunding.	The Traffic Impact Assessment has provided a detailed assessment of the Concept Plan. This assessment is considered suitable to provide an assessment of the proposed access to the site. Further information, including detailed design will be submitted to Camden Council for consideration subsequent to approval, and prior to construction.



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1.7	Provide further information on mitigation for safety and amenity impacts on the school.	Boral has engaged with the community, in particular the Bringelly Public School, to provide feedback on current operations at the site (refer http://www.boral.com.au/article/bringelly_bricks_community.asp). As discussed in Section 5.2 of the Traffic Impact Assessment, the additional movements generated by the proposal are considered minor and will not have a significant impact on the operation of the surrounding intersection or road network. Therefore, the proposal will not adversely impact on the operation of the school. Further, Boral will continue to engage with the surrounding community, including the school, to further reduce, and address adverse impacts.
1.8	Applicant to provide further information on safety concerns regarding the passing distance from parked vehicles in the vicinity of the school.	Operational vehicles, including trucks are currently utilising Greendale Road without conflict with traffic, including school traffic. Based on this, and the proposed minor traffic additions included in the proposal, no additional mitigation measures are considered necessary. Any further traffic management mitigation measures, as necessary, will be addressed in the detailed design phase.
1.9	Applicant required to fund re construction of shoulders between new access road and The Northern Rd.	The Traffic Impact Assessment concludes that the proposal will not have adverse impacts on the surrounding road network and therefore no upgrades are required. It is understood that reconstruction of shoulders is already included in the program of works by Liverpool City Council and Camden City Council.
1.10	Applicant required to fund upgrade of Greendale Rd to an industrial standard.	Refer to comment above. Further, Boral currently provides funding to Camden City Council, which should contribute to any upgrades to the surrounding locality.
1.11	The warrant for a Rural Type "AUL" Layout should be pursued as the minimum treatment on Greendale Rd.	Refer to comment above. No further mitigation measures, including upgrades are required to accommodate the proposal.
1.12	Vegetation is required to be cleared on the western side of Greendale Rd also.	Noted. The extent of vegetation clearing has been discussed in the EIS, and assessed in the Ecological Impact Assessment. Further, should any vegetation removal be required in the vicinity of this access road, it would be within biodiversity certified areas of the Growth Centres with this vegetation generally comprised of exotic grassland or planted native species (refer to Ecological Assessment, Appendix K).
1.13	Noise Bunds	Noise bunds will be " <i>grassed and then planted with suitable, locally occurring native tree and shrub species</i> ", as



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1.14	Proposed bunds should be fully landscaped. Contributions CP7 applies to the site and contributions should be paid to Council in accordance with this. Outstanding payments are required before consent becomes operational.	outlined in the visual assessment section of the EIS (section 7.13.5). Boral have approached Council on numerous occasions regarding the payment of outstanding contributions. We were informed that payments are invoiced to Boral from Council as works are undertaken on Greendale Road. Nonetheless, Boral are continuing to work with Council to ensure that Greendale Rd is adequately funded through the contributions discussed in the traffic impact assessment.
1.15	Inaccuracies in the EIS The speed limit on The Northern Rd is 60 km/h and 40 km/h during school drop off and pick up hours.	Noted
1.16	Camden Council funds, maintains and upgrades the southern side of Greendale Rd, however some funding and design work is undertaken by both Councils.	Our discussions with both Councils indicated that Liverpool City Council undertook the upgrade works for Bringelly Rd. As such, only Liverpool City Council were able to provide a detailed maintenance schedule for Greendale Rd which was used to calculate the road maintenance contributions in the traffic impact assessment.
1.17	Planning The height of the proposed building extensions will exceed the Camden LEP 2010 maximum building height of 9.5m. Given the existing building is of the same height, the extension will not have an adverse visual impact and therefore no objection is raised.	Noted
2	Liverpool Council Traffic	
2.1	EIS doesn't provide turning paths of longest vehicle servicing the development and therefore request a swept path analysis plan prior to	Noted. The swept path will be no different to the existing traffic, an assessment for which is included in the Traffic Impact Assessment. Further, it should be noted that the upgrade of the intersection of Greendale Road and The



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CC. RMS should also assess the turning paths of the longest vehicles accessing the proposed development through this intersection and the impacts of the proposal on traffic flow.	Northern Road is being proposed as part of The Northern Road upgrade project of the RMS, including 285m west on Greendale Road. Upgrades are not required to accommodate the proposal.
2.2 The driveway access should be designed in accordance with the RMS and Austroads guidelines and constructed to Council's satisfaction. A concept design is to be submitted to Council for approval prior to issue of CC.	Noted. This driveway will be designed in accordance to AS2890.2 taking into consideration Austroads guidelines and standards.
2.3 To maintain road safety, it is recommended that the proponent prepare and submit a haulage management plan which includes appropriate training for heavy vehicle drivers and identify options to restrict the number of heavy vehicles an hour during school peak periods.	The Traffic Impact Assessment provides an indication of the number of vehicles which will be travelling from, and to the site in the AM and PM peak periods. As the proposed traffic generation is considered minor, no further mitigation measures are required. Further, the current operations do not conflict with existing traffic. Therefore, implementation of time restrictions is not considered necessary, but will be discussed separately with Bringelly Public School and the Department of Education and Communities (refer to comments in response to DEC).
2.4 Upgrade the existing pedestrian refuge to a wombat crossing, submitting the design to Council for approval prior to issue of a CC.	As concluded in the Traffic Impact Assessment, the proposal will result in only a minor traffic generation and therefore no upgrades are required. Therefore, an upgrade to a wombat crossing is not considered necessary. Further, it is noted that this pedestrian refuge was only recently installed.
2.5 Haulage along Greendale Rd to be restricted to the section east of the proposed driveway. Environment and Sustainability	Noted. As discussed in the Traffic Impact Assessment and the EIS, there is no intent to use the western section of Greendale Road for haulage
2.6 Ecological Assessment is incomplete Pavement Maintenance	It is acknowledged that these appendices are missing from the Ecological Assessment. An updated version including all appendices will be provided to the Department of Planning and Infrastructure.
2.7 Recommended that a VPA for additional road maintenance be entered	As the development falls within the Camden Council LGA, Boral and Camden Council are working together regarding



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	into between Liverpool and Camden Councils.	the contributions for the maintenance and upgrades on Greendale Rd. The existing relationship between Liverpool City Council and Camden Council is not anticipated to change from the current arrangement.
	Flood Management and Water Quality	
2.8	The proposed development could potentially impact on the water quality of South Creek within the Liverpool LGA. Liverpool considers the proposed mitigation measures, including strict continued monitoring of water released from site as appropriate to monitor any potential impacts.	Noted
	Heritage	
2.9	Council has determined that the proposal will not encroach into the physical curtilage of the Bringelly Public School Group.	Noted
2.10	While the proposed driveway may be visible from the school, it is unlikely to generate a negative heritage impact.	Noted
2.11	While the cultural landscape of Greendale Rd would be altered by the proposed realignment of the driveway and noise bund, as the area will be inevitably transformed as it is located with the South West Growth Centre, the proposed mitigation measures of using a vegetated screen will reduce adverse impacts.	Noted
2.12	Aboriginal Archaeological Assessment appears thorough, however further investigations are necessary.	The CHAR has been forwarded to the OEH and Department of Planning for comment.
2.13	It is likely an Aboriginal Heritage Impact Permit (AHIP) will be required, including appropriate consultation with stakeholders.	An AHIP is not required for this project, as it is deemed state significant development. AHIPs are not required for SSD as per section 89J (1) (d) of the Environmental Planning and Assessment Act 1979. Consultation with stakeholders has



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2.14	Council supports the recommendations contained in Section 12 of the Aboriginal Archaeological Assessment.	been undertaken both as a part of the Aboriginal Archaeological Assessment and the Cultural Heritage Assessment Report (CHAR) which has been provided to the Department of Planning and Infrastructure. Noted
3	<i>OEH</i> Aboriginal Heritage	
3.1	No CHAR was provided as a part of the EIS	The CHAR has been forwarded to the Department of Planning and Infrastructure for comment.
	Biodiversity	
3.2	Proponent to prepare an offset package which: - Identifies conservation mechanisms to be used to ensure long term protection and management of the offset sites. - Include appropriate management plan to ensure any proposed compensatory offsets are appropriately managed and funded.	A Biodiversity Offset Strategy and Package will be prepared for the proposed offset area. The Biodiversity Offset Package will include a Biodiversity Management Plan for the proposed offset area, to be prepared in consultation with OEH and prior to vegetation clearing for the proposal; this Plan would include details of management methods, fencing, timeframes, costs and monitoring.
3.3	Ensure that the method for securing the offset in perpetuity be determined before the impact on vegetation occurs.	Offsets will be agreed, and secured in perpetuity through a conservation agreement, prior to the commencement of construction work that would result in the clearing and/or disturbance of ENV in the non-certified areas.
4	<i>Heritage Council</i>	
4.1	No detailed analysis of the impact of the noise bund and access road has been undertaken.	The views of the site from Greendale Rd are shown at various locations in Figures 7-45, 7-47, 7-48, 7-49, 7-50 and 7-51. The visual assessment undertaken in Section 7.13 of the EIS was considered adequate, as the addition of the northern noise bund and the changing of the access road location would not greatly alter the existing visual aesthetic of Greendale Rd. Rather, the noise bund (which will be planted with locally occurring native tree and shrub species)



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		will further preserve the existing visual aspect and mitigate any changes to the landscape. Additionally, as the site is located within the South West Growth Centres, the visual aesthetic of Greendale Road will eventually be dramatically transformed within the life of this project consent.
4.2	There is no analysis of significant views from the road and no photo montages showing the impact of the bund.	Photo montages of the vegetated bund were not deemed necessary, as it will provide additional screening to the site and is in keeping with the existing visual aesthetic of the site as viewed from Greendale Rd (see figures 7-45 to 7-51).
4.3	There is no way to understand the impacts the bund would have on the aesthetic significance of the area.	See response 4.2 above
4.4	It is recommended that the Artefact report is supplemented by additional information regarding the visual impacts the works would have, including photo montages and a view analysis.	As discussed in responses 4.1 and 4.2 above, owing to the planned future changes to the area (within the South West Growth Centres) and the minimal impacts the proposed bund and access road would have on views from Greendale Rd, a supplementary report is not deemed necessary.
4.5	Definition of archaeological potential is incorrect	Noted
5	NSW Health	
5.1	SWSLHD reinforce the need to ensure the impacts on health from air pollution are properly addressed to ensure the mitigation of health impacts.	All of the air quality mitigation measures suggested in the EIS are aimed at reducing air borne particulates and improving air quality. Therefore, impacts on health from air pollution are properly addressed in this respect.
5.2	Reinforce the need to develop a comprehensive biodiversity offset strategy to mitigate these changes.	The offset strategy is discussed in Section 7.8 of the EIS and in Appendix K.
5.3	Reinforce the importance of preserving whole ecosystems.	Noted
5.4	Recommend that you ensure that licensed discharges to surrounding waterways will be maintained.	The site will continue to fulfil its requirements for water monitoring as per the conditions of the EPL.
5.5	Mitigation measures to address the reduction in water quality for	The site's water monitoring schedule closely analyses water quality so that they are within the EPL limits.



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5.6	livestock. Consideration of workplace health and safety, including healthy eating and exercise.	All Boral sites operate under a strict health and safety policy, which addresses site specific issues. Additionally, workplace safety is a high priority, with the company goal of “zero harm” reinforced throughout the workforce. Furthermore, matters of workforce health choices and lifestyle are not considered a planning matter and should not be addressed as a part of this (or any) consent.
6	<i>RMS</i>	
6.1	Proposed new access road and its intersection with Greendale Rd should be designed and constructed in accordance with Austroads and Council’s requirements.	Noted. This driveway will be designed in accordance to AS2890.2 taking into consideration Austroads guidelines and standards.
6.2	All works/regulatory signposting associated with the proposed development are to be at no cost to RMS.	Noted. Signposting and funding, as necessary, will be discussed prior to construction of the proposal.
7	<i>NSW Office of Water</i>	NOTE: We note that NOW have suggested a meeting to discuss the aquifer interference assessment requirements. Repeated requests by Boral (through their consultants Hyder and Golder and Associates) to meet with NOW to discuss the groundwater impact assessment were refused and no guidance was issued from NOW representatives.
	Groundwater	
7.1	Aquifer Interference Policy EIS does not include a detailed assessment against the AIP and it is recommended that the project be assessed against the AI Assessment Framework.	The groundwater assessment (Appendix J of the EIS) is a comprehensive study which assessed groundwater impacts against the Aquifer Interference Policy (AIP). Baseline data including climatic, geological and hydrogeological (including groundwater levels and water quality), and hydraulic parameters were used to develop a hydrogeological conceptual model. This model formed the basis for the analytical groundwater model which estimated the groundwater inflows to the final quarry pit. The potential impacts from the proposed quarry operations on groundwater was evaluated as a result of this modelling and the necessary mitigation measures were recommended. Additionally, the AIP assessment framework states clearly in the note to proponents that “While you are not required



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7.2	Quantification of expected flows The proponent should more accurately quantify the estimated inflow in accordance with the AIP to enable the Office of Water to advise on the proposed take of water and to determine if an authorisation is required.	<i>to use this framework, you may find it a useful tool to aid...."</i>. Therefore there is no specific requirement to complete the framework form. It is our assumption that NOW would review the assessment against the AIP. From Now's response, it is difficult to ascertain where they believe we have not addressed specific requirements of the AIP. Estimated inflows were modelled as two scenarios representing a low hydraulic conductivity (scenario A, pit inflow 0.1 L/s) and high hydraulic conductivity (scenario B, pit inflow 1.0L/s). These scenarios are considered to represent the extremes of pit inflow and account for a worst case scenario. The impact on groundwater levels as a result of these scenarios was found to be localised and limited mainly to the vicinity of the mine operations. This is typical for a hydrogeological setting of this nature, where the Bringelly Shale is characterised as low permeable, majority of groundwater flow via fractures and bedding planes, and layered hydrostratigraphic units with limited inter-connection between layers. Given this hydrogeological setting and the data available, it was not considered necessary for numerical modelling, when analytical modelling is sufficient to assess pit inflow.
7.3	Reporting and Notification NOW to be provided with a copy of the annual report and be a part of any notification process regarding incidents that may impact on groundwater.	Noted. Annual reports will be forwarded to NOW along with details of any incidents which may affect groundwater.
7.4	Setback from Thompsons Creek NOW seeks clarification on the proposed setback from the creek and the quarry expansion footprint. Groundwater Monitoring	The setbacks from Thompsons Creek contained in both the Ecological Assessment and Groundwater Impact Assessment refer to separate areas of the site. The Ecological Assessment refers to the area further north on Thompsons Creek, adjacent the manufacturing plant, while the Groundwater Impact Assessment refers to the setback closest to the proposed pit.



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7.5	It is recommended that the monitoring is undertaken quarterly rather than on a biannual basis to detect seasonal changes.	Noted
7.6	It is unclear what acceptable decline in groundwater level may be and it is recommended this is identified in accordance with the AIP.	Trigger levels can be addressed and provided as a part of the management plans for the site.
7.7	NOW requests it is provided with a copy of any proposed management/mitigation measures that are to be implemented.	Noted
7.8	Monitoring is to include monitoring of the groundwater level.	Noted
7.9	Groundwater monitoring results are to be provided to NOW.	Noted
7.10	Amend the groundwater mitigation and monitoring measures as detailed by NOW in their EIS submission.	See our responses above.
	Watercourse and Riparian Land	
7.11	Clarify whether the new driveway will encroach on the riparian corridor and disturb native riparian vegetation.	It is estimated that 0.04 ha of Poor Condition River-flat Eucalypt Forest (RFEF) in the riparian corridor will be removed for the proposed access road (see tables 18 and 19 of the Ecological Assessment). The total area of Poor Condition RFEF in the study area is 8.22 ha and therefore the impacts from the clearing of such a small area (0.04 ha) can be managed through the mitigation measures discussed in table 26.
7.12	Provide an offset for any impacts on the riparian corridor.	See 7.11 above. A total of 8.22 ha of Poor Condition RFEF is being retained.
7.13	Due to disturbance by stock, the project should include: - A vegetation management plan providing details on the rehabilitation of the riparian corridor - Restriction or prevention of access to the creek by stock to appropriate access locations only	The site has been subject to stock grazing and general farming activities since 1812, when Robert Lowe was granted 1000 acres, which formed part of his Newstead farm (see Appendix M, Non-Indigenous Heritage Assessment). Hence stock have been accessing this area for a little over 200 years. Any restriction of stock to Thompson Creek is considered unnecessary and a restriction which is not applied to other general farming activities in the area.



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Submissions received		Response
	- Stream bank erosion is included in the rehabilitation plan for the site. The stream bank erosion measured should comprise soft engineering solutions where practical.	
7.14	Flora and Fauna Management Plans to consider the maintenance flow regimes.	As outlined in Table 25 of the Ecological Assessment, protection of Thompsons Creek is addressed and many of the mitigation measures included address the creek specifically. Degradation of the riparian zone is specifically addressed and suggests a number of mitigation measures including minimising disturbance and clearing, installation of appropriate drainage infrastructure, and clear demarcation of construction disturbance areas.
7.15	Rehabilitation plan to consider the removal of dam 6 once quarrying ceases to improve the flow regime and the creek is rehabilitated to mimic a natural stream system.	It should be noted that Thompsons Creek is ephemeral and only flows during periods of extremely high rainfall. Removal of dam 6 is unlikely to change this. Additionally, dam 6 will only be considered for removal in the context of development for the South West Growth Centres and manufacturing and quarrying operations at the brickworks have ceased.
8	<i>Department of Education and Communities</i>	
8.1	Consent to include the monitoring and review of school traffic impacts by a competent traffic engineer for a period of 6 weeks after the works have been completed, in consultation with the school.	Noted. This review could be undertaken as a part of the traffic management plan. The Bringelly Public School was consulted on several occasions while the EIS was being prepared. This consultation will continue to ensure that there are minimal traffic impacts at the school.
8.2	Consent to ensure construction and operational management plans are implemented and that these are prepared in consultation with the school.	Noted and agreed.
8.3	Consent to restrict trucks associated with the brickworks travelling past the school during the RMS' school hour zones.	Boral understands the importance of the safety of students at the school, particularly during the peak pick up and drop off hours. The RMS school hour zones are from 8-9:30am and 2:30-4pm. During these periods, all traffic is restricted to 40km/h, and Boral has strict driver protocols in place to ensure that these speed limits are observed. Further details on other traffic mitigation measures could be addressed within the traffic management plan and road



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		transport protocol.
9	<i>NSW Trade and Investment</i>	
9.1	The proposed rehabilitation will not result in a satisfactory rehabilitation outcome. Leaving extensive, non vegetated final voids is not acceptable.	The final landform has been designed to allow for maximum flexibility in the future use of the project site. Due to the major changes expected in the region as a result of its location within the South West Growth Centres, a final landform that provides for a number of varied uses is the most appropriate.
9.2	The rehabilitation outcome is not consistent with the surrounding landform or land use and it is uncertain which of the potential future identified land uses will actually be selected, nor is there an explanation as to why these landforms are acceptable.	It is impossible to predict accurately the likely future land use at the site, given the substantial changes expected to occur in the region over the next 10 to 20 years. Any future land use option will need to consider the applicable planning policy framework as well as surrounding land use and environmental and market conditions. The Rehabilitation Strategy (Appendix D) details a number of future land use options (Section 4.2) including landfill, employment uses, residential uses, and continued quarrying activities.
9.3	The proposed final void appears to have little beneficial use other than for landfill.	Quarry voids have a variety of final uses including employment (eg Greystanes Estate), and is not just restricted to landfill. Additionally, final voids have been filled for use as residential lands (eg Moorebank Estate). Leaving the final landform as a void provides the greatest amount of flexibility for when a final land use is determined.
9.4	The default rehabilitation proposed in the EIS should result in a safe, stable, non-polluting landform consistent with surrounding area in the event that none of the possible identified post mining land is deemed appropriate at the time of mine closure.	The rehabilitation strategy details measures that would be implemented to ensure it is safe and non-polluting, including safety fencing around voids, geotechnical investigations on the quarry profile, revegetation of the stabilised areas, separation of clean and dirty water ,and management of any ingress of groundwater.
9.5	Alternative potential land uses identified (including landfill, industrial, residential or continued quarrying) should not be precluded by the proposed landform.	See response 9.2 above.
Community		
10	<i>Peter Ridgeway of Wentworth Falls, NSW</i>	



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10.1	The EIS contains serious factual errors including that <i>Bursaria spinosa</i> is indicative of disturbed habitats and that <i>Eucalyptus acmenoides</i> is a common tree species on site.	This comment refers to the review of the EIS for the upgrade of Bringelly Brick and Paver Manufacturing Plant in 1991 (Resource Planning Pty Ltd 1991), in Section 4.2.1 (Literature Review) of the Ecological Assessment (Appendix K of the current EIS). These errors are attributable to the previous EIS and not to the current study.
10.2	The EIS fails to consider that the vegetation at stake (CPW) is critically endangered and that the benchmark for its protection and restoration must be commensurately high.	Section 4.2.5 of the Ecological Assessment considers the status of the threatened ecological communities under State and Commonwealth legislation.
10.3	Proposed offset for the vegetation loss does not constitute an offset, as neither in perpetuity protection or a trust fund for restoration is proposed.	The proposed offset area will be secured and protected under a conservation agreement; which will be determined prior to the commencement of construction work that would result in the clearing and/or disturbance of ENV in the non-certified areas. As stated in Section 7.3 of the Ecological Assessment, a Biodiversity Management Plan would be prepared for the proposed offset area in consultation with OEH and prior to vegetation clearing for the proposal, and would include details of management methods, fencing, timeframes, costs and monitoring.
10.4	No offset has been proposed for the 2.87 hectares of Cumberland Plain Woodland outside certification and meeting the Federal benchmarks.	The offsets for the proposed vegetation loss have been determined in accordance with the Relevant Biodiversity Measures of the Biodiversity Certification Order, which require any clearing of Existing Native Vegetation (ENV) in non-certified areas to be offset by the protection of an equal or greater area of existing native vegetation elsewhere in the Growth Centres. As reported in Section 4.2.5 of the Ecological Assessment, ENV is defined in the Biodiversity Certification Order as areas of indigenous trees (including any sapling) that had 10 per cent or greater over-storey canopy cover present, were equal to or greater than 0.5 hectares in area, and were identified as “vegetation” on maps 4 and 5 of the draft Growth Centres Conservation Plan (ELA 2007) at the time the biodiversity certification order took effect. The 1.17 hectares of ENV mapped on the Project Site (of which 1.16 hectares will be impacted) only partially overlaps areas of CPW identified in the current study. As discussed in section 7.1 of the Ecological Assessment, the proposal aimed to minimise impacts on Moderate condition CPW and ENV; the ENV in the west and to the south of the Study Area was avoided when determining cell



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Submissions received		Response
10.5	There is sufficient CPW on the property to provide land for a 57.4 ha offset.	placement. An Assessment of Significance was undertaken to assess the impacts of the loss of the 2.87 hectares of CPW, which comprises 0.11 hectares of Moderate Condition CPW, 1.88 hectares of Poor Condition CPW and 0.88 hectares of Derived Grassland CPW. The Assessment of Significance, included in Appendix 8 of the Ecological Assessment, found that the proposal is unlikely to represent a significant impact to the community, primarily because most of the areas to be cleared are currently highly modified, subject to invasion from <i>Olea europaea</i> subsp. <i>africana</i> and are unlikely to be viable in the long term. None of the 2.87 hectares of Cumberland Plain Woodland to be cleared meets the criteria for Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest as defined in the EPBC Act Policy Statement 3.3.1 (Commonwealth of Australia 2010) (see section 4.2.5 of the Ecological Assessment for a detailed analysis). The vegetation to the south of the Project Site within the non-certified area of the Growth Centres is not considered to be appropriate for offsetting loss of ENV in non-certified areas, as this may not result in the proposal being consistent with RBM 6 of the Biodiversity Certification Order, which specifies that a minimum of 2,000 hectares of ENV must be retained and protected within the Growth Centres, either within the certified areas and/or the non-certified areas.
10.6	Moderate Condition CPW in non-certified areas in south-west of study area is in fact high condition woodland.	The Moderate Condition CPW in the south-west of the study area was assigned this condition class as it supports >10% eucalypt cover with native species present in understorey and exotic species abundant in patches. As described in Section 4.2.4 of the Ecological Assessment, there was patchy cover of <i>Olea europaea</i> subsp. <i>cuspidata</i> (African Olive) in these areas, and this invasive species often dominated the midstorey. The ground layer varied from sparse native grasses and herbs with high leaf litter to dense native and exotic grasses with <i>Eragrostis curvula</i> (African Lovegrass) dominant in patches.
10.7	The minimum ratio of vegetation lost to vegetation restored ever found to maintain biodiversity values in Australia by peer-reviewed research is 1:20. As such a minimum offset of 57.4 ha is required to	The source of the peer-reviewed research referred to in this comment is not provided. The proposed offsets were determined in accordance with the Relevant Biodiversity Measures of the Biodiversity Certification Order.



Table 1 **Response to submissions received on the Bringelly Brickworks and Quarry Expansion Environmental Impact Statement**

Submissions received		Response
	meet a maintain-or-improve outcome for CPW. This is additional to the offset proposed for offsetting the vegetation lost within the growth centre.	



Should you have any further questions related to the information provided in this letter please do not to hesitate to contact the undersigned on (02) 9033 5546.

Yours faithfully

A handwritten signature in black ink, appearing to read "K Jackson", followed by a vertical line.

Kate Jackson
Project Manager, Planning and Development
Boral Property Group