

HERRIES RANGE WIND FARM NOISE ASSESSMENT



ACCIONA Energía understands noise to be a key area of community concern. We design our wind farms in compliance with the noise criteria in *State code 23: Wind farm development* and our wind farms operate in line with our relevant development approvals.

An independent noise assessment has been carried out and we will conduct post-construction noise monitoring.

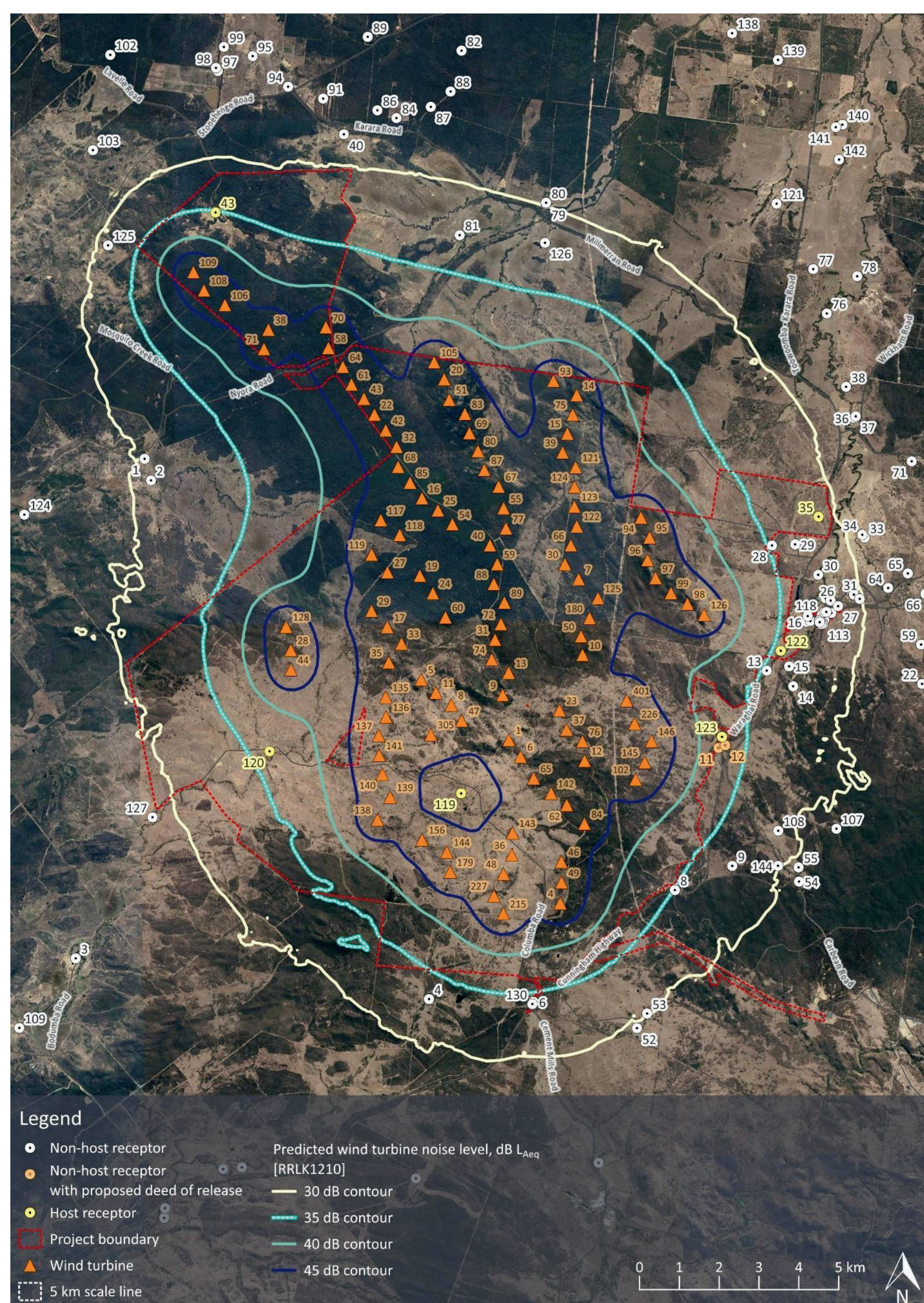
For non-host lots, the criteria generally require that the noise level does not exceed:

- 35 dB(A) at night, or background noise + 5 dB(A) (whichever is greater)
- 37 dB(A) during the day, or background noise + 5 dB(A) (whichever is greater)

HOW IS NOISE ASSESSED?

The assessment used topographical data and historic wind records to model the noise levels from the Nordex N175/6.X wind turbine with a hub height of 164m in full power mode with a non-serrated trailing edge. Noise contours from this modelling are shown on the map below.

Highest predicted wind turbine noise level contours



WIND FARMS & NOISE

The noise levels experienced at a given location from a wind farm depend on several factors, including the number of wind turbines in the vicinity, terrain, wind speed, background noise, weather conditions and the noise characteristics of the turbine in use.

During construction, noise sources are expected to include vehicle movements, earthworks, crane and plant operations. During operation, noise is generated by aerodynamic noise from the turbine blades. On occasion, mechanical noise from the generator or gearbox may be heard, however this is temporary and irregular in nature and is resolved through maintenance activities.

Approval for a wind farm in Queensland requires a pre-construction noise assessment and operational noise testing. Noise modelling measures expected noise limits at nearby sensitive land uses. Post-construction monitoring determines whether the operating wind farm complies with the legislated noise limits.