Waddi Wind Farm

Fact Sheet
July
2025

Construction & Operational Noise Fact Sheet

The Waddi Wind Farm is located 150 km north of Perth in the Shire of Dandaragan. The Project would help reduce Western Australia's carbon footprint by generating up to 108 MW of clean energy when constructed. That's enough to power up to 68,000 homes per year, avoiding 286,000 tonnes in carbon emissions annually.

The Project would also help generate local employment and bring broader community benefits during construction and operation.

The Project is expected to meet the required noise levels. This fact sheet summarises the findings of the construction and operational noise assessments and what we're proposing to do to manage this through construction and operations.

The Approved Project

The Waddi Wind Farm Project first received planning approval from the Shire of Dandaragan in January 2012. Since then, several amendments have been approved, mainly focusing on the design and layout of the turbines and electrical transmission infrastructure.

The Project has 18 wind turbines, each one up to 220 metres tall. It is situated on largely cleared cropping land with the turbines located to minimise impacts on farm operations as well as our neighbours.

ARE YOU ON OUR MAILING LIST?

Stay up to date and receive updates by hovering over the QR code. Would you like further information on the project? Please contact us at waddiwindfarm@tiltrenewables.com or 1800 WE TILT (938 458).

Construction Noise

Major project construction can be disruptive at times. Tilt Renewables works closely with our contractors, neighbours, local councils and communities to plan and manage construction responsibly.

What construction noise should I expect?

Prior to construction, Tilt Renewables will implement a Construction Management Plan (CMP) that will serve as a guidebook for on-site workers. This guidebook will outline the approach to managing all aspects of construction, including working hours, safety and security, biosecurity, water and dust management, noise and vibration controls and traffic.

Construction noise will be managed. To avoid noise exceeding limits, we will do the following:

- Scheduling noisier activities at times when they will have the least impact
- Using well-maintained equipment and machinery
- Minimising noise from vehicle reversing beepers
- Turning off machinery when not in use
- Implementing speed limits to reduce engine noise

These steps will help noise from construction activities and impact on the community.

The Western Australian Environmental Protection (Noise) Regulations 1997 permits construction work to be carried out between 7am to 7pm Monday to Saturday, excluding public holidays. If work needs to be done outside these hours, Tilt Renewables will provide advanced notice and take steps to minimise disruption.

Operational Noise

What noise is produced by wind turbines?

Wind turbines produce noise. How far the noise from the turbines can be heard depends on factors such as, distance, topography and weather conditions. The noise produced by turbines is often described as relatively weak and a whooshing sound, generated as the air moves through the turbines.

What noise regulations are in place?

Noise regulations protect community amenity by keeping noise levels within acceptable limits.

Noise regulations consider two dwelling types:

- **Associated dwellings:** Dwellings in which an agreement has been made with the respective landowner.
- **Non-associated dwellings:** Dwellings outside the Project boundary for which an agreement has not been made with the respective landowner.

Predicted noise levels of the Approved Project were assessed against the following regulations.

The Western Australian EPA's Environmental Protection (Noise) Regulations (1997)
A set of standards for acceptable noise levels from various sources, including wind farms, to ensure they comply with acceptable noise levels and minimise disturbances to residents.
The South Australian EPA's Wind Farms Environmental Noise Guidelines (2009)
A framework for assessing and managing noise levels from wind farms. This guideline aims to balance the benefits of wind farms with the need to protect the community from adverse noise effects.

The noise limits for the Approved Project are:

- **Associated dwellings:** 45 dB(A) or 5 dB(A) above background noise level, whichever is the greater.
- **Non-associated dwellings:** 35 dB(A) or 5 dB(A) above background noise level, whichever is the greater.

What operational noise should I expect?

Noise modelling conducted by Sonus Pty Ltd concluded the Approved Project will operate significantly below the noise limits.

The highest predicted noise levels are:

- **Associated dwellings:** 35 dB(A)
- **Non-associated dwellings:** 24 dB(A)

Table 1 shows example sound sources and decibels.

At 24 dB(A), the expected noise levels at any non-associated dwelling would be less than whispering.

Figure 1 shows the predicted noise levels for the Project.

Tilt Renewables will use a noise monitoring program to ensure the project continues to meet the required noise levels. The Project will also address any noise related concerns or enquiries in accordance with the Complaints Handling Procedure.

Sound Source	Decibel (dB)
Jet engine at 30m	140
Rivet hammer (pain can be felt as this threshold)	130
Rock drill	120
Chainsaw	110
Sheet-metal workshop	100
Lawnmower	90
Kerbside: Heavy traffic	80
Loud conversation	70
Normal conversation	60
Whispering	30
Hearing threshold	0

Table 1: Example sound sources and decibel levels

Predicted Wind Turbine Noise

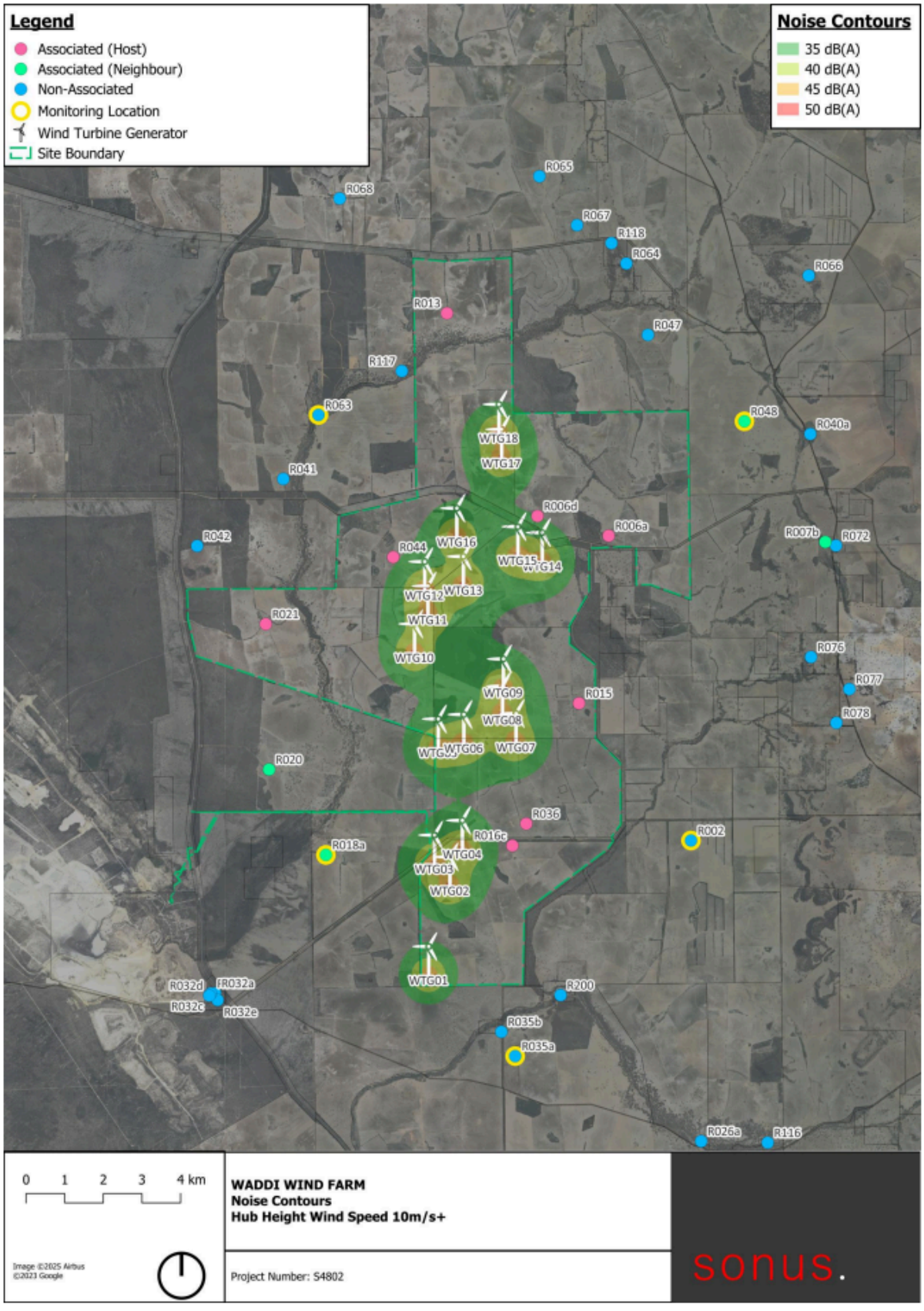

Figure 1: Predicted Wind Turbine Noise Contours