

**Dublin Agglomeration**  
**Draft Environmental Noise Action Plan**  
**December 2013 – November 2018**  
**Executive Summary**



**Public Consultation Document**  
**May 2013**



## Executive Summary

This Dublin Agglomeration Noise Action Plan 2013-2018 aimed at managing Environmental Noise has been prepared jointly by the four Local Authorities in the Dublin Agglomeration. The key objective 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, rail and aircraft. This will be achieved by taking a strategic approach to managing environmental noise and undertaking a balanced approach in the context of sustainable development.

## Description of the Agglomeration

The Dublin Agglomeration covers all of the Dublin City and County area other than that excluded than those areas excluded in the First Schedule of the Air Pollution Act 1987 (Marketing, Sale and Distribution of Fuels) Regulations 1998 (S.I. No. 118 of 1998). The character of use of land\property within the 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 developments. The following map shows the boundary of each Local Authority in the Dublin Agglomeration.



**Map of the Dublin Agglomeration**

### Road lengths in the Agglomeration

As part of the Noise Action Plan 2013-2018, about 3800Km of road was inputted into the noise model with the length of road in each Local Authority shown in the following table.

<b>Road lengths in the Dublin Agglomeration noise model</b>	
Roads (km)	Total
Dublin City Council	1280
Fingal County Council	919
South Dublin County Council	846
Dún Laoghaire-Rathdown Co. Co	708
<b>Total</b>	<b>3753</b>

### Rail lengths in the Agglomeration

The Dublin Agglomeration contains approximately 150 Kilometres of rail, including Luas, with all being designated as Major Rail. There are two Luas tram lines in the Dublin Agglomeration as follows:

- The Red Line is 20.9km in length and has 32 Stops and runs from Tallaght in South Dublin County Council to The Point in Dublin City Council and from Saggart to Connolly Station
- The Green Line is 16.5km in length and has 22 Stops running from Brides Glen through Sandyford in Dún Laoghaire-Rathdown County Council to St. Stephen's Green in Dublin City Council.

### Airports in the Agglomeration

Dublin Airport is the main airport located in the area and is situated in the Fingal County Council administrative area. Weston Executive Airport also falls within the Dublin Agglomeration but as the noise levels were found to be low, it was not considered in the current Noise Action Plan.

### 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. This Directive sets out a process for managing environmental noise in a consistent manner across the EU and the Noise Regulations set out the approach to meeting the requirements of the Directive in Ireland. Responsibility for undertaking the phases of work required under the Regulations 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 250,000 persons in 2007, and those with a population of more than 100,000 persons in 2012 and subsequent rounds. Dublin City Council, on behalf of the Dublin Agglomeration Local Authorities, submitted the required Noise Mapping Report for the area to the EPA in June 2012

The purpose and scope of the regulations are set out in the statutory instrument S.I No. 140 of 2006, which transposes EU Directive 2002/49/EC relating to the assessment and management of environmental noise. The Regulations set out to provide an implementation in Ireland of a common approach within the European Community intended to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise

The Regulations provide for strategic noise maps and action plans to be made available to the general public. They also provide for public consultation to take place on the proposed action plans and for the results of public consultation to be taken into account in finalising action plans or in the review of action plans.

### **The Authority Responsible**

The Regulations designate the Environmental Protection Agency as the national authority for the purposes of the Regulations. 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 action plans. They have been designated as the action planning authorities for the following categories within their areas:

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

Before producing and implementing the Noise Action Plan, the Local Authorities must consult with the Environmental Protection Agency and the noise-mapping body for the noise-map involved. Local Authorities are also responsible for consulting with members of the public and are required under the Directive to demonstrate how they have done so.

### **Noise Limit Values**

There are no specific noise limit values currently in place within each Local Authority except for those in the national guidelines. In general, Local Authorities can only specify advisory levels. In line with the previous noise action plan, the following are the proposed thresholds for desirable low and undesirable high sound levels in the Noise Action Plan 2013-2018

#### Desirable Low Sound levels

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

#### Undesirable High Sound levels

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

Also, it is proposed to use the following absolute values as one criterion for defining a Quiet Area.

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

A second criterion to cover what are perceived as Relatively Quiet Areas is also proposed. 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.

During the implementation of the noise action plan, it is proposed to identify locations that have noise levels below these criteria and review their use. If appropriate or necessary, locations could be identified as quiet areas where the existing noise levels are to be preserved or reduced if possible.

## Noise mapping results

Sections 5 of the Draft Noise Action Plan outlines the process involved in the Noise Map preparation and the method for calculating sound. It also provides details of population noise exposure levels arising from all road traffic, rail (light and heavy rail) and Dublin Airport in each relevant Local Authority area.

Tables 5.1 provides details of the population exposures to sound from traffic for all the roads in the Dublin Agglomeration and Table 5.2 provides details of the population exposures to sound from all rail in the Dublin Agglomeration.

<b>Table 5.1 Noise exposure levels from all roads – Dublin Agglomeration 2012</b>						
<b>Decibels dB(A)</b>	<b>Lden number people Exposed</b>	<b>Lden % people Exposed</b>	<b>Lday number people Exposed</b>	<b>Lday % people Exposed</b>	<b>Lnight number people Exposed</b>	<b>Lnight % people Exposed</b>
<50	85600	7%	152500	12%	807900	63%
50-54	475300	37%	621000	49%	182900	14%
55-59	327300	26%	214300	17%	150800	12%
60-64	150400	12%	116600	9%	94500	7%
65-69	131200	10%	121800	10%	33100	3%
70-74	90700	7%	44600	4%	3400	0%
>75	12600	1%	2200	0%	300	0%

<b>Table 5.2 Noise exposure levels from all rail – Dublin Agglomeration 2012</b>						
<b>Decibels dB(A)</b>	<b>Lden number people Exposed</b>	<b>Lden % people Exposed</b>	<b>Lday number people Exposed</b>	<b>Lday % people Exposed</b>	<b>Lnight number people Exposed</b>	<b>Lnight % people Exposed</b>
<50	1227000	96%	1237400	97%	1259600	99%
50-54	21600	2%	17300	1%	9200	1%
55-59	13700	1%	11400	1%	3700	0%
60-64	7700	1%	5600	0%	500	0%
65-69	2800	0%	1300	0%	100	0%
70-74	300	0%	200	0%	0	0%
>75	100	0%	0	0%	0	0%

The following can be observed from Table 5.1 and Table 5.2

- Of the of 1,273,069 people living in the Dublin Area, 56% of people are exposed to noise levels greater than 55 dB(A) Lden, reducing from 94% in 2008.
- The number of people exposed to the desirable night time noise levels less than 50 dB(A) has increased from 3% in 2008 to 63% in 2012.
- The number of people exposed to the undesirable night time levels above 55 dB(A) has reduced from 94% in 2008 to 22% in 2012 with less than 1% currently exposed to night time sound levels above 70 dB(A), i.e. 3,700 people.
- 39% of the population are exposed to sound levels from traffic sources above the desirable day time level of 55dB (A) with 4% exposed to day time sound levels above 70 dB(A), i.e. 46,800 people.
- The numbers and percentage of the population that are exposed to sound levels from LUAS or Irish Rail sources is very low when compared to noise levels from road traffic.
- Approximately 12,600 of people are exposed to average Lden sound levels over 75 dB, reducing from 24,000 in 2008.

Noise exposure from railways and airports are considerably lower that that from roads.

### **Noise reduction measure in place**

The following main measures were introduced as part of the Noise Action Plan 2008-2013 with the full details shown in Section 4.

- A permanent ambient sound monitoring network was established in the Dublin Agglomeration with units set up in each of the Local Authorities. The units are designed to operate continuously, recording sound levels and statistical information to allow analysis of trends in noise emissions with 256units currently in operation around he Dublin Agglomeration
- A number of transportation polices and projects where introduced, in line with 'Smarter Travel, A Sustainable Travel Future', the National Transport Policy 2009 – 2020, that positively contributed to a reduction in sound levels by reducing traffic density, reducing traffic speeds and reducing the volumes of Good vehicles in towns and in Dublin city centre
- Transportation, environment and development control policies and objectives that aim to reduce the negative and harmful effects due to exposure to environmental noise are contained in each of the Development Plans.

- As part of the Environment Impact statement for the major rail projects carried out, sound impact assessment and apply mitigation measures
- In 2008, Dublin Airport Stakeholders Forum set up an Environmental Working Group that works closely with Fingal County Council to provide an effective forum for the discussion of all matters concerning the development and operation of the airport that have an impact on users, customers of the airport and on people living and working in the surrounding communities

As part of the action plan, a noise decision support matrix was used to assess the number of properties exposed to high sound levels in each Local Authority area. Noise sensitive locations were also defined for each Local Authority area.

### **Noise Implementation Plan and long term strategy**

Section 7 outlines the key principles on deciding the actions to be included in the final plan and provides a list of possible noise mitigation measures. In addition, details of a cost benefits analysis, relating to noise mitigation measures, are outlined.

Section 8 outlines the key objective of the Draft Noise Action Plan 2013-2018 and the key actions that will be implemented under the new plan, mainly listed under the following headings:

- Traffic Noise reduction and prevention measures
- Rail reduction and prevention measures
- Planning Process
- Protecting 'Quiet Areas'
- Dublin Airport noise management and monitoring.

In addition, Local noise issues will be dealt with by each Local Authority as required by the Environmental Protection Agency Act 1992 (EPA Act 1992) with details of each local authority policy and approach outlined on their respective websites.

### **Long term strategy**

It is proposed that the Noise Action Plan 2013-2018 will be implemented through a staged process over 5 years, as outlined in the plan, with each local authority within the Dublin Agglomeration endeavouring to follow the time frame set out in implementation of the Action Plan as follows, subject to resources being made available



**First year of Plan (2014):**

- To continue the implementation of the actions in the Environmental Noise Action Plan 2008-2013
- To make available to the public the data from the ambient sound monitoring networks
- To identify from noise maps where priority action is required at a local level.

**Second and Third Year of Plan (2015)**

- To identify Quiet Areas and preparation of submissions for approval by the Minister
- To commence implementation of the actions outlined in Chapter 8 on a prioritised basis, where the resources in each Local Authority permit.
- To review planning guidance regarding noise assessment and control and develop a programme of action to meet any shortfalls.

**Fourth Year of Plan (2017).**

- To commence capture of data for the new noise plans.
- To produce new noise maps for the Dublin Agglomeration in accordance with EPA guidance.

**Fifty Year of Action Plan (2018)**

- To review the impact of the Noise Action Plan 2013-2018 and amend where appropriate to prepare the Noise Plan for 2018 in accordance with EPA guidance.

Monitoring of the Plan will feed into the third round of strategic noise mapping in 2018

**Evaluation, Review and Corrective Action Programmes**

Each Council will review the effectiveness of noise action planning activities on an ongoing basis by regularly reviewing progress made in relation to planned activities. The effectiveness of these measures at combating local environmental noise exposure will also be considered with adjustments made to the schedule if required.

In 2017, the Council will carry out a review of the actions implemented under this action plan. Progress and results will be evaluated using information gathered through local assessment of environmental noise exposure. This will include "before and after" evaluations of any noise mitigation measures. A review of new noise maps will also be carried out, giving an indication of the change in environmental noise levels and the numbers of people exposed.

### **Public Consultation**

Before producing and implementing this Noise Action Plan 2013 - 2018, the Local Authorities must consult with the Environmental Protection Agency, the noise-mapping body for the noise-map involved and other listed Consultee. Local Authorities are also responsible for consulting with members of the public and are required under the Directive to demonstrate how they have done so. This consultation process will form the basis for the final Dublin Noise Action Plan 2013-2018.