Department of Planning and Environment

Our ref: SSD-21184278

Ms Kathryn Whitfield
General Manager Business Development
Veolia Environmental Services (Australia) Pty Ltd
619 Collector Road
TARAGO NSW 2580

22 December 2022

Subject: Woodlawn Advanced Energy Recovery Centre – Request for Information in Submissions Report

Dear Ms Whitfield

I refer to the above State significant development application and the Department of Planning and Environment's (the Department) previous correspondence dated 15 December 2022 which requests the provision of a Submissions Report in response to issues raised in submissions and government advice.

In addition to responding to the submissions and advice already received, you are required to submit additional information that addresses the issues identified by the Department in **Attachment 1.** Please include your response to the Department's issues in the Submissions Report.

To assist with its assessment, the Department, in collaboration with the Environment Protection Authority and NSW Health, engaged independent experts in energy from waste technology and human health risk with experience in assessing these types of proposals both in Australia and Europe. Also, given the existing concerns regarding odour emissions from the Woodlawn EcoPrecinct, the Department engaged an expert in odour assessment and management to independently review the application. These independent expert reports are appended to our request for information in **Attachment 1.**

The Department would be happy to meet with you to discuss the issues raised at a mutually convenient time.

If you have any questions, please contact Sally Munk, Principal Planner, on 9274 6431 or via email at sally.munk@planning.nsw.gov.au.

Yours sincerely,

Chris Ritchie
Director, Industry Assessments

as delegate for the Planning Secretary

1. Public Interest

Section 4.15 of the EP&A Act requires the consent authority to consider the public interest in making a decision on a development application. The public submissions suggest the community surrounding the site consider there is insufficient justification for an energy recovery facility (ERF) in this location, and the proposal is not in their interest. The Department notes that Goulburn Mulwaree Council (Council) has also raised this as a key concern.

Recommendation: Further consideration of how the proposal is in the public interest under the EP&A Act is required.

2. Project Description

Transmission Infrastructure

The Department notes that the proposal excludes the required upgrades to the transmission infrastructure and connection to the Essential Energy electricity network from the application and that approval for these works will be sought under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) by or on behalf of Essential Energy.

The Department notes that the EIS states the project objectives include providing greenhouse gas benefits through the generation of low carbon electricity and contribution to decarbonising electricity generation and lists the benefits of the proposal as the generation of electricity and export of electricity.

It is noted Essential Energy has a 66 kilovolt (kV) transmission line from the Eco Precinct which extends approximately 37.5 km to Essential Energy's Goulburn Substation. The potential impacts associated with the proposed transmission infrastructure upgrades may involve an increase in the width of the existing 10-metre-wide easement which may have significant environmental and social impacts through areas of rural, agricultural and other sensitive land uses.

While Part 5 is a lawful planning assessment pathway for the transmission upgrade works, the Department considers the connection is integral to the purpose of the proposed development, being an ERF. The separate assessment of the transmission infrastructure raises uncertainty regarding the full extent of the environmental, social and economic impacts of the necessary upgrade works and this approach may not represent orderly development.

Recommendation: Having regard to the Objects of the EP&A Act in relation to promoting the orderly development of land, it is the Department's preference that the transmission infrastructure be included as part of the DA to enable consideration of likely environmental impacts of the proposal which relies on connection to the electricity network to achieve the purpose of an ERF.

Waste Processing Lines

The design of the proposed facility includes a single waste processing line of 380,000 tpa. The consideration of alternatives in section 3.5 of the EIS does not consider two lines as a design alternative. The Department understands that Veolia considers two lines are not required for the Woodlawn ERF as the Bioreactor is available to accept waste should the facility be shut down for maintenance or other reasons. However, the EIS does not provide any justification for the scale of the facility or why two lines is not considered feasible or appropriate. The Department is of the view that two lines may be a more conservative / precautionary approach, given the scale of the facility and the fact that this type of technology is new to the waste industry in NSW.

Recommendation: Further consideration of alternatives is required in relation to scale and the number of waste processing lines.

Development Footprint

The project description in section 4 of the EIS does not state the actual area of the development footprint.

Recommendation: Please clarify the total area (in square metres) of the development footprint.

Site Plan

The site plan in Figure 4.3 of the EIS does not show where the stack will be located.

Recommendation: Site plans should be updated to clearly show the location of the stack.

3. Related Development

Waste Transfer Station Consents

The proposal relies heavily on operations of the existing waste transfer stations (WTTs) at Clyde and Banksmeadow in respect of waste receival and quality control processes, particularly with respect to compliance with the NSW Energy from Waste Policy (2021) (EfW Policy) requirements. However, the EIS does not include any discussion on the related approvals required to implement these additional processes.

Recommendation: Further consideration of what additional approvals will be required at the WTTs to enable a merit assessment of the compliance of these facilities against the EfW Policy.

Bioreactor and Crisps Creek Intermodal Approval

Project approval MP 10_0012, as modified, regulates the existing operations for the Woodlawn Bioreactor and Crisps Creek Intermodal Facility. The approval was granted subject to conditions requiring the proponent to carry out the project in accordance with the Environmental Assessment, statement of commitments and associated site plans and drawings. It is not clear if any modifications are required to this approval to ensure there are no conflicts between the proposed development and requirements under this existing approval, such as requirements for the transportation and sorting of waste, water balance management and management of Evaporation Dam 1 (ED1). This includes any requirements under the environment protection licences that regulate these existing activities and areas of the site. The Environment Protection Authority (EPA) has raised several concerns regarding potential conflicts between existing requirements and the proposed development.

Recommendation: Further consideration of MP 10_0012 (including any related approved management plans or strategies) is required to confirm if any modifications will be required to this approval to facilitate the development.

The impact assessments supporting the application assume 380,000 tpa of residual waste is diverted away from the Bioreactor, thereby reducing impacts such as fugitive emissions. It is not clear how the limitation of 520,000 tpa will be applied to the Project Approval (MP 10_0012) to ensure that no more than 520,000 tpa of waste will be received from the IMF to the Bioreactor when the ERF is operating at full capacity.

Recommendation: Further consideration of how the limits of the existing Project Approval will be regulated if the ERF is granted a consent to receive up to 380,000 tpa of waste previously directed to the Bioreactor.

4. Energy from Waste Policy Statement

EPA and Independent Expert Advice

The Energy from Waste Policy Statement (2021) (EfW Policy) is the key policy is NSW that guides the Department's assessment process for energy from waste (EfW) proposals. The Department, EPA and our independent expert, Arup, have identified several requirements of the EfW Policy that have not been sufficiently addressed in the EIS to demonstrate the requirements have been met. It is important the requirements are met to ensure the protection of air quality and human health.

In relation to the technical criteria of the EfW Policy, EPA and Arup have sought additional information regarding plant design and operation, thermal efficiency, quality assurance and quality control measures, ash composition and management, emission standards, process monitoring, emissions monitoring and the air emission modelling assessment.

Several concerns have also been raised regarding the level of information provided to demonstrate how the development will meet the resource recovery criteria (RRC) set out in Table 4 of the EfW Policy. This may have implications for the volume of waste that is stated as being available for energy recovery in the EIS.

Recommendation: Additional information must be provided to address the issues identified by the EPA and Arup to demonstrate the EfW Policy technical, thermal efficiency and resource recovery criteria will be met.

DPE Queries on EfW Policy

In addition to the matters raised by the EPA and Arup, the Department provides the following comments and seeks additional information to clarify and confirm the outcomes of the assessment of consistency against the EfW Policy requirements.

Waste Acceptance Protocol

The Waste Acceptance Protocol provides details on how Veolia intends to manage feedstock to ensure it meets the EfW Policy requirements. The Department notes this strategy relies heavily on both source separation and waste sorting and sampling at the existing waste transfer stations (WTTs) at Clyde and Banksmeadow. If the WTTs will be supplying waste to the ERF, these facilities also need to demonstrate compliance with the EfW Policy. While it is noted there is currently a range of non-conforming wastes removed at the WTTs prior to transfer to Woodlawn, including hazardous wastes, batteries, asbestos, the QA/QC procedures do not currently include removal of PVC or E-waste.

Section 5.3 of the Waste Acceptance Protocol states that waste received at the WTTs complies with the EfW Policy. It is not clear how this is the case if the waste received currently only goes to the bioreactor or the Mechanical Biological Treatment facility at Woodlawn.

Insufficient information has been provided to demonstrate how the technical requirement of the EfW Policy to restrict the chlorine content of waste feedstock to <1% will be met and how compliance with the RRC will be achieved, monitored and reported.

Recommendation: Further information is required to explain how Veolia intends to ensure appropriate approvals and QA/QC processes are in place at the WTTs to supply residual waste for an ERF and demonstrate compliance with the technical criteria and RRC of the EfW Policy (see MP06_0139-Mod-13 as an example of the type of approval and assessment required).

Section 5.5.1 of the Waste Acceptance Protocol provides an anticipated waste composition which includes PVC, E-waste and other hazardous materials. It is not clear if this is the design fuel for the proposed development. As the EfW Policy does not permit the inclusion of hazardous waste or E-waste

and limits the amount of waste containing chlorine (i.e. PVC), the design fuel should not include this type of waste.

Furthermore, the waste fuel composition in section 5.5.1 includes up to 7% fines, but there is no description of what this typically contains.

Recommendation: The Waste Acceptance Protocol and the Woodlawn ARC Sampling, Analysis and Quality Plan should clearly define a design fuel composition that excludes those wastes not permitted to be received by an ERF under the EfW Policy. The compositional components of the waste type defined as 'fines' should be provided.

Waste Feedstock Analysis

Section 2.3 of the Waste Feedstock Analysis suggests direct transfer from the point of generation to the ERF at Woodlawn must be permissible without requiring additional pre-processing once all councils are operating a FOGO system.

While the Department notes that Table 4 of the EfW Policy states that for a facility processing mixed MSW waste where a council has a separate collection system for dry recyclable and FOGO, there is no limit by weight of the waste stream received at a processing facility that can be used for energy recovery. However, the EfW Policy still restricts the use of hazardous waste, e-waste, batteries high volumes of PVC etc which would need to be still removed before being processed in the facility at Woodlawn, i.e. the removal of 'non-conforming' waste step still needs to be carried out.

The proposed QA/QC procedure at the facility at Woodlawn would need to be more robust than just tipping straight into the bunker and removing only large visible items without first checking for non-conforming waste through sampling and analysis of the residual waste to be thermally processed.

Recommendation: Further consideration of how the EfW Policy technical requirements for the removal of PVC and other non-conforming waste will be implemented once all councils are operating a FOGO system.

Chlorine Content Analysis

The results of Campaign 1 in Section 2.1 refer to a high percentage of chlorine in a sample as being a sampling error as there was a large PVC inflatable boat included in one of the samples. The Department does not consider this to be a sampling error, as it is simply a true reflection of what can end up in the residual waste that would be sent to the ARC. It highlights the need for additional waste processing at the WTTs to remove PVC and other non-conforming waste that would not otherwise be being removed if the waste was just going to the bioreactor, as is currently the case.

As noted in the Department's comments on the Waste Acceptance Protocol and Waste Feedstock Analysis, it is imperative that there are rigorous QA/QC procedures in place at the WTTs to remove non-conforming waste before the waste is containerised and sent to the ERF at Woodlawn where QA/QC checks will be limited to waste already deposited in the waste bunker.

Recommendation: Further information is required to explain how Veolia intends to ensure appropriate approvals and QA/QC processes are in place at the WTTs to supply residual waste for an ERF and demonstrate compliance with the EfW Policy

Woodlawn ARC BAT Assessment

Section 4.2 of the Woodlawn BAT Assessment states that the percentage of MSW directed to the Woodlawn ARC from each Council will be based on their collection system and the matching RRC listed in the NSW EfW Policy. Therefore, the waste feedstocks for the Woodlawn ARC will draw upon residual waste streams that comply with the NSW EfW Policy. This will involve additional processing/sorting step at the transfer terminals, which is not part of this DA. It is not clear how this will be addressed.

Recommendation: As noted in the Department's comments on the Waste Acceptance Protocol, further information is required to explain how Veolia intends to ensure appropriate approvals and QA/QC processes are in place at the WTTs to supply residual waste for an ERF and demonstrate compliance with the EfW Policy.

Table 5 4 (p24) of the BAT Assessment states the proposed ERF at Woodlawn would achieve a net efficiency of 23.14% and the Staffordshire reference facility would achieve 22.3% thermal efficiency. However, the Department notes that the EfW Policy states ERFs must achieve a net thermal efficiency of least 25%.

Recommendation: Confirmation that the facility will achieve a net thermal efficiency of 25%, in accordance with the EfW Policy, is required.

Table 6-11 in the BAT Assessment states that each council's or commercial customer's waste collection system will be assessed for compliance with the EfW Policy. However, there is insufficient detail to explain how this process of sorting and calculation of percentages will be carried out at the WTTs.

Recommendation: Further information is required to clarify how operations at the WTTs will ensure compliance with the requirements of the EfW Policy and RRC. Details of relevant approvals required should be discussed.

BAT 21 requires solid and bulky wastes that are odorous or prone to releasing volatile substances to be stored in enclosed buildings under controlled sub-atmospheric pressure. It is noted the proposed development involves storing containerised waste in a container marshalling area for an unknown period of time.

Recommendation: Further consideration of BAT 21 is required to confirm if the proposed container marshalling area is best practice and will not contribute to existing odour emission from the site.

5. Air Quality Impact Assessment (AQIA)

EPA Advice

The EPA has raised several concerns regarding the AQIA in its advice.

Recommendation: The matters raised by the EPA must be addressed in a revised or supplementary AQIA.

In addition to the matters raised by the EPA, the Department provides the following comments and seeks additional information to clarify and confirm the outcomes of the AQIA.

Proposed Waste Volumes

Figure 4.9 of the EIS shows up to 380,000 tpa by road from the Crisps Creek Intermodal Facility (IMF) going to the ERF and up to 900,000 tpa by road from the IMF going to the bioreactor. This figure does not represent what has been modelled in the AQIA or the HHRA. The AQIA assumes 380ktpa of the waste going to the bioreactor is diverted away too the ARC, so assumes fugitive emissions of dust/particulates is reduced due to less truck movements etc to the bioreactor.

Recommendation: Please confirm that the AQIA and HHRA have been based on the assumption that if 380,000 tpa is diverted to the ERF that only 520,000 tpa would be sent to the bioreactor. The proposed waste volume diagram should be updated to reflect the actual proposed movement of waste from the IMF to the ERF and the Bioreactor.

Emission sources

The AQIA has assessed three scenarios, one of which relies on data from the Staffordshire facility. CEMS data from this facility has come from a single stack from one line of 170,000 tonnes per annum (tpa), which

is only half of the proposed ARC, which is a single line at 380,000 tpa. This difference in design has not been discussed in terms of how it may affect the data used in the AQIA.

Recommendation: Additional commentary is required to explain if this design difference affects the AQIA outcomes. The AQIA should be revised if the input data is to be amended.

Ammonia – the Staffordshire facility data shows that the 24-hour average emissions for ammonia NH_3 exceed the EfW Policy emission limits significantly on multiple occasions. The AQIA states that Veolia have received assurances that the EfW Policy can be met. Are these performance guarantees? It is not clear what sort of assurances have been provided

Recommendation: Further information, such as performance guarantees, are required to ensure compliance with the EfW Policy limit for ammonia.

Modelling Results

Table 9.3 in the AQIA presents the results of the predicted cumulative ground level concentrations and deposition rates for criteria air pollutants at sensitive assessment locations. However, the tables do not identify the sensitive assessment locations that are predicted to have the highest concentrations for all criteria pollutants for all scenarios. Additionally, the actual criterion for each pollutant is not stated in the table.

Appendix D of the AQIA does not include modelling result tables for the incremental impacts for Scenario 3 or the predicted cumulative impacts for all modelled scenarios.

Recommendations: Additional information is required to confirm the maximum predicted impacts for all criteria pollutants for all scenarios. This must include identification of the sensitive assessment locations predicted to have the highest concentrations and modelling result tables for all incremental and cumulative ground level concentrations for all scenarios.

Assessment locations

Receptor ID 71 is noted as being four kilometres (km) from the stack of the ERF. What is the address of this residence? It is noted the eastings and northings of assessment locations are provided in Appendix A, however, this type of locational reference is not easily identifiable.

Recommendation: Street addresses must be provided for all receptors.

6. Human Health Risk Assessment (HHRA)

The Department's independent expert, CDM Smith, has found that while the HHRA has been carried out in accordance with relevant national and international guidelines, the outcomes of the risk assessment cannot be wholly verified. In addition, CDM Smith have noted several parameters of the HHRA model that may require additional assessment or provision of information to demonstrate the robustness of the risk assessment. Given the significant concerns raised by the community regarding potential impacts of persistent chemicals in soils and drinking water, particular attention must be given to ensure the HHRA comprehensively addresses these issues.

Recommendation: Additional information must be provided to address the matters identified by CDM Smith to verify the risk characterisation and conclusions made in the HHRA.

Pollutant Concentrations in Soil and Water

The deposition and accumulation of persistent and bioaccumulative chemicals, including dioxins and furans and heavy metals, in soils and water and the potential risk to human health and the environment is a key concern in the community. The Department notes the significant area surrounding the site that supports rural residential and agricultural produce land uses. While it is noted the HHRA has found the

increase in concentrations of these toxins in soils and water bodies surrounding the development would be negligible, the EIS has not provided any baseline information regarding the concentrations of these chemicals in soils or water surrounding the site. Additionally, Veolia has not proposed any monitoring of these chemicals in soil or water following the commencement of operations.

Recommendation: Further consideration of how Veolia intends to address concerns regarding the need for baseline soil and water quality monitoring to enable verification of predictions in the HHRA, should the development be approved.

Residential Drinking Water Exposures

The calculated risks for multiple pathway exposures combined with residential drinking water exposures for Scenario 2 have been presented in Section 4.7. However, the combined risks for Scenario 3 have not been included.

Recommendation: As Scenario 3 represents the NSW EfW Policy regulatory (worst-case) emission scenario, the combined risks should be presented.

Emission Scenarios

It is understood the Staffordshire reference facility operates with two waste processing lines with a capacity to process up to 170,000 tpa of residual waste each. The CEMS data used in the AQIA for Scenario 2 – Reference Case Maximum Emissions appears to have been taken from data recorded out of a single stack from one processing line at this facility. As such, it is not clear if the modelling inputs to Scenario 2 – Reference Case Maximum Emissions are representative of the proposed facility at Woodlawn which is to have a single processing line of 380,000 tpa.

Recommendation: Should the AQIA inputs to Scenario 2 require re-modelling, the human health risks associated with Scenario 2 must be re-assessed.

Margin of Safety – Chronic and Multiple Pathway Exposures

Section 4.5.6 of the HHRA provides commentary regarding the results of the assessment of chronic exposures. This commentary only makes reference to the Margin of Safety (MOS) reported for Scenario 2, but not for Scenario 3 – Regulatory Scenario.

Similarly, Section 4.6.1 of the HHRA provides the results of the multiple pathway exposure assessment. The MOS has only been reported for Scenario 2, but not for Scenario 3.

Recommendation: As Scenario 3 represents the regulatory limit (i.e. the maximum worst-case emission scenario), the MOS for chronic and multiple pathway exposures must be provided for Scenario 3.

Operational Management Measures

Section 4.10.4 of the HHRA (in the context of eggs and grass) noted a number of reported operational issues associated with a waste incinerator in Harlingen resulted in elevated dioxin and furan emissions at times. However, no further analysis of these operational issues has been presented in the HHRA.

Recommendation: Further consideration is required regarding the operational issues encountered by the Harlingen industrial waste incineration facility (e.g. failures, shutdown, start-ups), in particular any lessons learnt that may be applicable to the derivation of operational management measures for the proposed Woodlawn EfW facility.

7. Odour Assessment

The Department's independent expert, Jacobs, has found that while the assessment of odour has been carried out in accordance with relevant guidelines, the odour model does not adequately reflect known

odour impacts and several issues identified in relation to the assessment of meteorology in the area. In addition, Jacobs has requested further model validation against known odour impacts and meteorological conditions.

Additionally, the EPA has also noted several matters associated with the assessment of odour that require additional information or clarification with regard to odour emissions and odour control.

Recommendation: Additional information must be provided to address the matters identified by Jacobs and the EPA to verify the robustness of the odour impact assessment and the credibility of the dispersion model.

8. Encapsulation Cell

Encapsulation Cell Design

As the development is located within the Crisps Creek catchment, which forms part of the Sydney Drinking Water Catchment, Part 6.5 of the State Environmental Planning Policy (Biodiversity and Conservation) 2021) (the SEPP) applies. The Department notes that a large number of public submissions, EPA and WaterNSW have raised concerns regarding the potential for leachate or seepage from the encapsulation cell to contaminate waterways within the Sydney Drinking Water Catchment. It is also noted that EPA requires further information to ensure the landfill cell is designed in accordance with the *Environmental Guidelines for Solid Waste Landfills* and WaterNSW has raised concerns regarding the potential for seepage from ED1 should water levels in ED1 increase.

Recommendation: Further details regarding the design of the encapsulation cell, as outlined by the EPA and WaterNSW must be provided. Confirmation that the design and water balance will ensure the site maintains zero discharge to Crisps Creek.

Sub-Surface Conditions

The EIS and Encapsulation Cell Technical Report at Appendix F relies on borehole information in the general vicinity of the proposed encapsulation cell location in ED1, as a detailed investigation of existing sub-surface and geotechnical conditions at the proposed cell location has not been undertaken. Further investigations are proposed to be undertaken as part of detailed design. Similarly, limited information is provided on the existing groundwater environment with additional characterisation deferred to ongoing design development of the cell. The Department concurs with the EPA that additional investigations regarding sub-surface and groundwater conditions at ED1 should be carried out prior to determination of the SSD application to enable the consent authority to be satisfied of the suitability of this location for the encapsulation cell.

Recommendation: Further information is required regarding the integrity and performance of ED1 including further justification on ED1's suitability for the encapsulation cell.

The proposal relies on the encapsulation cell for the disposal of up to 15,200 tpa of Air Pollution Control Residue (APCr). The EIS does not discuss any contingencies for the disposal of this waste should the encapsulation cell not be approved.

Recommendation: Further consideration of contingencies for the disposal of APCr should be provided. Any additional impacts associated with these measures should be assessed as part of the application.

9. Greenhouse Gas Impact Assessment (GGIA)

The 2010 EIS for the Woodlawn Expansion Project indicated methane collection at the Woodlawn Bioreactor has been independently tested at a level of up to 92% capture efficiency. This is in comparison to the assumed capture efficiency of only 80% in the calculation of landfill fugitive emissions in the GGIA.

Recommendation: As the GGIA concludes the project has the potential to eliminate a substantial quantity of CO2-e emissions (relative to a 'business-as-usual' future scenario), the results from a sensitivity analysis utilising a methane capture efficiency of 92% should be provided.

10. Noise and Vibration Assessment

Baseline Noise Measurements

A noise audit at the Woodlawn Eco Precinct and attended measures at four assessment locations (R1, R2, R4 and R5) have been undertaken on 4 April 2022 to inform the operational noise assessment. The Department considers a single 15-minute attended noise measurement at each of the four assessment locations between the hours of 9:22am and 3:30pm is insufficient to conclusively establish the environmental performance of the existing operations nor verify the accuracy of predicted noise levels from previous noise assessments.

Recommendation: Additional baseline operational noise data, capturing noise levels under the worst-case operational and meteorological conditions needs to be provided in a revised noise assessment.

Noise Model

Operational noise associated with the existing facilities at the Woodlawn Eco Precinct has been established from a 3D noise model employing the CONCAWE calculation algorithm. EPA's Noise Policy for Industry (NPfI) advises that models should be calibrated and validated to produce accurate results. The Department does not consider "this algorithm is accepted by the EPA" (page 175 of the EIS) to be an appropriate scientific justification.

Recommendation: Additional information needs to be provided to demonstrate the 3D noise model built for the Woodlawn Eco Precinct has been calibrated and validated to enable an accurate assessment of cumulative operational noise impacts.

Noise Emissions Data

Operational noise emission assumptions for the Woodlawn EfW facility have been sourced from the Staffordshire Environmental Statement rather than actual emission data from the reference facilities. In the absence of actual verifiable emission data, the Department requires contingency factors be applied to noise emission assumptions to compensate for unknown impacts arising from information gaps.

Appendix B of the Noise and Vibration Assessment provides the details of source locations and input levels. However, the movement speed of mobile sources is missing. It is also unclear if the modelled number of trucks and number of material handlers per 15-minute represents the average or worst case.

Recommendation: Additional information is required to clarify the worst case emission scenario considered in the operational noise assessment.

Noise Mitigation

It is unclear whether all feasible and reasonable noise control measures have been investigated by Veolia.

Recommendation: A 'feasible and reasonable' mitigation decision-making matrix, as exemplified by Table 3.1 of the NPfI, must be provided.

The Department notes the NPfI advises the choice of noise-control measures depends on both the degree of mitigation required and the undesirable characteristics of the noise source that need to be controlled. However, an evaluation of annoying noise characteristics has not been undertaken.

Recommendation: Additional information needs to be provided in a revised noise assessment to address the effectiveness of noise mitigation measures at eliminating annoying noise characteristics such as strong low frequency content, tonality and intermittency. An itemised list of noise source contributions also needs to be provided at the most affected receiver to assist with identifying risks and opportunities regarding the design of noise mitigation options.

Adhering to internal design noise levels and selection of plant and equipment to achieve assumed sound power levels are noise mitigation measures proposed for the operation of the development. The selection of BAT is primarily to address technical criteria listed in the EfW Policy with no regard to noise attenuation and as such, the Department is concerned it is uncertain how Veolia's proposed noise mitigation measures would be implemented while not compromising on the ability to satisfy the EfW Policy.

Recommendation: Provide technical specification and guaranteed operational noise emission of selected BAT.

Construction Noise

Given this development application is seeking approval to undertake construction 24 hours per day and 7 days per week over a period of three years, the construction noise impact assessment must provide certainty that noise management levels can be met for all construction scenarios under the influence of noise-enhancing or very noise-enhancing meteorological conditions.

Recommendation: A detailed construction noise assessment of works occurring outside standard construction hours must be provided, including details of the worst-case construction activity during each phase of construction, duration of noise impact, analysed meteorological data, activities that may be particularly annoying to residents, and a concept of out-of-hours work noise management process. In addition, further detailed justification is also required in seeking construction activities over 24 hours and 7 days a week.

11. Traffic Impact Assessment

The traffic impact assessment (TIA) has identified the need to further investigate the addition of a climbing lane along Bungendore Road to alleviate the predicted increase in delay (from level of service D/C to E/D) during the construction period and address existing concerns raised by the community regarding traffic delays on the hill climbing out of Crisps Creek. However, as the TIA has been informed by traffic data collected during periods influenced by COVID 19 restrictions, it is unclear if the traffic modelling has been appropriately calibrated and validated to provide an accurate prediction of impacts. It is prudent that this further investigation of a climbing lane be accompanied by a robust TIA covering temporary impacts during construction and operational impacts.

Recommendation: Additional baseline traffic data (not influence by COVID 19 restrictions) should be obtained and utilised in an updated TIA.

Section 4.11 of the TIA has briefly described how Veolia intends to address cumulative road pavement impacts with reference to (1) the road maintenance contributions payable by Veolia under development consent MP10_0012 and (2) general responsibility of repairing, or paying the full costs associated with repairing, any public infrastructure that is damaged by carrying out the development. The Department acknowledges the latter commitment (2) but notes that the road maintenance contributions payable under MP10_0012 does not cover additional pavement impacts incurred by construction and operation of the proposed development.

Recommendation: A quantitative road pavement impact assessment undertaken in accordance with TfNSW's Guide to Traffic Generating Development must be provided.

12. Site Contamination

It is understood that rehabilitation of the Bioreactor site and surrounding areas, including the development footprint (the ERF and the encapsulation cell), is a requirement of the existing Woodlawn Bioreactor consent DA-31-02-99 and project approval MP 10_0012 and as a requirement of these approvals, Veolia has an approved Landfill Closure and Rehabilitation Management Plan (Veolia, 2016) (LCRMP). The LCRMP appears to only identify the area the subject of the proposed ERF as a 'Proposed Rehabilitated Area' in Figure 3.20 and does not appear to address any rehabilitation specifically for ED1. There is no clear discussion on how these areas will be remediated or rehabilitated in the LCRMP.

The EIS states that remediation and rehabilitation of the area subject of the development will involve a Detailed Site Investigation (DSI) and a Remedial Action Plan (RAP) to be prepared under these other approvals. It is not clear how the activities outlined and approved under the LCRMP provide for a DSI assessment and approval of the RAP which only appears to address rehabilitation activities for the bioreactor void closure, not remediation of contamination. Without assessing the DSI and RAP in conjunction with the SSD application, the Department cannot be satisfied the site can be made suitable for the proposed development.

Recommendation: The DSI and RAP should be submitted for assessment as part of the SSD application for the ERF such that the consent authority can be satisfied the site can be made suitable for the proposed development prior to determination. Alternatively, an Interim Opinion from the Site Auditor could be provided confirming the site can be made suitable subject to completion of the DSI and the implementation of the final approved RAP.

13. Social Impact Assessment

The EIS consider a key social impact to be the potential for project-related construction workforce to adversely affect capacity, availability and affordability of short-stay accommodation. To address this potential social impact, the EIS identifies the preparation and implementation of an Accommodation Strategy to be warranted, which would consider a combination of rental housing and short-stay accommodation in the Goulbourn region, and additional accommodation (if required) in nearby regional centres or cities. It is unclear how this Accommodation Strategy would function under the assumption that majority of construction workers (i.e. 275 workers as indicated in the traffic impact assessment) are expected to commute in private mini-buses to the Eco Precinct and whether a cluster of temporary moveable dwellings should be considered under this strategy.

Recommendation: An Accommodation Strategy must be provided, including details of worker transport modes and all feasible options of alternative accommodation to mitigate adverse impacts on the capacity, availability and affordability of existing short-stay accommodation.