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Ms Sally Munk
Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

Dear Ms Munk

SSD-9143 – Poultry Processing Mixed Use Development EIS at 52 Sinclair St, Goulburn – EPA Comments

I refer to the Environmental Impact Statement ('EIS') and accompanying documents for the proposal for a Poultry Processing Mixed Use Development located at 52 Sinclair St, Goulburn (SSD-9143) ('the proposal'). The Environment Protection Authority ('EPA') understands that the proposal consists of a cold storage and distribution centre, a poultry processing plant, and a childcare centre.

The EPA also understands that the proposal will be constructed in two stages. Stage 1 will consist of the meat processing part of the poultry processing facility, vehicle bays for the cold storage facility, the wastewater treatment plant, and the office. Stage 2 will consist of the abattoir part of the poultry processing building, the packing and freezer part of the cold storage facility, the by-products processing facility, the live bird shed, truck maintenance facility, and the childcare centre.

The EPA has reviewed the EIS and associated documents which include the Noise Impact Assessment ('NIA') and the Air Quality Impact Assessment ('AQIA') and has made detailed comments which are contained in **Attachment A**. In summary, the EPA has identified some issues which require additional information to be provided before the EPA can make an assessment on the proposal.

If you have any questions or wish to discuss, please don't hesitate to contact me or Amanda Fletcher on (02) 6229 7002.

Yours sincerely

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Attachment A

Air Quality/Odour

Insufficient information to evaluate odour emissions inventory

The EPA notes that the odour emissions inventory in the Air Quality Impact Assessment ('AQIA') was developed without final plant design specifications. The EPA has identified some issues in the AQIA which are outlined below that require clarification and/or additional information.

The additional information to address these issues in the odour emissions inventory is required to be based on final facility design. The EPA advises that given the uncertainty pertaining to odour modelling, the issues identified below for the odour emission inventory increase the risk that odour impacts are likely to occur offsite.

Specifically, the EPA seeks the following:

1. *Biofilter*

The EPA advises that an odour concentration of 100 OU and an odour destruction efficiency >99% (Outlet (100 OU) / Inlet (13,800 OU) x 100%) was the assumed performance of the biofilter in the AQIA. The EPA confirms the AQIA calculations of odour emission rates from the biofilter using the parameters provided were:

Parameter	Value
Exhaust Airflow (m^3/h)	30,000 m^3/h
Exhaust Airflow (m^3/s) = airflow (m^3/h) ÷ 3600	8.3 m^3/s
Biofilter outlet odour concentration (OU)	100 OU
Odour emission rate ($ou.m^3/s$) = 100 OU x 8.3 m^3/s	833 $ou.m^3/s$
Odour emission rate ($ou.m^3/s$) x Peak-to-mean ratio (2.3)	1917 $ou.m^3/s$

However, given that the performance of biofilters are expected to deteriorate with time, the EPA advises that this odour emission rate and destruction efficiency is not likely to be sustainable and does not represent a worst-case scenario for odour emissions from this source.

The EPA recommends that a more appropriate odour concentration for the biofilter of 500 OU be considered for the odour emissions inventory.

2. *Bird reception area*

The AQIA provides an odour emission rate value of 0.35 $ou.m^3/s$/bird and assuming a maximum of one truck is present, to give a total of 5233 $ou.m^3/s$ for the bird reception area. The EPA advises that no information was provided on the number of birds received per truck and whether this odour emission rate represents the maximum capacity of birds to be held within the bird reception area of the processing plant.

Additionally, no information on the ventilation rate is provided as the AQIA states the ventilation design has not been finalised.

The EPA recommends the AQIA be revised to include information regarding the number of birds used in the odour emissions calculations for the bird reception area and the rate the trucks will be received at, given the proposal is seeking to process 1 million birds/week.

The EPA also recommends that the AQIA be revised to include final ventilation design and the ventilation rate.

3. *By-product processing fugitives*

The EPA advises the AQIA assumed that 2% of the total emissions will be released as fugitive emissions from the by-product plant building. This assumption was taken from emission rates monitored at another protein recovery plant building. The EPA investigated the odour emissions of 5290 $ou.m^3/s$ for this facility to confirm the assumption. The odour emissions are scaled for this

facility producing 148 tonnes/day from a facility producing 110 tonnes/day and odour concentration rate of 4212 ou.m^3/s.

The EPA advises that using the same methodology as the reference provided (TOU 2013b) in the AQIA, the odour emission rate for fugitive emission from the by-product processing plant is calculated at 5667 ou.m^3/s, a 7% increase over the odour emission rate assumed in the odour emission inventory for this source.

The EPA recommends the calculations for fugitive odour emissions for the by-product processing plant be reviewed and justified in a revised AQIA. The EPA recommends that additional information be provided based on finalised designs to justify all the odour emission rates provided in the AQIA and used to evaluate odour impacts at sensitive receptors.

4. *Unsupported odour dispersion modelling*

Due to unfinalised design of the facility, the AQIA concludes that the dispersion modelling be repeated to ensure compliance after the ventilation design has been completed.

The EPA recommends that odour dispersion modelling be repeated following final facility design, specifically the final ventilation design of the poultry processing plant bird reception area. Further, the repeated odour dispersion modelling must confirm whether or not there are additional odour sources as a result of the final ventilation design.

5. *Biofilter location missing from site plan*

The AQIA states the biofilter will be located adjacent to the by-products processing plant, however, the biofilter is not located on the proposed layout for the proposed site (EIS Figure 2). Given that the biofilter is one of the three sources of odour, and the close proximity of the nearest sensitive receptor, the **EPA recommends that the location of the biofilter should be included in the description of the proposed site to assess the potential offsite odour impacts.**

6. *Insufficient justification of Waste Water Treatment Plant (WWTP) as a non-odorous source*

The AQIA states the WWTP is proposed to be a 'closed system' and therefore not considered an odorous source.

The EPA recommends the proponent provide sufficient justification to support the claim that the proposed WWTP is a 'closed system' and non-odorous.

7. *Assessment of air impurity emissions from boilers not included in AQIA*

The proposal includes a boiler for the poultry processing plant (EIS Figure 17). The AQIA does not include any information about emissions from the proposed boiler.

The EPA recommends the AQIA be revised to include an air quality impact assessment for the proposed boiler. This information and assessment must include, but not be limited to, the following:

- **Size of boiler**
- **Fuel type**
- **Emissions performance**
- **Compliance with the POEO (Clean Air) Regulation 2010, Group 6 emission standards.**

Noise

The EPA has identified some issues in the Noise Impact Assessment ('NIA') which are outlined below. The EPA is concerned that the noise levels have been underpredicted at the residential receivers and cannot recommend noise conditions until the below information is confirmed/clarified by the proponent and the NIA is updated.

Background noise
The background noise monitoring was conducted at the northern and southern site boundaries with no attended noise monitoring to indicate that the levels are representative of the residential receivers.

The Noise Policy for Industry (NPfI) indicates in Fact Sheet B that background noise should be taken at the reasonably most-affected residences. In this instance, the EPA notes that the site is a greenfield site and that the closest receivers are not likely to have lower background noise levels than at the site boundary, so in this case the EPA is willing to accept the measurement locations as being reasonably representative.

*Construction noise*The EIS states in Section 3.3 that 'significant earthworks' will involve excavators, bulldozers, scrapers and heavy vehicles and in Section 3.2.3 includes a concrete saw, mobile crane, vibratory rollers and high energy impact compaction among other equipment items. The NIA does not list these potentially very noisy items as sources included in the model.

The EPA recommends that the NIA includes all construction noise sources in the modelling and indicate the worst-case noise levels during each phase of construction.

The predicted construction noise levels in Table 24 of the NIA should be shown for each stage of construction (preliminary/earthworks, Stage 1 and Stage 2), not for each building being constructed.

The NIA should also include a cumulative noise assessment of Stage 1 operation in combination with Stage 2 construction works, as indicated in the EIS.

Operational noise
The EPA **recommends** the following regarding operational noise.

The following items regarding the operational sound power levels and modelled impacts need clarifying and updating as necessary:

- *Sound power levels* - Table 16 of the NIA includes the sound power levels of operational plant and equipment. The NIA should include validation of the model as some of the sound power levels appear to be in the lower range. The Table also indicates eight ventilation fans for the Live Bird Shed. The Architectural Drawings in Appendix A of the EIS (Elevations Dwg No 06K201-4) indicate six axial fans visible in each of the four truck bays. The proponent should clarify if the axial fans have been included in the noise modelling scenario.

  The proponent should also consider noise from birds in the Live Bird Shed in the modelling, particularly if the laden trucks park in this shed during the more sensitive night period. The sound power levels in Appendix E of the NIA should be shown as one third octave to allow for an assessment of tonal and low frequency noise.

  Fans have the potential to be tonal. The internal plant on concrete slab has the potential to generate vibration and reverberant noise in the sheds. The NIA should clarify if vibration isolation has been considered, if the vents and openings to the shed will be acoustically treated to prevent break-out of reverberated noise, and if fans and ducts will be designed to be non-tonal.

- *Modelling* - The Civil Plans in Appendix B of the EIS indicate 2 metre high gabion basket retaining walls to the north/west of the site. The proponent should clarify if/how the retaining walls were incorporated in the noise model. The NIA should clarify if heavy vehicle movements around the site were included in the model and the predicted noise levels updated accordingly, to consider potential impacts at receivers to the north and west where no noise barrier is proposed. The model should also include car movements in all carparks. The contour maps in Appendix F do not clearly include vehicle movements in the carpark on the north-east corner of the site and the car movements at the proposed child care centre.

The forklift in Table 16 of the NIA is noted to be an internal source, however the Architectural Drawing number 00K012-3 shows forklifts operating outside of Building 02 Process Facility as well as outside the buildings at each of the Industrial Bin Enclosures. The EPA recommends that the proponen confirm and include the correct internal and external noise sources in the modelling.

- *Meteorology* - The noise-enhancing meteorological conditions in Table 15 are not, as stated in the NIA, "in accordance with default conditions as per Table D1 of NPI Fact Sheet D". Table D1 in the NPfI indicates noise-enhancing meteorological conditions as light winds (up to 3 m/s) during the day and evening, and during the night as stability category F with winds up to 2 m/s. The proponent should include an assessment of either standard meteorological conditions or noise-enhancing meteorological conditions for each assessment period, in accordance with the guidance in the NPfI.

- *Contour maps* - The contour maps in Appendix F should indicate the modelled source heights and locations. The loudest noise level appears to be in the centre of the site, yet the site layout indicates that sources could be spread across the site. The proponent should also clarify why the noise contours bend around receiver R04 when the topography appears to be relatively flat. Additionally, the predicted operational noise level at R07 in Table 19 (<35 dBA) does not correspond to the contour map in Appendix F (shown as between 35 and 40 dBA). The NIA needs to clarify and confirm the predicted noise levels against the contour maps.

Road traffic noise

The road traffic noise assessment should include:

- an assessment against the Relative Increase Criterion in the Road Noise Policy;
- the existing level of road traffic noise on the surrounding public roads;
- an assessment of noise from construction traffic on public roads (the EIS indicates 100 heavy vehicles per hour two-way in peak times)

Sediment and erosion

The EPA notes that a stormwater dam for the premises is going to be constructed to replace the existing dam and will serve as a sediment basin during construction of the premises. In the document accompanying the EIS and titled *Appendix B – Civil Engineering Plans*, there is a nominated procedure to discharge water from the basin and meet the limits of 50mg/L TSS, 6.5-8.5 pH, 60NTU for turbidity, and have EC levels no greater than background levels.

Should this proposal be approved, it will require an Environment Protection Licence ('EPL') from the EPA. The *Protection of the Environment Operations Act 1997* (the "Act") provides the statutory framework for managing water pollution in NSW. The key mechanism for regulating water pollution is through an EPL.

When exercising its licencing functions, the EPA must consider any of the matters in Section 45 of the POEO Act including an assessment of the potential impacts of a discharge from the licenced premises on the environmental values of any receiving waters. If the impacts are predicted to exceed these environmental values, and where a discharge to waters is unavoidable, mitigation measures that prevent or minimise impacts on water quality should be implemented.

The EPA notes that EIS does not include a water quality objective assessment for proposed discharges from the sediment basin during construction. In addition, the associated documents have not considered alternative ways to dewater the sediment basin during construction.

The EPA recommends that the proponent undertake a water quality objective assessment as per the requirements of the EPA's SEAR's for the project. The EPA also recommends that the proponent describe all reasonable and feasible mitigation measures to be put in place to prevent any impacts to surface water or groundwater.