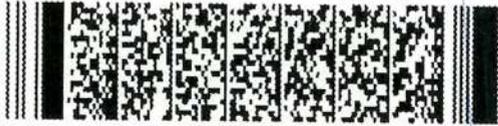


REG. NO. PLANNING INQUIRY DEPT
06 NOV 2025
CLAY COUNTY COUNCIL
MORTON HOUSE, SADDLEBRIEN, CO. COMK

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Study Area



APPENDIX 12-2 NOISE STUDY AREA



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The list of cumulative wind farms which were considered in the selection of the study area selection extends to an approximate distance of 25 km, based on the set of wind farm developments identified in Chapter 2 of the EIAR. In terms of environmental noise, this list extends well beyond the distance range of potential cumulative impacts for noise. The full list of wind farms considered is presented in Appendix 2.3 of Chapter 2. The wind farms developments within 10 km are:

Wind energy developments within 10 km of the proposed development are listed below:

- ▶ Grousemount Wind Farm, Co. Kerry (ACP Ref PA08.PA0044), an operational development with 38 turbines;
- ▶ Sillahertane-Coomagearlaghy II Wind Farm, Co. Kerry (County Council Ref 391359) an operational development with 10 turbines;
- ▶ Sheymore Wind Farm, Co. Cork (ACP ref PL04.243486) with an operational development with 10 turbines;
- ▶ Gortloughra Wind Farm Co. Cork (County Council ref 25142) a proposed development with eight turbines;
- ▶ Derragh Wind Farm Co Cork (ACP Ref. PL 04.245082), a wind farm with six turbines.
- ▶ Maughanaclea Wind Farm Co. Cork, (Planning reference PC04.321826) a wind farm at pre-planning stage with 14 turbines;

The Institute of Acoustics document Good Practice Guide To the Application Of ETSU-R-97 For The Assessment And Rating Of Wind Turbine Noise (IOAGPG) states, in section 2.2 in relation to the extent of the study area:

The 'study area' for background noise surveys (and noise assessment) should, as a minimum, be the area within which noise levels from the proposed, consented and existing wind turbine(s) may exceed 35 dB LA90 at up to 10 m/s wind speed. (Note: unless stated, in this document the wind speed reference for noise data is the 10 metre standardised wind speed, derived from the wind speed at turbine hub height as explained in Section 2.6).

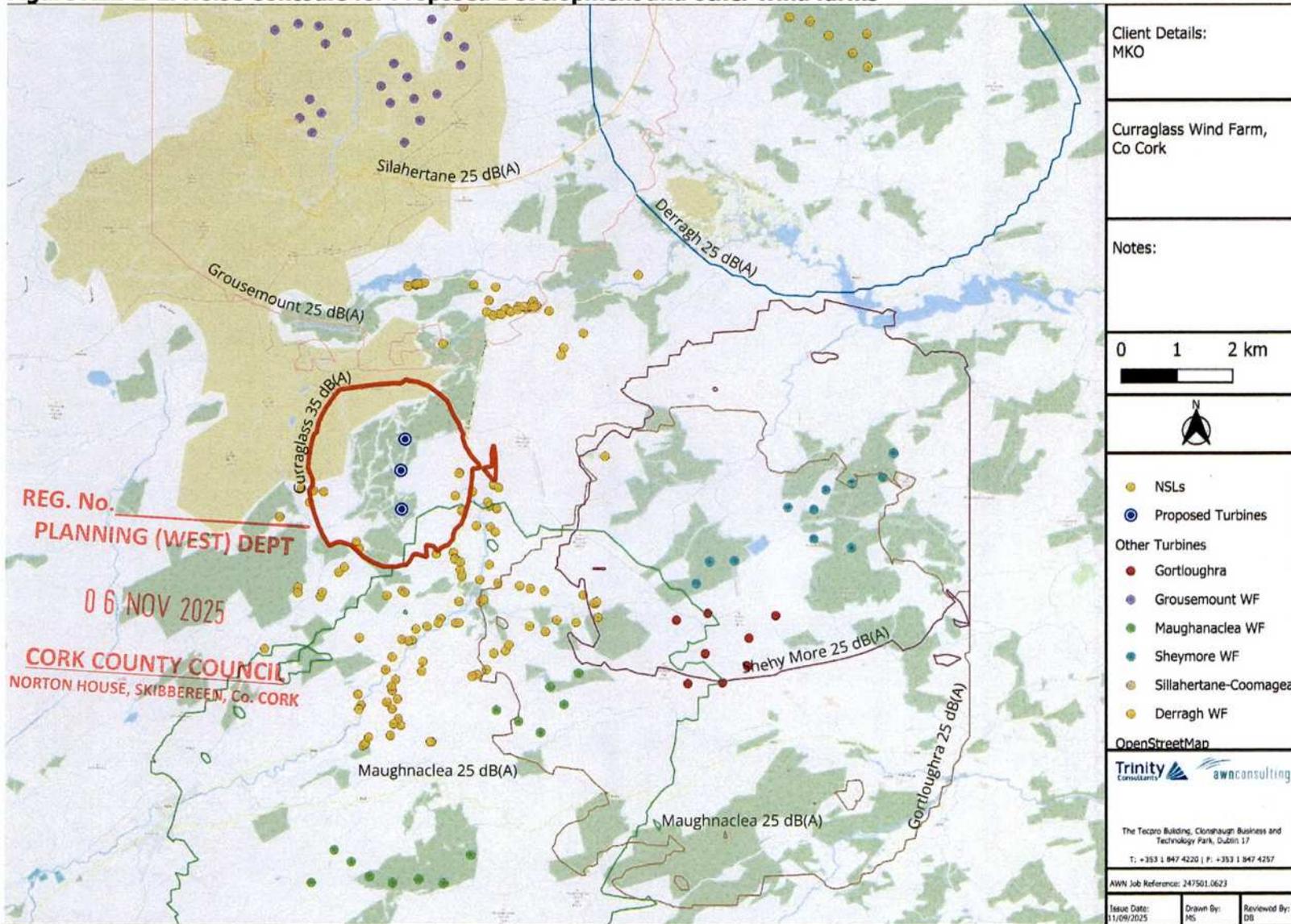
If there were no other wind farms to be considered, the study area could be defined to be simply the 35 dB LA90 noise contour at maximum sound power level for the turbine, due to the proposed development only. The inclusion of other wind farms in the noise model has the potential to increase predicted noise levels to above 35 dB LA90 at a wider set of noise-sensitive locations (NSLs). Theoretically, any predicted noise level above 25 dB LA90, due to another wind farm in its own right, could cumulatively result in a noise level above 35 dB LA90 when considered in conjunction with the proposed development. This methodology is considered a robust means of selecting the zone of potential cumulative noise impact.

The approach here is to model the full set of potentially cumulative wind farms and predict 25 dB LA90 contours for each one. Where any 25 dB LA90 contour touches or overlaps the 35 dB LA90 contour from the proposed development, then that wind farm should be included in the cumulative assessment.

Figure A12-2-1 presents the 25 dB LA90 contours for each of the wind farms listed above, along with the 35 dB contour for the Proposed Development.

It can be seen that the 25 dB LA90 contours for Grousemount, Sillahertane, Shehy More, Gortloughra and Derragh are separated from the 35 dB LA90 contour for the Proposed Development. The contour for Maughanaclea wind farm clearly intersects the 35 dB LA90 for the Proposed Development, therefore there is a potential for cumulative turbine noise impacts with Maughanaclea. Therefore, at a minimum, it is necessary to include Maughanaclea in the cumulative noise assessment.

Figure A12-2-1. Noise Contours for Proposed Development and other wind farms



Having decided which wind farms are included in the cumulative assessment, the 35 dB contour for the "screened in" wind farm, i.e. Maughanaclea has been calculated and is presented in Figure A12-2-2.

The noise study area is the combination of the following two areas:

- ▶ The 35 dB L_{A90} contour for the proposed development only, and
- ▶ The area where the 25 dB L_{A90} contour for the proposed development overlap with the 35 dB contour for the "screened in" wind farms – within this area, the proposed development has the potential to contribute to cumulative noise levels in excess of 35 dB L_{A90} .

The noise study area is shown as a red hatch in Figure A12-2-2. All NSLs in relation to the cumulative noise study area that are included in the cumulative noise assessment.

Figure A12-2-2. Minimum Area within which NSL are required to be assessed for noise

