

MEMORANDUM



250376-1 -Baiada, Oakburn Poultry, ultimate - Acoustics Mod – R2

TO: Andrew Jennings

DATE: 10 April 2026

COMPANY: Baiada

FROM: Ben White

Oakburn Poultry Processing Plant

SUBJECT: Wastewater Processing Plant – SSD modification- Ultimate Option

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1 INTRODUCTION

This report details the acoustic assessment and submission for proposed alterations to the Baiada Poultry, Tamworth project including the addition of the Processing Plant Wastewater facility, and included as a Modification to the SSD-9394 for the ultimate operational conditions for the site.

This report includes the acoustic assessment of the proposed modifications, including the proposed amendments and additions to the facility including the Processing Plant Wastewater to be located on the Baiada Tamworth site, including the ultimate operating conditions containing Stage 1 and Future Works.

As part of this review we have reviewed the JJC Engineering Concept Design Report dated 8 April 2026 such that the proposed modifications are consistent with achieving acoustic requirements.

2 PROJECT DETAILS

The project includes the Baiada, Oakburn Poultry industrial development located at 1154 Gunnedah Road, Westdale.

The project is located within the Tamworth Regional Council and includes State Significant Development approval including the following:

1. The SSD-9394 approval.
2. The approved acoustic assessment of the site, including the Reverb Acoustics *Oakburn Processing Facility & Rendering Plant 1154 Gunnedah Road Westdale NSW, building Acoustics-Council/EPA Submissions-Modelling-Compliance-Certification* with report number 18-2187-R7 and dated August 2023.

Details of the site location are included in the figure below.

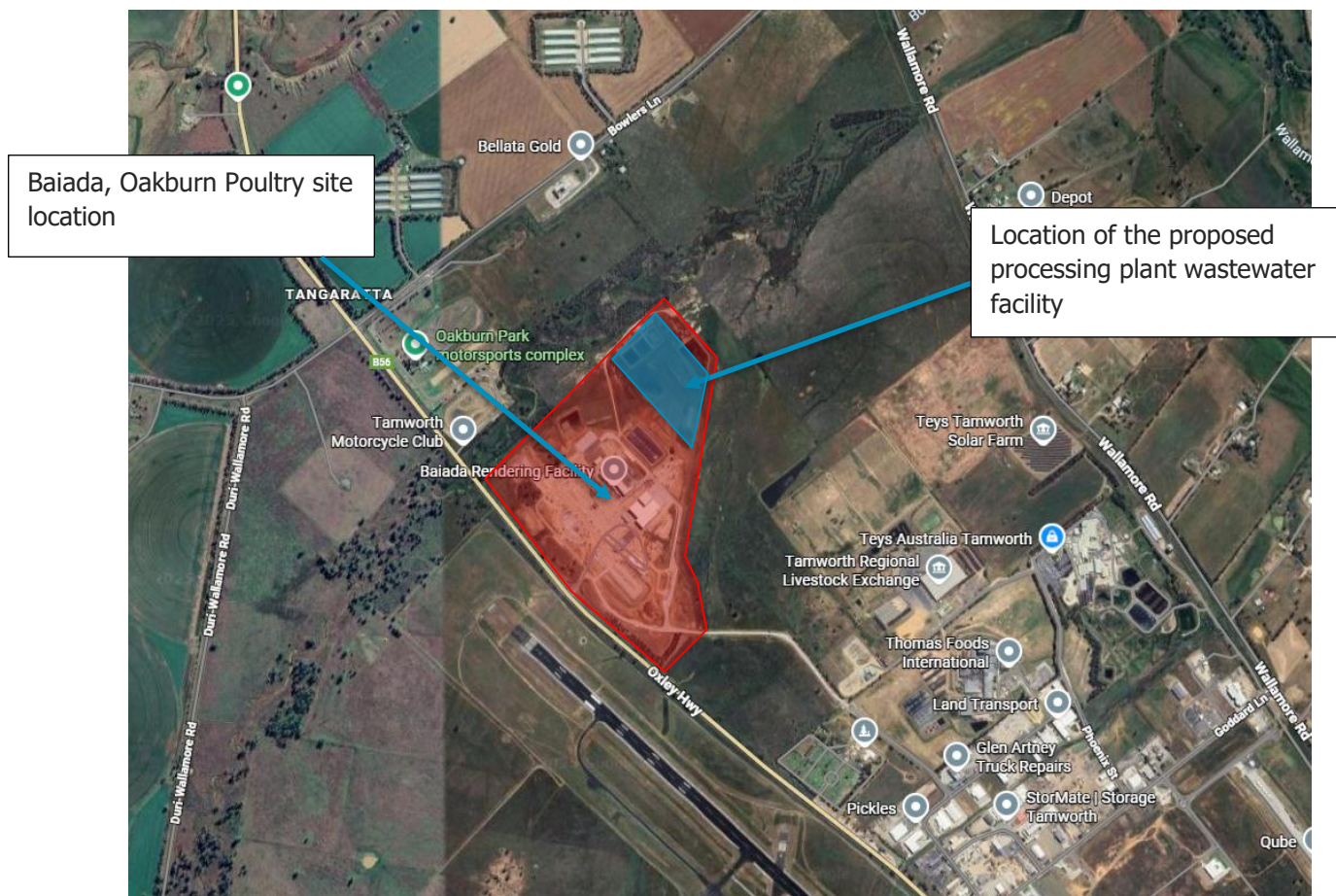


Figure 1 – Site Location Details

This assessment details an acoustic assessment of the proposed additional items included on the project, such that compliance with the projects SSD-9394 and the relevant project trigger noise levels will be achieved.

3.1 Project Acoustic Requirements

The projects acoustic requirements, including that included in Item B6 of the SSD approval which includes the following:

Operational Noise Limits

B6. The Applicant must ensure that noise generated by operation of the development does not exceed the noise limits in Table 2.

Table 2: Noise Limits (dB(A))

Locality	Location	Day L _{Aeq} (15 minute)	Evening L _{Aeq} (15 minute)	Night L _{Aeq} (15 minute)	Night L _{AFmax}
R1	Girraween	40	35	35	52
R2	Abbeylands	40	35	35	52
R3	The Billabong	40	35	35	52
R4	Airport South	40	35	35	52

NSW Government
Department of Planning, Industry and Environment

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Baiada Integrated Poultry Processing Facility
(SSD-9394)

Note: Noise generated by the development is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Noise Policy for Industry (EPA, 2017) (as may be updated or replaced from time to time). Refer to the plan in Appendix 3 for the location of residential sensitive receivers.

Item B7 of the SSD also includes the following:

Noise Walls

B7. The Applicant must construct the noise walls shown on page 32 of the *Revised Noise Impact Assessment – Oakburn Processing Facility & Rendering Plant dated August 2020*, prior to the commencement of operation of the project.

If construction of noise walls is to be staged, the Applicant must submit a noise verification study to the satisfaction of the Planning Secretary to demonstrate the development will comply with the noise limits in condition B6 at all times.

As part of this assessment the potential for noise emissions from the proposed modification to the site, including the processing plant waste water facility has been undertaken, including the proposed ultimate operating conditions.

3.2 Processing Plant Waste Water Facility

This section of the report undertakes the assessment of the proposed processing plant waste water facility which is included in the modification and will include the following:

1. Water treatment facility.
2. Pumps and associated pipework and equipment.

Based on the location of the proposed processing plant waste water facility, which includes that to the north east of the site, and detailed in Figure 1 above the following acoustic impacts are discussed:

1. The location of the proposed processing plant waste water facility, including all associated plant and equipment, which will result in acoustic screening and distance separations to all surrounding receivers such that the resulting noise emissions from the proposed modifications will comply with the requirements of the SSD acoustic requirements as well as the projects acoustic reporting.
2. Based on the proposed equipment and activities to be undertake as part of the proposed modification, including the processing plant waste water facility ultimate operating scheme, compliance with the relevant acoustic requirements including the *Project Trigger Noise Levels* included in Condition B6 of the current SSD approval will be achieved without additional noise mitigations required.

Based on the details included above the proposed modification to the Baiada, Oakburn Poultry facility including the processing plant waste water facilities ultimate operating scheme will be acoustically acceptable and compliance with the noise emission included in the SSD-9394 will be achieved.

4 CONCLUSION

This report details the acoustic assessment completed as part of the modification to the Baiada Poultry, Tamworth project including the addition of the Processing Plant Wastewater projects ultimate operating scheme, including the Modification to the SSD-9394.

As part of the modification to the project the proposed addition of the processing plant wastewater ultimate operational scheme has been assessed. Details in this report include the acoustic assessment and recommendations such that the resulting noise emissions from the proposed modification (including the processing plant wastewater) will comply with the *Project Trigger Noise Levels* included within the existing SSD-9394.

If you have any additional questions, please contact the author below.

Regards



Ben White
Director
Pulse White Noise Acoustics

APPENDIX A – ACOUSTIC GLOSSARY

The following is a brief description of the acoustic terminology used in this report.

<i>Ambient Sound</i>	The totally encompassing sound in a given situation at a given time, usually composed of sound from all sources near and far.
<i>Audible Range</i>	The limits of frequency which are audible or heard as sound. The normal ear in young adults detects sound having frequencies in the region 20 Hz to 20 kHz, although it is possible for some people to detect frequencies outside these limits.
<i>Character, acoustic</i>	The total of the qualities making up the individuality of the noise. The pitch or shape of a sound's frequency content (spectrum) dictate a sound's character.
<i>Decibel [dB]</i>	The level of noise is measured objectively using a Sound Level Meter. The following are examples of the decibel readings of every day sounds; 0dB the faintest sound we can hear 30dB a quiet library or in a quiet location in the country 45dB typical office space. Ambience in the city at night 60dB Martin Place at lunch time 70dB the sound of a car passing on the street 80dB loud music played at home 90dB the sound of a truck passing on the street 100dB the sound of a rock band 115dB limit of sound permitted in industry 120dB deafening
<i>dB(A)</i>	<i>A-weighted decibels</i> The ear is not as effective in hearing low frequency sounds as it is hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter. The sound pressure level in dB(A) gives a close indication of the subjective loudness of the noise.
<i>Frequency</i>	Frequency is synonymous to <i>pitch</i> . Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz.
<i>Loudness</i>	A rise of 10 dB in sound level corresponds approximately to a doubling of subjective loudness. That is, a sound of 85 dB is twice as loud as a sound of 75 dB which is twice as loud as a sound of 65 dB and so on
<i>L_{Max}</i>	The maximum sound pressure level measured over a given period.
<i>L_{Min}</i>	The minimum sound pressure level measured over a given period.
<i>L₁</i>	The sound pressure level that is exceeded for 1% of the time for which the given sound is measured.
<i>L₁₀</i>	The sound pressure level that is exceeded for 10% of the time for which the given sound is measured.
<i>L₉₀</i>	The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L ₉₀ noise level expressed in units of dB(A).
<i>Leq</i>	The "equivalent noise level" is the summation of noise events and integrated over a selected period of time.
<i>Background Sound Low</i>	The average of the lowest levels of the sound levels measured in an affected area in the absence of noise from occupants and from unwanted, external ambient noise sources. Usually taken to mean the L _{A90} value
<i>Ctr</i>	A frequency adaptation term applied in accordance with the procedures described in ISO 717.

<i>dB (A)</i>	'A' Weighted overall sound pressure level
<i>Noise Reduction</i>	The difference in sound pressure level between any two areas. The term "noise reduction" does not specify any grade or performance quality unless accompanied by a specification of the units and conditions under which the units shall apply
<i>NR Noise Rating</i>	Single number evaluation of the background noise level. The NR level is normally around 5 to 6 dB below the "A" weighted noise level. The NR curve describes a spectrum of noise levels and is categorised by the level at 1000 Hz ie the NR 50 curve has a value of 50 dB at 1000 Hz. The NR rating is a tangential system where a noise spectrum is classified by the NR curve that just encompasses the entire noise spectrum consideration.
<i>R_w</i>	Weighted Sound Reduction Index - Laboratory test measurement procedure that provides a single number indication of the acoustic performance of a partition or single element. Calculation procedures for <i>R_w</i> are defined in ISO 140-2:1991 "Measurement of Sound Insulation in Buildings and of Building Elements Part 2: Determination, verification and application of precision data".
<i>R'_w</i>	Field obtained Weighted Sound Reduction Index - this figure is generally up to 3-5 lower than the laboratory test determined level data due to flanked sound transmission and imperfect site construction.
<i>Sound Isolation</i>	A reference to the degree of acoustical separation between any two areas. Sound isolation may refer to sound transmission loss of a partition or to noise reduction from any unwanted noise source. The term "sound isolation" does not specify any grade or performance quality and requires the units to be specified for any contractual condition
<i>Sound Pressure Level, L_p dB</i>	A measurement obtained directly using a microphone and sound level meter. Sound pressure level varies with distance from a source and with changes to the measuring environment. Sound pressure level equals 20 times the logarithm to the base 10 of the ratio of the rms sound pressure to the reference sound pressure of 20 micro Pascals.
<i>Sound Power Level, L_w dB</i>	Sound power level is a measure of the sound energy emitted by a source, does not change with distance, and cannot be directly measured. Sound power level of a machine may vary depending on the actual operating load and is calculated from sound pressure level measurements with appropriate corrections for distance and/or environmental conditions. Sound power levels is equal to 10 times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power of 1 picoWatt
<i>Speech Privacy</i>	A non-technical term but one of common usage. Speech privacy and speech intelligibility are opposites and a high level of speech privacy means a low level of speech intelligibility. It should be recognised that acceptable levels of speech privacy do not require that speech from an adjacent room is inaudible.
<i>Transmission Loss</i>	Equivalent to Sound Transmission Loss and to Sound Reduction Index in terminology used in countries other than Australia. A formal test rating of sound transmission properties of any construction, by usually a wall, floor, roof etc. The transmission loss of all materials varies with frequency and may be determined by either laboratory or field tests. Australian Standards apply to test methods for both situations.