



Friday 21st July 2016

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Susan Fox
Senior Planning Officer, Industry Assessments
NSW Department of Planning and Environment
23-33 Bridge St
SYDNEY NSW 2000

Dear Susan,

**BORAL KOORAGANG MATERIALS RECYCLING FACILITY EXPANSION
RESPONSE TO SUBMISSIONS**

A detailed environmental impact statement (EIS) to support a development application to increase production at the Kooragang Recycling Facility was lodged by Boral Recycling Pty Limited (Boral) with the Department of Planning and Environment (DP&E) in January 2016.

The proposed project details are as follows:

- processing capacity of 350,000 tpa;
- expansion of stockpile area and height;
- addition of new waste streams to the list of permitted wastes received at the facility; and
- change the operating hours of the facility.

The EIS was placed on public exhibition from 8 February to 9 March 2016. Eight submissions were received, all of which were from Government agencies and surrounding industrial organisations. The Office of Environment and Heritage objected to the proposal on the grounds that a Biodiversity Assessment Report (BAR) had not been submitted with the EIS. The BAR has since been prepared and provided to OEHL for their information. No submissions were received from the general community.

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

Boral Limited
ABN 13 008 421 761



Table 1 Response to submissions received on the Boral Kooragang Recycling Facility Expansion

Submissions received		Response
1	<i>Roads and Maritime Services (RMS)</i>	
1.1	Requires that exiting heavy vehicles intending to travel west on Cormorant Rd, should turn left into Egret St and travel via Raven and Curlew streets and Cormorant Rd to the Teal St/Cormorant Rd roundabout.	This option was not assessed in the EIS and therefore Boral cannot comment on the impact of this change. It should be noted that the traffic assessment did not predict any significant impact on the eastbound flow on Cormorant Road as a result of the proposal.
2	<i>Newcastle City Council</i>	
2.1	(1.) Provide details of existing types and volumes of materials stored and processed.	Section 2.2 of the EIS details the existing operations. Exact volumes of the types of waste being processed and stored on-site are not kept by the site, as there is currently no restriction on any individual type of waste, but rather a limit on the total volume of waste processed (100,000tpa). All waste received and processed on site is construction and demolition waste. It is noted that the 2001 EIS nominates <u>approximate</u> tonnages of slag, flyash and building and demolition waste.
2.2	(2.) Workshop shown on Figure 3-1 not detailed in EIS	Noted. Figure 3-1 is a conceptual plan, however the plan can be updated to remove the workshop if required.
2.3	(2.) EIS does not clarify if the CCTV system will be expanded to the proposal	The existing CCTV system will be used for the proposed expansion.
2.4	(3.) Require details of the encroachment on adjoining leases of Boral Concrete and Origin and how this might affect adjoining development consents.	The proposed recycling facility will expand into an area formerly leased by Origin Energy, as well as land occupied by Boral Cement. Boral Cement, as owner of the greater land parcel, currently leases land internally to Boral Recycling and Boral Concrete, and externally to Origin Energy. The expansion of the recycling facility has taken into account the impact on these areas (particularly in respect to surface water), and will not require and changes to the approvals for these operations. There will be no encroachment into the Boral Concrete leased area as stated by NCC.
2.5	(4.1) All trucks travelling west to exit the site via Raven and Curlew streets and onto Cormorant Road.	See Boral's response to point 1.1 above.



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2.6	(4.2) Submit a plan detailing the location of car parking spaces for both the Concrete batching plant and recycling facility.	<p>Part 1, Clause 6 of the Three Ports SEPP states in part:</p> <p><i>“ in the event of an inconsistency between this Policy and another environmental planning instrument, whether made before or after the commencement of this Policy, this Policy prevails to the extent of the inconsistency.”</i></p> <p>Schedule 1 clause 5 of the Three Ports SEPP discusses car parking and therefore prevails with regards any inconsistency with the LEP. The SEPP clause provides guidance on car parking specification, including the requisite Australian Standards. The Project does not require additional parking and no further assessment or plan preparation is required.</p>
2.7	(4.3) Provide designated pedestrian pathways	<p>Pedestrian pathways to and from the car park, and to Egret street already exist and will not change as a result of the proposal.</p>
2.8	(4.4) Provide plan of truck egress routes and check swept paths of all intersections. Provide formal driveway and gutter.	<p>The route proposed by NCC is designated by RMS as 26m B-Double restricted access vehicle route. Such designation only comes about after exhaustive checking by RMS and accordingly it can be safely assumed that the turning paths are adequate. No further assessment is warranted, as evidenced by the RMS response.</p>
2.9	(5) Transportation of materials by rail.	<p>Demolition projects that generate the bulk of the intended incoming material do not generate sufficient volumes to consider rail loading. Further, the buyers of recycled products do not purchase volumes that would be worth considering rail freight. Additionally, few if any regional construction projects are on or near rail terminals. It is entirely unfeasible to consider receipt or despatch by rail. The original EIS considered the rail importation of slag only. However given the subsequent closure of most Australian steel mills and the questionable economics of importing slag from overseas, this option never eventuated. The supply market is now predominantly broken concrete from small to large dispersed demolition projects.</p>
2.10	(6) Western bund and stormwater modelling	<p>The western bund was considered in the hydrological modelling for the proposal.</p>
2.11	(7) The LEP PASS maps do not cover the site and the site is likely to have PASS.	<p>Council’s interpretation with respect to the LEP PASS maps is correct, but notwithstanding, Section 8.10.1 of the EIS concluded that the material underneath the fill on the site is probably potential acid sulphate and that excavation will be limited to well above the groundwater table and the likely occurrence of potential acid sulphate soils.</p>



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2.12	(8) It cannot be determined from the EIS whether the development will increase effluent production and if so whether the on-site disposal system requires upgrading.	<p>The EIS states in Section 8.5.3:</p> <p><i>“Toilet wastes from the Recycling Facility are collected in a septic tank and periodically pumped out for disposal.”</i></p> <p>The site has no on-site disposal system and the increase of operational staff by 1, will not measurably increase the amount of effluent generated on site.</p>
2.13	(9) In accordance with the DCP, the western fence extension is required to consist of masonry or pre-clad metal cladding to a minimum height of 2 m.	<p>Part 1, Clause 6 of the Three Ports SEPP states in part:</p> <p><i>“ in the event of an inconsistency between this Policy and another environmental planning instrument, whether made before or after the commencement of this Policy, this Policy prevails to the extent of the inconsistency.”</i></p> <p>Schedule 1 clause 9 of the Three Ports SEEP discusses fencing and therefore prevails with regards any inconsistency with the LEP. The SEPP clause does not limit the type of fencing built on the site, apart from limiting the height to 5m maximum.</p> <p>The fence extension is proposed to match the consistent industrial fencing style on the Island, being galvanised steel posts supporting chain mesh with multiple strands of barbed wire. This fence style occurs along both sides of Egret Street and in any event, the fence extension will be difficult to see behind the shrubs lining the western side of Egret Street.</p>
2.14	(10) Section 94 contribution and cost of the fixed sprinkler system.	Relevant Section 94 contributions will be arranged with Council once consent is granted. The CIV will be adjusted prior to this to include the fixed sprinklers, however the cost for this is expected to be minimal.
2.15	(11) Use of cranes	Noted
2.16	(12) Provision of detailed construction plan	The concept plan allowed rigorous social and environmental impact assessment to support the development application. Detailed plans for construction as requested by Council will be provided post-determination and it is expected that a relevant condition of consent would be issued by DP&E.

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3	<i>Department of Primary Industries</i>	
3.1	Requests that the following be incorporated into conditions of consent should the project be approved: Groundwater must not be used on site until: (i) An investigation by a suitably qualified person has determined the groundwater safe and fit-for-purpose; and (ii) Licensing requirements under the <i>Water Act 1912</i> or <i>Water Management Act 2000</i> (as applicable) have been fulfilled.	Noted
4	<i>Hunter Health</i>	
4.1	Require continuous PM10 and PM2.5 monitoring	Kooragang Island and the adjacent suburb of Stockton are already equipped with continuous air quality monitoring devices that provide sufficient data for assessing local air quality.
4.2	Provide noise monitoring data to the community	The Hunter Health letter suggests that the EIS includes a comprehensive monitoring programme. This is not the case, the EIS simply says “A management plan will be prepared as part of a site operations plan to detail the various operational arrangements and monitoring procedures.” Further, noise impacts from the proposed expansion at the closest residential receiver (over 2km away) were predicted to be negligible, and hence ongoing noise compliance monitoring is not considered necessary.
4.3	Develop a complaints mechanism.	The site has a complaints register that would be expanded in the proposed Environmental Management Plan. Additionally, Boral has a centralised electronic system which is used to record a site’s safety and environment performance, which includes community complaints and Government authority visits/actions. All complaints are recorded into this online database and actions are attributed to the relevant personnel and tracked until completion.
5	<i>Office of Environment and Heritage</i>	
5.1	The policy requires compliance with the Framework for Biodiversity Assessment, which includes a Biodiversity Assessment Report (BAR) that has not been provided.	An investigation into the FBA was undertaken in May 2016. The results of this investigation concluded that the vegetation on the site is highly disturbed, weed infested and is not connected to any significant remnant vegetation. It was therefore considered that further detailed survey or preparation of a full FBA was not warranted. A copy of the



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		investigation was forwarded to DP&E on 30 May 2016.
6	<i>Port of Newcastle</i>	
6.1	(1) Prior to the commencement of construction stormwater management plans detailing the scope of works and specifications to achieve the mitigation measures proposed in the EIS, be submitted for approval by the consent authority.	Noted
6.2	(2) Prior to operation certification from a suitably qualified expert and registered surveyor confirming that the approved stormwater management works have been constructed in accordance with the specification and surface levels proposed in the EIS, should be submitted to the consent authority.	Noted
6.3	(3) Prior to operation, an Operational Environmental Management Plan (OEMP) be prepared, which includes the periodic (i.e. 5 yearly intervals) assessment and commensurate maintenance of the stormwater management system.	Noted
6.4	(3(ii)) Any approval should be conditioned to require any vehicle parking and truck queuing to be contained within the project site, and not within adjoining land.	<p>Queuing is currently contained on-site, and the weighbridge processing time under the supervision of on-site staff (which will continue under the Proposal) allows for an efficient processing of vehicles, and it is expected that queues will be contained on-site during increased production rates.</p> <p>Note that Egret St pavement is approximately 14 m wide kerb to kerb. Even if an incoming truck queued in the left hand lane, there would remain approximately 4.5 m from the truck to the centreline of the roadway.</p>



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6.5	(3(iii))Additional details on dust mitigation procedures.	<p>Table 12-1 of the EIS provides a list of dust mitigation controls as follows:</p> <ul style="list-style-type: none"> • Area sprayers will be activated in dry weather as required. • Stackers above processed stockpile and transfer points will be fitted with water sprays. • Maintenance of compacted internal roadways and stockpile pads. • Maintenance of seal on the main access road from the wheel wash and weighbridge. • Sealed roads will be regularly swept. • A water cart will remain on site for use on manoeuvring areas in hot and dry weather. <p>As offered in the EIS, these controls will be detailed further in the new Environmental Management Plan for the site.</p>
7	<i>Newcastle Coal Infrastructure Group</i>	
7.1	Inadequate control measures proposed for dust mitigation.	The EMP will provide details of the types of dust mitigation systems to be installed and expanded, and the associated procedures. See point 6.5 above for further details.
7.2	An upgrade of parking and truck processing infrastructure.	<p>Internal truck flow modelling by Boral indicates that the weighbridge arrangement is currently under-utilised and can accommodate the proposed additional truck movements.</p> <p>Contrary to NCIG’s suggestion, the site entry is not restricted and offers easy access to the proposed truck numbers even when combined with Boral Concrete’s truck movements. Queuing is currently contained on-site, and the weighbridge processing time under the supervision of on-site staff (which will continue under the Proposal) allows for an efficient processing of vehicles, and it is expected that queues will be contained on-site during increased production rates.</p> <p>Notwithstanding the modelling results, we note that Egret St pavement is approximately 14 m wide kerb to kerb. Even if an incoming truck queued in the left hand lane, there would remain approximately 4.5 m from the truck to the centreline of the roadway.</p>



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<p>8 <i>NSW Environment Protection Authority</i></p>	
<p>8.1 Based on the EPA’s assessment, the proposal appears to be a gross over development of the site.</p>	<p>The site is situated on appropriately zoned land and hence the proposal seeks to maximise the functionality of the site within a minimum footprint. Far from a “gross over-development” the proposal maximises the ability of the facility to process waste and so provides the range of social and environmental benefits inherent in recycling and allows Boral to meet the EPA’s own Waste Less and Recycle More Strategy.</p> <p>The proposed volume of processed and unprocessed waste stored on the site at any one time (530,000 tonnes) was calculated based on stockpile volumes at Kooragang and other Boral Recycling sites. Stockpile volumes at all of Boral’s recycling facilities are professionally surveyed bi-annually meaning that future stockpile volumes can be accurately predicted based on historical data.</p>
<p>8.2 EPA considers the proposed environmental controls inadequate for the proposal in their current state.</p>	<p>Section 12 of the EIS summarises the proposed mitigation measures. These measures have been assessed in the EIS by Boral’s technical consultants and included in any modelling of environmental effects, particularly in relation to stormwater, noise, and air quality. Boral therefore asserts that all environmental controls listed and proposed in the EIS are adequate, ensuring the relevant criteria are met.</p>
<p>8.3 The EPA generally applies a stockpile height limit of 6-8 metres for resource recovery facilities.</p>	<p>The EPA did not raise the stockpile heights as an issue when consulted by DP&E for input into the SEARs. Page 1 of the PEA stated clearly that the proposal was to increase stockpile heights to 20 m. In response to the PEA, the EPA issued to DP&E a 25 page requirements letter to be considered in scoping the SEARs. While this letter discusses stockpile management, it at no time refers to any EPA-recommended stockpile height, and nor to the various relevant guidelines referred to within that letter.</p> <p>A search of the EPA webpage has failed to reveal any stockpile height management guidelines.</p> <p>To date the EPA has offered no reasoning or justification as to this newly suggested stockpile height limit, although the EIS submission letter asks for details of stockpile management and integrity. Boral’s recycling facility at Widemere has operated stockpile heights of 20m since approval was issued by DP&E in 2002. Additionally, the EPA raised no issue with the approved 20m stockpile heights as a part of the current Widemere development application.</p> <p>We note also that the site is surrounded by numerous coal stockpiles 25 m high and 1,000 m long. The closest residential receiver is over 2km from the site. The site is therefore situated appropriately within an industrial zone,</p>



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8.4 EPA request that proponent demonstrate the facility has adequate capacity to store 530,000 tonnes of material on the site.	with a minimum 2km buffer distance between the proposed operations and sensitive receivers. See response 8.1 above.
8.5 Contamination within stockpiles from unwanted wastes including asbestos.	<p>We refer to the following text in the EIS, pages 9 and 10, which details the receivals protocol in relation to raw materials.</p> <p><i>“The proposed Facility will not accept hazardous materials such as asbestos (either loose or bonded) or chemical waste. Boral will implement appropriate management procedures in accordance with Boral Recycling Inspection and Receivals Protocol, 2015.</i></p> <p><i>All personnel undertake asbestos awareness training as part of inductions and ongoing training. The site has a double check procedure in accordance with the Boral Recycling: Inspection and Receivals Protocol, 2015, which involves an initial load check by the weighbridge operator, followed by a second visual check at the raw material discharge point. Both these checks are undertaken prior to unloading and include the generation of dockets signed by the relevant operators to document the process. Additional to the double-check procedure, the Inspection and Receivals Protocol requires, that on each Wednesday, a front end loader bucket sample is taken of the day’s crushing, and placed on a designated inspection pad. Here, a trained operator undertakes a visual inspection for asbestos material and collects a 20 kilogram sample for analysis by the contracted occupational hygienist. If twelve consecutive weekly samples are satisfactory, the sampling and testing regime reverts to monthly.</i></p> <p><i>This process will continue as part of the Project to preclude inadvertent acceptance of asbestos containing materials. In addition, raw material testing will be conducted in accordance with the NSW EPA’s Recovered Aggregate Order 2014, which includes testing for 8 heavy metals, electrical conductivity, and foreign material. Testing frequency is as defined in the Recovered Aggregate Order 2014.”</i></p>



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<p>8.6 Further justification to support the proposed 130,000 tonnes increase in stockpile storage volumes.</p>	<p>There is no direct market link between waste supply and recycled material demand, apart from a general relationship that high economic activity generates more building, which commonly generates more demolition.</p> <p>For much of the year, demand for recycled products can outstrip demand, and so stockpile dimensions would be minimised. Conversely though, at some times, there will be more waste produced than recycled products are ordered, and accordingly, stockpile dimensions grow. To run a flexible business that can respond to the ebb and flow of incoming waste and despatch of product, Boral must have significantly more stockpile capacity than annual production.</p> <p>It should be noted that the new waste levy guidelines would seriously penalise Boral if it chose to retain wastes on site for longer than the levy trigger date. In the competitive recycling business, this additional cost would be avoided.</p> <p>The flexibility sought by Boral will allow it to run a financially viable recycling business.</p>
<p>8.7 EPA requires details on the market demand for the wastes proposed to be stockpiled and processed on the premises.</p>	<p>Market demand for incoming and outgoing materials is highly dependent on major projects, but overall demand for materials has been increasing. The proposal is to allow the acceptance and recycling of additional wastes currently destined for landfill and to so meet a raft of relevant government objectives.</p> <p>Incoming and outgoing material sales can be predicted to an extent, but like any prediction, would be based on a list of multiplied assumptions that in all likelihood would not be entirely accurate.</p> <p>Material handling is essentially a commercial issue tempered by approval limits. In the case of the Project, financial returns come from both incoming and outgoing materials, but the approval limits will cap both ends of the cycle. Should for example, less wastes be supplied to Boral, clearly less recycled product will be produced. Likewise, should the demand for recycled produced inexplicably drop, then naturally incoming waste will drop as the site has a finite and consented storage capacity.</p> <p>In addition, the EPA includes the requirement to maintain Financial Assurance through the site’s Environmental Protection Licence (EPL). It is anticipated that the FA for Kooragang will increase once approval is gained. This provides the EPA security that the site will not be encumbered with waste should Boral cease its Kooragang recycling operations.</p>



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8.8	Provide further information regarding proposed dust control measures.	<p>Table 12-1 of the EIS provides a list of dust mitigation controls as follows:</p> <ul style="list-style-type: none"> • Area sprayers will be activated in dry weather as required. • Stackers above processed stockpile and transfer points will be fitted with water sprays. • Maintenance of compacted internal roadways and stockpile pads. • Maintenance of seal on the main access road from the wheel wash and weighbridge. • Sealed roads will be regularly swept. • A water cart will remain on site for use on manoeuvring areas in hot and dry weather. <p>As offered in the EIS, these controls will be detailed further in the new Environmental Management Plan for the site.</p>
8.9	Concerns regarding the capability of the water cart and area sprays to sufficiently suppress any dust generation from the 20m high stockpiles.	The water cart will be used for watering roadways and manoeuvring areas, where fixed sprays are not installed or not effective. Fixed area sprays will water stockpiles, in a similar fashion to the neighbouring water sprays on the 25 m high coal stockpiles.
8.10	Request quantification of the volume of water required to stabilise stockpiles in increased winds.	Table 8-14 of the EIS provides details of 25 th , 50 th and 75 th percentile rainfall years dust suppression water demand. The 75 th percentile demand is 16.99 ML.
8.11	Prepare an air quality management plan prior to the commencement of project operations.	Noted



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<p>8.12 A monitoring program for the concrete storage dam is recommended to be conducted against public health criteria.</p>	<p>Section 8.5.8 of the EIS notes that <i>“Water proposed to be reused onsite will be tested and compared against the public health risk management criteria (DEC, 2006) and the adopted Ecological Groundwater Investigation Levels criteria. If the water quality exceed these criteria, water of a suitable quality will be added for dilution. Untreated water exceeding criteria will not be reused onsite.”</i></p> <p>and</p> <p><i>“A Process Water Management Plan will be prepared post-approval to manage the safe use of groundwater in the process water circuit. The plan will consider aspects such as water spray aerosol size, exposure pathways, dosages and mitigation measures.”</i></p> <p>Boral remains of the opinion that a post-approval Process Water Management Plan is the appropriate method of addressing this potential issue.</p>
<p>8.13 Further information on frequency of monitoring and storage capacity of the concrete dam for dilution purposes.</p>	<p>Appendix 8 of the EIS (page 48) details the dam capacity at 1,350 m³, allowing for silt accumulation.</p>
<p>8.14 Alternative dust mitigation measures should water exceed public health risk management criteria.</p>	<p>No alternative dust mitigation measures are proposed or required, simply an alternative water supply. Section 8.5.6 of the EIS notes that any water deficit would be provided by a licenced spear point or town water as required.</p>
<p>8.15 Contamination of surface water and groundwater from runoff from the raw materials received onsite.</p>	<p>The proposal is to accept General Solid Waste (non-putrescible) primarily building and demolition waste. This waste type is approved by the current consent and listed in the EPL. No new materials are proposed to be accepted.</p>
<p>8.16 Prepare a Contaminated Materials Handling Protocol, referencing the relevant OEH and EPA guidelines.</p>	<p>Noted</p>



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", with a long, sweeping flourish extending to the right.

Kate Jackson
Project Manager, Planning and Development
Boral Property Group