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EPA Advice on Environmental Impact Statement

Dear Ms Barnet

Thank you for the request for advice from the Department of Planning, Industry and Environment requesting the review by the NSW Environment Protection Authority (EPA) of the Environmental Impact Statement (EIS) for the proposed Minto Resource Recovery Facility (SSD-5339) at 7 Montore Road, Minto.

The EPA has reviewed the following documents:

- Environmental Impact Statement Volume 1 – Nexus Environmental Planning Pty Ltd – 13 October 2020
- Site Water Management Plan – Martens & Associates Pty Ltd – March 2020
- Noise Assessment (Version D) – Wilkinson Murray Pty Limited – January 2019
- Air Quality Impact Assessment (Version A) – Wilkinson Murray Pty Limited – February 2019
- Traffic and Parking Impact Assessment – McLaren Traffic Engineering – 5 March 2020
- Letter of Advice of Proposed Resource Recovery Facility at 7 Montore Road, Minto – McLaren Traffic Engineering – 18 June 2020
- Preliminary Stage 1 / Stage 2 Environmental Site Assessment – Environmental Investigation Services – 10 January 2018
- Additional Site Investigation – EI Australia – 24 March 2020
- Remedial Action Plan – EI Australia – 24 March 2020

The EPA understand the proposal is for the operation of a resource recovery facility. The facility will have capacity to process 450,000 tonnes per annum of concrete, brick, asphalt, sandstone and sand from the building and construction industry into a range of products including road base, aggregates and sands. The facility will include a range of processing equipment including crushing, screening, sand washing and a pug mill.

Based on the information provided, the proposal will require an environment protection licence under sections 43 and 47 of the *Protection of the Environment Operations Act 1997* (POEO Act) for Resource Recovery, clause 34 of Schedule 1 of the POEO Act.

The EPA has reviewed the EIS and notes that the EIS does provide the information required by the Secretary's Environmental Assessment Requirements. However, the EPA requests additional information to be able to assess the proposal.

The EPA has the following additional comments and recommendations:

1. Matters to be addressed prior to determination

a. Air quality

The EPA has undertaken a review of the Air Quality Impact Assessment (AQIA) and determined that it requires further information from the proponent prior to providing final comments. Details of the required information are provided in Attachment 1.

b. Water pollution impact assessment

The EPA requires further information from the proponent in assessing the potential impacts of water discharges from the facility. The EIS and Soil and Water Management Plan (SWMP) indicate that controlled discharges from sediment basins may occur and that settling in the basins is the only treatment that runoff water will receive. The appropriateness of this settling treatment cannot be assessed as the SWMP and the EIS do not characterise the quality of the discharges or assess their potential impact on the environmental values of the receiving waterway. Similarly, the likely impact of runoff from the site during storms cannot be assessed unless the quality of the water is characterised.

If controlled discharges may occur, it is recommended that the applicant provides a water pollution impact assessment. This assessment should include details of the measures that have been considered and those proposed to be implemented to avoid or minimise discharges of pollutants.

For each proposed discharge point, this assessment should:

- estimate the expected frequency and volume of discharges
- characterise the expected quality of the treated discharges in terms of the typical and maximum concentrations of all pollutants likely to be present at non-trivial levels (this should be based on a risk assessment of the activities and materials on site and the expected performance of the proposed treatment measures)
- assess the potential impact of the proposed discharge on the environmental values of the receiving waterway consistent with the National Water Quality Guidelines (ANZG, 2018; including comparison of the predicted water quality to the relevant guideline values for slightly to moderately disturbed ecosystems)
- where relevant, identify appropriate measures to mitigate any identified impacts.

Consistent with the principles of the NSW Water Quality Objectives, the discharge impact assessment should demonstrate that the proposal will maintain the environmental values of the receiving waterway where they are currently being achieved or contribute to restoring the environmental values where they are not currently being achieved.

c. Sediment basin monitoring and management

The SWMP and the EIS commit to discharging water to meet 'water quality objectives' based on achieving a TSS of 50ppm. The appropriate water quality objectives, the NSW Water Quality Objectives, were not considered when determining the discharge water quality criteria. Following characterisation of the runoff water and the water pollution impact assessment, discharge criteria will need to be derived with reference to any pollutants with the potential to cause non-trivial harm, the environmental values of the receiving waterway, and what practical and reasonable measures are available to avoid or minimise any identified impacts.

To ensure appropriate management of the sediment basins and confirm that the storage provided is adequate the following details require clarification:

- the location of the southern sediment basin relative to the 1 in 5 year ARI (18% AEP) flood level. Locating the basin above this level will minimise inundation and maximise the basin's effectiveness.
- control of the pumps transferring water from the sediment basins to the storage tanks for reuse. It is unclear if control will be automatic and water will be pumped to the storage tanks from the sediment basins as the storage tanks are drawn down. Automatic control would maximise available sediment basin capacity

d. Waste storage

The EPA notes that the proponent is proposing that 75,000 tonnes of waste will be stored at the facility. While we note that the EIS contains site layout plans that broadly identify waste storage areas, it lacks specific details of how this storage will be managed. It is recommended that the applicant demonstrate that the proposed storage capacity of 75,000 tonnes is practical and achievable.

It is also recommended that the applicant identify the quantity of waste to be stored in each dedicated storage area. This should include proposed stockpile layouts, volumes and heights. I note that the site layout plans do not include a dedicated unloading and waste inspection area as required by the EPA's *Standards for Managing Construction Waste in NSW*.

2. Matters to be addressed with conditions

a. Noise management

The EPA recommends that conditions be included setting the noise limits deemed achievable in the Noise Assessment as part of the EIS. These limits are provided in the following table:

Location	Noise Limits in dB(A)			
	Morning Shoulder		Day	Evening Shoulder
	$L_{Aeq(15\ minute)}$	L_{Amax}	$L_{Aeq(15\ minute)}$	$L_{Aeq(15\ minute)}$
18 Hebrides Place, St Andrews (Lot 282, DP 261631)	52	63	53	53
14A Gleneagles Place, St Andrews (Lot 12, DP 718649)	52	63	53	53
9 Troon Place, St Andrews (Lot 351, DP 260428)	52	63	53	53

It is also recommended that attended noise monitoring be required to assess compliance with the noise limits once the facility is operational.

Conditions should also be included limiting the hours of operation and construction in line with the Noise Assessment.

It is also recommended that the proponent documents all proposed noise mitigation strategies prior to construction including measures to ensure compliance with the noise limits. It is recommended that this requirement be conditioned in any approved consent.

The EPA can provide specific recommended noise conditions if required.

b. Waste limits

The EPA recommends that incoming waste limits be set in line with the below table. This limits the receipt of waste to what was described within the EIS.

Waste	Description	Activity	Other limits
General solid waste (non-putrescible)	Limited to concrete, brick, asphalt, sandstone and sand from the	Resource Recovery	No more than 450,000 tonnes of waste to be received per annum

	building and demolition industry.		

c. Remediation of asbestos impacted soils

The EPA notes that asbestos contamination has been identified within soils at the premises. The proponent has proposed to remediate this contamination prior to the construction of the facility. We note that one remediation option proposed includes on-site consolidation and encapsulation. Any remediation undertaken must ensure that there are no impacts on the future operation of the facility. Particular attention should be given to the potential for intermixing of contaminated material with operational surfaces and incoming materials.

d. Storage of dangerous goods

The proponent must ensure that all dangerous goods, including diesel, are stored in appropriately bunded areas to ensure any spills do not impact the surrounding area.

3. Minor matters

a. Inspection of incoming waste

The Traffic Impact Assessment that accompanies the EIS indicates that the average unloading duration of incoming vehicles carrying waste is 180 seconds. McLaren Traffic Engineering also indicate that there are six proposed unloading locations at the facility. The EPA's *Standards for Managing Construction Waste in NSW* require all incoming waste from construction and demolition sources to be tipped and spread for inspection. The material must then be turned and inspected again prior to proceeding for processing. The standards include requirements that the tip and spread area must meet, including its size. I note that the Traffic Impact Assessment has not specifically referred to the standards and how they will be met.

The EPA is concerned that the number of incoming truck movements, along with the short inspection time estimated, would not allow enough time to carry-out a genuine assessment of waste received. Consequently, any non-conforming waste (e.g. asbestos) present in incoming loads may not be identified. If the proposal is approved and a licence issued, the licensee must be able to comply with the standards at all times.

If you have any questions about this request, please contact Greg Frost on (02) 4224 4113 or via email at waste.compliance@epa.nsw.gov.au.

Yours sincerely

CATHERINE STACK
Unit Head Regulatory Operations

Attachment 1: Issues identified with the AQIA that should be addressed

1. **No information provided regarding the modelled emission rates, and lack of clarity whether peak daily operations were modelled**

The AQIA provides an emissions inventory (Table 6-1) in terms of kg/year. Mass emission rates in g/s are not provided, and it is therefore unclear whether dispersion was modelled assuming emissions are averaged over the entire year. For example, it is not clear whether emissions were modelled for every hour of the year, or just during operating hours. Confirmation is also required that emissions due to wind erosion from stockpiles have been modelled for every hour of the year. Further, peak daily operations (e.g. campaign crushing) have not been modelled. Since particulate has 24 hour average impacts, it is important for the proponent to nominate peak daily operations, and model at these.

The proponent should provide mass emissions rates (g/s) and discuss how emissions were modelled over the course of the year. Peak daily operations should also be modelled.

2. **Control of emissions from fugitive sources not benchmarked against best practice**

For fugitive sources, section 128(2) of the POEO Act requires that the operator employs such practicable means as may be necessary to prevent or minimise air pollution. This is especially relevant to the proposal, which is for a large (450,000 tonnes per annum) facility in an urban area close to receptors and potentially significant incremental impacts are predicted.

The AQIA hasn't provided sufficient information to demonstrate that all practicable means will be used to prevent or minimise emissions from fugitive sources. For example, the crushing and screening operations are undertaken in a building that is open on at least one side and can possibly be opened on three sides. It is understood that emissions from the crusher and screen are not captured. Further, it is not clear whether the product will be stockpiled in 3 sided bunkers, with walls that are higher than the stockpiles. Paving of the on-site road should also be considered.

The proponent should benchmark emissions controls of fugitive sources against best practice. An example of best practice includes processing and storage in a complete enclosure and paving all roads. Where best practice is not proposed, there should be robust justification.

3. **Unclear whether wastes are stockpiled outside prior to crushing**

According to the AQIA, the received waste is deposited to a designated stockpile. The site plan shows product stockpiles, but not waste stockpiles (i.e stockpiles of waste prior to processing). It is unclear where on the site the waste stockpiles are located. If waste stockpiles are located outside, they should be included as an additional source.

The proponent should clarify the locations of the waste stockpiles, and whether they have been included as a source of particulate in the modelling. If they have not been included, the proponent should provide justification for not including them, or else revise the modelling to include the additional source.

4. **Unclear how the Aermet data set was generated, and the validity of the Aermet generated meteorology data used in the modelling has not been demonstrated**

According to the AQIA, TAPM data was generated using meteorology data from the Kurnell Bureau of Meteorology Station. Due to the distance between Kurnell and the site, the EPA assumes that the reference to Kurnell is a typographical error, though this should be confirmed, and the correct meteorology station be provided. There are no details provided of how the Aermet generated data

set was generated and validated. The Aermet generated data should be validated against observational data that was not used to generate Aermet. It is not clear whether this was done.

The proponent should provide the meteorology station used to generate TAPM, and provide additional details regarding how the Aermet data set was generated, including whether observational data was used. Aermet generated data should be compared to observational data not used to generate Aermet.

5. **Assessment of impacts at Next Generation Childcare Centre not provided.**

Next Generation Childcare Centre is located at 30 Sweetenham Road, Minto, approximately 500m north of the site. Incremental and cumulative impacts have not been provided at this receptor.

Incremental and cumulative particulate impacts should be presented at the Next Generation Childcare Centre, 30 Sweetenham Road, Minto.

6. **Control factor used in the calculation of emissions from wind erosion not appropriate**

The AQIA assumes a 30% reduction in wind erosion emissions due to surrounding buildings and infrastructure. This is not appropriate. Surrounding buildings can create wind channels which can act to enhance erosion. The 30% reduction factor would be appropriate to use if the stockpiles are located in three sided bunkers, where the height is greater than the stockpile.

If bunkers are not proposed, then modelling should be revised without the 30% control factor.