

R4 Strategic Noise Mapping and Noise Action Plans Agglomerations

Climate Action, Environment & Energy Strategic
Policy Committee
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Agenda

- Round 4 Strategic Noise Mapping and Noise Action Plan Overview
- Project Approach to Round 4
- Strategic Noise Modelling Results – Dublin
- Phase 2 – Noise Action Plan (Update on Progress)
- Next Steps
- Questions / Discussion



Round 4 Strategic Noise Mapping and Noise Action Plan Overview

European Communities (Environmental Noise) Regulations 2018 (S.I. 549/2018)

- The Regulations give effect to the Environmental Noise Directive (END) 2002/49/EC
- Apply to environmental noise, created by human activities, which people are exposed to; in built-up areas, in public parks/quiet areas, near schools & hospitals and other noise-sensitive buildings/areas.
- Provide for the implementation in Ireland of a common approach for Europe to avoid, prevent and reduce the harmful effects due to exposure to environmental noise.
- The Regulations/END requires the following two indicators to be applied in the assessment and management of environmental noise;
 - L_{den} is the annual average noise level for the day, evening and night period and is designed to measure 'annoyance'. It has a defined EU reporting threshold of 55dB.
 - L_{night} is the annual average noise level for night-time periods and is designed to assess sleep disturbance. It has a defined EU reporting threshold of 50dB.
- Member States must report on the numbers of people who are exposed to noise levels above these thresholds for a range of noise sources.



Round 4 Strategic Noise Mapping and Noise Action Plan Overview

European Communities (Environmental Noise) Regulations 2018 (S.I. 549/2018)

- The Regulations make the Environmental Protection Agency (EPA) the national competent authority for the purpose of overseeing implementation and for providing guidance.
- The Regulations require Noise Mapping Bodies (NMBs) to prepare or review **Strategic Noise Maps** every 5 years for each of the following areas;
 - Agglomerations (>100,000 persons) (road, rail, airports & industry)
 - Major roads (>3,000,000 vehicle passages per year)
 - Major rail (>30,000 train passages per year)
 - Major airport (>50,000 movements per year)
- The Regulations require Action Planning Authorities (APAs) to make or review, in consultation with NMBs, **Noise Action Plans** every 5 years for each of the areas covered by the Strategic Noise Maps.
- Statutory Deadlines for reporting to the EU;
 - Maps - End 2022
 - Noise Action Plans – End 2024

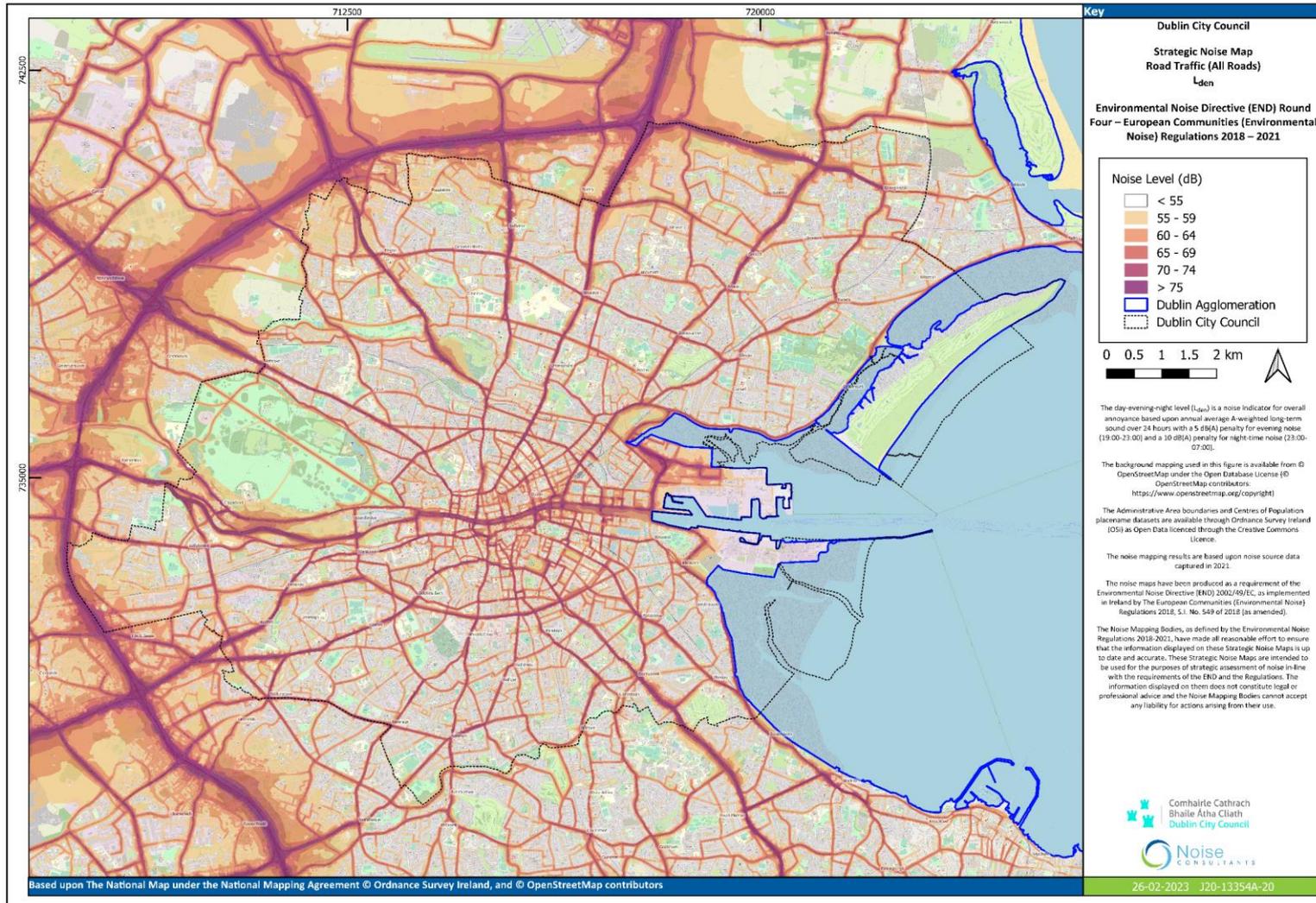


Project Approach to Round 4

- Dublin City Council's Technical Support Division (TSD) undertook the project management role for the project.
- Project included the Agglomerations of Dublin, Cork and Limerick
- Commissioned Noise Consultants Limited in May 2022 to complete the noise modelling, produce the Strategic Noise Maps and prepare the Noise Action Plans.
- Project was broken into the following two phases;
 - Phase 1 – Noise Modelling & Mapping (June 2022 – May 2023)
 - Phase 2 – Noise Action Plans (April 2023 – September 2024)
- **Phase 1 is now complete** and the Strategic Noise Maps for Dublin City and the Agglomeration of Dublin are published on the Dublin City Council Air Quality Monitoring and Noise Control Unit's web page; <https://www.dublincity.ie/residential/environment/role-air-quality-monitoring-and-noise-control-unit/dublin-city-noise-maps>

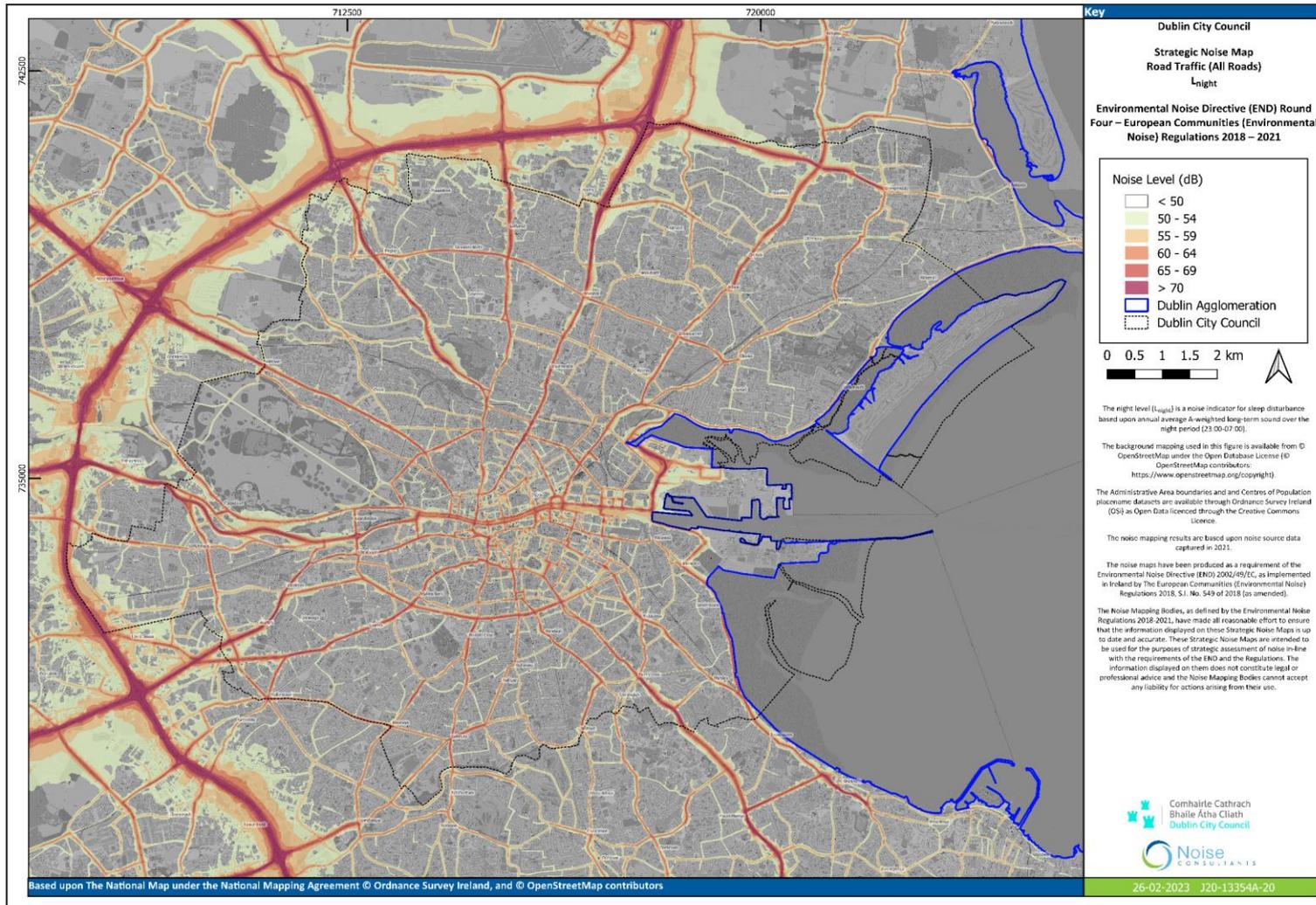


Dublin Strategic Noise Modelling Results – Roads Lden

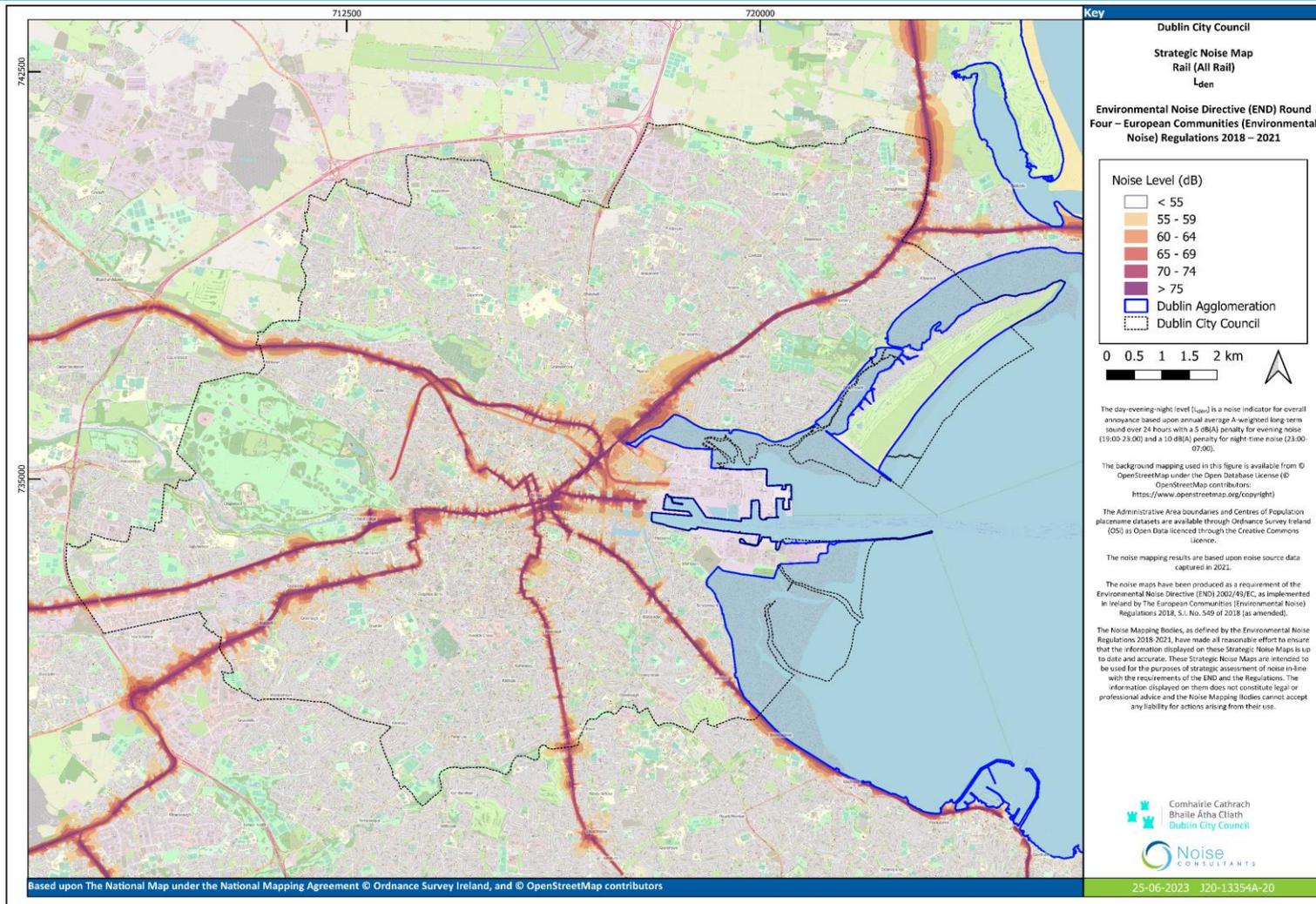


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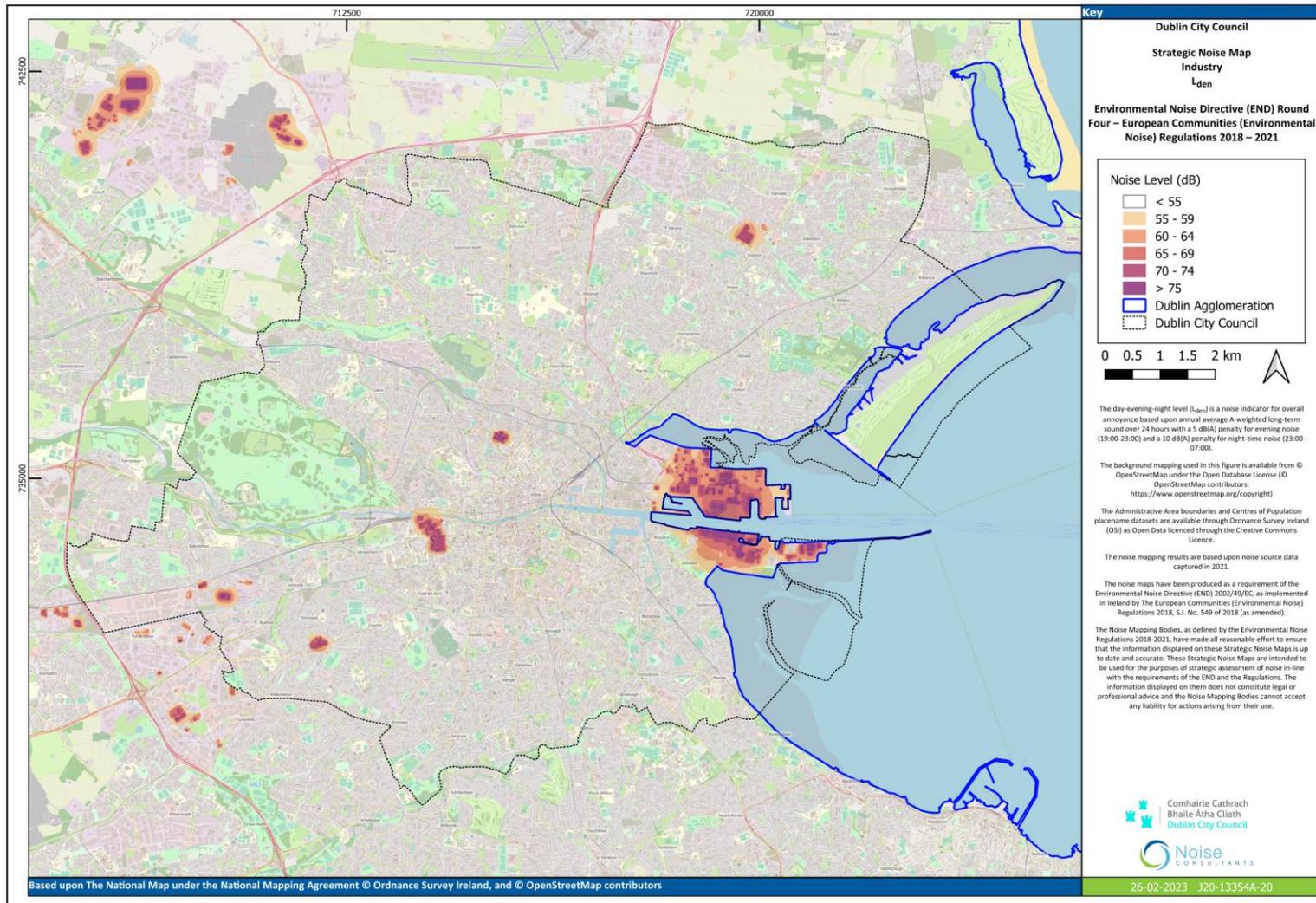
Dublin Strategic Noise Modelling Results – Roads Lnight



Dublin Strategic Noise Modelling Results – Rail Lden



Dublin Strategic Noise Modelling Results – Industry Lden



Phase 2 – Noise Action Plans

Phase 2 Deliverable	Indicative Timeline
Commence Phase 2	April 2023
Workshop 1 – NAP format, discuss policy, previous NAPs etc	19 th & 20 th June 2023
Finalise Important Area Methodology & Agree with EPA	By end of June 2023
Workshop 2 – Important Areas & Quiet Areas Methodology	12 – 14 th July 2023
Workshop 3 – Potential Important Areas & Quiet Areas	4 – 6 th August 2023
Workshop 4 – Finalise Important Areas & Quiet Areas	28 & 29 th September 2023
Workshop 5 - Finalise Noise Reduction Measures and Actions	TBC - October 2023
Draft NAPs	12- 13th November 2023
Draft NAP – LA Review	12 th Nov to 4 th Dec 2023
SEA / AA Screening & Report	13 th Nov to 19 th Dec 2023
Finalise Draft NAP for Consultation	5 th Dec 2023 to 10 th Jan 2024
Public Consultation	12 th Jan to 26 th Feb 2024
Review Submissions from Consultation	27 th Feb to 23 rd April 2024
Final Noise Action Plans	14 th June 2024
Deliver Summary Report (DF7_10) to EPA	21 st June 2024
Noise Action Plan Deadline	18 th July 2024
EEA Reporting Deadline	18 th January 2025



Phase 2 – Noise Action Plans

Requirements of Noise Action Plan (NAP)

- Objective of the Regulations;

“... to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise.”

- The Noise Action Plan must;

“...determine the measures to be included in an action plan” and;

“.....address priorities which—

(i) may be identified on the basis of exceedances of any relevant noise limit value or other relevant criteria established by the Agency in accordance with subparagraph (3), and

(ii) shall, in the first instance, address the most important area or areas, as the case may be, established by strategic noise mapping. “ and ;

“have as its objective that of also protecting quiet areas in an agglomeration “



Phase 2 – Noise Action Plan – Most Important Areas

How do we determine the “Most Important Areas” for inclusion within the NAP?

- Strategic Noise Modelling and Mapping results;
 - Noise levels calculated around facades of noise sensitive buildings
 - Estimate of the number of dwelling and people in dwellings
 - Estimate of the numbers of people exposed to various noise sources for a range of noise bands
 - Estimate of the Harmful Effects due to noise levels may be assessed at a statistical level
 - High Annoyance (HA)
 - High Sleep Disturbance (HSD)
 - Ischaemic Heart Disease (IHD)

Note: that harmful effects is a statistical approach across the whole population covered by the noise maps, and is an accurate assessment of the possible health effects at any given location.

- Developed and agreed a methodology with the EPA to utilise the above with a view to identifying the Most Important Areas and then Prioritising them



Phase 2 – Noise Action Plan - Important Area Methodology

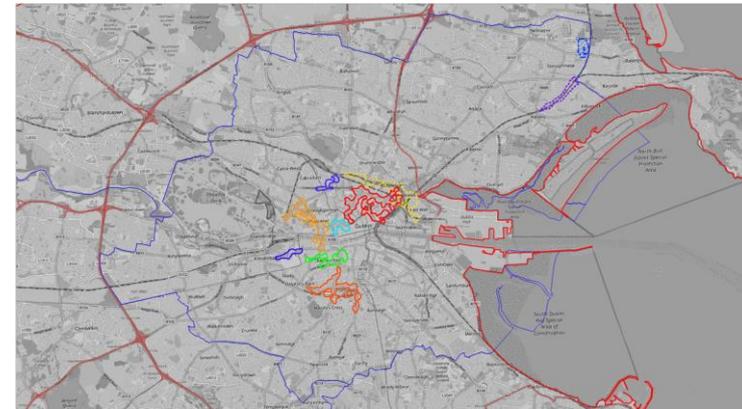
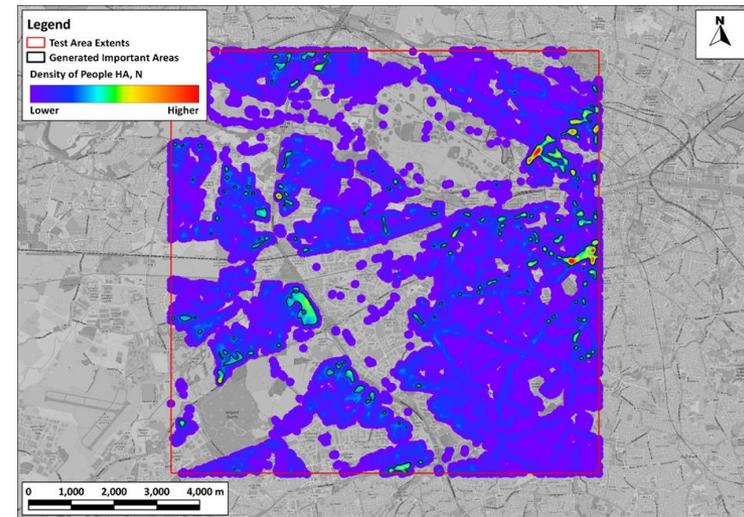
Stage 1 – Identify Most Important Areas (NAP Stage)

- Identify buildings with noise source ≥ 53 dB Lden (Roads) or ≥ 54 dB Lden (Rail) (in line with WHO recommendations)
- Prepare Heat Map using Highly Annoyed (HA) criteria per building averaged over a 10mx10m grid
- Identify Important Areas by setting a threshold number of people HA per 100m².

Stage 2 – Prioritise Most Important Areas (NAP Stage)

- For each Most Important Area (MIA) identified determine the following;
 - Total number of people in the MIA
 - Total number of people HA, HSD and IHD in the MIA
- Prioritise the Important Areas based on number of people exposed and the health effects and Local Authority engagement.
- Identify the top 5 – 10 Priority Important Areas from all sources for inclusion in NAPs, measure/actions for each to be presented at a high level of detail.
- Measures/actions for one Important Area to be tested.

Stage 3 – Evaluation of Prioritised Important Areas (Post NAP Stage, i.e. not included in NAP)



Quiet Areas

- No clear definition given by the Directive or Regulations of what a Quiet Area is or its characteristics
- Quiet Areas are not necessarily areas without or with reduced noise but may have a range of other qualifying characteristics which when combined with lower noise levels provide a more tranquil space
- During Round 3 eight areas were designated as Quiet Areas in Dublin City
 - Blessington Basin, Blessington Street
 - Edenmore Park, Raheny
 - Mount Bernard Park, Shandon Park, Phibsborough
 - Dollymount SSA, Clontarf (terrestrial area only)
 - St. Anne's Park, Raheny
 - Palmerston Park, Dartry
 - Ranelagh Gardens, Ranelagh
 - The Cabbage Gardens, Cathedral Lane, D2
- EPA are currently developing a methodology to define Quiet Areas based on public open Green and Blue Spaces and a study is ongoing in respect of this.
- This Methodology is being tested at the moment and will be used to review existing quiet areas and consider whether there are additional candidate quiet areas.



Next Steps

- Complete the Most Important Areas assessment
- Identify, through discussion with Local Authority Staff and review of Most Important Area statistics, 5-10 Priority Important Areas for inclusion within the NAP
- Consider possible noise reduction measures at each Priority Important Area
- Finalise the Quiet Areas assessment including review of existing
- Prepare Draft Noise Action Plan for review by Local Authority Staff by mid November 2023.
- Place the draft Noise Action Plan on Public Consultation in Q1 2024



Thank You

Questions / Discussion?



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