



Department
for Environment
Food & Rural Affairs

Draft noise action plan: roads

Environmental Noise (England) Regulations 2006

October 2018



© Crown copyright 2018

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v.3. To view this licence visit www.nationalarchives.gov.uk/doc/open-government-licence/version/3/ or email PSI@nationalarchives.gsi.gov.uk

This publication is available at www.gov.uk/government/publications

Any enquiries regarding this publication should be sent to us at

Noise@defra.gsi.gov.uk

www.gov.uk/defra

Contents

Executive summary	1
Glossary and definition of acronyms, abbreviations and terms.....	2
Part A: General issues.....	3
1. Policy and legal context.....	3
2. Scope of this Action Plan.....	5
3. Implementing this Action Plan.....	6
4. Monitoring and review.....	6
5. Financial information.....	6
Part B: Approach to and options for managing road noise	7
6. Current approach to managing noise.....	7
Part C: Summary of noise mapping results.....	10
7. Summary of the results of the noise mapping, including an evaluation of the estimated number of people exposed to noise from road traffic.....	10
Part D: The Action Plan process.....	12
8. Identification of problems and situations that need to be investigated (Important Areas).....	12
9. Liaison with the relevant local authorities	16
10. Liaison with the public.....	16
11. Implementation and monitoring	16
Part E: Long term strategy	18
12. Long term strategy	18
Part F: Consultation	20
13. Consultation.....	20
Appendix: Glossary of acoustic and technical terms.....	21

Executive summary

This Action Plan has been developed by the Department for Environment, Food and Rural Affairs (Defra) as the Competent Authority for preparing and adopting this Action Plan under the terms of the Environmental Noise (England) Regulations 2006 ('the Regulations'). The Regulations implement the Environmental Noise Directive in England.

The Environmental Noise Directive requires, on a five year cycle:

- The determination, through noise mapping, of exposure to environmental noise from major sources of road, rail and aircraft noise and in urban areas (known as agglomerations).
- Provision of information to the public on environmental noise and its effects.
- Adoption of Action Plans, based upon the noise mapping results, which are designed to manage environmental noise and its effects, including noise reduction if necessary.
- Preservation of environmental noise quality where it is good, particularly in urban areas.

This Action Plan applies to noise from road sources that were covered by the third round of strategic noise mapping undertaken during 2017. It accompanies two additional Action Plans, which are being published at the same time, covering the management of noise within agglomerations and from rail sources. Responsibility for preparing airport Action Plans rests with the relevant airport operators.

In line with the government's policy on noise, this Action Plan aims to promote good health and good quality of life (wellbeing) through the effective management of noise. It is intended that this Action Plan will assist the management of environmental noise in the context of government policy on sustainable development. This means that those authorities responsible for implementing this Action Plan will need to balance any potential action to manage noise with wider environmental, social and economic considerations, including cost effectiveness.

This Action Plan will be relevant to highways authorities, local authorities including those with environmental, transport and planning responsibilities, and interested members of the public.

It has been estimated that the number of people immediately associated with the Important Areas (noise 'hotspots') identified through the process described in this Action Plan for the major roads outside agglomerations is around 57,000. This is expected to correspond to about 380 entirely new Important Areas. The equivalent figures for Important Areas within agglomerations can be found in the Agglomerations Action Plan.

Glossary and definition of acronyms, abbreviations and terms

A glossary of acoustical and technical terms is at **Appendix A**.

Table 1: Glossary and definition of acronyms, abbreviations and terms

Term	Definition
Agglomeration	An area having a population in excess of 100,000 persons and a population density equal to or greater than 500 people per km ² and which is considered to be urbanised.
Competent Authority	Defra (Department for Environment, Food and Rural Affairs)
HE	Highways England
MRN	Major Road Network
NPSE	Noise Policy Statement for England
Regulations	The Environmental Noise (England) Regulations 2006, as amended
Round 1	The noise mapping which took place in 2007 and the subsequent Action Plans that were adopted in 2010
Round 2	The noise mapping which took place in 2012 and the subsequent Action Plans that were adopted in January 2014.
Round 3	The noise mapping that took place in 2017 and this Action Plan
SRN	Strategic Road Network

Part A: General issues

1. Policy and legal context

- 1.1 This Action Plan has been developed by the Department for Environment, Food and Rural Affairs (Defra) as the Competent Authority for preparing and adopting this Action Plan under the terms of the Environmental Noise (England) Regulations 2006, ('the Regulations'). The Regulations implement the Environmental Noise Directive (2002/49/EC) ('END') in England. Noise is a devolved matter and the Environmental Noise Directive is implemented separately within the Devolved Administrations.
- 1.2 On 23 June 2016, the EU referendum took place and the people of the United Kingdom voted to leave the European Union. Until exit negotiations are concluded, the UK remains a full member of the European Union and all the rights and obligations of EU membership remain in force. During this period the government will continue to negotiate, implement and apply EU legislation. The outcome of these negotiations will determine what arrangements apply in relation to EU legislation in future once the UK has left the EU.
- 1.3 While noise is a natural consequence of a mature and vibrant society, it can have serious implications for human health, quality of life, economic prosperity and the natural environment. The World Health Organisation (WHO) recognises environmental noise as the second largest environmental health risk in Western Europe behind air quality¹. It causes sleep disturbance, annoyance and there is growing evidence that long-term exposure to high levels of environmental noise is associated with illnesses like heart attacks and strokes². Noise, in the context of the Environmental Noise Directive, mainly consists of noise from transport such as road, rail and aviation, and in urban areas (agglomerations).
- 1.4 The government's policy on noise is set out in the Noise Policy Statement for England (NPSE). The Noise Policy Statement for England's vision is to:

"Promote good health and a good quality of life through the effective management of noise within the context of government policy on sustainable development."

Its aims are to

¹ http://www.euro.who.int/_data/assets/pdf_file/0008/136466/e94888.pdf, 2011.

² For summary see: http://www.noiseandhealth.org/article.asp?issn=1463-1741;year=2015;volume=17;issue=75;spage=57;epage=82;aulast=Basner;aid=NoiseHealth_2015_17_75_57_153373.

- avoid significant adverse impacts on health and quality of life;
 - mitigate and minimise adverse impacts on health and quality of life; and
 - where possible, contribute to the improvement of health and quality of life.
- 1.5 The Noise Policy Statement for England provides the policy framework to assist the implementation of the Environmental Noise Directive and the Regulations. Whilst the Noise Policy Statement for England is not legislation and local authorities are not legally bound by it, Defra has an expectation that local authorities will take it into account in relevant situations.
- 1.6 The Environmental Noise Directive seeks to manage the impact of environmental noise through strategic noise mapping and the preparation and implementation of noise Action Plans. In particular the Environmental Noise Directive requires, on a five year cycle:
- The creation of **strategic noise maps** which estimate people’s exposure to environmental noise from road, rail and aviation.
 - Adoption of **action plans** based on the results of noise mapping data, which are designed to manage environmental noise and its effects, including noise reduction if relevant.
 - **Preservation of environmental noise quality** where it is good, particularly in urban areas.
 - **Provision of information to the public** on environmental noise and its effects.
- 1.7 Under the terms of the Environmental Noise Directive, Defra has completed the third round of strategic noise mapping, the results of which underpin this Action Plan.
- 1.8 This Action Plan is designed to address the management of environmental noise from roads. Road transport offers substantial benefits to society in terms of business, movement of goods and employment, leisure activities, and the ability for people to remain independent. However, road noise can have adverse impacts on health, quality of life and the environment, and needs to be carefully managed within the policy framework established by the NPSE.
- 1.9 The Department for Transport recently launched a Consultation on the creation of a Major Road Network (MRN)³. Elements of these roads may be included in this Plan.

³ The Consultation about Major Road Network can be viewed at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/670527/major-road-network-consultation.pdf.

- 1.10 Two complementary Action Plans are being published covering the management of noise within agglomerations and from railway sources⁴.

2. Scope of this Action Plan

- 2.1 This Noise Action Plan is designed to address the management of noise issues and effects from roads (including “Major Roads”⁵) in England under the terms of the Regulations.
- 2.2 This Action Plan covers those roads that were included in the Round 3 noise mapping and supersedes the previous Road Noise Action Plan.
- 2.3 When identifying possible actions, responsible authorities should take account of the principles that already exist in current legislation and guidance.
- 2.4 A glossary of acoustical and technical terms can be found at **Appendix A**.

⁴ The ‘Noise Action Plan: Railways’ and ‘Noise Action Plan: Agglomerations’ can be viewed at www.gov.uk/defra.

⁵ A major road is defined in the Environmental Noise (England) Regulations, Regulation 3(8) as a road which the Secretary of State regards as a trunk road, or a motorway that is not a trunk road, or a principal or classified road that has more than three million vehicle passages a year - and he considers to be regional, national or international importance. Any references to a major road should not be confused with the Major Road Network (MRN) which is a term DfT used for creating a network of England’s most important routes which complement our motorways and strategic trunk roads.

3. Implementing this Action Plan

- 3.1 The responsibility for the management of noise from road traffic sources lies with the highway authorities. The implementation of this Action Plan forms part of their existing responsibilities in this area.

4. Monitoring and review

- 4.1 Defra will monitor the progress of this Action Plan through liaison with the authorities responsible for implementation. The Regulations require that this Action Plan be reviewed at least once every five years.

5. Financial information

- 5.1 As this Action Plan describes a framework for the management of noise the process does not impose any additional material costs on the highway authorities or local authorities. Instead it enables the relevant highway authorities to target action to the worst affected areas and to develop proposals for assisting the management of noise as appropriate including taking account of budgetary and other considerations. Any specific action identified will be based on local decisions - taking into account costs and benefits.

Part B: Approach to and options for managing road noise

6. Current approach to managing noise

- 6.1 The management of the roads covered by this Action Plan rests with the relevant highway authority through the implementation of the Highways Act 1980⁶ (as amended). This includes Highways England which is responsible for England's strategic road network⁷. The remaining roads are the responsibility of local highway authorities either as part of a County Council, a Unitary Authority or Transport for London.
- 6.2 There are several possible approaches to control the impact of noise from road traffic, including:
- control of noise at source (including vehicle emission limit values and low noise road surfaces);
 - planning controls – through the operation of the national and local transport and land use planning system;
 - installation of mitigation on the road infrastructure (surfacing, noise barriers
 - compensation and insulation - in the case of new or improved highways;
 - installation of mitigation at receptors (insulation).
- 6.3 For any particular location, there is a wide range of measures that can be implemented to provide improved management of the road traffic noise and/or noise reduction. For all these potential measures, the overall cost and benefit needs to be considered. Account should be taken of any accompanying benefits that might occur, for example improvements in air quality.
- 6.4 Some of the possible measures are described in more detail below.

⁶ As defined in the Highways Act 1980 - <https://www.gov.uk/government/publications/roads-managed-by-highways-england>.

⁷ The SRN in England is around 4,300 miles long and is made up of motorways and trunk roads, the most significant 'A' roads. All other roads in England are managed by local and regional authorities. The Highways England network represents around two per cent of all roads in England by length, but it carries a third of all traffic by mileage. Two thirds of all heavy goods vehicle mileage in England is undertaken on the SRN.

Source levels

- 6.5 Over recent years, the use of low noise road surfaces has become increasingly widespread, particularly for new roads and when road surfaces need replacing. Important characteristics of road surfaces include their roughness, porosity and elasticity. These factors can be affected by the amount and type of binder used (e.g. asphalt or concrete), the mix (such as the shape and type of stones used in the mineral aggregate) and the surface treatment. The most effective road surfaces for reducing traffic noise pollution are porous and thin-layer asphalt. Research has shown that thin layer porous asphalt can reduce noise from passenger vehicles by between 3-4dB compared to non-porous surfaces.
- 6.6 Other techniques used include traffic management schemes, such as the re-routing of traffic away from sensitive receptors, restrictions on the type of traffic (e.g. heavy vehicles) that can use certain roads at certain times of day, the design and building of new roads to provide an alternative route away from noise sensitive premises, and the introduction of speed restrictions directly or as a consequence of congestion management schemes.
- 6.7 There is also a range of measures in place to control vehicle noise at source. Noise from individual vehicles is controlled under mandatory EU noise emission standards which apply to all new road vehicles and have been implemented in regulations made under the Road Traffic Acts. In addition, once in service, silencers and exhaust systems are required to be maintained in good condition and not altered so as to increase noise. An EU regulation that took effect from 2016 will progressively reduce the sound level limits of new vehicles over a period of eight years, including a 2 dB reduction every four years for conventional cars.
- 6.8 There are also specific controls in place relating to noise made by the contact of tyres with road surfaces. Since 2011 all tyres placed on the market have had to meet noise limits, and further reductions in tyre noise limits came into effect from November 2016 under new legislation⁸. There is also a requirement for tyres to be labelled to make clear their relative noise emission, while future potential development of quieter tyres could further reduce noise emissions. The benefits of low noise tyres are further increased when used on noise-reducing road surfaces.

Noise barriers or other similar methods

- 6.9 There is widespread use of barriers to limit the noise from roads. These include barriers alongside the roads themselves, landscaping and the built environment (with buildings being positioned to protect others from the source of noise). Noise barriers can reduce noise levels by up to 10 dB (A).

⁸ Directive 2001/43/EC relating to tyres for motor vehicles and their trailers and to their fitting and Regulation (EC) No 661/2009 on the general safety of motor vehicles and their components.

Façade Insulation

6.10 Effective noise management in the interior of a building can often be achieved through the careful design of sound insulation. This can either occur at the design stage of a new structure or by improving the insulation of an existing building. The sound insulation of closed windows or walls can be very effective and can achieve reductions in the order of 30dB, although this is not a preferred option because there are no secondary beneficiaries and outdoor areas remain unaffected by this measure. Special sound reducing windows can reduce emissions by up to 40dB⁹ although this does depend on the characteristics of the building and is only effective when the windows are closed. Where necessary, alternative ventilation is provided so that windows can be kept closed but with ventilation still available. In new buildings and where changes are made to existing ones it is important Approved Documents E and F of the Building Regulations are followed to ensure noise and vibration sources are mitigated, so far as is reasonably practical¹⁰.

⁹ “EC Science for Environment Policy – Future Brief: Noise abatement approaches” (April 2017)
http://ec.europa.eu/environment/integration/research/newsalert/pdf/noise_abatement_approaches_FB17_en.pdf.

¹⁰ The complete list of all the Approved Documents of the Building Regulations 2010 can be found at
<https://www.gov.uk/government/collections/approved-documents>

Part C: Summary of noise mapping results

7. Summary of the results of the noise mapping, including an evaluation of the estimated number of people exposed to noise from road traffic

7.1 The Regulations require that noise level information be determined in terms of several noise indicators¹¹ (see also **Appendix A**). These are:

- L_{den}
- L_{day}
- $L_{evening}$
- L_{night}
- $L_{A10,18h}$
- $L_{Aeq,16h}$

7.2 Of these indicators, L_{den} and L_{night} are specified by the Environmental Noise Directive and $L_{A10,18h}$ is currently used for identification of important areas (see section 8). For the major roads covered by the Round 3 mapping, the estimated number of people¹² (rounded to the nearest thousand) located outside agglomerations and falling within various noise level bands¹³ from the strategic mapping of **noise from those major roads alone** are shown in Tables 2 – 4 below.

¹¹ The Environmental Noise (England) Regulations 2006 (SI 2006/2238) Regulation 4(2) and Schedule 3(2).

¹² The number of people has been determined by assigning population information from the 2015 mid census updates to residential building locations and has been rounded to the nearest 1,000.

¹³ The noise levels throughout this document refer to free-field levels at a height of 4m at the facades of dwellings.

Table 2: Estimated number of people above various noise levels due to noise from major roads outside agglomerations, L_{den}

Noise Level (L_{den}) (dB)	Number of People
≥55	3,466,000
≥60	1,625,000
≥65	886,000
≥70	334,000
≥75	29,000

Table 3: Estimated number of people above various noise levels due to noise from major roads outside agglomerations, L_{night}

Noise Level (L_{night}) (dB)	Number of People
≥50	2,201,000
≥55	1,067,000
≥60	404,000
≥65	43,000
≥70	2,000

Table 4: Estimated number of people above various noise levels due to noise from major roads outside agglomerations, $L_{A10,18h}$

Noise Level ($L_{A10,18h}$) (dB)	Number of People
≥55	2,629,000
≥60	1,453,000
≥65	904,000

≥70	427,000
≥75	72,000

7.3 For results for roads inside agglomerations, please see the Noise Action Plan: Agglomerations (Urban Areas).

Part D: The Action Plan process

8. Identification of problems and situations that need to be investigated (Important Areas)

8.1 The Regulations require that Action Plans should “*apply in particular to the most important areas as established by the strategic noise maps*”¹⁴.

8.2 This Action Plan continues to follow the principles used for identifying Important Areas in Rounds 1 and 2.

How important areas are identified

8.3 Important Areas with respect to road noise will continue to be where the 1% of the population¹⁵ that are affected by the highest noise levels from major roads are located according to the results of the strategic noise mapping¹⁶. This approach has been taken because the population at these locations is likely to be at the greatest risk of experiencing a significant adverse impact to health and quality of life as a result of their exposure to road traffic noise.

8.4 For roads in agglomerations, the Important Areas will be where the top 1% of the population¹⁷ that are affected by the highest noise levels are located according to

¹⁴ The Environmental Noise (England) Regulations (SI 2006/2238) Regulation 15 (1)(e)

¹⁵ For major roads the total population is the number of people within the 50 dB LA_{10,18h} contour outside agglomerations according to the results of the strategic noise mapping and the 2015 mid census updates.

¹⁶ At some locations, there may be an opportunity to investigate beyond the top 1% of the population but there is no requirement to investigate those dwellings where the LA_{10,18h} is below 65 dB according to the results of the strategic noise mapping.

¹⁷ The total population is the number of people in the agglomeration within the 50 dB LA_{10,18h} contour from those roads in the agglomeration that were mapped according to the 2011 census. This is slightly different from the approach used in Round 1 where the total population was the total population in the agglomeration. This adjustment has been made to improve the consistency of the identification of Important Areas across the agglomerations.

the results of the strategic noise mapping¹⁸. This approach has been taken because the population at these locations is likely to be at the greatest risk of experiencing a significant adverse impact to health and quality of life as a result of their exposure to road traffic noise.

- 8.5 The calculation method used for generating the strategic noise maps, produces results in terms of the $LA_{10,18h}$ noise indicator¹⁹. These results were adapted to produce the other noise indicators shown in section 7 above²⁰). For consistency Defra has continued to use the $LA_{10,18h}$ indicator as the basis for identifying Important Areas to be investigated for potential action.
- 8.6 At the time the previous Round 2 Action Plan was published, a dedicated Noise Action Plan Support Tool (NAPST) was used to facilitate communication on Important Areas between Defra and the relevant noise making and noise receiving authority(s). Since then, as part of Defra's Open Data initiative, the datasets identifying the Important Areas were made available online²¹. This made the Noise Action Plan Support Tool largely redundant and it was closed in March 2016.
- 8.7 For Round 3, Defra will once again publish an online dataset showing the location of Important Areas and draw it to the attention of the relevant highway authorities and relevant local authorities (in particular those departments with environmental health responsibilities). This dataset will be published alongside publication of the final version of this Action Plan and will enable the relevant authorities to identify any noise management measures that may be required through the process described in the following sections.
- 8.8 Given the strategic nature of the noise mapping, there may be situations where the relevant highway authority considers that an additional location, not identified through this process, should be added to the list of Important Areas. The action planning process allows highway authorities to identify such locations as Important Areas.

¹⁸ In some agglomerations, there may be an opportunity to investigate beyond the top 1% of the population but there is no requirement to investigate those dwellings where the $LA_{10,18h}$ is below 65 dB according to the results of the strategic noise mapping.

¹⁹ Calculation of Road Traffic Noise, 1988 HMSO ISBN 0 11 550847 3.

²⁰ The Environmental Noise (England) Regulations (SI 2006/2238) Schedule 2(2).

²¹ <https://www.gov.uk/government/publications/open-data-strategic-noise-mapping>.

Roles and responsibilities

- 8.9 As with previous Rounds, the relevant highway authorities will be responsible for examining Important Areas and forming a view about what measures, if any, might be taken in order to assist with the implementation of the government's policy on noise. If it is found that identified locations are affected by noise from sources that are the responsibility of more than one highway authority, the relevant highway authorities will liaise, as appropriate, so that any action identified is the most appropriate.
- 8.10 If a certain length of highway is associated with several Important Areas, the relevant highway authority should consider measures that could address the noise issues at all the locations concurrently. This might include, for example, the development of a highway scheme to provide an alternative route.
- 8.11 The highway authority should also take account of any existing plans (e.g. any local transport plans or land-use plans) or any specific noise mitigation schemes that are already in preparation that may affect the Important Areas.
- 8.12 For each Important Area, the highway authority will identify proposed actions that will meet the vision and aims set out in the government's policy on noise, unless they are satisfied that no further action can or needs to be taken in order to meet this objective.
- 8.13 In forming their view about possible action, the relevant highway authority should take account of any benefit that might also be achieved for any other noise sensitive premises either in the vicinity of the Important Area being investigated or elsewhere. Consideration should also be given to integrating noise management actions at an Important Area with the concurrent implementation of other environmental or related initiatives for example in managing air quality, or protecting any formally identified quiet areas.
- 8.14 Any Important Area identified through the Round 1 and 2 action planning process that has either not yet been investigated, or has been investigated with an outcome identifying future mitigation work, will remain an Important Area regardless of whether they meet the Round 3 screening criteria.

Outcomes and actions

- 8.15 It is expected that the process set out above will result in six possible outcomes and actions for each Important Area:

A: It is possible to be able to implement an action and there are financial resources immediately available to do so.

Action: If it is clear that the proposed action will provide the expected benefit, then the highway authority will determine a timetable for

implementation. Outcome A also covers work that may have started before the Round 3 mapping was carried out but not finished at the time of the mapping.

B: It is possible to be able to implement an action but there are no immediately available financial resources to do so.

Action: The highway authority will make arrangements to secure financial resources to carry out this work in the future. This might be achieved by either:

- securing new resources for this work; or
- re-prioritising existing budgets to enable the funds for the action to become available

Once the budget has been secured, the highway authority will determine a timetable for implementation.

C: It is not possible to implement any action because there is no scope for doing so or there is some overriding technical issue that prevents implementation.

Action: The highway authority will inform the relevant local authority that this is the case, appropriately justified.

D: It is not possible to implement any action because there would be large adverse non-acoustics effects that could not be accommodated by the proposed measure.

Action: The highway authority will inform the relevant local authority that this is the case, appropriately justified.

E: Nothing further needs to be done as the noise level at each dwelling in the Important Area is below 65 dB(A), $L_{A10,18h}$, ignoring the effect of reflection from the facade of the relevant dwelling.

Action: The highway authority will demonstrate to the relevant local authority that this is the case.

A/B: Both Outcomes A and B apply.

9. Liaison with the relevant local authorities

- 9.1 The relevant highway authority will liaise with the relevant local authorities as appropriate about progress in addressing Important Areas and the outcomes achieved. This liaison should cover information about the proposed schedule of investigation, and implementation of possible actions.
- 9.2 Noise mapping is strategic and will not always identify all locations that could be considered as Important Areas. The action planning process therefore allows the relevant local authority to identify separately locations that are not currently identified as Important Areas for further investigation and possible noise management actions. The local authority can request that consideration be given by the relevant highway authority to including them in the action planning schedule.
- 9.3 One of the aims of the Action Plan for Agglomerations is to protect formally identified quiet areas in agglomerations. In considering measures to address Important Areas, highway authorities should take account of the need to protect any such quiet areas, or any other spaces valued for their tranquillity.

10. Liaison with the public

- 10.1 The relevant highway authority should, at the appropriate time, liaise with those members of the public who are likely to be most affected by any proposed new noise management proposal.

11. Implementation and monitoring

- 11.1 The Regulations²² state that any actions identified during this process are regarded as forming part of the policy of the relevant public authority, and hence need to be implemented as indicated.
- 11.2 Defra will monitor the progress of this Action Plan through liaison with the relevant authorities.

Implementation of Round 2 Noise Action Plans

- 11.3 The Important Areas associated with major roads outside agglomerations identified during the Round 2 noise action planning process were located throughout

²² The Environmental Noise (England) Regulations (SI 2006/2238), Regulation 21.

England. They covered about 150 different highway authorities with approximately 51,000 estimated people directly affected at the time.

- 11.4 In late 2017, Defra invited all highway authorities who had responsibility for a Round 2 Important Area to provide an update on what actions had been undertaken, in accordance with the criteria set out in the “Outcomes and Actions” section above (which equates to paragraph 10.10 of the Round 2 Road Noise Action Plan). The resulting information will be used to produce an updated data-set of Round 2 Important Areas which has been colour coded according to which criteria have been met. This dataset will be published alongside the final version of this Action Plan.
- 11.5 The government’s first Road Investment Strategy (RIS1), launched in 2015, set out a planned vision for the Strategic Road Network over the period from 2015 – 2020. Highways England is on track to meet its KPI to mitigate 1,150 Important Areas by 2020. The early part of the five year period was used for planning and design of mitigation measures, with the majority of delivery planned for the second half of the period. As part of that delivery phase Highways England have mitigated 448 existing noise Important Areas up to March 2018.

Implementation of Round 3 Noise Action Plans

- 11.6 It has been estimated that the number of people immediately associated with the Important Areas identified through Round 3 mapping for the major roads outside agglomerations is around 57,000. This is expected to correspond to about 380 entirely new Important Areas. The equivalent figures for Important Areas within agglomerations can be found in the Agglomerations Action Plan.
- 11.7 Supporting maps indicating the location of the Important Areas will be published on the GOV.UK website alongside the final version of this Action Plan.

Part E: Long term strategy

12. Long term strategy

- 12.1 Previous Noise Action Plans have set out the long term strategy regarding the management of road noise. This section provides an update on progress and information on future policy development and actions.
- 12.2 In January 2018 the government published “A Green Future: Our 25 Year Plan to Improve the Environment” in support of its vision of being the first generation to leave the environment in a better state than we found it²³. The Plan provides a framework for environmental improvement over the next 25 years and is a living document which will be regularly refreshed and updated with additional policies.
- 12.3 The 25 Year Environment Plan makes clear that noise needs to be managed effectively. In this context the government has begun engaging with stakeholders on long-term priorities for noise management in England and options for addressing them. The opportunities presented by EU exit will be a key part of these considerations going forward. The government will work closely with stakeholders to ensure that our future approach to managing environmental noise in England best addresses the country’s needs.
- 12.4 On 23 June 2016, the EU referendum took place and the people of the United Kingdom voted to leave the European Union. Until exit negotiations are concluded, the UK remains a full member of the European Union and all the rights and obligations of EU membership remain in force. During this period the government will continue to negotiate, implement and apply EU legislation. The outcome of these negotiations will determine what arrangements apply in relation to EU legislation in future once the UK has left the EU.
- 12.5 The UK is in the process of transposing Directive 2015/996/EC into national legislation²⁴. This new noise assessment methodology is mandatory for the next round of noise mapping which is due to commence in 2020. The Directive will establish a common method for assessing environmental noise across Europe but other requirements of the Directive will remain unchanged.
- 12.6 Defra will continue working with the BSI Committee on Transport Noise considering the development of a revised UK method for the calculation of noise from roads and

²³ <https://www.gov.uk/government/publications/25-year-environment-plan>.

²⁴ We expect this process to be completed by 31 December 2018.

railways, taking into account research and developments in this area. An initiative under way through BSI EH 1/2²⁵ is considering the potential development of a new Calculation of Road and Railway Noise (CRRN) standard to supersede current national methods²⁶.

- 12.7 Defra has worked with other bodies such as DfT, Highways England and other highway authorities to maintain a clear framework of responsibility so that noise from road traffic is managed in the context of the government's policy on noise in a way that is clearly understood by the public. Defra will continue to implement this framework including through:
- the provision and dissemination of the results of the Round 3 mapping; and
 - monitoring the implementation of this Action Plan.
- 12.8 Defra continues to engage with colleagues in other government departments, with the European Commission and other relevant organisations on initiatives that seek to reduce the noise from road traffic at source. Highways England will continue the work programme it has started under the Road Investment Strategy 1, and expects to pursue further noise mitigation work in the Road Investment Strategy 2 through to 2025.
- 12.9 Similarly the government is supporting the development and deployment of low emission commercial vehicles, technology and refuelling infrastructure. This has potential to lead to improvements in the local noise environment and as well as benefitting air quality.
- 12.10 Defra will continue to liaise with relevant national and local policy making bodies to support effective consideration of noise management issues in policy development.
- 12.11 Defra will continue to engage with the Ministry of Housing, Communities and Local Government on the development of guidance to support the revised National Planning Policy Framework²⁷, which was published on 24 July 2018.
- 12.12 The World Health Organisation is currently finalising new Environmental Noise Guidelines for the European Region. Once published the government will consider carefully the implications of the guidelines for future noise policy and guidance
- 12.13 Defra will continue to develop, agree and disseminate good practice approaches and methodologies through the Interdepartmental Group on Costs and Benefits

²⁵ <https://standardsdevelopment.bsigroup.com/committees/50002168>.

²⁶ Calculation of Road Traffic Noise (Department of Transport, 7th June 1988, HMSO) ISBN 0115508473, known as CRTN and Calculation of Railway Noise (Department of Transport, 13th July 1995, HMSO) ISBN 0115517545, known as CRN.

²⁷ <https://www.gov.uk/government/publications/national-planning-policy-framework--2>.

noise subject group (IGCB (N)) to support the policy appraisal of noise. Further information is available from <https://www.gov.uk/noise-pollution-economic-analysis>

12.14 Defra has worked closely with the Department of Health and Public Health England and will in due course update the Public Health Outcomes Framework Indicators with the results from the Round 3 mapping.

12.15 Defra will keep under review the definition of Important Areas used in this Action Plan.

Part F: Consultation

13. Consultation

13.1 The Environmental Noise Directive requires the competent authority to consult on draft noise action plans. A consultation document has therefore been published : <https://consult.defra.gov.uk/environmental-quality/noise> and the feedback obtained through this process will be taken into account in the development of the final versions of the action plans.

Appendix: Glossary of acoustic and technical terms

Term	Definition
Agglomeration	An area having a population in excess of 100,000 persons and a population density equal to or greater than 500 people per km ² and which is considered to be urbanised
dB(A)	A measure of sound pressure level (“A” weighted) in decibels as indicated by a sound level meter which complies with British Standard BS EN 61672-1:2013 – Electro-acoustics – Sound Level Meters – Part 1 Specifications.
L _{A10,18h}	The noise level exceeded for 10% of the time averaged hourly over the period 0600 – 2400.
L _{Aeq,16h}	The L _{Aeq} over the period 0700 – 2300, local time (for strategic noise mapping this is an annual average)
L _{Aeq,T}	The A-weighted equivalent continuous sound pressure level which is a notional continuous level that, at a given position and over the defined time period, T, contains the same sound energy as the actual fluctuating sound that occurred at the given position over the same time period, T
L _{day}	The L _{Aeq} over the period 0700 – 1900, local time (for strategic noise mapping this is an annual average)
L _{den}	The L _{Aeq} over the period 0000 – 2400, but with the evening values (1900 – 2300) weighted by the addition of 5 dB(A), and the night values (2300 – 0700) weighted by the addition of 10 dB(A).
L _{evening}	The L _{Aeq} over the period 1900 – 2300, local time (for strategic noise mapping this is an annual average)
L _{night}	The L _{Aeq} over the period 2300 – 0700, local time (for strategic noise mapping this is an annual average)