



**Ealing's Local Agenda 21 Pollution & Public Health Project Group**

**THE EXTENT OF HARD SURFACING OF FRONT GARDENS IN THE LONDON  
BOROUGH OF EALING**

**EXECUTIVE SUMMARY OF A COMMUNITY SURVEY RESEARCH PROJECT**

November 2005



## **INTRODUCTION**

This document is a summary of the results of a survey of the hard surfacing of 7,675 front gardens of private dwellings in a representative sample of residential roads in the London Borough of Ealing, conducted between March and September 2005. The full report on the survey can be found on [www.london21.org/ealingfrontgardens](http://www.london21.org/ealingfrontgardens).

### ***Why the survey was conducted***

There is growing realisation that the loss of front gardens to hard surfacing in suburban areas such as the London Borough of Ealing is causing a wide range of environmental and societal problems.

Ealing's Local Agenda 21 Pollution & Public Health Project Group has been concerned about this for some years. In 2003, with the support of Ealing's LA21 Natural Environment & Biodiversity and Energy & Built Environment Project Groups, we obtained a small grant from Ealing Council to conduct some research into what was known about the issue. One of the key findings of this research<sup>1</sup> was that very little was known about the scale of the problem or the amount of hard surfacing of front gardens that actually exists.

The Group therefore decided to conduct a survey to enable the extent of hard surfacing in the front gardens of the London Borough of Ealing to be calculated reliably. This involved drawing a random sample of 10% of the borough's residential roads, asking volunteers to record the amount of hard surfacing and other information about the front gardens in the sampled roads, and then matching, on a garden by garden basis, the resulting data to the surface area of the front gardens, derived from street plans held in Ealing Council's 'Planweb' Geographical Information System (GIS) database.

Data for the 7,675 front gardens have then been grossed up, on a ward by ward basis, to the estimated total number of front gardens in the borough. Driveways have been excluded throughout. Full details of how the survey was conducted can be found in the main report.

### ***Acknowledgements***

A large number of volunteers, many motivated by concern about increasing loss of the borough's traditional front gardens and green-ness, have contributed a great deal of time and effort to this survey. We are extremely grateful to all of them for their hard work - without it, the survey could not even have been contemplated.

- Kerry Ives, Juraj Zemlicka, Sandra & Colin Andrews, Ann Chapman, Glyn Hatherall, Mike Tyzack, Tony Miller, Fiona Kent, Virginia Fassnidge, Ron & Betty Simpson, Nicola Harper, Tom Berry, Kay Garmeson, Terry & Irving Jones, Robert Williams, David Strachan, Jennifer Donnithorne, Julia Welsh, Richard Williams, Graham Fowler, John, Laura & Ainsley Gilbert, Tom Morrissey, Derek Bowyer, Ron Leach, Julian Maw, Sue Elliot, Andrew & Sally Kelly, Lorna Dodd, Sarah Edwards, Mary Bolton, Ingrid Williams, Alison & Ian Bowyer and family, Matty Bradley, Claire Smith and other staff and volunteers at A Rocha UK, Simon Rowley, Jenny Davis, Steve Fabian, Vishal Pankhania, Marion Taylor, Claire Willcox, Brian Haylock, Peter Chadburn, Brian Graham, Alistair MacLachlan, Geraldine O'Neill, Francesco Fruzza, Toby Lovern, Maureen Carroll, Geoff Card & Tracey Moore, Susi O'Flynn and Jean Chennells took on the task of surveying the sampled roads. Several of them took on several batches of roads, including some of the longest roads in the sample.
- Andrew Lyon managed the extracting of front garden dimensions from the 'Planweb' GIS database, and he, Juraj Zemlicka and James Matthews extracted the data.
- John Eborall consolidated and edited the GIS data extracts.
- David Lomas, Barbara Trigg, Fiona Kennedy, Glenda Brooks, Ron & Betty Simpson, Christine Gratus, Nic Ferriday, Andrew Lyon, Kulvinder Panesar, Dominique van Dooren, Jane Neville, Mike

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<sup>1</sup> "Hard Surfacing of Front Gardens: report on desk research", Pene Healey Associates for Ealing's Local Agenda 21 Pollution & Public Health Project Group (working with Ealing's Energy & Built Environment and Natural Environment & Biodiversity Project Groups), May 2004 (available on [www.london21.org/ealingfrontgardens](http://www.london21.org/ealingfrontgardens))

Tyzack and Anil Bhanot produced plans of their own and in some cases their neighbours' front gardens, from which the 'Ready Reckoner' was derived.

- Ross Jackson in Ealing Council's Electoral Registrations Office produced summaries of numbers of electors, properties and roads in each of the borough's electoral districts.
- Fiona Kennedy did exploratory analyses of the electoral register data, and Ken Baker advised on sampling.
- Kay Garmeson reviewed the draft report and made many constructive suggestions.
- Christine Eborall and Andrew Lyon were responsible for the overall management of the survey; Christine Eborall designed the survey and also wrote this report.

The survey was supported by a grant of £1,900 from Ealing Council's 2003-4 Main Fund to Voluntary Organisations. This sum was used for printing and mailing of survey materials to volunteers, and for data entry, matching and analysis, which were handled by Colin Richards and James Miller at Digitab Ltd. We are also grateful to Ealing Community Network for a grant of £400 which was used to support some of the GIS extracting work.

Two of Ealing's other LA21 Project Groups, Natural Environment & Biodiversity and Energy & Built Environment, supported our application for funds and made valuable contributions to the design and management of the survey.

In addition, our thanks are due to the editorial staff of the Ealing Gazette for publicising the call for volunteers in its pages and in those of its sister newspaper The Leader, and to the Selborne Society for allowing the project to be publicised at Perivale Wood Open Day in May 2005. We are also grateful to the London 21 Sustainability Network for providing the opportunity to download this report from its website [www.london21.org](http://www.london21.org).

### ***The London Borough of Ealing: a short scene setter***

For readers unfamiliar with the London Borough of Ealing the short introduction below may help to set the scene for the research findings.

#### **An introduction to the London Borough of Ealing**

The London Borough of Ealing is in the western part of Greater London, and with a population of over 300,000 is the third largest of the 33 London boroughs. Although officially an 'outer' London borough, it is one of several fairly densely populated 'middle' boroughs, sandwiched between the highly urbanised, densely populated inner London boroughs and the more spacious, less densely populated outermost ones.

The London Borough of Ealing was formed from the amalgamation of the Boroughs of Acton, Ealing and Southall, and for the purposes of planning and economic development is now divided into seven local areas: Acton, Ealing, Greenford, Hanwell, Northolt, Perivale and Southall.

Until the 1800s these were villages surrounded by market gardens, farmland and woodland. Development began with the building of two branches of the Grand Union Canal and then the Great Western Railway. The opening of the Metropolitan District Railway in 1879 triggered very rapid development of Ealing and Acton, and Ealing became known as 'The Queen of the Suburbs'. After the First World War extensive development of the areas to the west and north took place as more railways, and roads such as the A40, were constructed.

Consequently, the borough contains a very wide range of housing including large areas of Victorian villas, 1920s and 1930s development and more recent estates. It also has some substantial areas of open space including the Brent River Park and the Northolt & Greenford Countryside Park.

The population is very diverse both socio-economically and ethnically. There are areas of considerable affluence, notably in Ealing, but others of deprivation, particularly in Acton in the east and in Southall in the west of the borough, where there is a large Asian population.

## **EXECUTIVE SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **1. SUMMARY**

#### ***Amount of hard surfacing in the borough's front gardens***

- There are an estimated 74,300 front gardens in the London Borough of Ealing, taking up a total surface area of 3,052,000 square metres (m<sup>2</sup>). This is 5.5% of the total geographical area of the borough (55.37 square kilometres).
- Nearly two-thirds – 64% or 1,961,000m<sup>2</sup> – of the total area of front garden in the borough is covered with hard surfacing of some kind. This is 3.5% of the total geographical area of the borough, and nearly one and a half times the size of Hyde Park in central London.
- The average front garden is 68% hard surfaced. But this average hides a wide range.
  - A quarter (18,300) of the borough's 74,300 front gardens are completely (i.e. 100%) hard surfaced.
  - A further fifth (14,500) are nearly completely (90-99%) hard surfaced.
  - A total of 44,600, or six out of 10, have 70% or more of their area hard surfaced.
  - Only 21,200 (29%) have less than half of their area hard surfaced.
  - Just 12,300 (17%) have 'traditional' 20%-or-less hard surfacing – just a path to the front door and perhaps a narrow strip round the front of the house.
- Front gardens that are completely hard surfaced account for 637,000m<sup>2</sup> of hard surfacing, a third of the total front garden hard surfacing in the borough. Those that are 70% or more hard surfaced account for 1,547,000m<sup>2</sup>, or nearly 80% of the total amount of front garden hard surfacing in the borough.
- Smaller front gardens are somewhat more likely than larger ones to be extensively hard surfaced, but there is a full range of degrees of hard surfacing in all sizes of garden.
- Area of the borough is a more important influence on the extent of front garden hard surfacing.
  - Front garden hard surfacing is most extensive in Southall, where an estimated 44% of front gardens are completely hard surfaced and over three-quarters are 70% or more hard surfaced.
  - In Greenford, Northolt and Hanwell a quarter of front gardens are completely hard surfaced and between a half and two-thirds have 70% or more hard surfacing.
  - In Acton 20% and in Perivale 16% of front gardens are completely hard surfaced, but more than half are over 70% hard surfaced.
  - Ealing has the lowest proportion of completely hard surfaced front gardens (14%), but around half are over 70% hard surfaced.
- Nevertheless, all areas of the borough also have 'traditional' less-than-20% hard surfaced front gardens. In Northolt and the northern wards of Ealing these account for over a quarter of all front gardens, and in Greenford a fifth.

#### ***Materials used for hard surfacing***

- The hard surfacing materials most often found in the borough's front gardens are concrete, bricks or stone blocks, and various types of paving.
  - Nearly half (48%) of front gardens have at least some concrete, and in 26% it is the only hard surfacing material used.
  - A quarter (24%) have bricks or stone blocks; these are the only type of hard surfacing in 15% of gardens.

- A further 24% have rectangular, square or hexagonal paving, which is the only type of hard surfacing in 10%.
- Fourteen percent have crazy paving, 13% gravel, loose stones or slate chips, 12% quarry or ceramic tiles and five percent asphalt or tarmac.
- In terms of square meterage, however, there is more brick or stone block surfacing than concrete.
  - Brick or stone block surfacing accounts for an estimated 618,000m<sup>2</sup>, 32% of the 1,961,000m<sup>2</sup> of hard surfacing in the borough's front gardens, compared with an estimated 615,000m<sup>2</sup> of concrete (31% of the total).
  - There is an estimated 257,000m<sup>2</sup> of rectangular, square or hexagonal paving (13% of the total), 242,000m<sup>2</sup> of crazy paving (12%), 125,000m<sup>2</sup> of asphalt and tarmac (6%) and 56,000m<sup>2</sup> of gravel and other loose stones (3%).
- Brick or stone block surfacing is also much more common than concrete and the various pavings in front gardens which are extensively hard surfaced.
  - In completely hard surfaced front gardens, an estimated 275,000m<sup>2</sup> is covered by bricks or stone blocks, compared with 182,000m<sup>2</sup> by concrete.
  - Similarly, in gardens which are nearly completely (90-99%) hard surfaced, there is an estimated 183,000m<sup>2</sup> of brick or stone block surfacing, compared with 154,000m<sup>2</sup> of concrete.
  - It is only in front gardens which are less than 70% hard surfaced that there is more concrete than brick or stone block surfacing.
- These findings, together with the fact that brick or stone block surfacing has only become popular fairly recently, corroborate the concerns of many people, that there is a trend towards hard surfacing a larger proportion of the front garden area than in the past.

### **Usage of hard surfacing**

#### *Parking provision*

- Parking provision is a major reason why front gardens are being hard surfaced.
  - An estimated 31,200 front gardens, 42% of the borough total of 74,300, are likely to be being used for parking one or more vehicles.
  - Of these, an estimated 26,400 are accessible via a pavement 'crossover' or 'kerb drop' constructed to allow vehicles to cross the footway.
  - In the remaining 4,800, no such crossover is present but the front garden is still accessible to vehicle(s), suggesting that, overall, about six percent of the borough's front gardens could be being used illegally for parking.
  - This translates into an estimated 1,279,000m<sup>2</sup> of hard surfacing in front gardens in the borough that are used for parking.
- The extent to which front gardens are likely to be being used for parking varies by area:
  - In Greenford an estimated 60%, in Northolt 59%, in Southall 55% and in Perivale 51% of front gardens are likely to be being used for parking.
  - In the rest of the borough these proportions are lower: 36% in Ealing, 24% in Acton and only 18% in Hanwell. This is partly due to the sizes of the front gardens available for parking – in Hanwell the majority of front gardens are small, while in Greenford they are larger. Access to a range of public transport services is also likely to be a contributory factor.
- These findings are only partially explained by the lack of garages in the borough:
  - Only an estimated 14,300 properties with front gardens have garages. However, they are much more common in some areas, such as Northolt, Greenford and northern Ealing, than in other such as Hanwell and Southall.

- Having a garage does not save the front garden from parking. More properties with garages use the front garden for parking than do those without garages (a finding probably explained by properties with garages already having a pavement crossover and tending to have larger front gardens).
- The 167 roads surveyed provide some evidence that the greater the number of pavement crossovers in a road, the greater the number of front gardens likely to be being used for parking. This is probably due to there being fewer roadside parking spaces because of the presence of the crossovers, creating a 'domino effect' resulting in more and more front gardens being converted to parking.
- Information from other sources indicates that several other factors are contributing to increased pressure on the parking space available in the borough's residential roads. These are increasing population, more vehicles per household, larger vehicles (4x4s, SUVs), and the piecemeal introduction of Controlled Parking Zones, which has several consequences for front gardens.
- The front boundary structures of gardens – hedges, fences, walls, railings etc. – are casualties of front garden parking. Only a quarter of front gardens used for parking have all the front boundary structure in place, compared with 92% of those which are not used for parking.

#### *Non-parking usage*

- Many people assume that parking is the reason why front gardens are extensively hard surfaced. However, this is not necessarily the case.
  - 32,800 front gardens in the borough are completely or nearly completely (90+%) hard surfaced, but only 19,900 of these are likely to be being used for parking, leaving 12,600 – well over a third of them - which are not.
- Extensive hard surfacing not being used for parking is not entirely explained by size of garden:
  - Of the 12,600 90+% hard surfaced gardens not being used for parking, 8,900 are 25m<sup>2</sup> or less and therefore rather small for parking (although about 2,000 front gardens of this size are likely to be being used for parking).
  - But that still leaves 3,000 front gardens of 26-50m<sup>2</sup> and 700 over 50m<sup>2</sup>, all of which are 90% or more hard surfaced and yet not likely to be being used for parking.
  - In Southall nearly half of the 6,300 front gardens not being used for parking are 90+% hard surfaced, a considerably higher proportion than elsewhere in the borough.
- The motives for covering front gardens with extensive hard surfacing other than for parking are unclear, although minimal maintenance, a presentable year-round look, a fashion for hard surfacing, contractors promoting hard surfacing, and lack of gardening tradition and different attitudes to the front garden in different parts of the community may contribute.

#### ***Reasons for concern***

- Research from other sources shows that the hard surfacing of front gardens causes many detrimental effects both to the environment and to local communities. These include increased risk of flooding, pollution of local watercourses, increased urban temperatures, increased noise and air pollution and loss of vegetation, which in turn leads to loss of shade and cooling, loss of habitat, reduced CO<sub>2</sub> absorption, less attractive appearance and loss of character, and less opportunity for informal contact with neighbours while gardening.
- The use of front gardens for parking creates further problems, including more risks to pedestrians, pavement crossovers causing uneven pavements and loss of street trees, loss of roadside parking leading to a 'domino effect' as more people convert their front gardens to parking, and to faster traffic in roads freed of parked cars.

## 2. CONCLUSIONS, POSSIBLE SOLUTIONS AND RECOMMENDATIONS

### **Conclusions**

- The survey described in this report is, we believe, the first comprehensive assessment to be conducted of the extent of front garden hard surfacing in an urban area in England. As such, its findings deserve serious consideration.
- The survey has revealed that front garden hard surfacing in the London Borough of Ealing is widespread and extensive.
- Much of this is because front gardens are being turned into car parks. But significant numbers of front gardens are being extensively hard surfaced for other reasons. Our understanding of why this is happening is limited.
- The survey is a snapshot, so we cannot say for certain that front garden hard surfacing is increasing. But the materials being used, the increasing pressures on parking, and the observations of many volunteers and other residents all point towards such a conclusion. Furthermore, there is no reason to believe that it will not continue – and at an accelerated rate – unless action is taken.
- Front gardens are important for many reasons, and their loss to hard surfacing is detrimental in many ways - to the environment, to the health and wellbeing of local people, and to the borough as a whole.
- We therefore believe that **urgent action** is needed to stop further destruction of the borough's front gardens.

### **Possible solutions**

- There are many ways to discourage the hard surfacing of front gardens and encourage the restoration of those that have already been modified in this way. These include raising awareness of the problems, development and promotion of locally-suitable front garden designs that are easy to maintain, competitions for front gardens and front garden designs, a community gardening service, incentives to reinstate hard surfaced gardens, changing road layouts to accommodate more on-road parking, and better access to improved public transport.
- Prevention measures include changes to the permitted development legislation to require planning permission for pavement crossovers; refusal to allow pavement crossovers where on-road parking would be reduced; action against illegal crossovers and front garden parking, and preventing council tenants hard surfacing front gardens.

### **Recommendations**

- In this context the five recommendations made by the London Assembly Environment Committee in its September 2005 report on the environmental impact of London's front gardens are fully supported, namely:
  - Awareness raising across London.
  - Analysis of patterns of front garden hard surfacing in London.
  - Recognising the strategic importance gardens in the Mayor's revised London plan, and encouraging London boroughs to do the same in their own development plans.
  - A policy seminar on the management of front garden parking.
  - Amendment to national permitted development legislation to allow local authorities to require planning applications for all proposed pavement crossovers.

- In addition, the following specific recommendations are made for the London Borough of Ealing:

#### **Recommendations for Ealing: front gardens**

- Following the legal precedent established by the London Borough of Kensington and Chelsea, Ealing Council should change, as quickly as possible, its current policy of allowing all except a minority of applications for pavement crossovers to one of refusing all applications where the amount of on-road parking will be reduced. This will stop the 'domino effect' setting in, and make a major contribution to halting the conversion of front gardens for parking.
- Following this policy change, enforcement measures should be taken on the 5,000 or so illegal pavement crossovers in the borough.
- Research should be conducted to examine why so many of the borough's front gardens are being extensively hard surfaced for reasons other than parking, and explore what can be done to change attitudes and achieve the same goals in a more appropriate and acceptable way.

#### ***Back gardens***

- Although not covered by the survey due to the greater difficulty and cost of gathering the relevant data, extensive hard surfacing of **back** gardens in the borough is also giving increasing cause for concern.

#### **Recommendation for Ealing: back gardens**

- The extent of hard surfacing in back gardens needs to be established as a matter of urgency, so that the relevant authorities can assess how serious the problem is and what needs to be done about it.