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Dear Ms Symington

Eastern Creek Resource Recovery Facility (SSI 9774)
Advice on Environmental Impact Statement (EIS)

I am writing to you in reply to your invitation to the NSW Environment Protection Authority (EPA) to provide comment on the Environmental Impact Statement (EIS) for the above project.

The EPA understands that the project involves the construction and operation of a resource recovery facility (RRF) that will receive waste from Hanson's concrete batching plants around Sydney and sort this material into stockpiles of predominantly concrete waste, as well as bricks, asphalt and glass. The facility will have a processing capacity is 136,000 tonnes per annum and operate 24 hours a day. It is noted that the SSD proposal is on a subdivision of the broader Hanson site that received concept approval on 3 June 2010 for the Hanson Asphalt and Concrete Production & Recycling Facility under MP 06_0225.

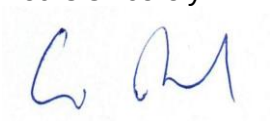
The EPA has reviewed relevant sections of the EIS including:

- *Environment Impact Statement*, Issue 1 Final, dated 15 March 2021, prepared by Ethos Urban (EIS main report).
- *Review of Noise Impacts*, dated 2 March 2021, prepared by SLR (RNI).
- *Detailed Site Investigation*, Rev 1 Final, dated 7 May 2020, prepared by Martens (DSI).
- *Water Cycle Management Plan*, Rev 4 Final, dated 15 March 2022 [sic], prepared by Martens.

Based on the information provided, the RRF would be a scheduled activity and require an Environment Protection Licence (EPL) under section 48 of the *Protection of the Environment Operations Act 1997* (POEO Act). The EPA's comments on operational waste processes, contamination, and noise and vibration are provided at **Appendix A**.

Should you require clarification of any of the above please contact Anna Timbrell on 9274 6345 or email anna.timbrell@epa.nsw.gov.au

Yours sincerely



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APPENDIX A

1. Site Activities and Waste

The EPA has reviewed the EIS with regard to the processing of waste and proposed site activity and considers that there is insufficient detail discussing waste streams and the actual processing of waste at the site. This is discussed as follows:

Waste Streams and Processes

The Secretary's Environmental Assessment Requirements (SEARs) for the SSD project required: "*a description of each of the waste streams…; details of the source of the waste streams…; a description of waste processing operations (including flow diagrams for each waste stream), including a description of the technology to be installed, resource outputs and the quality control measures that would be implemented; detail the development's waste tracking system for incoming and outgoing waste*".

Section 3.7 of the EIS main report broadly outlines processing operations with a flow diagram capturing all four waste groups proposed to be accepted at the premises. The EPA requires additional information regarding the following:

- Exactly where the waste will be sourced from: Section 3.7.1 states that waste will be sourced from *"Hanson concrete batching plants, source separated aggregate products from the building and demolition waste stream, and Visy Penrith and Smithfield sites or other similar facilities subject to the availability of materials and market demand."* **The EPA requests that the applicant elaborate on whether waste will be sourced directly from the building and demolition industry, or specifically from the facilities listed above**.
- Where source separated or otherwise segregated construction demolition waste will come from: This should include the original source of the building and demolition waste stream. **Clarification is required on whether source separated waste will be provided by other resource recovery facilities, or exclusively sourced from Hanson and Visy following processing. This should cover all source separated waste, but particularly glass waste**.
- How each proposed waste stream (concrete, glass, brick, asphalt) is to be processed at the premises: **The EPA requires the applicant to provide additional detail for each stream, and flow diagrams for each waste stream**.
- **The EPA requires additional detail on how waste will be tracked when being delivered to and from the premises**.
- **The EPA requires details on where non-conforming waste will be stored and managed at the premises**. The EPA requires that licensees maintain a rejected loads record.

Tip & Spread Inspection

The applicant has provided a resource recovery process flowchart in Figure 17, section 3.7 of the EIS main report. The process flowchart shows that waste will enter the premises via weighbridge, then source separated materials are tipped on stockpiles, then raw feed stockpiles are moved to the mobile crusher, etc. The applicant then states in section 3.7.1 *"All incoming deliveries are visually inspected for conformance at the weighbridge upon entry, and also at the time of unloading."*

The EPA requests that the applicant refer to the *Standards for Managing Construction Waste in NSW* (EPA, 2019) which requires that every Construction and Demolition Waste Facility must have a dedicated area used only for the tipping, spreading, turning and inspecting of every load of construction waste received. The tip and spread area must not be used for any other activity such as waste sorting, stockpiling or storage. **The EPA requires that the applicant clearly indicate the dedicated tip and spread area on the Floor Plan of the proposed development, and include a description of the tip and spread inspection in accordance with the *Standards for Managing Construction Waste in NSW* (EPA, 2019)**.

The EIS states the facility will not receive unverified loads from the general public or unknown third parties but this is subject to market demand. Further, material can erroneously arrive at facilities not authorised to receive them, potentially in breach section 143 of the *Protection of the Environment Operations Act 1997*.

The EPA requests that clarification is made on the acceptance/rejection procedures (including verifying classification) proposed (beyond visual conformance assessment proposed) given the EIS states there is potential (albeit small) for receiving non-recyclable materials, or other unexpected finds such as asbestos.

The Pugmill

Section 3.1 states that *"crushed material will be processed by the pugmill conveyor and transferred with conveyors from the shed to the finished product stockpiles."* **The EPA requires the applicant to provide additional information regarding the construction and operation of the pugmill, particularly in respect to the inputs, processing and outputs of waste**.

Wheel wash

In the EPA's letter to the Department of Planning and Environment regarding advice for the SEARS (dated 21 February 2019) the EPA advised that the applicant *"should set out in the EIS whether a wheelwash will be installed and if not, justification as to why a wheelwash will not be installed."*

In section 3.1.2 of the EIS main report, the applicant states "*A wheel wash is not considered to be required as the vehicles will never travel on an unsealed surface, and all stockpiles and processing activities are located within the recycling plant shed."* The EPA does not consider hardstand at the premises a sufficient justification to not install a wheel wash at the premises.

The need for a wheel wash depends on factors such as whether trucks have driven on external contaminated sites to pick up a load; and whether the measures to mitigate dust at the proposed site are in place and working to prevent tracking of material around site from truck tyres and during off-loading/loading procedures.

The EPA advises the applicant that the following conditions are mandatory in new Environment Protection Licences (EPLs) for resource recovery facilities:

- *All operations and activities occurring at the premises must be carried out in a manner that prevents and minimises emission of air pollutants from the premises.*
- *The licensee must ensure that no material including sediment is tracked from the premises.*

To ensure compliance with licence conditions listed, the EPA recommends that applicants constructing new waste facilities:

- **have concrete or asphalt across roads and working platforms at the premises;**
- **have bunded hardstand at the premises;**
- **have a mandatory, unavoidable wheel wash for vehicles entering and exiting the premises; and**
- **have a water cart employed on roads within and immediately surrounding the premises.**

The EPA is concerned that sources of sediment (i.e. operations within the sorting shed) will be tracked by vehicles entering and exiting the shed during drop-off and collection of material to the premises. Additionally, vehicles entering the premises may introduce sediment from other sites onto the premises.

The EPA recommends that the applicant reconsider the installation of a wheel wash at the premises or provide more detail on operational controls that will be implemented to ensure

compliance with mandatory licence conditions (i.e. no material including sediment tracked from the premises).

Waste storage requirements

Section 3.7.2 of the EIS main report states "*All stockpiles of received materials will be located within the shed enclosure.*" The Site Plan in Appendix B shows feed stockpiles (unprocessed waste) towards the western wall of the shed enclosure, and recycled waste stockpiles towards the eastern portion of the shed enclosure. No further detail is provided of waste storage at the premises.

Section 4.1 of the *Standards for Managing Construction Waste in NSW* requires that each individual listed waste type (included in Attachment A of the *Standards*) be stored in separate storage areas that are clearly labelled or signposted to indicate the individual waste type being stored in that area.

The EPA requires that the applicant provide waste storage management details in the EIS in accordance with requirements from the *Standards for Managing Construction Waste in NSW* (EPA, 2019).

Authorised amount and annual throughput at the premises

There is a lack of clarification about the amount of waste stored at the premises and annual throughput. Section 3.0 of the EIS main report states "*The applicant seeks approval for the construction and operation of a resource recovery facility with an intended capacity of 136,000 tonnes per annum.*" Section 3.7.2 of the EIS states "*Feed stockpiles will be up to 6m high within the building, with a total stockpile capacity of up to 20,000 tonnes.*" Section 3.7.4 of the EIS states "*Finished stockpiles would be up to 6m high with a total stockpile capacity of up to 10,000 tonnes.*" Section 5.4.2 of the EIS states "*The assessment is based on a production capacity of 100,000 tonnes per annum.*"

The EPA requires clarification of the following:

1. **The total proposed annual throughput of the facility.**
2. **The maximum amount of waste that will be at the premises at any one time. (Note that this would include any processed, recycled, re-used or recovered substance as per the definition of 'waste' in the *Protection of the Environment Operations Act 1997*.)**
3. **How stockpile heights will be measured and maintained to a maximum of 6 metres height.**
4. **The indicative number and volume of stockpiles within the enclosed shed.**

The EPA reminds the applicant that the annual throughput and amount of waste at the premises at any one time will be placed onto the EPL issued for the premises. The total authorised amount of waste permitted at the premises at any one time will be determined by the EPA during the licence application process based on stockpile height, area of waste storage and factors raised during the planning process.

Dust suppression within the shed

The applicant proposes that all waste storage and processing will occur within a shed. The environment within the shed will likely get very dusty given the large amount of macro- and milli/micro-crushing being undertaken, and mitigation measures will need to be put in place to minimise dust exposure to works and local business environs.

Section 5.12.2 states "*An average (across the year) of approximately 16.6 kL/day of water will be required during operation of the resource recovery facility. This total amount is dominated by crushers and stockpiles dust suppression (16 KL/day) …*" **The EPA requires more information on how dust suppression within the shed will occur. Additionally, the EPA requests that the applicant confirm operational controls to minimise and prevent dust emissions from the shed (i.e.**

whether the shed will be closed at all times – with the exception of egress and ingress of trucks).

Examples of current best practice measures for air quality and dust mitigation include:

- fast roller doors
- an air quality system with appropriate filtration (due to hazardous nature of material received) and air pressure control operating at negative pressure
- segregated, bunded internal storage bays to prevent cross-contamination.
- sampling points for dust
- receivables handling/off-loading and truck traffic management procedures

2. Contamination

The EPA notes that a Preliminary Site Investigation (PSI) was submitted as part of the Environmental Assessment for 'Hanson Concrete and Asphalt Facility' concept and project (MP06_0225) that was approved on 3 June 2010.

The PSI – titled *Preliminary (Stage 1) Land Contamination Assessment: Concept Plan for the redevelopment of Lot 11 DP 558723, Lot 1 DP 400697 and Lot 2 DP 262213, Eastern Creek, NSW*, v1, dated October 2006, prepared by Martens – identified several potential contaminant sources and areas of interest and recommended that a Detailed Site Investigation (DSI) be undertaken to determine if remediation would be required. As part of the Response to Submissions for MP06_0225, the applicant stated that a DSI could form part of the conditions of consent, however, this requirement was not included as a condition.

Although there have been subsequent modifications and activity at the site, there is a dearth of information regarding site contamination since the PSI was undertaken in 2006 that undermines the reliability of the DSI submitted as part of the EIS for SSD 9774. This is discussed as follows:

Conceptual Site Model

Given the time elapsed since the PSI was undertaken in 2006 and when the DSI was undertaken in 2020, the information on which the DSI was based is dated. This means that there are data gaps in the site history and conceptual site model. For example, there is little updated information on site activities in the interim. Of note, significant cut and fill works were undertaken at the site in 2017 and much of the soil in the identified areas of concern is now covered by fill material. Due to the depth of the soil sampling undertaken in the DSI, the sampling results are reflective only of the top layer of fill and do not provide sufficient characterisation of the nature and extent of any potentially pre-existing contamination at or below the previous surface level of the site.

Data Quality Objectives

The data quality objectives provided for the investigation are not robust enough to provide a framework by which to collect information to make decisions. There is insufficient guidance on the data inputs required – e.g. how many samples are needed for characterisation, which ecological criteria will apply, etc. The decision rules and guidance on acceptable errors are also limited. Some stated objectives are not met – e.g. the vertical boundary of the study is given as 4 metres depth, however, many of the soil bores do not reach this depth and the majority of soil samples that were analysed were taken between the surface and only 1 metre depth. The Data Quality Objectives do not accurately consider aspects of the conceptual site model.

Soil Sampling

The selected sampling pattern and density does not comply with the *Sampling Design Guidelines* (NSW EPA, 1995). Sample locations should be set out in a systematic grid-based pattern (not achieved). The recommended sampling density for an area of 4.3 hectares is 51 sampling points. Only

28 locations were selected in the DSI. Of these 28 locations, two were not analysed for organochlorines and organophosphates, PCBs, TRH, BETX, metals or PAHs (BH102 and BH128). There is no figure or map provided which overlays the locations of the areas of concern identified in the PSI with the sampling locations from the DSI. While solvents are identified as contaminants of potential concern in the PSI, there is no analysis for this group of contaminants in the DSI.

As part of a Response to Submission (RtS), the applicant must provide an updated Detailed Site Investigation which determines the full nature and extent of contamination in different media including, but not limited to soil, groundwater, and surface water media to determine if the site is suitable for the proposed use. This report must contain sufficient information to be read as a stand-alone document. The Detailed Site Investigation must be updated, and the subsequent report/s, must:

- **(a) be prepared, or reviewed and approved, by consultants certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme.**
- **(b) be prepared in accordance with the relevant guidelines made or approved by the EPA under section 105 of the *Contaminated Land Management Act 1997*.**
- **(c) provide an adequate summary of the site history and information. Data gaps on past site activities and potential contamination sources between 2006 and the present must be addressed.**
- **(d) establish robust data quality objectives before further field investigations are undertaken. A map of the current site marked with sampling locations, previous site infrastructure, locations of historic activities or areas of potential concern could be useful to supplement this.**
- **(e) include an updated conceptual site model.**
- **(f) provide additional information on surface water and groundwater at the site and provide justification if these environmental media are not sampled.**
- **(g) include further systematic soil sampling to achieve the sampling densities recommended in the *Sampling Design Guidelines* (1995) or any subsequent version of this guideline. Justification must be provided if consultants believe that this is not necessary.**
- **(h) re-evaluate the targeted soil sampling depth or take samples at greater depth to ensure contamination at and under the previous ground surface level are reached. Justification must be provided if consultants believe that this is not necessary.**
- **(i) test soils for volatile halogenated compounds since previous investigations identified solvents as contaminants of potential concern. Justification must be provided if consultants believe that this is not necessary.**
- **(j) discuss potential effects of any contaminants identified on human health, (including the health of the proposed future users of the site), and the environment (on and off-site) to determine if the site is suitable for the proposed use.**

The EPA also reminds the applicant of the following:

1. The processes outlined in *State Environmental Planning Policy 55 – Remediation of Land* (SEPP55) are to be followed in order to assess the suitability of the land and any remediation required in relation to the proposed use.
2. The Applicant must ensure the proposed development does not result in a change of risk in relation to any pre-existing contamination on the site so as to result in significant contamination [note that this would render the Applicant the 'person responsible' for the contamination under section 6(2) of *Contaminated Land Management Act 1997* (CLM Act)].
3. The EPA should be notified under section 60 of the CLM Act for any contamination identified which meets the triggers in the Guidelines for the Duty to Report Contamination www.epa.nsw.gov.au/resources/clm/150164-report-land-contamination-guidelines.pdf

4. The EPA recommends use of "certified consultants". Please note that the EPA's Contaminated Land Consultant Certification Policy (https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/clm/18520-contaminated-land-consultant-certification-policy.pdf?la=en&hash=D56233C4833022719BCE0F40F870C19DC273A1F7) supports the development and implementation of nationally consistent certification schemes in Australia, and encourages the use of certified consultants by the community and industry. Note that the EPA requires all reports submitted to the EPA to comply with the requirements of the CLM Act to be prepared, or reviewed and approved, by a certified consultant.

3. Noise and Vibration

The EPA notes that the Resource Recovery Facility is one of the elements of the previously approved concept plan (MP 06_0225 Concept), and that it is distinct from the various continued uses of the existing concrete batching plant, ancillary infrastructure and other elements approved in accordance with the project consent (MP 06_0225 Project) for the site. It is also noted that some of the uses and ownership of elements in the concept plan, such as Lot 6, have changed over time from that originally approved.

The approach to assessing noise impacts from the SSD project has been to undertake a *Review of Noise Impacts* (RNI) based on the concept and project approvals from 2010, rather than a fresh and full noise assessment. Considering the time that has elapsed since the approvals were granted, the EPA considers that the SSD application would warrant a fresh noise assessment. Furthermore, the RNI has focused on operational noise impacts only and there has been no assessment of construction noise impacts, as required by the SEARs. **A fresh assessment should include an assessment of construction noise impacts in accordance with the *Interim Construction Noise Guideline* (EPA, 2009).**

Based on the information available the EPA notes the RNI has assessed the project – including the combined operation of all elements in the approved Concept – and notes that the changes to plant and mobile equipment and the resultant changes in the predicted noise emissions to surrounding sensitive receivers, are minor and do not change the intrusive noise levels in the *Concept Plan for the Redevelopment of Lot 11 DP558723, Lot 1 DP200697 and Lot 2 DP262213 Construction, Operating and Traffic Noise Assessment*, prepared by Heggies, dated Nov 2006.

It is understood there are no current or draft Environment Protection Licences (EPLs) for the Hanson project site. The expectation is that any future EPL for the project will also encompass all elements, and any noise limits therein will relate to the combined noise emissions for all elements of the project, as assessed in the RNI.

The EPA recommends the following noise limits for operation at the premises:

> Noise generated at the premises must not exceed the noise limits at the times and locations in the table below. The locations referred to in the table below are indicated in Schedule 4 of the Project Approval (MP 06_0225 Project) (as modified) dated 3 June 2010:

Location	Noise Limits in dB(A)			
	Day	Evening	Night	Night
	$L_{Aeq(15\ minute)}$	$L_{Aeq(15\ minute)}$	$L_{Aeq(15\ minute)}$	L_{AFmax}
Minchinbury (south) MB3 Agrafe Place	45	45	45	57
Erskine Park (north) EN1 Warbler Street	40	37	37	57
Erskine Park (south) ES2 Fantail Crescent	40	39	39	57