

Dublin Agglomeration Environmental Noise Action Plan December 2018 – July 2023

EXECUTIVE SUMMARY



December 2018



Comhairle Cathrach
Bhaile Átha Cliath
Dublin City Council

Volume 1



Comhairle Contae County Council

Volume 2



Comhairle Contae Fhine Gall
Fingal County Council

Volume 3



Comhairle Contae
Átha Cliath Theas
South Dublin County Council

Volume 4

Dublin Agglomeration Action Plan
Relating to
The Assessment and Management of
Environmental Noise
(Noise Action Plan)
December 2018 – July 2023

Summary
Dublin Agglomeration Area

Summary

Introduction

This Dublin Agglomeration Noise Action Plan 2018-2023(NAP) has been prepared jointly by the four Local Authorities in the Dublin Agglomeration. The plan is divided into five parts, a Summary, and 4 individual volumes which cover each of the four local authorities in the Dublin Agglomeration – Dublin City Council, South Dublin County Council, Fingal County Council and Dún Laoghaire-Rathdown County Council.

The key objective, as with the previous two Action Plans is to avoid, prevent and reduce, where necessary, on a prioritised basis the harmful effects, including annoyance, due to long term exposure to environmental noise from road traffic and rail sources. This will be achieved by taking a strategic approach to managing environmental noise and undertaking a ‘balanced approach’ within the context of sustainable development. This action plan does not include the impacts from aircraft noise as a noise source, as Fingal County Council is developing a standalone Action Plan for Dublin Airport.

The Noise Action Plan is aimed at managing Environmental Noise and excludes, for the most part, noise from domestic activities, noise created by neighbours, noise at work places or construction noise as these can be dealt with under existing legislation such as the Environmental Protection Agency Act 1992 and Health & Safety legislation. However, Dublin City Council in Volume 1 of the plan, which relates only to the Dublin City Council Area, has outlined policies and procedures related to managing noise nuisances as they wish to provide all relevant information on how it intends to manage all matters in relation to the management of environmental and nuisance noise.

Legal Context

In 2004 the European Community adopted Directive 2002/49/EC, which relates to the assessment and management of environmental noise. This directive is commonly referred to as the Environmental Noise Directive – or ‘the END’. This Directive sets out a process for managing environmental noise in a consistent manner across the EU. Environmental Noise Regulation, S.I. No. 140 of 2006 sets out the approach to meeting the requirements of the Directive in Ireland. Responsibility for undertaking the phases of work required under this Regulation is shared between the noise mapping bodies and the action planning authorities. The Environmental Noise Directive requires all European Union (EU) Member States to produce strategic noise maps for the main sources of environmental noise, i.e. major roads, major railways, major airports and all sources within agglomerations with a population of more than 100,000 persons. As required, each local authority within the Dublin Agglomeration has submitted their individual completed noise maps to the EPA by September 2018.

The Authority Responsible

The Environmental Protection Agency is designated as the National Authority for the purposes of Environmental Noise Regulations 2006. The role of the Agency includes supervisory, advisory and

coordination functions in relation to both noise mapping and action planning, as well as reporting requirements for the purpose of the Directive. Under the Environmental Noise Regulations 2006, the four Local Authorities within the 'Agglomeration of Dublin' are designated as the noise-mapping and action planning bodies for the purpose of making and approving strategic noise maps and noise action plans. They have been designated as the action planning authorities for the following sound emission categories within their areas:-

- All Roads and Major Roads,
- All Rail and Major Rail,
- Major Industrial Processes,
- All Airports and Major Airports.

Before producing and implementing a Noise Action Plan, the Local Authorities must consult with the Environmental Protection Agency and the noise-mapping body for the noise-maps involved, such as Irish rail, Transport Infrastructure Ireland and the Dublin Airport Authority. Local Authorities are also responsible for consulting with members of the public and statutory bodies in relation to the production of an Action Plan relating to assessment and management of environmental noise.

Description of the Agglomeration

The Dublin Agglomeration includes Dublin City Council, Dún Laoghaire-Rathdown County Council, Fingal County Council and South Dublin County Council, encompassing an area of approximately 925 Km². The use and character of land/property within these four local authorities varies substantially throughout the Agglomeration - from a busy urban capital city to rural landscapes, to busy local towns and developing suburban residential estates. Three of the four counties have a coast line, while a different three of the four counties have large amounts of green open spaces and farmland. The population within the Agglomeration is approximately 1,347,535 up from 1,273,069 in 2012. Just over 3516Km of roads in the Agglomeration were modelled. Sound levels were calculated at 533,900 dwellings, up from 526,200 in 2012. The Dublin Agglomeration also contains approximately 150 Kilometres of rail, including Luas light rail, with all being designated as Major Rail. Weston Executive Airport within South County Dublin Council also falls within the Dublin Agglomeration, but as the noise levels were found to be below the required reporting threshold it is not considered in the current Noise Action Plan. Dublin Airport is the region's main airport, located in the Agglomeration and is situated in the Fingal County Council administrative area. A separate standalone Action Plan for this airport is being developed by Fingal County Council. Industrial sources within the Agglomeration were not assessed as major industries are regulated through IPPC\IED licence controls and the EPA. A review of the annual reports under this licensing system indicates that sound emissions assessed at the boundary of these sites do not come within the reporting threshold of the END directive and the Irish environmental noise regulations. Certain locations and building uses which are considered to be more sensitive to environmental noise pollution than others have been identified in individual local authority areas, the details of which are set out in each of the local authorities volumes.

Due to this variety of land use and uniqueness of each area, it was decided to produce 4 separate volumes in this plan, each of which can be read as a standalone report, which relate solely to each of the four local authorities and which deal with the various and sometimes unique challenges associated within each of the four areas. In theory each area exceeds the 100,000 population threshold which requires the production of an individual action plan. However, the Environmental Noise Regulations 2006 requires the four local authorities in the Dublin region to report as one agglomeration. Volume 1 of this action plan relates to the Dublin City Council area only, Volume 2 relates to Dún Laoghaire-Rathdown County Council. Volume 3 relates to Fingal County Council and Volume 4 relates to South Dublin County Council.

Noise Limit Values

No national limit values exist in relation to environmental noise control. This Action Plan sets out certain criteria in relation to environmental sound levels which will be applied in identification of Quiet Areas and areas that have 'Undesirable' high sound levels or 'Desirable' low sound levels. These are set out below and are fully described in each of the individual local authority volumes.

These criteria are the same as those contained in the previous two action plans.

In this Action Plan, the following absolute values are used as one criterion for defining a Quiet Area:-

- < 45 dB(A) Lnight
- < 55 dB(A) Lday
- < 55 dB(A) Lden

Desirable Low Sound levels:-

- < 50 dB(A) Lnight
- < 55 dB(A) Lday

Undesirable High Sound levels

- >55 dB(A) Lnight
- >70 dB(A) Lday

The areas in the Agglomeration exposed to low sound values and therefore prioritised for preservation of their good environmental sound quality, can be identified from the LDEN and Night time noise maps in Appendix A, where the colour contours are below 50dB(A) at night and below 60dB(A) 24 hour LDEN. Similarly, areas to be prioritised for action to be taken to reduce high sound levels, can be identified from the 24 hour LDEN and Night time noise maps where the colour contours range above 55dB(A) for Night time and 70dB(A) 24 hour LDEN. All of the four local authorities have set out a common approach to prioritising areas using a decision matrix table, with an assessment trigger value of 17 or greater where action will be prioritised. A second criterion is also proposed, to cover what are perceived as 'Relatively Quiet Areas'. These types of locations will be defined by their proximity to areas of high sound levels, and which provide a perceived area of tranquillity. Both quantitative and qualitative assessments will be used to identify these types of locations. Three of the local authorities propose to identify locations using this process during the first year of their implementation of the noise action plan. If appropriate or necessary, locations will be identified where the existing sound levels are to be preserved in identified quiet areas or where sound levels are

mitigated in areas with undesirable high sound levels. Dublin City Council has completed this process and details of its assessment can be found in Volume 1.

Review of Dublin Agglomeration Noise Plan 2013-2018.

Broad objectives were set out in the Noise Action Plan July 2013 to November 2018 with sub objectives also specified. The objectives in the plan were addressed through the implementation of transportation, environmental and development control policies in each Local Authority even though the noise action plan may not have been the main driving force. Each local authority in the Agglomeration has reviewed the 2013-2018 action plan and has set out details in each of the relevant volumes of the report under the following general headings:-

- Development of Noise Monitoring Network
- Traffic noise reduction and prevention measures
- City and County Development Plans

South Dublin County Council and Dún Laoghaire County Council have both worked in close consultation with the NTA to develop a County-wide cycling network, which is incorporated into the National Transport Authority's Greater Dublin Area Strategic Cycle Network. Their county development plan has identified a hierarchy of routes for the Greater Dublin Area a list of which can be found in the main action plan. Dublin City Council has set out in Volume 1 a review of the impacts of implementing traffic management policies such as the continued designation of an inner cordon within the city which has almost eliminated all heavy goods vehicles (HGV) within that area between the hours of 7am-7pm. Restrictions have been placed on new planning applications in certain areas, in relation to deliver of goods by HGV to shops before 7am in the morning. Dublin City Council has engaged in reducing driving speeds through the provision of appropriate traffic calming measures and thus reducing sound emissions, e.g. continued operation of the College Green Bus Gate and provision of speed reduction ramps in residential estates. For new roads schemes and resurfacing projects, 'lower noise surfaces' were considered and applied where deemed to be appropriate. It continues to commit to monitoring and preserving 8 Quiet Areas which were designated as Quiet Areas by the Minister for Communications, Climate Action & Environment. It highlights the introduction of 30kph zones and traffic calmed areas – 'Bye Laws' were introduced to reduce traffic speeds from 50 to 30Km per hour throughout Dublin. It has developed Cycle Greenways and shared pedestrian/cycle routes, supported the improvement of public transport with the expansion of the light rail Luas network and implementation of bus priority measures. Traffic avoidance plans that combine walking, cycling and the use of public transport have been introduced, along with traffic congestion management through management and optimisation of the availability of parking spaces. It has promoted the use of more environmentally sustainable electric vehicles within Dublin City Council and also facilitated the introduction of car share clubs and public bicycle schemes. Many of these initiatives are also being developed in the other Dublin local authorities.

Noise mapping results

Each volume in the Action Plan sets out details of the population exposure and noise maps for each of the individual 4 areas. Appendix A in this summary sets out noise maps for the overall Dublin Agglomeration including noise maps for rail, and traffic sources. The charts 1-3, set out below, summarise the population and dwelling exposure statistics compared to the previous 2012 noise mapping results.

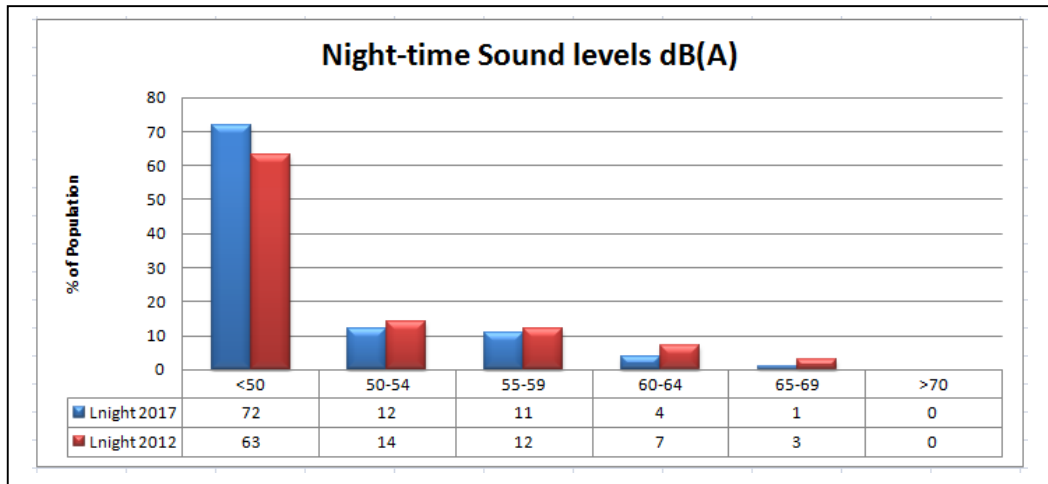


Chart 1

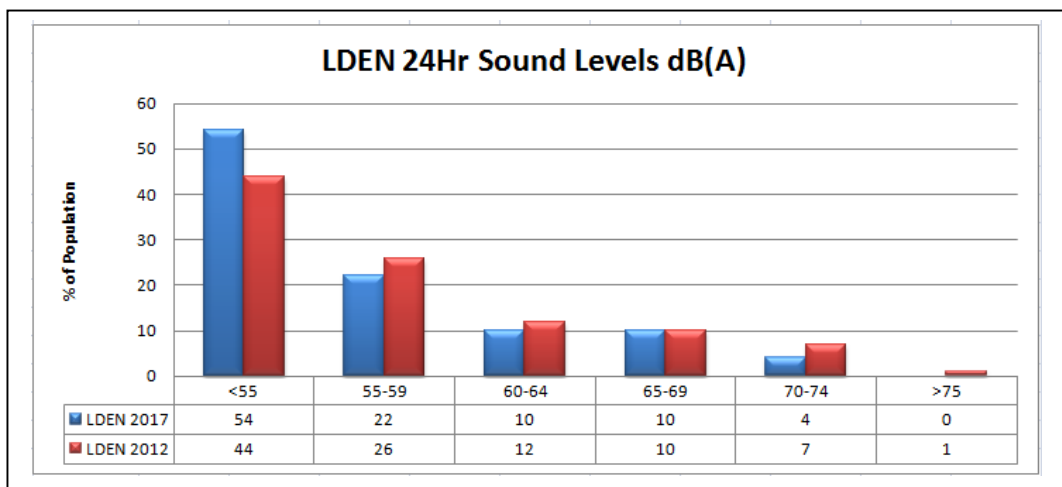


Chart 2

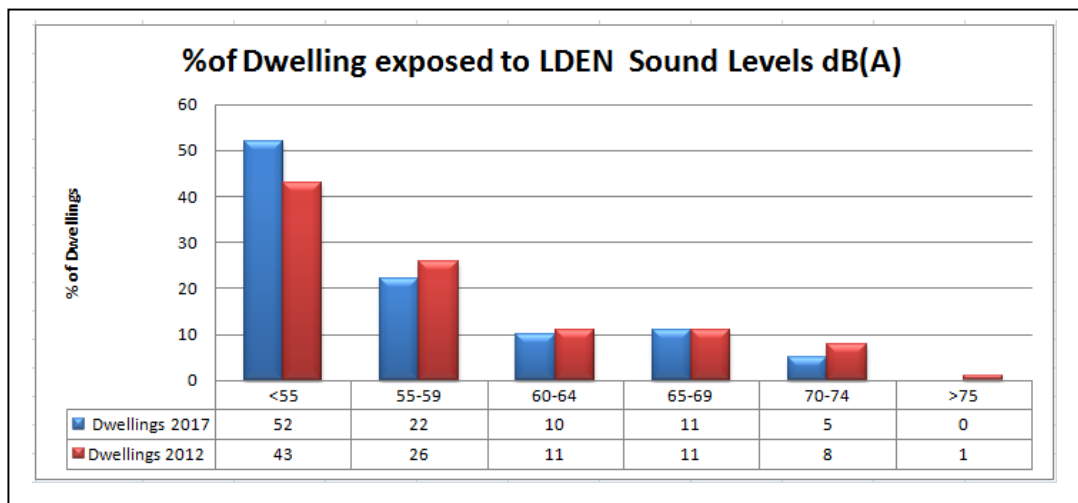


Chart 3

Overall population and dwelling exposures have improved, in that more people and dwellings have moved from higher noise level bands to lower bands. For instance the percentage number of people in the night time '<50dB band' was 63% in 2012 and has increased to 72% in 2017. However within each local authority area there was different variability among the different sound level bands. For example, in both South Dublin and Dún Laoghaire-Rathdown less people were in the LDEN >55dB category than in 2012 where as in Fingal and Dublin City Council there were marginal increases. Similarly for the night time desirable level of 50dB, there were improvements for South Dublin and Dún Laoghaire-Rathdown, but a marginal regression for Dublin City and Fingal Council areas, (2.5% or less). The four individual Volumes relating to each area provide more detailed assessments. Sound Levels from major heavy rail and light rail(Luas) within the agglomeration has not changed since 2012 with 99% of the population being exposed to both a night time sound level below 50dB(A) and a 24 hour LDEN value below 55dB(A).

Noise maps produced as part of the noise mapping process(appendix A) indicate that there is still a tranche of the population (16%), being exposed to undesirable night time sound levels and that the motorway network throughout the agglomeration is a dominant noise source which impacts negatively on the lands through which it passes. Higher resolution noise maps for each of the four council areas can be found in each of the individual volumes of the full Dublin Agglomeration Action Plan.

Public Consultation

In preparing and revising this Action Plan, Action Planning Authorities must ensure the following:

- The public is consulted about proposals for Action Plans;
- The public is given early and effective opportunities to participate in the preparation and review of the Action Plans;
- The results of the public participation are taken into account;
- The public is informed of the decisions taken;
- Reasonable time frames are provided allowing sufficient time for each stage of public participation.

In accordance with the Environmental Noise Regulations, a Noise Action Plan was prepared for the Dublin Agglomeration Area and feedback was sought from noise mapping bodies and the general public.

Adverts were placed in the Irish Times and Irish Independent seeking feedback by 19th December. Copies of the Noise Action Plan were made available on each local authority's public consultation web portal and on the individual Council's websites along with each local authority's noise maps. The Action Plan was also be presented to each local authorities relevant Strategic Policy Committees for comment and feedback.

The following Bodies\Agencies were notified of the public consultation process:-

- Department of Communications, Climate Action and Environment
- Department of Transport, Tourism and Sport
- Department of Housing, Planning and Local Government.
- National Transport Authority
- Environmental Protection Agency
- Health Service Executive
- Iarnród Éireann
- Transport Infrastructure Ireland

Summary of noise management actions

Most of the 4 local authorities set out principals to be followed in relation to managing environmental noise and proposals to take action under the following headings:

- Identification of Priority Areas
- Introduction of traffic noise reduction and prevention measures
- Promotion of the control of noise in the Planning Process
- The identification and protection of 'Quiet Areas'
- Implementation of noise Complaint Investigation and Control procedures in conjunction with Transport Infrastructure Ireland.

Dún Laoghaire-Rathdown County Council has also indicated that they intend to expand their sound monitoring network, whilst all the local authorities have indicated their support for the introduction of new public transport corridors and the introduction of a strategic cycle plan. South Dublin, Fingal and Dún Laoghaire-Rathdown County Councils intend collaborating with TII on complaints relating to noise associated with major roads. The initial noise complaint will be investigated at local authority level and if necessary additional noise monitoring will be carried out. TII would initially be informed of the complaint and subsequently the outcome of the investigation. It is proposed that where it is deemed necessary noise mitigation measures, as agreed by both the TII and the relevant local authority(s), would be implemented. The procedure will be trialled in the early part of this Noise Action Plan and will be amended where necessary to ensure the best available option is pursued based on availability of finance at the time. Dublin City Council have also produced a detailed list of actions they will consider when managing environmental noise, including land use zoning, traffic management, using planning legislation to control noise emissions from developments, implementation of noise complaint investigation and management protocols, encouragement of good acoustical design practice in new developments such as the orientation and design of buildings and their use in screening noise, requirement to use sound proof glazing in new developments in noisy areas, using quieter road surfaces where appropriate when renewing or replacing road surfaces, traffic speed management, restrictions on heavy goods vehicles, the promotion of walking, cycling and the use of public transport over private car use. Dublin City Council through its Smart City office will be an 'early adopter', where possible, of new technology in order to assist in the roll out of new

innovations such as quiet electric vehicles and driverless cars. It will also strive to be a model of best practice that in turn can influence other bodies.

All the four local authorities have carried out a pre-screening Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) on the portion of the plan related to their area. It was determined that neither a full Strategic Environmental Assessment nor an Appropriate Assessment was required to be carried out. Dublin City Council has included its pre-screening reports in Volume 1 of this Action Plan, which relates solely to the Dublin City Council area. It is considered that the full Dublin Agglomeration Plan when viewed as a single combined plan does not enhance or detract from the impact of the actions proposed by the individual four local authorities. As such it is considered that a SEA or AA is not required for the combined Dublin Agglomeration Plan 2018 – 2023.

Summary of provisions envisaged for evaluating the results and implementation of the Action Plan

All the four local authorities have indicated their use of a decision matrix table in order to screen priority areas and identify approximately the top 1% of properties exposed to high sound levels. All actions are aimed to move this top 1% into a lower noise level band. Dublin City Council has evaluated that actions taken under the previous plan has resulted in a reduction in high noise exposure levels for approximately 700 residents in the Dublin City Council area

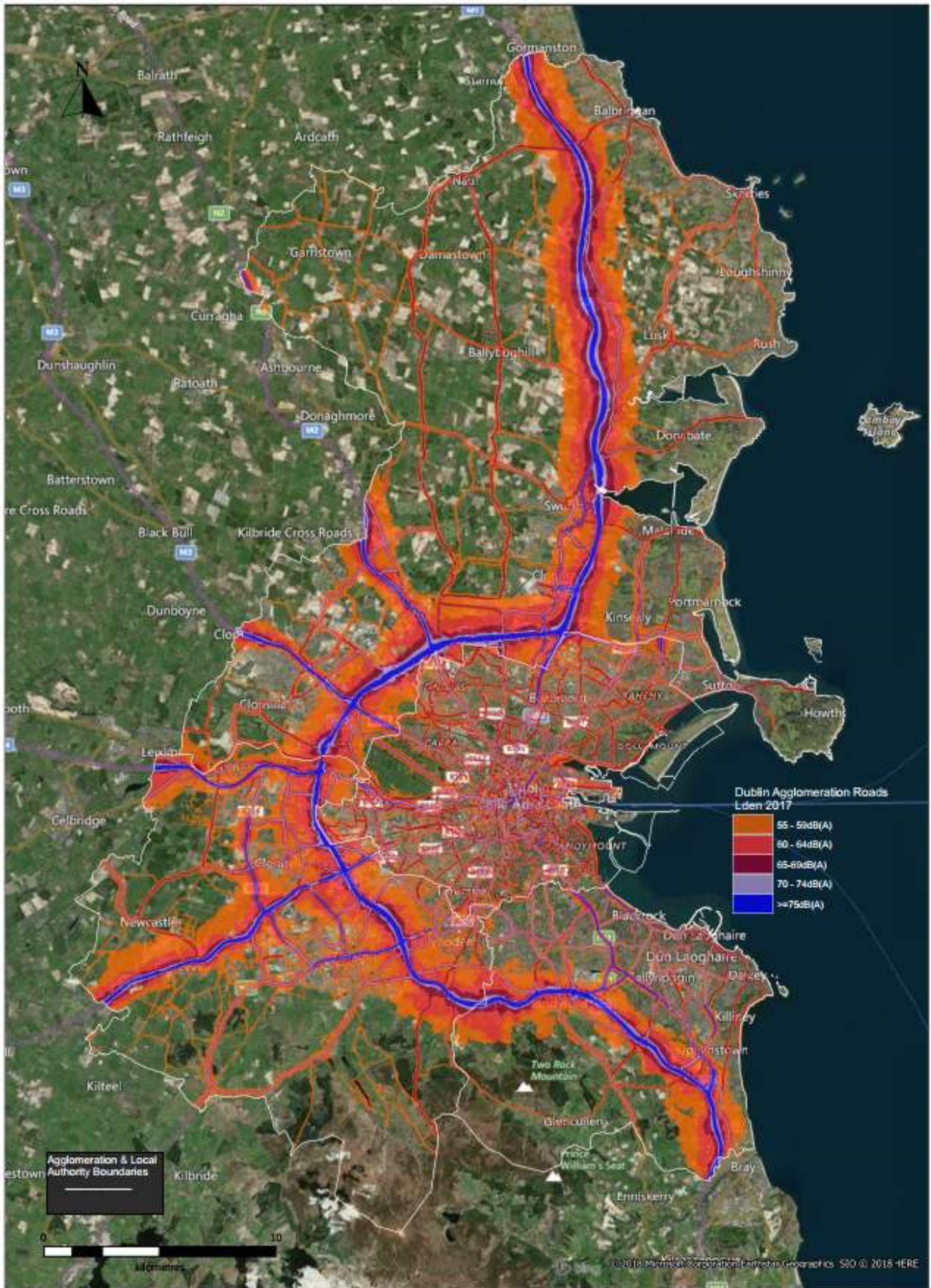
Some of the local authorities have indicated that they will implement the plan over a 5 year period commencing from the date of its adoption and have set out the work to be carried out for each of the 5 years. This includes identifying and making a list of priority areas as indicated by the noise maps in the first year of the plan. Ongoing identification of Quiet Areas and the preparation of lists of mitigation measures and identification of costs involved is proposed for the second year. They propose in the third year to implement action in the areas identified and in the fourth and fifth years they will commence review and production of revised noise maps and action plans. Dublin City Council view this third Action Plan as a continuation of previous plans and will continue implementing policy commenced over the past two plans and recommit to continuous actions in this plan. Its current and past policy and direction in relation to the principals of avoidance, prevention and reduction, where necessary, on a prioritised basis of the harmful effects, including annoyance, due to long term exposure to environmental noise will continue to be implemented. As such it has indicated it will review progress of the actions plan on an ongoing basis. All four local authorities have indicated they will review the full Action Plan after 5 years.

All local authorities have indicated that implementation of any actions are subject to budgetary constraints and the availability of appropriate resources being available. No financial information in relation to budgets, cost benefit assessments, or cost-effectiveness of actions is available.

A copy of the Dublin Agglomeration Action Plan Relating to The Assessment and Management of Environmental Noise (December 2018 – July 2023) can be found on the individual websites of the relevant local authorities within the Dublin Agglomeration.

Appendix A

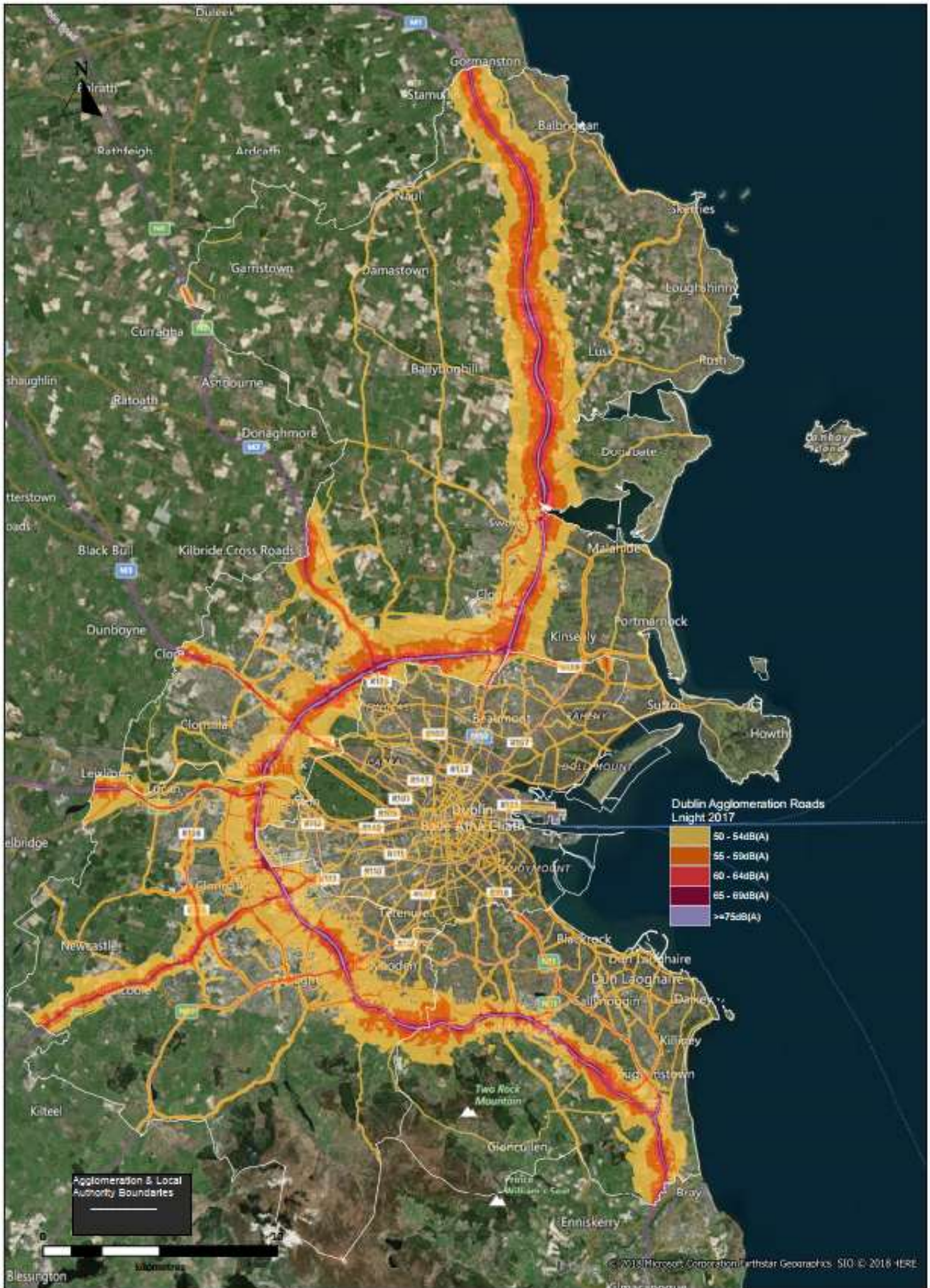
Dublin Agglomeration Noise Maps 2017



Title:-
Strategic Noise Mapping Project 2017.
Lden dB(A)
Dublin Agglomeration Roads

This strategic noise map presents a graphical representation of weighted predicted annual average (Lden) road traffic sound levels in the Dublin Agglomeration. The map has been developed in accordance with S.I. No. 140/2006 (the Environmental Noise Regulations) and is a representation of the average environmental sound levels over one complete year. This map forms part of a national noise mapping strategy which can be primarily used as a strategic tool for large scale planning or policy matters and is not suitable for local noise assessments.

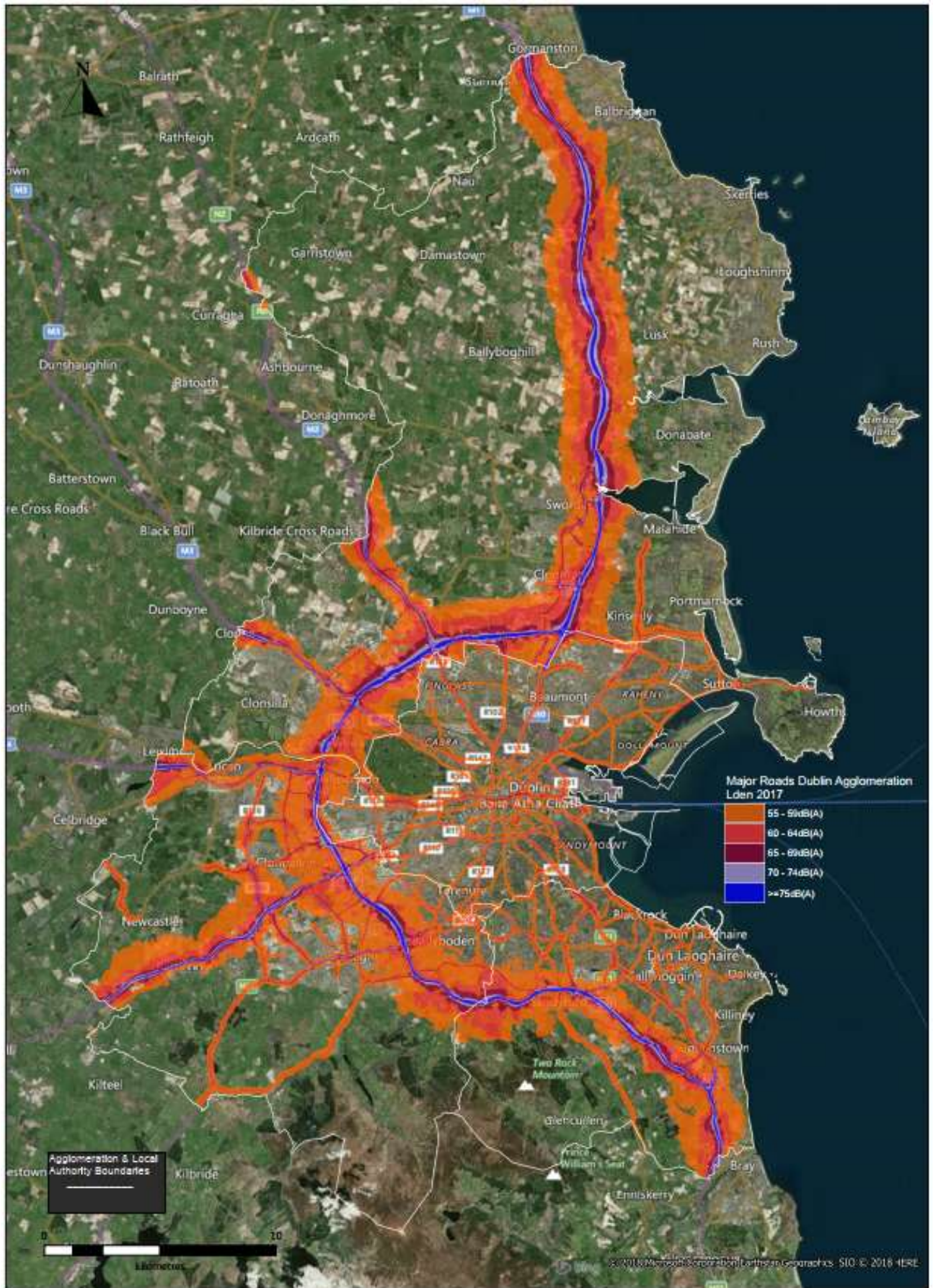
Figure 1: Lden Noise Level Bands for 2017 for Dublin Agglomeration Roads



Title:-
Strategic Noise Mapping Project 2017.
LNight dB(A)
Dublin Agglomeration Roads

This strategic noise map presents a graphical representation of weighted predicted annual average LNight road traffic sound levels in the Dublin Agglomeration. The map has been developed in accordance with S.I. No. 140/2006 (the Environmental Noise Regulations) and is a representation of the average environmental sound levels over one complete year. This map forms part of a national noise mapping strategy which can be primarily used as a strategic tool for large scale planning or policy matters and is not suitable for local noise assessments.

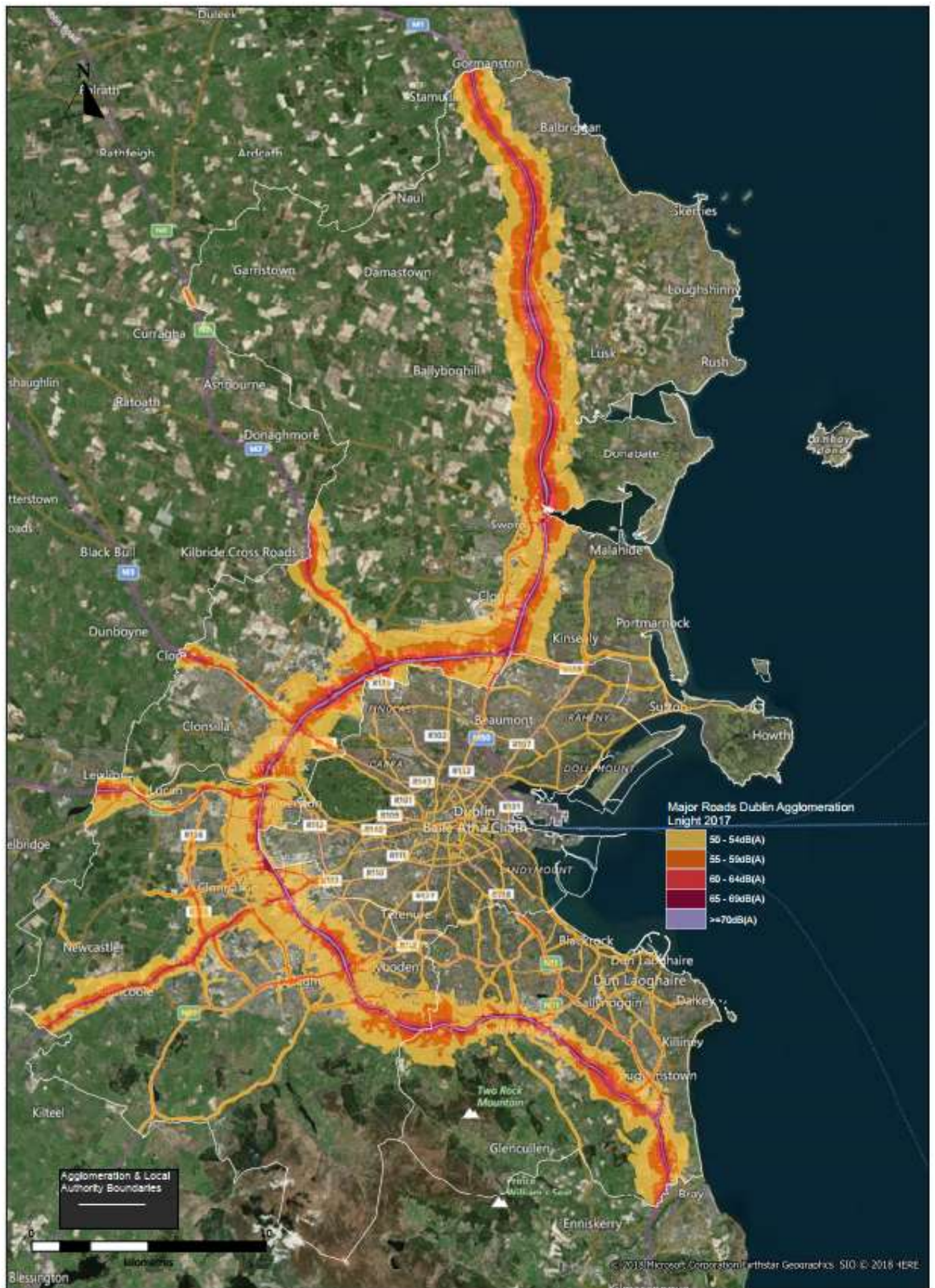
Figure 2: Lnight Noise Level Bands for 2017 for Dublin Agglomeration Roads



Title:-
Strategic Noise Mapping Project 2017.
LDEN dB(A)
Major Roads Dublin Agglomeration

This strategic noise map presents a graphical representation of weighted predicted annual average (Lden) Major Road traffic sound levels in the Dublin Agglomeration. The map has been developed in accordance with S.I. No. 140 /2006 (the Environmental Noise Regulations) and is a representation of the average environmental sound levels over one complete year. This map forms part of a national noise mapping strategy which can be primarily used as a strategic tool for large scale planning or policy matters and is not suitable for local noise assessments.

Figure 3: Lden Noise Level Bands for 2017 for Dublin Agglomeration Major Roads



Title:-
Strategic Noise Mapping Project 2017.
LNight dB(A)
Major Roads Dublin Agglomeration

This strategic noise map presents a graphical representation of weighted predicted annual average LNight Major Road traffic sound levels in the Dublin Agglomeration. The map has been developed in accordance with S.I. No. 140 /2006 (the Environmental Noise Regulations) and is a representation of the average environmental sound levels over one complete year. This map forms part of a national noise mapping strategy which can be primarily used as a strategic tool for large scale planning or policy matters and is not suitable for local noise assessments.

Figure 4: Lnight Noise Level Bands for 2017 for Dublin Agglomeration Major Roads



Figure 8: L_{night} Noise Level Bands for 2016 Assessment Year for Major Railways – Transport Infrastructure Ireland

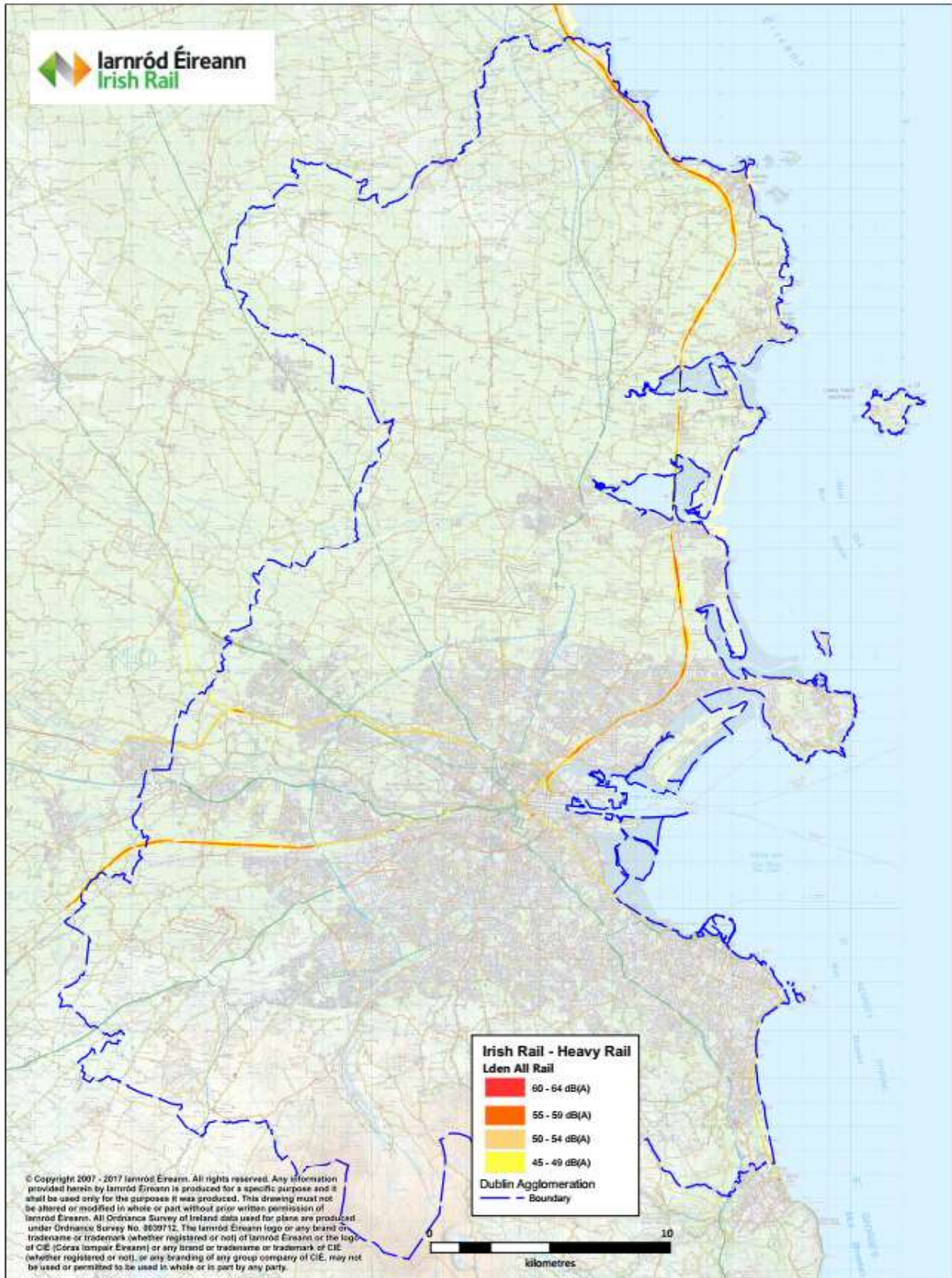


Figure 7: Lden Noise Level Bands for 2016 Assessment Year for Major Railways – Transport Infrastructure Ireland



Lden 2017, Irish Rail - All Heavy Rail, Dublin Agglomeration

Lden is the calculated day-evening-night noise level and represents the noise indicator for overall annoyance. It is calculated over all day-evening-night periods for one year. The day period is from 07:00 to 19:00, the evening period is from 19:00 to 23:00 and the night period is from 23:00 to 07:00. The Lden indicator contains extra weighting for the evening and night periods as noise is generally more annoying during these periods. The map above indicates the Lden decibel (dB) bands reported for Strategic Noise Mapping 2017



Lnight 2017, Irish Rail - All Heavy Rail, Dublin Agglomeration

Lnight is the night time noise indicator and is used in the assessment of sleep disturbance. It is the average noise level calculated over all night periods, 23:00 to 07:00, for one year. The map above indicates the Lnight decibel (dB) bands reported for Strategic Noise Mapping 2017.