



London

Campaign to Protect Rural England

Traffic noise in London's parks



A REPORT BY CPRE LONDON
MAY 2018

Contents

1. Foreword	p2
2. Summary and recommendations	p3
3. Why research traffic noise in parks?	P5
• Notes on legislation and policy	p8
4. Methodology	p9
5. Findings	p12
6. Solutions to traffic noise in parks	p14
• Permanent traffic re-routing	p14
• Regular temporary street closures	p15
• Noise mitigation measures like natural or man-made barriers	p15
7. 'Good' parks, Green Flags and traffic noise	p18
8. Tables and Graphs	p21
9. References	p30

Graph 1 – 'Good parks' scores compared to 'noisy parks' scores	p18
Table 1 – Main categorisation	p21
Table 2 – Parks severely impacted by noise (by borough, best to worst)	p22
Table 3 – Parks with no noise (by borough, best to worst)	p23
Table 4 – Parks completely impacted by noise (by borough, best to worst)	p24
Table 5 – Parks impacted by particularly loud noise (by borough, best to worst)	p25
Graph 2 – of data in Table 2	p26
Graph 3 – of data in Table 3	p27
Graph 4 – of data in Table 4	p28
Graph 5 – of data in Table 5	p29

1. Foreword

The London Mayor's draft Environment Strategy says: "All Londoners should be able to enjoy the very best parks, trees and wildlife."ⁱ We agree. But our new research shows that many of London's parks, and our enjoyment of them, are marred by traffic noise. Though 44% of the 885 London parks we surveyed are completely free from the sound of traffic, almost a third (29%) are severely impacted by noise from nearby roads.

Noise matters because parks exist to provide the tranquil outdoor green spaces we need for refreshment and relaxation. Councils are required to map 'open space deficiency' and ensure people have access to open green space. But there is no requirement that this should be a *tranquil* open space. In fact, many people's local park is very noisy. If parks are meant to be places we can *relax away from the hustle and bustle of the city* (as the London Mayor says) then we need to do something.

There are many things that can be done to tackle noise in parks: traffic can be removed entirely by re-routing roads; or reduced by only allowing access to residents. Or it can be removed temporarily by closing roads or restricting access at times when parks are most used, like weekends. Where this is not possible, the use of noise barriers or natural features can play a useful role.

Nationally, CPRE has promoted the understanding of tranquillity in a rural context but there is less awareness of its extent and value in the urban environment. There are major benefits for people in terms of health and wellbeing, as well as for wildlife and local environmental quality, but access to tranquillity in the urban environment is increasingly under threat due to growing development pressures and rising noise levels.

CPRE London is therefore working to promote and increase the benefits of green space and the wider public realm within the capital, including promoting tranquillity as an important aspect of environmental quality and public health. Tranquillity is defined as the sense of calm and relaxation felt by people in an outdoor setting, and includes but is not limited to the absence of noise disturbance.

London's mosaic of public open spaces is crucial to all sections of London's communities for all manner of reasons. These spaces provide an unparalleled range of opportunities for example for social cohesion, play and sport, health and well-being, attractive and safe travel routes, nature appreciation, education and heritage. Londoners are being encouraged to use them in ever greater numbers, more often and for longer periods of time, in order to realise these many benefits. Such spaces therefore need to be not only well-maintained and managed, but the factors impacting on their accessibility and attractiveness need to be addressed. Tranquillity is a key consideration and one, as this report reveals, that needs to be given much greater attention.

2. Summary and recommendations

SUMMARY

The research

- Noise maps were created for all the main parks in London, a total of 885, and set out in a separate document for each borough (see www.cprelondon.org.uk/resources/item/2390-noiseinparks)
- Using official, publicly available data, the noise levels were assessed for each park depending on the proportion of the park which was impacted by noise. Each park was categorised accordingly and the data was collated
- A note was also made where parks were completely free from noise; where the whole park was noisy; and where the noise was particularly loud

The findings

- Almost a third – one in three – (29%) of the 885 London parks surveyed are severely impacted by traffic noise (defined as meaning that 50% to 100% of the park is impacted by traffic noise of 55 decibels or above)
- The results were wide-ranged. Sutton has the fewest parks (7%) severely impacted by traffic noise and Enfield has the most (57%)
- South London parks are quieter. All South London Boroughs except one, Lambeth, have a figure below the median for percentage of parks severely impacted by noise (see Table 2 p23)
- Being an Inner or Outer London borough does not mean and having noisier or quieter parks
- Fewer than half (44%) of the London parks surveyed are completely free from traffic noise
- Around one in five (18%) of the parks surveyed are completely noisy i.e. traffic noise of 55 decibels or above can be heard everywhere in the park
- A quarter (25%) of London's parks are impacted by particularly loud noise defined as being where at least one quarter of the park is impacted by noise of 60 decibels or above

Noise in parks matters because:

- People are less likely to use parks when they are noisy, so benefits are lost
- The key amenity benefit of access to tranquillity is lost when parks are noisy
- There is strong correlation between noise and air pollution from traffic, so where people are exposed to noise, they are also exposed to air pollution
- Noise contributes towards a range of physical and mental health problems
- Noise impacts negatively on wildlife
- Where the local park is noisy, local communities will *de facto* be experiencing a deficiency in green space which does not register in assessments

RECOMMENDATIONS

London Boroughs, the Mayor and Transport for London need to work together to

- Permanently remove traffic from roads impacting parks by re-routing traffic; by introducing traffic filtering (e.g. resident access only, or cycle access and emergency vehicle access only) and speed limits; or by pedestrianising streets near to parks, to reduce traffic levels
- Introduce regular, temporary road closures, like Sunday closures of the Mall in St James' Park
- Investigate ways to mitigate noise, for example by the use of noise barriers, noise reducing road surfaces and natural features, including planting hedgerows

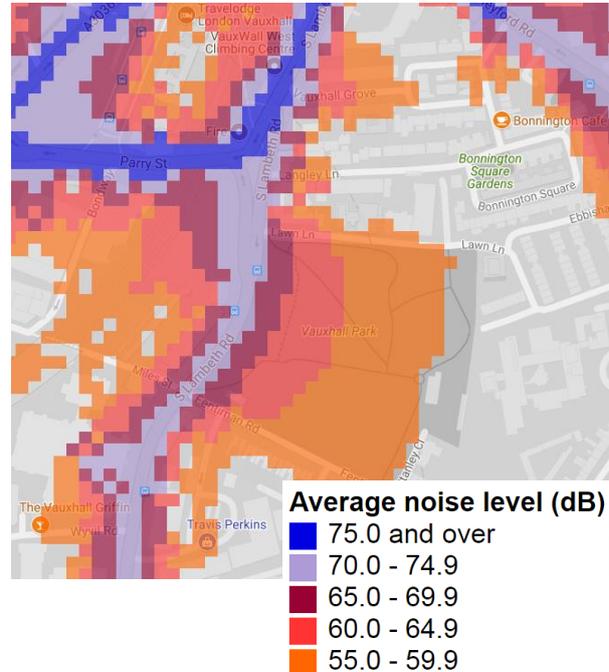
Assessments of deficiency / sufficiency in greenspace should include an assessment of the amenity or quality of the green space, including taking noise levels into account.

London and National Policy should be revised so that assessments of deficiency in greenspace take account of whether the amenity or quality of the space is seriously impacted by noise (and concomitant air) pollution, rather than simply assessing the amount of space and its distance from residents/users.

Green Flag Awards assessments should consider giving more weight to noise reduction and mitigation for parks severely impacted by road noise.

3. Why research traffic noise in parks?

On the face of it, Vauxhall Park is a bit of a haven in an urban jungle. But while the Google Earth image below shows an attractive green space, the noise mapⁱⁱ on the right shows a very different picture – with most of the park experiencing traffic noise of at least 55 decibels (dB) (light orange) and much of the park experiencing higher traffic noise levels (reds and blues).



NOISE MATTERS: PUBLIC BENEFITS LOST

Research shows that people are less likely to use parks that are degraded by noiseⁱⁱⁱ, so the physical and mental health benefits of getting out into our green spaces are being lost where there is excessive noise.

London's parks are intended to be the outdoor places where we can find relative tranquillity, so if parks are noisy, the benefits are significantly reduced. Though tranquillity can be found in many places – indoors and outdoors – the interpretation of the word 'tranquillity' is typically linked to engagement with the natural environment^{iv} and tranquillity in a green outdoor space is qualitatively different to an indoor space. Being able to hear birdsong, water trickling, wind in the leaves, or just nothing at all, is an important part of that experience.

WHERE THERE IS NOISE POLLUTION, THERE IS ALSO AIR POLLUTION

There is strong correlation between noise and air pollution from traffic, so where people are exposed to noise, they are also exposed to air pollution.

A 2008 study reported in the British Medical Journal looked at the correlations between 2-week average roadside concentrations of nitrogen dioxide (NO₂) and nitrogen oxides (NO_x) and short term average noise levels (L_{eq,5min}) for 103 urban sites with varying traffic, environment and infrastructure characteristics. The results showed a positive correlation coefficient for L_{eq,5min} and NO₂ (a Pearson Correlation of 0.53), and for L_{eq,5min} and NO_x, (a Pearson Correlation of 0.64). The

study found that factors influencing the degree of correlation were number of lanes on the closest road, number of cars or trucks during noise sampling and presence of a major intersection.^v

NOISE CONTRIBUTES TO A RANGE OF PHYSICAL AND MENTAL HEALTH PROBLEMS

The impacts that noise can have on health may not be obvious, but they can be significant. As the London Mayor says in his draft Environment Strategy (Oct 2017): “Noise is part of a vibrant city, but excessive noise can damage people’s health. ... There are a number of widespread adverse effects of noise, most common of which are annoyance and sleep disturbance. In cases of prolonged exposure to excessive noise, health impacts include cardiovascular and physiological effects, mental health effects, hearing impairment, reduced performance and communication and learning effects. The World Health Organisation (WHO) recognises environmental noise as the second largest environmental health risk in Western Europe behind air quality.”^{vi}

The Chief Medical Officer’s Annual Report 2017 also dealt with the issues of noise pollution. It states that: “The annual social cost of urban road traffic noise in England is estimated at £7-£10bn. There is good evidence that transport related noise is associated with sleep disturbance, cardiovascular morbidity, cognitive impairment in children and chronic annoyance.”^{vii}

NOISE IMPACTS NEGATIVELY ON WILDLIFE

Sound production and hearing are important for a range of animal behaviours, such as locating food, avoiding predators and finding a mate. For example, bats rely on high frequency sonar to detect highly mobile prey, while great tits, red deer and grasshoppers are among the many species that advertise their dominance and desirability using vocalisations.

In terrestrial habitats, bird diversity and abundance has been shown to decline as a result of chronic noise levels around cities and along roadways. Road noise has also been shown to impair the foraging efficiency of bats and alter vocal communication in frogs and invertebrates.

A number of species have demonstrated adjustments to their vocal behaviour in an attempt to adapt to the cacophony of human noise. Shifts in behaviour could have impacts on their long-term population health particularly in combination with other stressors such as disease and habitat loss.^{viii}

NOISE MEANS LOCAL POPULATIONS ARE *DE FACTO* DEFICIENT IN GREEN SPACE

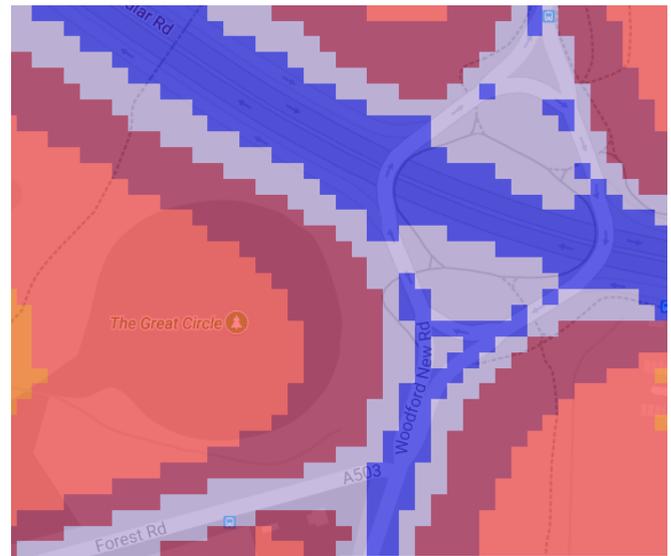
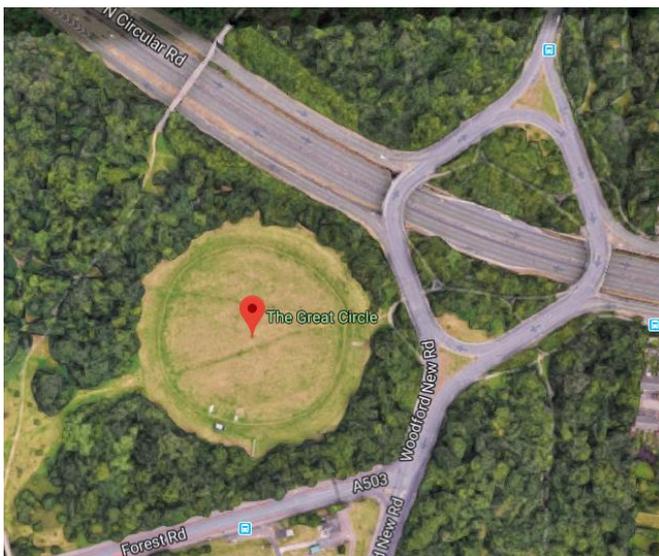
It is often assumed that London’s parks are tranquil ‘breathing’ spaces. According to the London’s Mayor’s recent Environment Strategy^{ix}, “London’s parks, green spaces, private gardens and natural landscapes are the places where Londoners can relax away from the hustle and bustle of the city.”

But many of London’s parks lie next to main roads, causing people’s enjoyment to be significantly marred by the constant rumble of car engines and also pollution from those cars (though air pollution is not the subject of this report).

London’s parks are often in fact not places where people can entirely ‘relax away from the hustle and bustle of the city’.

Public authorities are required to look at whether an area is 'deficient' in open green space but this is simply a measure of how much green space there is and how far it is from local residents. There is no requirement to consider the quality of that space. Moreover, noise from traffic is not considered in qualitative assessments of parks. It therefore seems likely that deficiency in public space is not being effectively assessed.

Areas judged to have sufficient green space may in fact be deficient in intended amenity because parks are severely impacted by traffic. The Mayor reports that almost half of Londoners have poor access to parks.^x What if even those who have good access to parks are faced with noisy, polluted parks?



Average noise level (dB)

- 75.0 and over
- 70.0 - 74.9
- 65.0 - 69.9
- 60.0 - 64.9
- 55.0 - 59.9

Google Earth image of the 'Great Circle' in Waltham Forest which is adjacent to a major intersection (left) and the noise map of the same area showing traffic noise (right).

NOTES ON LEGISLATION AND POLICY

Environmental Noise Directive

[Directive 2002/49/EC](#) relates to the assessment and management of environmental noise and is the main EU instrument to identify noise pollution levels and to trigger the necessary action both at Member State and at EU level. To pursue its stated aims, the Environmental Noise Directive focuses on three action areas:

- the determination of exposure to environmental noise
- ensuring information on environmental noise and its effects is made available to the public
- preventing and reducing environmental noise where necessary and preserving environmental noise quality where it is good.

The Directive applies to noise to which humans are exposed, particularly in built-up areas, in public parks or other quiet areas in an agglomeration, in quiet areas in open country, near schools, hospitals and other noise-sensitive buildings and areas.

In the UK

- There is no legal limit to road noise
- Statutory noise nuisance laws do not apply to noise from traffic

Ministry of Housing, Communities and Local Government, March 2018, Draft National Planning Policy Framework, sets out guidance on noise and new development (paragraph 178)

“Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health and living conditions, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should: a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and quality of life; b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.”

Department for Environment, Food and Rural Affairs, (2010), Noise Policy Statement for England

Noise Policy Vision: Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.

Noise Policy Aims: Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- 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.

4. Methodology

Research was carried out between November 2017 and March 2018, looking at traffic noise in the main public parks and greenspaces in each London borough using official, publicly available data which can be viewed at (www.extrium.co.uk/noiseviewer.html).

'Parks' – The term 'parks' is used throughout to denote *public parks and greenspaces*.

Contiguous green spaces

Where green spaces were contiguous they were judged as one space unless a road clearly divided the land so that it was unlikely someone would cross from one side to the other.

Parks with an entry fee

Most of the parks surveyed are free for the public to use. Occasionally parks were included even though there is a charge to enter and use them, for example where the park is large in size and has high amenity value for Londoners, reflected in the number of visitors, for example Kew Gardens.

The 'main parks' in each borough were surveyed. How were 'main parks' defined?

Large and medium sized parks were included and smaller parks usually excluded except occasionally where small parks were appeared important to the local area. Where available, lists of borough parks were used. Google maps and Google Earth were also used to identify parks. The final list of 'main parks' for each borough was inevitably a judgement call. Please contact CPRE London if there is a park or green space which does not appear in the research but which you feel should have been included.

Number of parks surveyed

In total 885 parks in Greater London were surveyed. There are around 3,000 public parks and greenspaces in London or around an average of 100 per borough. The number of parks surveyed per borough ranged from 14 in Kensington and Chelsea to 44 in Enfield.

Traffic-noise-around-parks image documents were created for each of the London Boroughs

A traffic noise image was created for each park from the publicly available Extrium noise maps. For each London Borough, the noise images for the main parks were placed in one document. These can be viewed at www.cprelondon.org.uk/resources/item/2390-noiseinparks. Examples of how parks were categorised are set out at page 11 below.

Extrium www.extrium.co.uk/noiseviewer: publicly available noise maps

The noise maps on this site show estimated levels of road traffic and railway noise according to the strategic noise mapping within agglomerations and along major transport routes. Noise levels were modelled on a 10m grid at a receptor height of 4m above ground. This data is a product of the strategic noise mapping exercise undertaken by Defra in 2012 (and due to be updated shortly) to meet the requirements of the Environmental Noise Directive (Directive 2002/49/EC) and the Environmental Noise (England) Regulations 2006 (as amended). Results were used for the noise level indicators L_{den} (day-evening-night) – a 24 hour annual average noise level in decibels with weightings applied for the evening and night periods. *As this is based on modelling, it is not possible to reflect exact reality. If there are parks in the report where you feel the reality of the noise in a park is misrepresented by the noise map – please do let us know.*

Why only map noise from traffic (and not rail or aeroplanes)?

Many parks are impacted by noise from trains or aeroplanes but this research focused on noise from traffic from nearby roads. This was not because these were not regarded as important, but rather because the recommendations and actions, and organisations or people which can take action, are quite different.

Categorising parks according to the proportion of the park impacted by traffic noise

All parks were placed in one of the following categories:

- A. 0-25% of the park is impacted by traffic noise of 55+ decibels
- B. 25-50% of the park is impacted by traffic noise of 55+ decibels
- C. 50-75% of the park is impacted by traffic noise of 55+ decibels
- D. 75-100% of the park is impacted by traffic noise of 55+ decibels

Collating the results

Both categories C and D were regarded as serious enough for the park to be 'severely impacted'. To establish the proportion of parks in each borough which were 'severely impacted' by traffic noise, the number of parks in both categories C + D were added together and this number was divided by the total number of parks surveyed for that borough. For example, in Haringey, 27 parks were surveyed, 3 of which fell into Category C and 4 into Category D. Therefore $(3+4)/27 \times 100 = 26\%$ of parks in Haringey are severely impacted by traffic noise.

Additional categories 'free from noise', '100% impacted by noise' and 'particularly loud noise'

While carrying out the survey, researchers noticed that many parks were completely free from noise, many were 100% impacted by noise (i.e. the whole park was impacted by noise), and some seemed particularly noisy with a large proportion of the park affected by higher noise levels of 60+ decibels. A note was therefore also made if a park *also* fell into:

- a sub group of A – parks with zero traffic noise
- a sub group of D – parks 100% impacted by traffic noise (the whole park is noisy)
- a category designed to denote where parks are 'very noisy' defined as where at least 25% of the park is impacted by particularly loud noise defined as 60+ decibels.

London-wide data

The research was also consolidated to create London-wide data.

Where to access the detailed research findings

- Spreadsheets with the collated results and results for each borough
- Documents with noise-map images for the main parks in individual London Boroughs

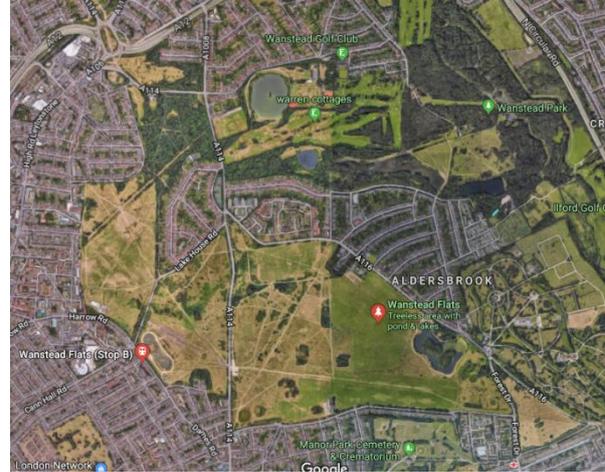
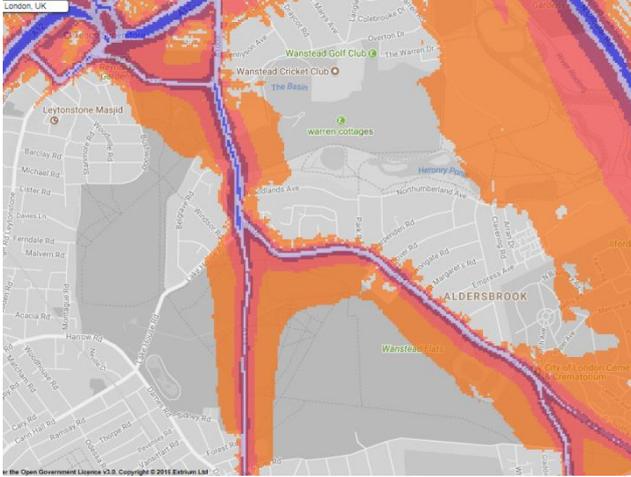
These can be found at www.cprelondon.org.uk/resources/item/2391-noiseinparksreport.

Example survey – Wanstead Flats in Redbridge

The noise map (below left) shows the impact of traffic noise on Wanstead Flats, covering the space to the south, west and north up to the roundabout (Google Earth image on right). This park was placed in Category B (25% to 50% of park impacted by noise of 55+decibels).

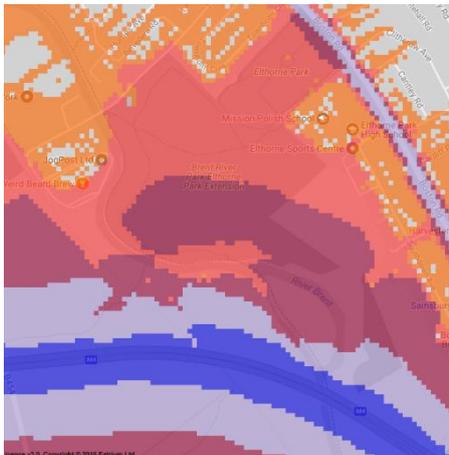
Average noise level (dB)

- 75.0 and over
- 70.0 - 74.9
- 65.0 - 69.9
- 60.0 - 64.9
- 55.0 - 59.9



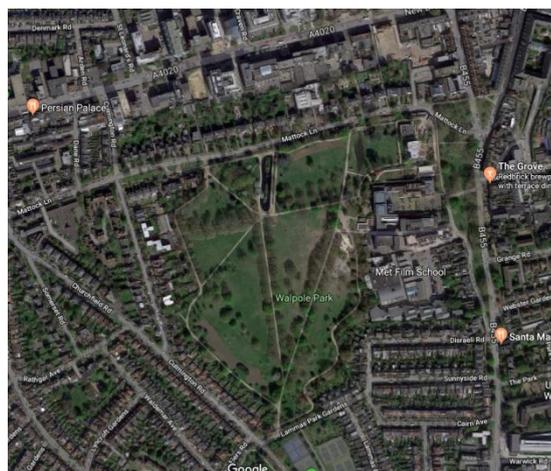
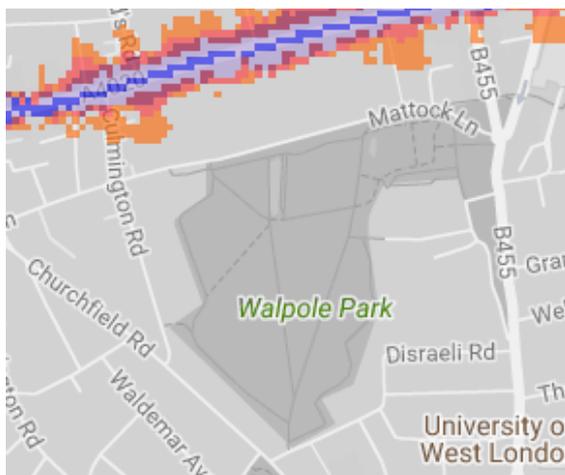
Example – Brent River Park – Elthorne Park Extension

The noise map here shows the impact of major roads like the M4. The entire park is impacted by traffic noise, and more than a quarter of the park is affected by noise of 60+ decibels. This park is Category D and also '100% impacted' and 'particularly loud'.



Example – Walpole Park in Ealing

Here the park is completely free from traffic noise so was placed in Category A and also in the 'free from noise' category.



5. Findings

In total, 885 of London's parks were surveyed. Data tables and graphs are presented in Section 8 below. Additionally, a spreadsheet with the collated results, along with documents showing park noise maps for each London Borough, can be found at www.cprelondon.org.uk/resources/item/2391-noiseinparksreport and www.cprelondon.org.uk/resources/item/2390-noiseinparks.

OVERALL OBSERVATIONS (See Table 1, Section 8)

All parks were placed in one of the following categories:

- A. 0-25% of the park is impacted by traffic noise of 55 decibels or above
- B. 25-50% of the park is impacted by traffic noise of 55 decibels or above
- C. 50-75% of the park is impacted by traffic noise of 55 decibels or above
- D. 75-100% of the park is impacted by traffic noise of 55 decibels or above

- **Categories A and D dominated the results** i.e. the majority of parks (86%) fell into either categories A or D, meaning that most parks are either fairly free from noise or the whole (or nearly the whole) park is impacted by traffic noise. This might reflect how noise barriers work: where there is no barrier, traffic noise carries a long way but where there is a barrier between nearby main roads and the local park e.g. houses, this is likely to mean the park is quiet.
- **The results were wide-ranged.** Sutton has the least (7% of) parks severely impacted by traffic noise and Enfield has the most (57%).
- **South London Boroughs' parks are quieter than North London's.** All South London Boroughs except one, Lambeth, had a figure below the median for percentage of parks severely impacted by noise.
- **Being an Outer or Inner London made no difference.** Being an Inner or Outer London borough does not mean and having noisier or quieter parks.

Parks **SEVERELY IMPACTED** by traffic noise (See Table 2 / Graph 2, Section 8)

- **Almost one in three (29%) of London's parks are severely impacted by traffic noise** defined as meaning that 50% to 100% of the park is impacted by traffic noise of 55+ decibels.
- Enfield, Westminster and Lambeth's parks are worst affected with 57%, 56% and 50% of parks severely impacted.
- Sutton and Richmond's parks are the least impacted by noise with only 7% and 9% of parks severely impacted.

- The Inner and Outer London Boroughs are spread evenly throughout this table indicating there is no correlation between being an Inner or Outer Borough and having noisy or quiet parks.
- The South London boroughs are disproportionately represented in the upper half of this table i.e. they tend to have quieter parks.

QUIET PARKS - Parks completely free from traffic noise (See Table 3 / Graph 3, Section 8)

- **Just under half (44%) of London's parks are completely free from traffic noise**
- Kensington & Chelsea, Lewisham and Merton have the most noise-free parks with over 60% of parks in these boroughs completely free from traffic noise.
- Westminster and Enfield have the fewest with only 16% and 18% of parks completely free from noise respectively.

Noisiest parks where the **WHOLE PARK IS NOISY** (See Table 4 / Graph 4, Section 8)

- **Almost one in five (18%) of the parks surveyed were completely noisy i.e. traffic noise of 55+ decibels can be heard everywhere in the park**
- For the worst affected borough, Enfield, nearly half of its parks (45%) are in this category, in Hammersmith & Fulham 41% and Westminster 40%.
- In Bromley and Lewisham, however, none of their parks are in this category.

Noisiest parks where the park is impacted by **PARTICULARLY LOUD NOISE** (See Table 5 / Graph 5, Section 8)

- **A quarter (25%) of London's parks are impacted by particularly loud noise** (defined as being where at least one quarter of the park is impacted by noise of 60+ decibels)
- For the worst affected boroughs, Westminster, Camden, Lambeth, Redbridge and Hammersmith and Fulham, over 40% of parks are in this category.
- In Richmond, Kensington & Chelsea, Croydon and Merton, however, fewer than 10% of parks are in this category.

6. Solutions to traffic noise in parks

Reducing the number of trips made by car in London overall is a good start and that is what the London Mayor is proposing as part of his Transport Strategy. He proposes other measures like working with TfL to encourage quieter driving styles and provision of low noise road surfaces, all of which is good news for parks impacted by noise. The Mayor is also supporting some pedestrianisation schemes, though the location of these mean they will not impact on parks.

The Mayor also sets out a policy in the draft Environment Strategy: *Policy 9.2.1 Create and maintain quiet and tranquil spaces across London* and notes that “*London’s parks, green spaces, private gardens and natural landscapes are the places where Londoners can relax away from the hustle and bustle of the city*”. The draft strategy does not explicitly mention noise in parks, possibly because no research (that we are aware of) has been done to date on this issue. Nor does the draft strategy propose solutions, although Proposal 9.2.1a says: “***Through the new London Plan the Mayor will consider policies that encourage boroughs to promote more quiet spaces across London.***”

What policies should the Mayor and boroughs consider? Both can promote an ambitious approach to reducing and removing traffic from within and around London’s noisy parks. They can also promote the introduction of natural or other noise barriers.

Permanently remove or reduce traffic

This can be done by re-routing traffic to different roads. This category would also include pedestrianisation schemes where all traffic is completely re-routed. Traffic can also be permanently removed or reduced by introducing ‘filtering’ which is commonly used to reduce ‘rat-running’ from backstreets with the introduction of ‘access only’ restrictions where all vehicles are banned except those needing access e.g. residents and waste management and emergency vehicles.

Example of where this can be used

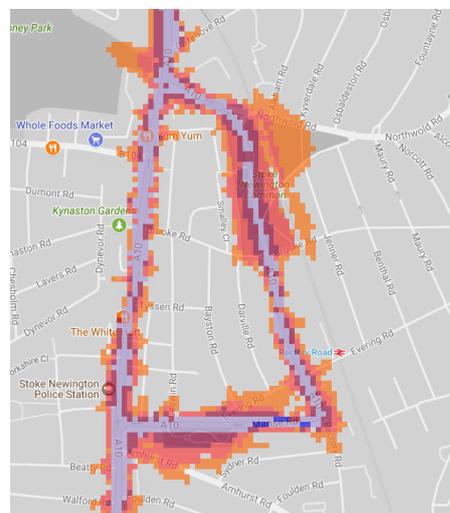
Stoke Newington Common Reinstating the two-way system on Stoke Newington High Street, getting rid of the one-way system which currently runs straight through the common to the East, would create a much improved tranquil green space.

It would also reduce the noise in the nearby Green Flag park, the West Hackney Recreation Ground, and make access to that space safer. It might also be possible in this instance to get rid of the road completely and return it to grass so the park is no longer cut in half.

The reinstatement of the two-way system has been proposed in the past but has never been implemented.



This sign means 'no cars or motorbikes' and is usually accompanied by a sign underneath saying 'Except for Access'. This can be used to remove unnecessary traffic from e.g. residential areas, or around schools or parks



Regular temporary street closures at times when parks are most used, like weekends

An example of this type of solution is the Mall in St James' Park in Central London which is closed to traffic on Sundays, public holidays and for ceremonial events. Temporary access restrictions are also being piloted to reduce pollution around London's schools. These solutions could be used much more widely to remove traffic in and around parks.



The Mall in St James Park is free from traffic on Sundays, public holidays and for ceremonial events

Example of where this can be used

Clapham Common would be a good candidate for weekend or Sunday road closures around one or two sides, given the impact of traffic on the entirety of the space and the fact that it serves a large residential area.



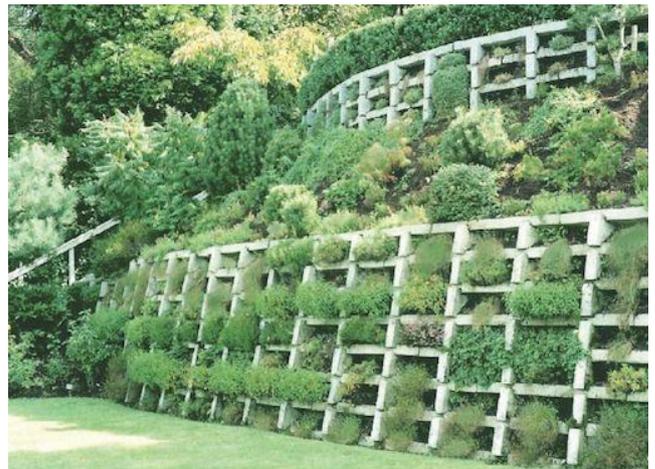
The South Circular, above, as it runs through Clapham Common. Traffic through Clapham Common is unrelenting, marring the green space with noise and pollution, all day, every day. The noise map to the left shows how the whole of the common is affected.

Noise mitigation measures like natural or man made barriers

Each park is different but there are lots of practical measures that can be taken like installing noise barriers or landscaped earth mounds, or even attractively designed walls or new hedges. Lowering speed limits in conjunction with barriers can also help, along with noise-reducing road surfaces. These measures can also help reduce associated air pollution.

Noise barriers are more common than might be realised. They are often used along motorways in European cities, for example, though they can be unattractive and in themselves obtrusive – and can reduce amenity for this reason. However, there are green options like mounds, or green walls or fences, which can be more attractive. Care needs to be taken to ensure they don't have high maintenance costs and that, if they incorporate planting, that this can withstand long periods without rain, for example.

Examples of natural or 'green' noise barriers (mounds/walls, hedges, fences)



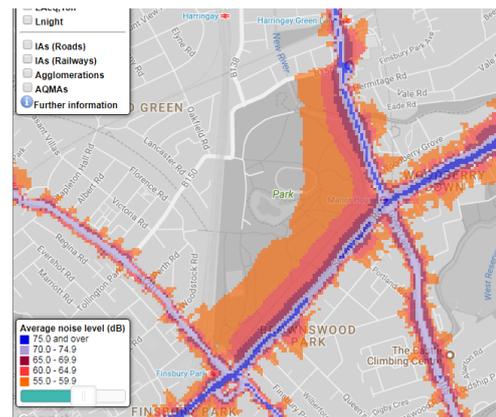
This image below shows the Pavilions and banking at Mile End park which were designed in part to create a barrier to noise from the busy Grove Road which runs down the East side of the park



Examples of where this can be used

Finsbury Park is severely impacted by traffic noise from the roads to the East. A picket fence separates the road from the park which is attractive but not an effective noise or visual barrier. This side of Finsbury Park could be a candidate for noise barriers given how difficult it would be to close this road or re-route traffic. A design competition could be launched to generate ideas on how to create attractive, low-maintenance noise barriers which don't cost the earth.

Consideration would need to be given to the impact of barriers on the openness of the park as openness also contributes important amenity value.



The Seven Sisters Road which runs alongside Finsbury Park to the South East (left). As the noise map on the right shows, there is a significant impact on a large area of the park.

Dagnam Park and nature reserve is severely impacted by particularly loud noise from the M25. Alan York, Secretary, Friends of Dagnam Park said: "As we spend many hours there, we can confirm it does affect the wildlife, owls in particular, as they use their acute hearing to detect rodents in the undergrowth. It also has a psychological effect on walkers. It is insidious. As you walk nearer the M25 the tranquil atmosphere gradually deteriorates."

Motorways within Greater London create severe noise pollution not just for parks but for residential and other areas. Motorway noise barriers are a common site in European countries like Italy, and in Germany there are 'cut and cover' schemes where motorways are lowered into tunnels and parks created above. Barriers would have less overall impact and expense. Ideally they would be accompanied by traffic-reduction leading to fewer motorway lanes, and the use of low-noise surfaces and speed limits.



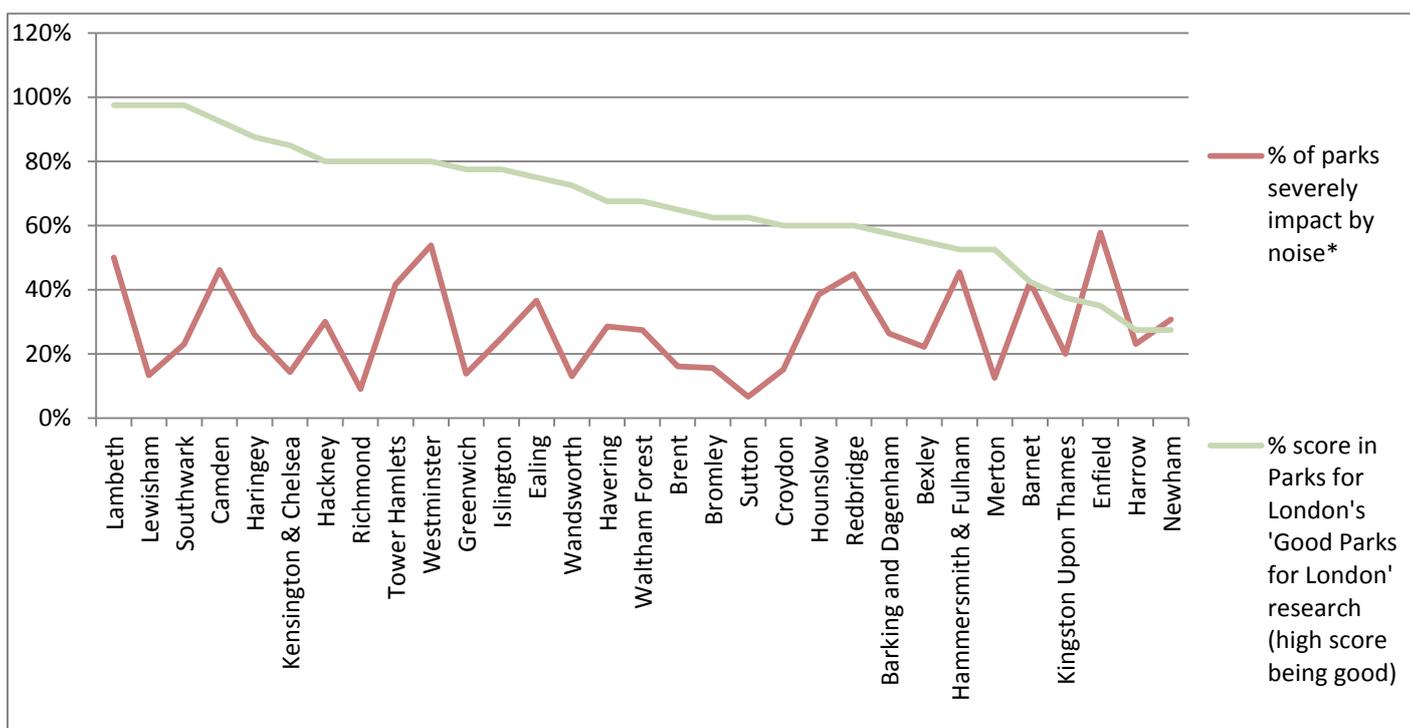
Fallow deer in Dagnam Park and the noise map of the park to the left showing the impact of the M25. Photo from <http://www.geograph.org.uk/photo/5200928>

7. 'Good' parks, Green Flags and traffic noise

Traffic noise has not to date been a factor in assessing whether people have access to high quality green space. This can be illustrated by comparing the scores given to London boroughs for their parks services in the 2018 [Good Parks for London](#) report, with the percentage of parks which are severely impacted by noise in each borough.

As the graph below shows, the boroughs with the best parks services do not correlate with the boroughs with the quietest parks. Notably, for example, Lambeth, which came out as the best borough in [Good Parks for London](#), has one of the worse results in the noise research (half of its parks are severely impacted by noise). This is not a surprise because traffic noise is not currently a factor in benchmarking parks services.

GRAPH 1 – Are good parks quiet parks? The best to worst borough parks services (shown by the green line) do not correlate with noise scores.



Deficiency assessments

CPRE London believes that assessments of deficiency / sufficiency in greenspace should include an assessment of the amenity or quality of the green space, including taking into account noise levels.

London and National Policy should be revised so that assessments of deficiency in greenspace take account of whether the amenity or quality of the space is seriously impacted by noise (and concomitant air) pollution, rather than simply assessing the amount of space and its distance from residents/users.

Green Flag and traffic noise

The Green Flag Award scheme recognises and rewards well managed parks and green spaces, setting the benchmark standard for the management of recreational outdoor spaces across the United Kingdom and around the world.

The Green Flag purpose & aims are

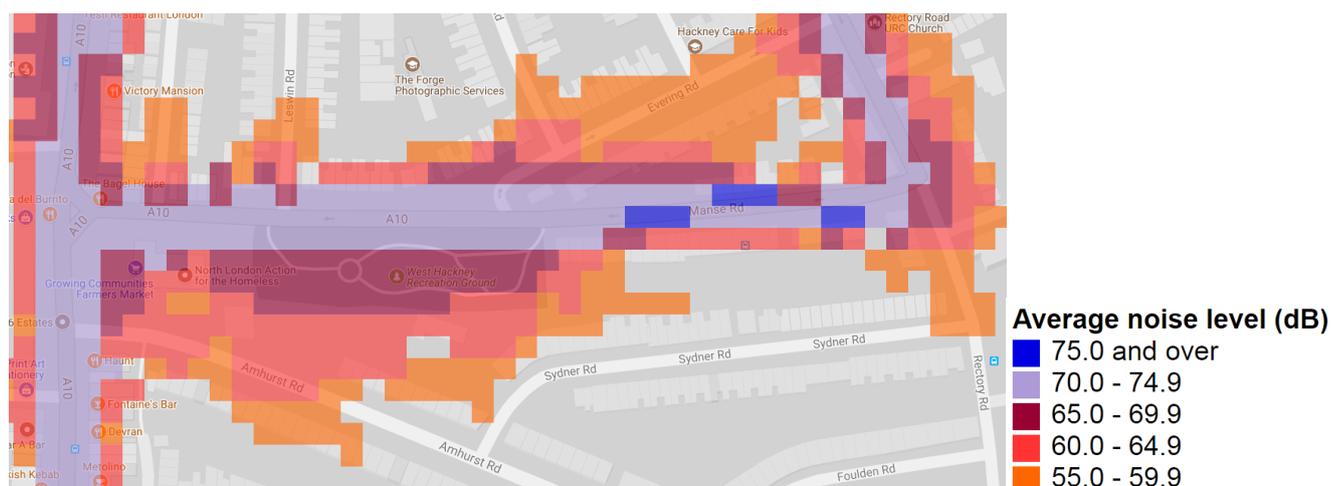
- to ensure that everybody has access to quality green and other open spaces, irrespective of where they live
- to ensure that these spaces are appropriately managed and meet the needs of the communities that they serve
- to establish standards of good management
- to promote and share good practice amongst the green space sector
- to recognise and reward the hard work of managers, staff and volunteers.

The guidance recognises that noise is an issue and says “Judges will be looking to see that, where possible and where relevant, measures have been taken to reduce impact on the environment as the opportunity arises – usually when replacing old features or creating new ones. For example: [inter alia] Measures taken to reduce noise pollution.”

In reality, parks are awarded Green Flag status regardless of the impact of nearby traffic, perhaps understandably given that park managers will have limited ability by themselves to tackle traffic noise.

EXAMPLE – The West Hackney Recreation Ground, a Green Flag park in Hackney

The noise map for this *Green Flag* park is shown below. It is severely impacted by particularly loud noise and this will be reflected in high air pollution levels too. As noted in section 6 above, a re-routing of the one-way system in this area would eliminate the impact of traffic on this space as well as nearby Stoke Newington Common.



Clearly it is difficult for park managers to tackle traffic noise, however local councillors can take action on noisy parks through measures which park managers cannot control, for example by restricting or filtering traffic, or introducing noise mitigating measures such as noise barriers, noise-reducing surfaces and/or speed limits etc.

More emphasis needs to be placed on the issue of traffic noise and its impact on the amenity of a park, when parks are being judged for Green Flag Awards, given the often serious impact on that amenity.

However, it is recognised that the incentive to gain Green Flag status for a local park is important in promoting better parks in London. If gaining that status were to be made dependent on noise reduction, this might simply remove a great incentive, which would not be desirable.

8. Data tables and graphs

TABLE 1: main categorisation

Total number of parks in each borough (in alphabetical order) which fall into each category

		A	B	C	D	
		0-25%	25%-50%	50%-75%	75%-100%	
		of the	of the	of the	of the	
		park is	park is	park is	park is	
		noisy*	noisy*	noisy*	noisy*	
	Number					
	of parks					
	surveyed					
1	Barking and Dagenham	19	13	1	2	3
2	Barnet	33	15	4	3	11
3	Bexley	27	17	4	2	4
4	Brent	31	24	2	0	5
5	Bromley	32	26	1	3	2
6	Camden	26	14	0	2	10
7	Croydon	33	26	2	3	2
8	Ealing	41	26	0	0	15
9	Enfield	44	15	4	2	23
10	Greenwich	29	22	3	1	3
11	Hackney	20	11	3	1	5
12	Hammersmith & Fulham	22	11	1	3	7
13	Haringey	27	17	3	3	4
14	Harrow	26	17	3	0	6
15	Havering	35	23	2	2	8
16	Hillingdon	26	12	3	0	11
17	Hounslow	25	12	4	2	7
18	Islington	24	16	2	1	5
19	Kensington & Chelsea	14	12	0	1	1
20	Kingston Upon Thames	20	12	4	0	4
21	Lambeth	24	10	2	4	8
22	Lewisham	30	25	1	1	3
23	Merton	32	21	7	1	3
24	Newham	26	14	4	0	8
25	Redbridge	29	13	3	2	11
26	Richmond	22	18	2	1	1
27	Southwark	26	18	2	2	4
28	Sutton	30	24	4	1	1
29	Tower Hamlets	24	13	1	0	10
30	Waltham Forest	40	24	5	1	10
31	Wandsworth	23	18	2	1	2
32	Westminster	25	10	1	2	12
	Totals	885	550	80	47	211

*These column denote the number of parks in each borough which are impacted by traffic noise of 55+ Decibels

TABLE 2: Proportion of parks severely impacted by traffic noise, by Borough

% of borough parks severely impacted by traffic noise (i.e. *the proportion of parks where 50% to 100% of the park is impacted by traffic noise of 55+ decibels i.e. parks in both categories C and D in Table 1). **This table also notes boroughs in Inner/Outer and North/South London.**

	Number of parks surveyed	Inner London Borough	South London Borough	% of borough parks severely impacted by traffic noise*
Sutton	30		s	7%
Richmond	22		s	9%
Merton	32		s	13%
Wandsworth	23	i	s	13%
Lewisham	30	i	s	13%
Greenwich	29	i	s	14%
Kensington & Chelsea	14	i		14%
Croydon	33		s	15%
Bromley	32		s	16%
Brent	31			16%
Kingston Upon Thames	20		s	20%
Bexley	27		s	22%
Harrow	26			23%
Southwark	26	i	s	23%
Islington	24	i		25%
Haringey	27			26%
Barking and Dagenham	19			26%
Waltham Forest	40			28%
Havering	35			29%
Hackney	20	i		30%
Newham	26			31%
Hounslow	25			36%
Ealing	41			37%
Tower Hamlets	24	i		42%
Hillingdon	26			42%
Barnet	33			42%
Redbridge	29			45%
Hammersmith & Fulham	22	i		45%
Camden	26	i		46%
Lambeth	24	i	s	50%
Westminster	25	i		54%
Enfield	44			57%
Totals	885			29%

TABLE 3 – Parks with no traffic noise

% of parks which are completely free from traffic noise, by London Borough

		Number of parks in each borough which are completely free from traffic noise These parks also appear in category A (Table 1)	Equivalent to
Kensington & Chelsea	14	9	64%
Lewisham	30	19	63%
Merton	32	20	63%
Barking and Dagenham	19	11	58%
Wandsworth	23	13	57%
Bromley	32	18	56%
Ealing	41	23	56%
Croydon	33	18	55%
Harrow	26	14	54%
Sutton	30	16	53%
Haringey	27	14	52%
Islington	24	12	50%
Southwark	26	13	50%
Tower Hamlets	24	12	50%
Brent	31	15	48%
Bexley	27	13	48%
Kingston Upon Thames	20	9	45%
Camden	26	11	42%
Greenwich	29	12	41%
Richmond	22	9	41%
Hackney	20	8	40%
Havering	35	14	40%
Waltham Forest	40	15	38%
Hammersmith & Fulham	22	8	36%
Newham	26	9	35%
Redbridge	29	10	34%
Hillingdon	26	8	31%
Lambeth	24	7	29%
Barnet	33	9	27%
Hounslow	25	6	24%
Enfield	44	8	18%
Westminster	25	4	16%
Totals	885	388	44%

TABLE 4 – Noisiest parks (1) Where the whole park is noisy

Proportion of parks where the whole park (100% of the park) is impacted by traffic noise of 55+ decibels

	Number of parks surveyed	100% - the whole park is noisy These parks also appear in category D in Table 1	equivalent to
Bromley	32	0	0%
Lewisham	30	0	0%
Croydon	33	1	3%
Sutton	30	1	3%
Greenwich	29	1	3%
Bexley	27	1	4%
Wandsworth	23	1	4%
Richmond	22	1	5%
Kensington & Chelsea	14	1	7%
Harrow	26	2	8%
Islington	24	2	8%
Merton	32	3	9%
Haringey	27	3	11%
Southwark	26	3	12%
Kingston Upon Thames	20	3	15%
Waltham Forest	40	6	15%
Barking and Dagenham	19	3	16%
Lambeth	24	4	17%
Havering	35	6	17%
Barnet	33	6	18%
Hackney	20	4	20%
Hounslow	25	5	20%
Brent	31	7	23%
Newham	26	6	23%
Ealing	41	11	27%
Hillingdon	26	8	31%
Tower Hamlets	24	8	33%
Redbridge	29	11	38%
Camden	26	10	38%
Westminster	25	10	40%
Hammersmith & Fulham	22	9	41%
Enfield	44	20	45%
Totals	885	159	18%

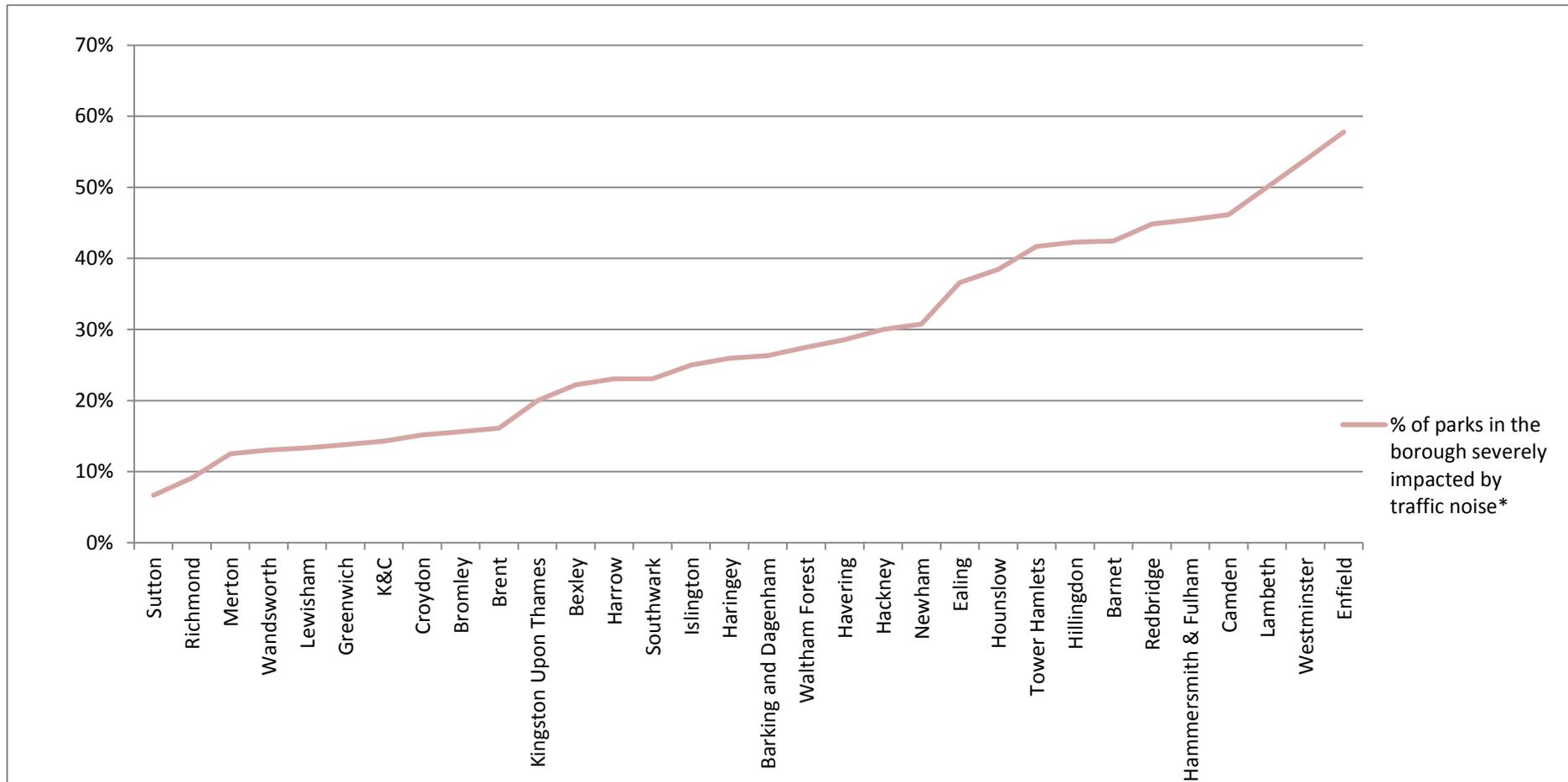
TABLE 5 – Noisiest parks (2) Where the noise is particularly loud
Proportion of parks where at least a quarter of the park is impacted by loud noise of 60+ decibels

	Number of parks surveyed	At least 25% of noise exposure 60+ Decibels These parks also appear in Categories C or D	Equivalent to
Richmond	22	1	5%
Kensington & Chelsea	14	1	7%
Croydon	33	3	9%
Merton	32	3	9%
Kingston Upon Thames	20	2	10%
Greenwich	29	3	10%
Wandsworth	23	3	13%
Lewisham	30	4	13%
Sutton	30	4	13%
Southwark	26	4	15%
Bromley	32	5	16%
Bexley	27	5	19%
Brent	31	6	19%
Haringey	27	6	22%
Harrow	26	6	23%
Islington	24	6	25%
Barking and Dagenham	19	5	26%
Ealing	41	11	27%
Hillingdon	26	7	27%
Waltham Forest	40	11	28%
Hounslow	25	7	28%
Hackney	20	6	30%
Barnet	33	10	30%
Newham	26	8	31%
Havering	35	11	31%
Enfield	44	15	34%
Tower Hamlets	24	9	38%
Hammersmith & Fulham	22	9	41%
Redbridge	29	12	41%
Lambeth	24	10	42%
Camden	26	11	42%
Westminster	25	13	52%
Totals	885	219	25%

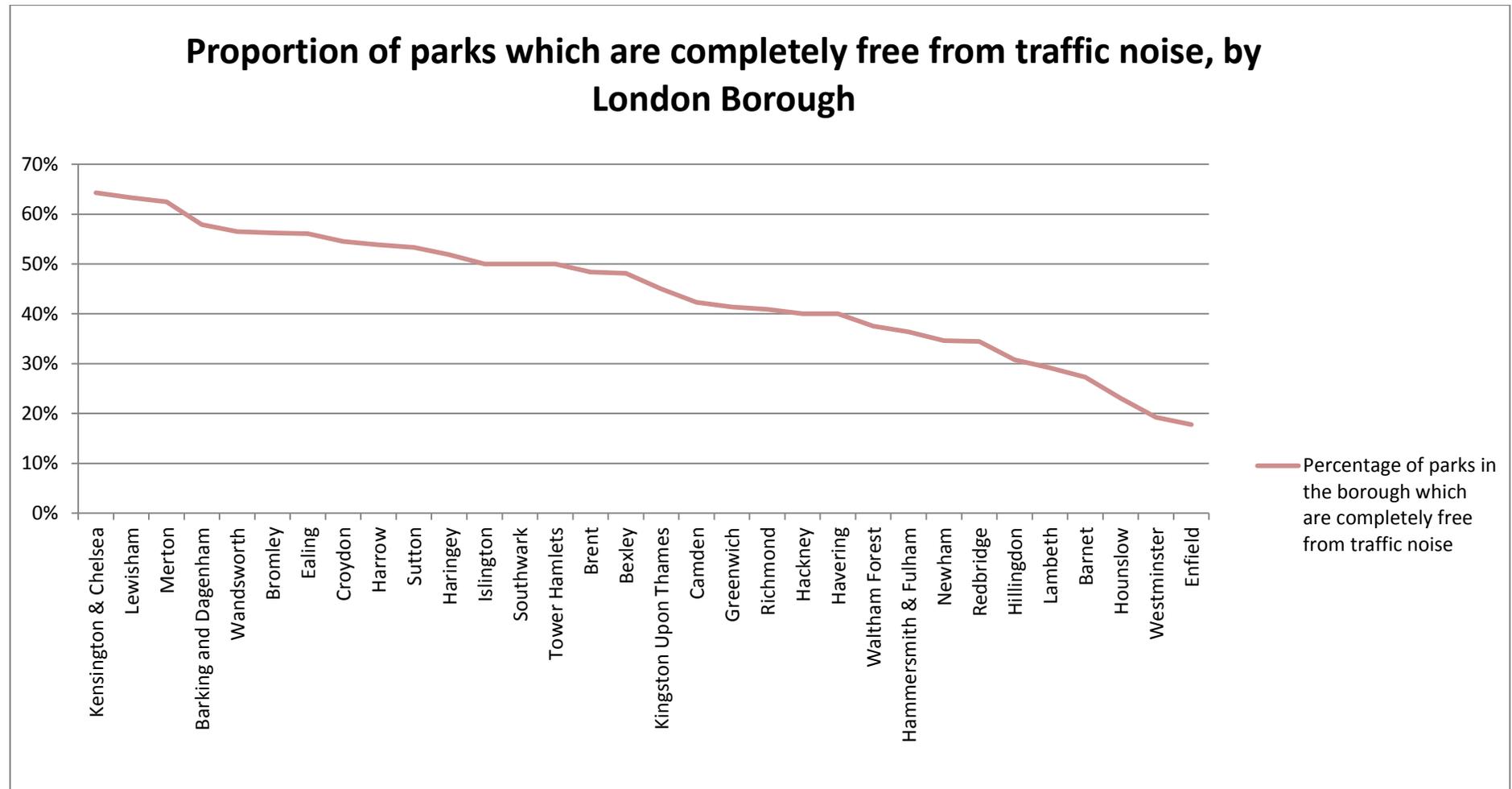
GRAPH 2 (TABLE 2)

Proportion of parks severely impacted by traffic noise, by London Borough

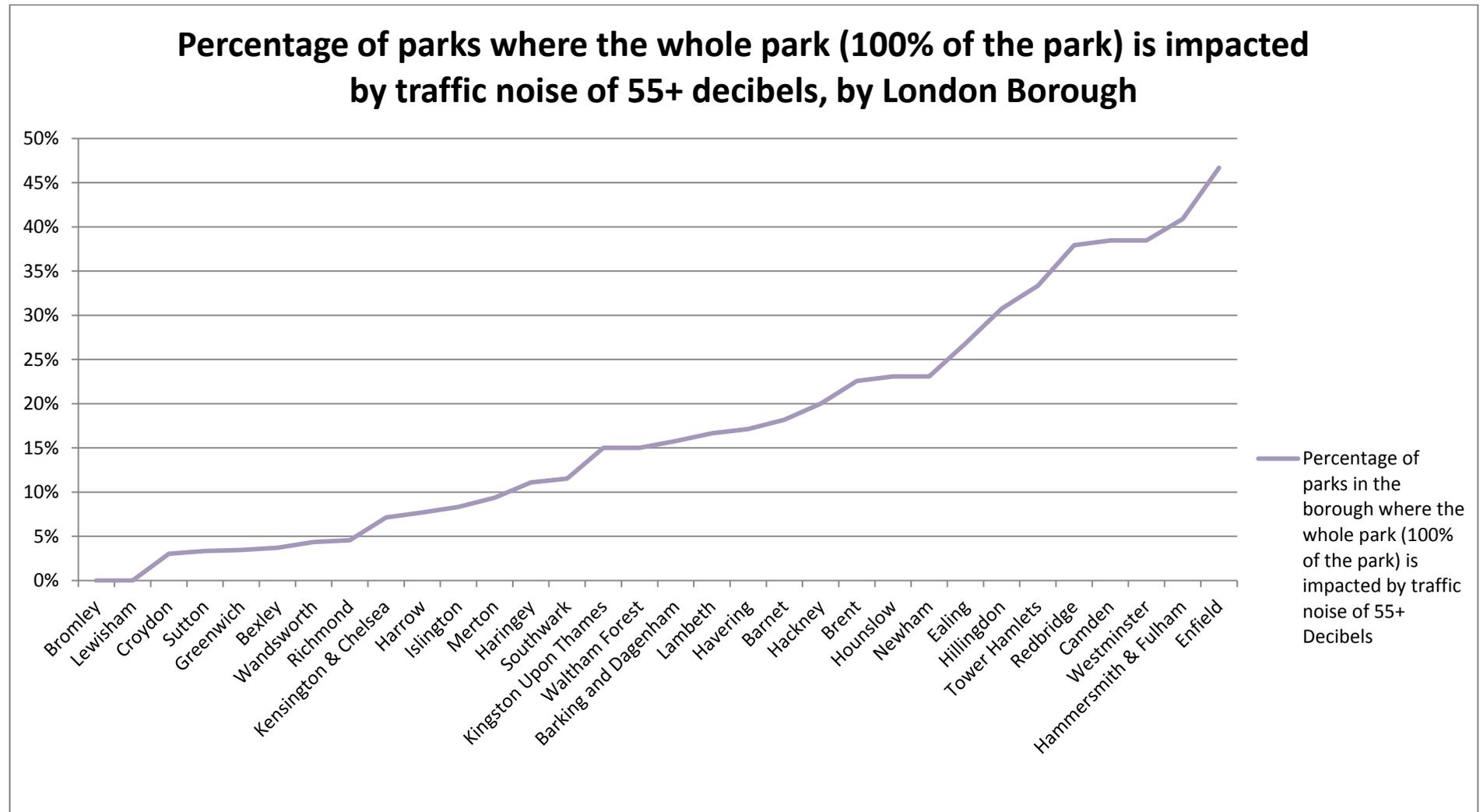
i.e. the proportion of parks in the borough where 50% to 100% of the park is impacted by traffic noise of 55+ decibels



GRAPH 3 (TABLE 3)

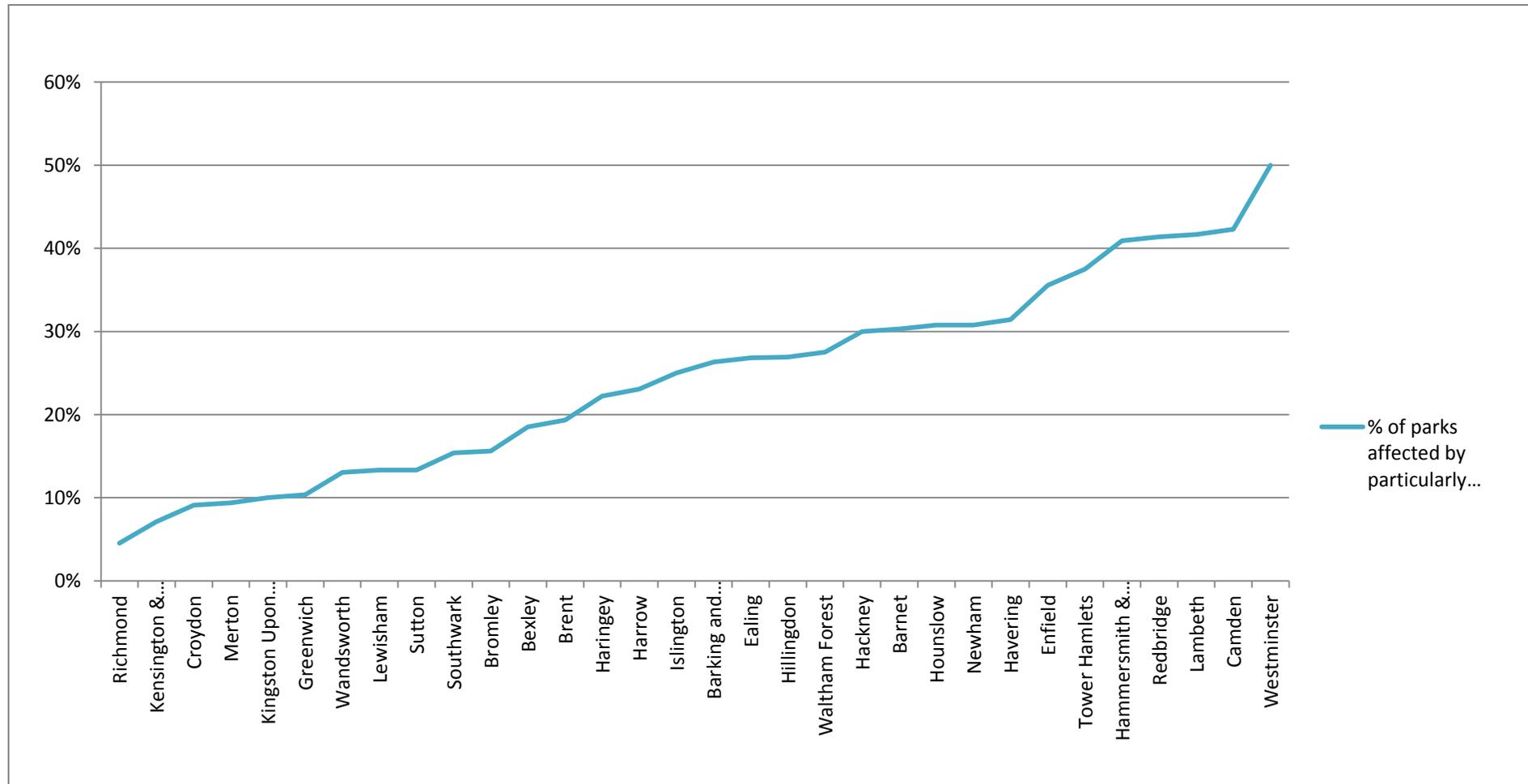


GRAPH 4 (TABLE 4)



GRAPH 5 (TABLE 5)

Proportion of parks affected by particularly loud noise, by London Borough (at least 25% of noise exposure in the park is 60+ decibels)



REFERENCES

-
- ⁱ https://www.london.gov.uk/sites/default/files/8314_gla_les_online_single_page.pdf
- ⁱⁱ Taken from Extrium Noise Maps at <http://www.extrium.co.uk/noiseviewer.html>
- ⁱⁱⁱ <http://www.cpre.org.uk/resources/transport/roads/item/1862-traffic-noise-in-rural-areas>
- ^{iv} <https://en.wikipedia.org/wiki/Tranquillity>
- ^v <http://dx.doi.org/10.1136/oem.2008.041764> p19-21
- ^{vi} Extract from Mayor's Environment Strategy p344
- ^{vii} https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/690846/CMO_Annual_Report_2017_Health_Impacts_of_All_Pollution_what_do_we_know.pdf (Ch. 7 p.10)
- ^{viii} <https://doi.org/10.1111/brv.12207>
- ^{ix} https://www.london.gov.uk/sites/default/files/london_environment_strategy-draft_for_public_consultation.pdf p360
- ^x https://www.london.gov.uk/sites/default/files/london_environment_strategy-draft_for_public_consultation.pdf P11

CRPE London campaigns to save Green Belt, Metropolitan Open Land and other green spaces within Greater London, and to make our capital city a better place to live for everyone.

We are a membership based charity: please join us today by contacting us at office@cprelondon.org.uk.



This report was written by Alice Roberts and researched by Elisabeth Ntambwe and Surriya Khushal
May 2018

CPRE London
70 Cowcross Street, London EC1M 6EJ
020 7253 0300 office@cprelondon.org.uk

www.cprelondon.org.uk

 [@cprelondon](https://twitter.com/cprelondon)

Registered Charity No. 802622

JOIN US

www.cpre.org.uk

**IN STANDING UP FOR
THE COUNTRYSIDE**