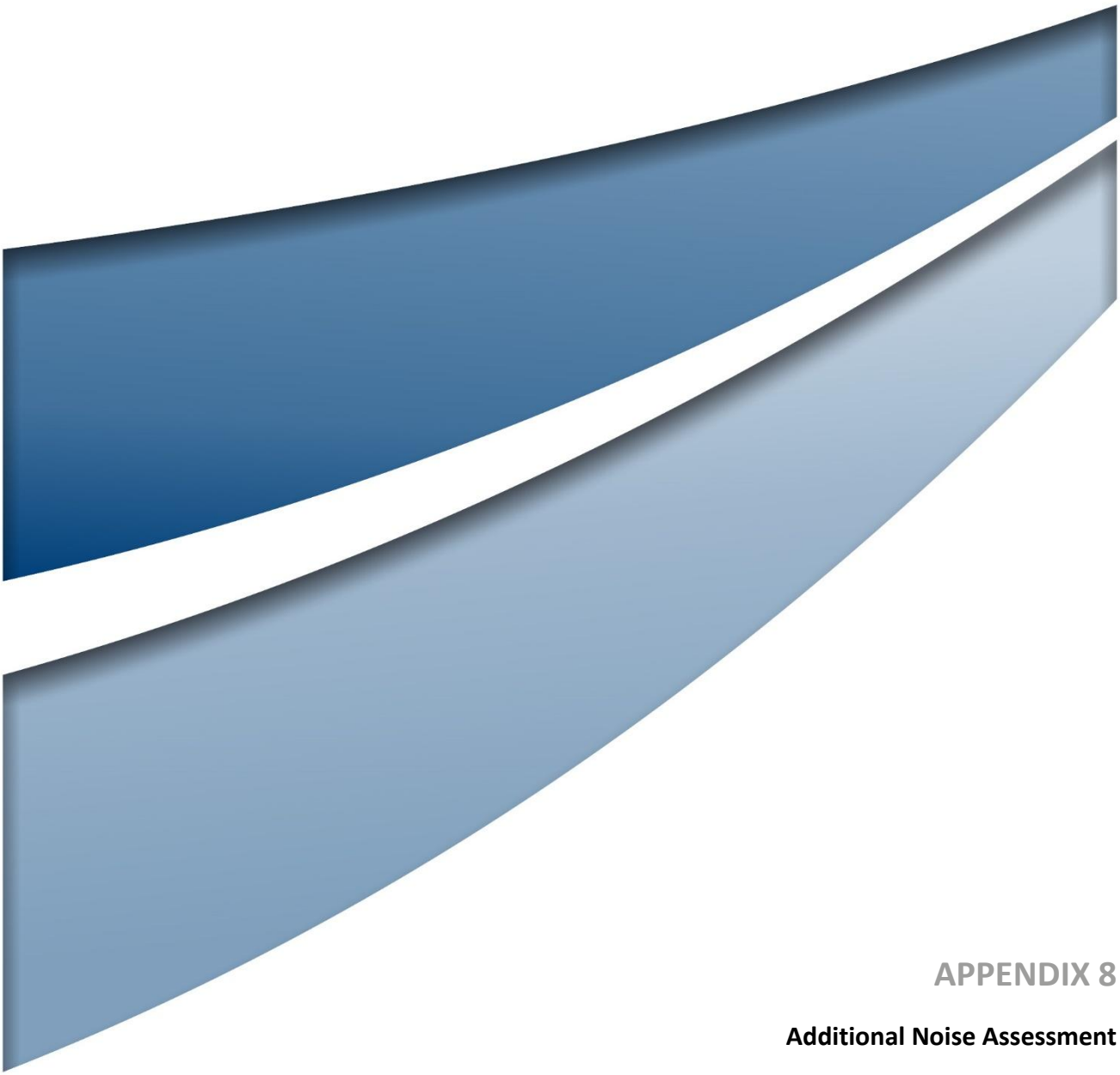

APPENDIX 8

Additional Noise Assessment

MEMO

MARSHALL DAY Acoustics

Project:	Junction Rivers Wind Project	**Document No.:**	Mm 002		
To:	Umwelt Australia Pty Ltd	**Date:**	27 February 2025		
Attention:	Lachlan Sweeney	**Cross Reference:**	Rp 002 r02 20220419		
Delivery:	Email	**Project No.:**	20220419		
From:	Oskar Wesley-Smith	**No. Pages:**	4	**Attachments:**	No
Subject:	Submissions Report – Revised BESS noise assessment				

Umwelt (Australia) Pty Ltd (Umwelt) have advised Marshall Day Acoustics (MDA) that they are preparing a Submissions Report on behalf of Windlab Development Pty Ltd (Windlab), to respond to community submissions and Government agency advice received on the Junctions River Wind Project (Project) state significant development (SSD) application.

As part of this process, Umwelt have directed MDA to prepare a revised BESS/ancillary infrastructure operational noise assessment to reflect recent changes to the Project layout.

Based on information provided by Umwelt, the Project layout changes relevant to the BESS/ancillary infrastructure operational noise assessment are limited to the removal of the central substation/BESS location due to potential flooding constraints.

On this basis, the revised assessment reflects the following scenarios, as directed by Umwelt/Windlab:

- BESS with 100 MW/400 MWh capacity at the northern location only
- BESS with 100 MW/400 MWh capacity at both the western and southern locations – totalling 200 MW/800 MWh.

It is noted that these changes represent a modest variation in the total operational noise emissions of the Project BESS/ancillary infrastructure, however a revised numerical assessment has been conducted for completeness.

The revised locations of each of the proposed BESS/ancillary infrastructure locations are shown in Appendix A.

Noise modelling method

The revised assessment has been conducted with reference to the assessment method and inputs documented within the existing EIS Noise Assessment.[1]

For ease of comparison, Table 14 and Table 15 of the EIS Noise Assessment, denoting the noise modelling scenarios and total sound power levels, have been revised to reflect the updated location and equipment arrangements. The updated tables are provided in Table 1 and Table 2 respectively.

[1] *Rp 002 r02 20220419 - Junction Rivers Wind Project - EIS Noise Assessment* dated 13 June 2024. (EIS Noise Assessment)

Table 1: BESS and ancillary infrastructure operational noise modelling scenarios (updated)

Location	Scenario 1	Scenario 2
Northern	**100 MW BESS** 100 x Inverter 100 x Battery unit 10 x 8 MVA Transformer 2 x 220 MVA Transformer	-
Southern	-	**100 MW BESS** 100 x Inverter 100 x Battery unit 10 x 8 MVA Transformer 2 x 220 MVA Transformer
Western	-	**100 MW BESS** 100 x Inverter 100 x Battery unit 10 x 8 MVA Transformer 2 x 220 MVA Transformer

Table 2: Overall sound power level for each BESS and ancillary infrastructure location, dB L_{WA} (updated)

Location	Scenario 1	Scenario 2
Northern	114	-
Southern	-	114
Western	-	114

Predicted noise levels

Operational noise levels have been predicted at all receivers located within 3 km of any of the proposed BESS/ancillary infrastructure locations.

The results of these predictions are shown in Table 3.

Table 3: Predicted noise levels at receivers within 3 km (including +5 dB tonality correction), dB L_{Aeq} (updated)

Receiver	Scenario 1	Scenario 2
BALWF122	22 (27)	< 10
BALWF123	< 10	21 (26)
BALWF141	< 10	32 (37)

The results shown in Table 3 demonstrate that:

- Noise level predictions are below the 35 dB L_{Aeq} night-time project noise trigger level at all receivers with the exception of BALWF141.
- For BALWF141, predicted ancillary infrastructure noise levels are above the night-time project noise trigger level for Scenario 2, by up to 2 dB, when conservatively applying a + 5dB modifying factor correction for tonality.
- Predicted noise levels associated with the updated BESS/ancillary infrastructure Project design are similar (within 1 dB) to those previously predicted for the legacy BESS/ancillary infrastructure Project design set out in the EIS Noise Assessment.

Conclusion

Given the similarity in noise assessment outcomes the conclusions set out in Section 7.8 of the EIS Noise Assessment continue to be applicable.

It is noted that all three receivers within 3 km of BESS/ancillary infrastructure detailed in Table 3 are associated receivers and subject to noise agreements with the Proponent. Noise associated with BESS/ancillary infrastructure will be managed as part of the specific noise agreements.

In addition, SSD development consents issued by the Minister for Planning and Public Spaces consistently indicate that operational noise criteria for ancillary infrastructure only apply to non-associated receivers. Given the additional distance from BESS/ancillary infrastructure to the nearest non-associated receivers, predicted noise levels would be comfortably below the 35 dB L_{Aeq} night-time project noise trigger level.

APPENDIX A PROPOSED BESS AND ANCILLARY INFRASTRUCTURE LOCATIONS