

Crazy Paving

The environmental importance of London's front gardens September 2005



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Chair's foreword



If an area of green space in London the size of twenty-two Hyde Parks were to be concreted over there would, quite rightly, be a huge public outcry. But when the lost green space in question is made up of front gardens rather than parkland, we have let this happen with barely a murmur. Our research suggests that around two-thirds of London's front gardens are now either partially or wholly covered in an assortment of paving, bricks, concrete and other hard surfacing. Much of this is to create off-street parking space, but convenience and the desire to create minimalist gardens fuelled by endless TV makeover shows have also played a role.

Front gardens are important in terms of London's environment, however. Not only does the continued paving over of front gardens mean that wildlife habitats are being lost and the visual amenity of the street environment is being degraded, but the increase in hard surfaces is contributing to London's flooding problems. The more paved surfaces there are, the less rainfall is soaked into the ground and the more London's dilapidated sewerage system struggles to cope.

In the first comprehensive London-wide study of the problem, we argue that the strategic importance of protecting London's front gardens needs to be formally recognised in the Mayor's planning policies; there needs to be much greater public awareness of the problems associated with paving over front gardens and better promotion of the alternatives; and finally there need to be changes to planning policies to enable local authorities to introduce measures to allow more effective protection of front gardens as well as the promotion of current good practice.

My thanks to everyone who contributed their time, views and experience to this investigation.

Darren Johnson Chair of the Committee

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The London Assembly Environment Committee

Terms of Reference

The Environment Committee is a cross-party committee of London Assembly Members, with the following terms of reference.

To examine and report from time to time on -

- o the strategies, policies and actions of the Mayor and the Functional Bodies
- o matters of importance to Greater London

To examine and report to the Assembly from time to time on the Mayor's Air Quality, Biodiversity, Energy, Noise and Waste Strategies, in particular their implementation and revision.

To consider environmental matters on request from another standing committee and report its opinion to that standing committee.

To take into account in its deliberations the cross cutting themes of: the health of persons in Greater London; and the promotion of opportunity.

To respond on behalf of the Assembly to consultations and similar processes when within its terms of reference.

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Summary of recommendations

This report contains the following recommendations. The Committee would welcome comments on the report and recommendations – please send your comments to the contacts listed on page 2.

- 1. The Mayor, in partnership with relevant stakeholders, should initiate an awareness-raising campaign to inform Londoners about the detrimental environmental impact of paving over front gardens, and to raise the profile of environmental sustainable alternatives to concrete and paving slabs. We invite the Mayor to tell us in his response to this report what action he plans to take towards this end.
- 2. The Greater London Authority should make available its data for use by the London Wildlife Trust or other suitable organisation to conduct a more detailed analysis of the extent and patterns of hard surfacing in front gardens, in order to inform future policy and initiatives.
- 3. The Mayor's revised London Plan should include consideration of the strategic importance of London's gardens as a crucial environmental resources, wildlife habitat, amenity resource and flood protection system. It should set objectives for the promotion and protection of the large area of green space that is made up by front gardens, and should encourage and enable London boroughs to do the same in their own development plans.
- 4. We recommend that the Association of London Government host a seminar at its next Liveable London conference to share knowledge and experience of using planning, transport and other policies to manage the numbers of new pavement crossovers, enforce the law relating to illegal crossovers, take account of the likely impact on front gardens when introducing parking restrictions, and more generally promote the environmental significance of front gardens.
- 5. We recommend that the Government amend the Town and Country Planning (General Permitted Development) Order 1995, to enable local authorities to require planning applications to be submitted for all proposals to install pavement crossovers.

1. Introduction

- 1.1 When we talk about London's green spaces, we bring to mind images of London's parks, perhaps local woodland areas, maybe Hackney Marshes, and the areas of farmland that skirt the City's outer limits. Parks and other green spaces in London are well-recognised as playing a crucial role in the city's environment cleaning our air, soaking up the rain, providing open spaces for play and leisure, and protecting London's wildlife. What is not so well-known is the importance of our own gardens to London's environment. More than a third of London's green space, and one-fifth of London's total land area, is made up not of parks, woodland or farms, but private gardens. Together, London's private gardens cover an area just slightly smaller than the combined size of the inner London boroughs 319 square kilometres (or 123 square miles). An estimated two-thirds of London's trees are in domestic gardens.
- 1.2 Because of the size of the area of land they cover, private gardens are a crucial component of London's ecosystem and, perhaps most significantly, in the city's ability to absorb rainfall. Whatever rain is not absorbed by the ground will run off into underground drains, putting additional pressure on our already creaking Victorian sewerage and drainage system. As we saw last summer, when one million tonnes of raw sewage were discharged into the Thames after heavy rainfall, the results when these underground drains overflow are dramatic and potentially very damaging to the environment and public health.
- 1.3 Front gardens are of course a small proportion of the total area of land covered by private gardens most people's back gardens are significantly larger than their front gardens, and the best estimates we have been able to obtain are that back gardens are on average at least four or five times the size of front gardens. This would mean that front gardens cover between three and five per cent of London's land area. For the purposes of this report, we have adopted a conservative estimate of three per cent. This is 47.8 square kilometres (18.5 square miles).
- 1.4 Research commissioned by this Committee and carried out on our behalf by the Greater London Authority's Data Management and Analysis group suggests that around two-thirds of London's front gardens are already at least partially covered by surfacing other than vegetation paving, bricks, concrete, or gravel being the most likely alternatives. London's front gardens have given way on a huge scale to parking bays which, added together, cover an area of 32 square kilometres (12 square miles).³ If anyone suggested building a car park the size of the London Boroughs of Islington and Hammersmith and Fulham combined, 22 times the size of Hyde Park, 16 times the size of the new Olympic

¹ Mayor's Biodiversity Strategy, pages 7 and 14.

² Trees Task Force, 1993

³ This calculation is based on an analysis of 14 sample areas of land (each being 500m²) across London, comparing land use maps with aerial photographs taken in 2003.

Park in East London, or the size of 5,200 football pitches, Londoners would quite rightly be up in arms and those in positions of power would not dare to be seen to be ignoring the problem. But until now, because this phenomenon is happening gradually and locally, and there has not been any analysis of its cumulative scale and impact, this has not to date been considered seriously to be a significant London-wide issue.

- 1.5 In this Report, we argue that it is time for the Mayor and London boroughs to promote London-wide action to mitigate the loss of green space in London's front gardens. We call on the Mayor to launch a London-wide campaign to raise Londoners' awareness about the negative impact of hard surfacing of front gardens both on the environment and on London's vulnerability to flash floods, and to inform Londoners about the available environmentally-friendly alternatives. We believe that such a campaign would provide Londoners with the information they need to make informed decisions when deciding how to use their front gardens. A better balance must be struck between the rights of individuals to do as they see fit with their property, and the need to protect London's environment and minimise flooding risk. We look to the Government to amend planning regulations to enable boroughs more easily to manage the numbers of new conversions from garden to driveway. We recommend that the Association of London Government take the lead in sharing good practice among the boroughs on how to promote and protect front gardens, and how parking policies can more effectively take into account the impact of controlled parking zones on the rate at which front gardens are turned into parking bays. Finally, we want to see the Mayor recognising the strategic significance of private gardens by including policies for their promotion and protection in the London Plan when it is revised next year.
- 1.6 We should like to thank all those who contributed to this review, especially Ealing's Local Agenda 21 team who hosted a fascinating visit to their local area, where we were able to gain an understanding of the issues at a local level. The team also provided us with the cover photograph for this report, for which we are grateful. We would also record our thanks to Gareth Baker, from the Greater London Authority's Data Management and Analysis Group, for his work in analysing maps and data to calculate the proportion of London's front gardens that are partially or not at all covered with vegetation.

2. Why front gardens matter

2.1 Perhaps the most worrying impact of hard surfacing on this scale is the increased burden that is placed on London's underground drainage system by the run-off of rain from hard surfaces. There has been much publicity about the dilapidated state of London's underground drainage system, which was constructed by the Victorians in the 1850s and has suffered a chronic lack of investment ever since. These sewers are designed to carry a combination of sewage and rainfall. The more ground is covered by impermeable hard surfaces such as concrete or paving slabs, the less rainfall will soak into the ground and the more will run into underground drains. At times of heavy rainfall, the drainage pipes overflow and the contents are discharged into London's rivers. This not only results in raw sewage being discharged into the river, with associated impacts on life in the river, but at times of very heavy rainfall it can result in localised flooding when rivers burst their banks. The experience of the flash floods of August 2004 in west London provides a dramatic picture of what this might mean —

hugely expensive and significant damage to our streets and our homes, loss of clean water supply, and the overflow of raw sewage into the Thames with all its consequences for the environment and public health.

- 2.2 Thames Water has carried out significant work to identify ways of managing drainage in London. Having carried out a £4 million investigation into the capacity of storm drainage and the environmental and public health risks of sewage outflows into the Thames, it recommended the construction of a new 35km storage and attenuation tunnel, which would cost a total £1.5 billion and cost water rate payers £40 per year by 2020. Its strategy now focuses on leakage reduction, increased capital maintenance and reduced sewer flooding.⁴
- 2.3 Hard surfaces in London cover many different types of land, and the issue of sustainable drainage is one that has been recognised by the Mayor in the London Plan. The London Plan contains the following policy on sustainable drainage:

London Plan Policy 4C.8 Sustainable drainage

'The Mayor will, and boroughs should, seek to ensure that surface water run-off is managed as close to its source as possible. The use of sustainable urban drainage systems should be promoted for development unless there are practical reasons for not doing so. Such reasons may include the local ground conditions or density of development. In such cases, the developer should seek to manage as much run-off as possible on site and explore sustainable methods of managing the remainder as close as possible to the site.'

2.4 However, what has not yet been acknowledged is the contribution to the capital's drainage problems that is made by run-off from paved over front gardens, partly because until now there has been no overall estimate of the area of land that is involved. Thames Water is working on a model that will provide a measurement of the increase in run-off per square metre of hard surfacing,⁵ which will enable us to calculate more precisely the impact of hard surfacing of each front garden, and the overall impact, on flooding risk in London. This is due for completion later this year. But it is clear from what is already known that the huge scale on which London's front gardens are being paved over is contributing to the over-burdening to the point of overflow of London's underground drainage and sewerage systems during periods of heavy rainfall. Carlo Laurenzi, Director of the London Wildlife Trust, told us that the increase in run-off from an impermeable surface such as concrete can be as much as three times greater than the run-off from porous surfaces. He said, 'that is not an insubstantial figure, which means there are going to be more flash floods, and huge impacts on drains'.6 The Royal Horticultural Society issued an advisory note in February 2005, which explained that, 'an average suburban garden on a typical rainy day will absorb about 10 litres of rainwater a minute. This is around 10 per cent of the water that will fall in a storm. Although it may not seem a lot, it prevents thousands of litres contributing to

⁶ Transcript of Environment Committee meeting, 15 March 2005, page 2

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⁴ Thames Water, presentation to London Assembly Public Services Committee, 14 September 2004. Available at www.london.gov.uk/assembly/health_ps/2004/healthps14sep/minutes/healthps14sepappb.pdf

⁵ Transcript of Environment Committee meeting, 15 March 2005, page 14

localised flooding or eventually causing rivers to burst their banks in extreme weather, such as the west London floods of August 2004'.⁷

- 2.5 The damage to the environment does not stop at flooding. The run-off of water into underground drains carries with it an increased level of pollution, as polluting substances are washed down the drain.8 Overflows into the river are then contaminated with substances such as engine oil, herbicides, and other polluting substances, as well as raw sewage. The reduced amount of water in the ground, and the replacement of vegetation with hard surfaces, also has an impact on local temperature, contributing to what is known as the 'heat island' effect: the local landscape cannot absorb heat, and instead intensifies it, resulting in an increased local temperature. And as with all loss of green space, there is a loss of wildlife and wildlife habitat associated with the loss of front gardens. Carlo Laurenzi told us about the loss of wildlife associated with the loss of green space in London's front gardens. He referred us to the Sheffield BUGS project, which studied biodiversity in urban gardens, looking specifically at invertebrates, and found 786 different species of insects. The BUGS project found that there was no qualitative difference between smaller and larger gardens. Moya O'Hara from the London Wildlife Trust said, 'even very tiny front gardens are vital for wildlife. That was the message that came out'. Dr Dave Dawson from the GLA Environment team pointed out that the BUGS project only considered invertebrates, rather than birds and other vertebrate wildlife. In his view, front gardens do not play a major role in London's biodiversity when compared to back gardens. Dr Dawson cited research done in London in the early 1990s, which showed that longer, bigger back gardens hold more birds than smaller, shorter back gardens. However, he agreed that looking at this on a pan-London level, the loss of green front gardens would have an impact on biodiversity, especially when the removal of hedges, trees and verges to make way for driveways is taken into consideration.
- 2.6 From the point of view of residents in any given street, the conversion of front gardens to driveways, especially in cases where the entire area in front of a house is paved over, can dramatically reduce the attractiveness of the area. The ODPM-commissioned review of permitted development rights, published in September 2003, noted that, 'demolition of front garden walls to leave lengthy gaps for car parking and the loss of green areas harm the character of conservation areas and other areas, as well as reducing on-street parking'. The report goes on to state that, 'where one or two adjoining properties remove front walls, this can cause an unsightly gap and begin to lower the general character and quality of a street and encourage others to follow'. Moya O'Hara from the London Wildlife Trust showed us photographs she had taken on a street in Peckham to illustrate this point, as did Christine Eborral from Ealing's Local Agenda 21 project. Local

⁷ The Royal Horticultural Society Horticultural Advisory Services, February 2005

⁸ London Plan, para 4.27

⁹ Transcript of Environment Committee meeting, 15 March 2005, page 5

¹⁰ ODPM, Review of Permitted Development Rights, September 2003, p. 239

¹¹ ODPM, Review of Permitted Development Rights, September 2003, para 35.23

¹² Ealing LA 21 presentation to Environmeth committee, 15 March 2005

- 2.7 Streets without trees, hedges or other greenery are more noisy, windy and dusty. This makes for a much less pleasant living environment for residents, and runs counter to the 'liveable London' agenda embraced by the Association of London Government and others. The wrote, 'the visual appearance of property is altered badly by crudely paving / concreting the garden and ripping out boundary hedges and leaving the area devoid of vegetation'. The wrote, 'the visual appearance of property is altered badly by crudely paving / concreting the garden and ripping out boundary hedges and leaving the area devoid of vegetation'. The wrote is altered badly by crudely paving / concreting the garden and ripping out boundary hedges and leaving the area devoid of vegetation'.
- 2.8 The Royal Horticultural Society has pointed out that if all the front gardens on either side of a street are paved over, it effectively makes the road three times wider. Not only does this look unattractive, it can also result in increased traffic speeds and therefore more potential accidents. Craig Wilson, Director, Transportation and Highways, Royal London Borough of Kensington and Chelsea, told us about an analysis of traffic accidents in the Borough between 1999 and 2001, which found that there were more than 400 accidents involving vehicles emerging or reversing from private driveways or access points. He said, 'it is well known, I think, that most traffic accidents do occur at junctions. What you are actually creating along the road is a series of mini-junctions when you put these in, and we have had a fatality where a van backed over a pedestrian coming out of a front-garden parking area ... a lot of the victims tend to be twowheelers. It could be powered two-wheelers or cyclists, as well, who are not seen along the roads. It is not just cars banging into cars; these are injury accidents'. ¹⁵ The installation of driveways is therefore contrary to the Mayor's policies on walking and cycling, which are aimed at improving the safety and attractiveness of those activities in London. If driveways make walking along a pavement or cycling along a road more hazardous and less appealing, this will undermine policies and initiatives aimed at promoting walking and cycling.
- 2.9 Residents in streets with driveways instead of gardens will also suffer from a loss of onstreet parking. Craig Wilson said, 'you are probably losing one-and-a-half spaces on the street, just to get one vehicle off the street'. The process can quickly become self-perpetuating: loss of on-street parking leads to more driveways being created, which leads to further loss of on-street parking... Steve Dunkin wrote, 'the use of gardens for parking is effectively giving the owner exclusive use of the road space outside the property because clearly nobody can park there and the Council often put ugly yellow lines to stop parking. The availability of a convenient parking space on the public highway should be a lottery and [home]owners should not be allowed to change this by altering the use of their garden'. If

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¹³ Transcript of Environment Committee meeting, 15 March 2005, page 13

¹⁴ letter from Steve Dunkin, London resident, 29 March 2005

¹⁵ Transcript of Environment Committee meeting, 15 March 2005, page 25

¹⁶ Transcript of Environment Committee meeting, 15 March 2005, page 21

¹⁷ Letter from Steve Dunkin, London resident, 29 March 2005

3. Why people pave over their front gardens

- 3.1 The loss of London's front gardens is linked to the availability of public transport, which in turn has an impact on car ownership and usage; the availability of on-street parking; the premium that is placed on off-street parking (in some areas of London it is possible to pay more than £100,000 for an off-street parking facility); and the trend towards low-maintenance, minimalist front gardens.
- 3.2 There are 1.9 million households in London with at least one car or van. ¹⁸ There is a growing trend towards multiple car ownership. Nationally, the percentage of households with one car has remained steady, at around 45 per cent, since the late 60s. Over the same period, the proportion of households owning two or more cars has increased from six per cent to 28 per cent. ¹⁹ In inner London, car ownership levels are much lower than the national trend, but outer London follows more closely the national trend for car ownership according to income 26 per cent of households in outer London have two or more cars, compared to nine per cent in inner London. ²⁰ The higher density of housing in London means that there will be more cars per metre of roadside for the same level of car ownership per person. So London's drivers are competing in a very tight race for parking spaces.
- 3.3 London drivers know all too well how difficult it can be to find a parking space in a city with high population density and in which there has been a proliferation of parking controls in recent years, making it more difficult than ever to find a space to park on the road. Some of those who wrote to us argued that local authority and London-wide traffic initiatives had exacerbated the pressure on car parking spaces. For example, Steve Dunkin wrote that, 'the pressure for off-street parking has been increased by appalling road planning schemes that have created dual carriageways and red routes through residential areas where parking is restricted'.²¹
- 3.4 In controlled parking areas, a resident's parking permit does not guarantee a parking space near to your home. Far from it: a resident's parking permit does not guarantee a parking space at all it is apparently common practice for Boroughs to over-issue parking permits. For example, the Royal Borough of Kensington and Chelsea has about 40,000 permit holders for 27,000 spaces. Craig Wilson, Director, Transport and Highways, explained that, 'not all those permit holders are dependent totally on parking on-street, but our car ownership is just over 50% on a household basis'. Craig Wilson told us that in RBKC it is normal to pay £30-40,000 for an off-street parking space he had heard of off-street parking spaces being sold for £100,000. Clearly, here and in many other areas of London, parking spaces really are at a premium. Given that there is only a finite amount of road space in London, the only way in the long term to reduce

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¹⁸ 2001 Census data, www.statistics.gov.uk/census2001/default.asp

¹⁹ Transport for London, London Travel Report 2004, page 22

 $^{{}^{20}\,\}underline{www.statistics.gov.uk/StatBase/xsdataset.asp?more=\breve{Y}},\,and\,www.neighbourhoodstatistics.gov.uk$

²¹ Letter from Steve Dunkin, London resident, 29 March 2005

²² Transcript of Environment Committee meeting, 15 March 2005, page 20

the pressure on parking spaces will be to reduce car ownership per household, which in turn will only happen as and when public transport becomes a reliable alternative for Londoners right across the city. In the meantime, there is work to be done by local authorities to ensure that their parking policies effectively take into account and plan for the impact of parking restrictions on the rate at which homeowners will seek to convert their front gardens into driveways.

- 3.5 In areas where there is significant pressure on on-street parking spaces, off-street parking is highly desirable for car owners. It may even increase the value of a property. The Times, in February 2005, reported Andrew Spittle, a director of DTZ Residential in Birmingham, as stating that creating a property's parking will usually increase the value of a house, although retaining part of the garden will be appealing to buyers. Mr Spittle was reported as estimating that the value of properties on roads with no on-road parking (double yellow lines) could be increased by 15-20 per cent by the addition of off-street parking, and the value of properties on roads with on-road parking could be increased by 5-7 per cent. However, there is some evidence to suggest that there is a skittle effect, whereby if a single house in any given street has a driveway instead of a garden, and there is limited or no on-street parking, the value of the property will be greater than the surrounding properties. However, once critical mass has been reached, and the majority of front gardens have been paved over, the value of all the houses on the street will be reduced because of the reduction in the attractiveness of the streetscape.²³
- 3.6 It is important to people that they are able to park their cars in front of their homes, from the point of view of both convenience and security. According to Lombard Thames Bridge Insurance Brokers, the average discount on car insurance premiums for off-street parking in London is 5-10 per cent (the precise level of premiums is of course dependent on a number of other factors including make and age of car and individual driving history). This is because of the reduced risk of the car being hit by moving vehicles, vandalised, or stolen if it is parked on a driveway rather than a road. However, this is not an assumption that is universally accepted. Carlo Laurenzi from the London Wildlife Trust told the Committee that, 'there is a perception that your car is somehow safer when it is on your front garden ... the minute you drive onto your property, a whole series of different rules apply, and that somehow people are not going to come onto your driveway and touch your car. Of course, this is complete nonsense, because actually, people do'.²⁴
- 3.7 It is worth noting that Londoners are not just paving over their gardens so they can park their car on the drive. And even those who are doing it for that purpose seem also to be fulfilling another requirement: convenience. A 'minimalist' garden is seen by some urbane city-dwellers as a statement of their cosmopolitan style and sophistication. It might also be a lot less time-consuming to maintain, which is a reasonable priority for busy people who are not interested in gardening. Ann Bott, a retired horticulturalist from Kingston upon Thames, wrote to tell us, 'the considerable loss of green space over

²⁴ Transcript of Committee meeting, 15 March 2005, page 23

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²³ Ealing LA21 project, presentation to Environment Committee, 15 March 2005, slide 39

recent years to patios, decking, conservatories and other hard landscaping is a considerable problem. This is due to the influence of TV gardening programmes, particularly of the makeover type ... unless for some unlikely reason the current fashions change, we are condemned to disappearing gardens and subsequent severe loss of trees, plants and wildlife, including insects'. Pauline Ruffle wrote, 'somehow, traditional green gardens have to be made to be seen as the trendy thing to have so that people who try to keep up with the Jones's won't feel the need to concrete their gardens'. ²⁶

4. Can and should anything be done?

- 4.1 For all the reasons we have discussed, we are concerned about the loss of green space resulting from the laying of paving slabs and concrete across a huge area of our city. We want to minimise the extent and environmental impact of hard surfacing of front gardens in London. However, there is clearly a crucial balance to be struck between the rights of individuals to do as they see fit with their own property and the need to protect London's green spaces, not least in order to maximise the city's resilience against flash flooding during periods of heavy rain.
- 4.2 There should be three main elements to a London-wide strategy to deal with this issue:
 - a. Heightened public awareness of the cumulative environmental impact of impermeable surfacing, and promotion of the less environmentally damaging alternatives, and support for those who wish to remove hard surfacing in their own front gardens.
 - b. Recognition by the Mayor in his planning policies of the strategic importance of promoting and protecting the environmental importance of front gardens.
 - c. Changes to planning regulations to enable local authorities to manage more effectively the protection of front gardens, if they wish to do so. This should be coupled with an increased awareness among London local authorities of the tools that already exist for managing the proliferation of crossovers and new driveways, and effective use of those tools where local authorities wish to limit the spread of concrete front gardens.

Raising Public awareness

4.3 The most important of these three elements is the need for Londoners to be made aware of the environmental impact of paving over their front gardens, and what they can do in their own gardens to minimize that impact through the use of alternative surfaces to concrete and paving slabs and other measures. The Mayor of London is well-placed to take a lead in making this happen. The Greater London Authority, through the Mayor, has three principal purposes, one of which is, 'promoting the improvement of the environment in Greater London'.²⁷ This is in addition to other

²⁵ Letter from Ann Bott, retired horticulturalist from Kingston Upon Thames, 24 March 2005

²⁶ e-mail from Pauline Ruffle, 28 March 2005

²⁷ Greater London Authority Act 1999, s. 30 (2) (c)

powers of the Mayor in relation to sustainable development, and planning and spatial development. Under these powers the Mayor has already undertaken a wide range of initiatives and campaigns aimed at promoting environmental protection and sustainable development. He could also use these powers to promote and protect London's front gardens. This would be in line with the Mayor's existing policies on sustainable urban drainage and protection of London's green spaces. It would complement previous Mayoral awareness-raising initiatives, such as those promoting 'green roofs', and would enable those Londoners who are concerned about the loss of London's green front gardens to take action individually.

- 4.4 Carlo Laurenzi reminded us that, 'if you look at Market & Opinion Research International's research over the last 20 years in terms of people's attitude towards gardening and their contribution to the environment, people do feel that their little bit does make a difference. That tends to run in the face of what you might consider to be common sense, which is there is no point in me not paving my front garden, because it is not going to make any difference, because everybody else does. Actually, when you interview people, people do feel it makes a difference'. But in order to make that difference, people need first to be aware of the issue, and secondly to be aware of what they, individually, can do about it.
- 4.5 So what are the alternatives to paving slabs and concrete? They include:
 - a. Gravel, which costs £2-£5 per sq. m;
 - b. Pavers with in-built vertical drainage channels (thus reducing run-off), which cost £50-£60 per sq. m;
 - c. Slabs made from recycled plastic, gravel and crushed glass, which cost £70-125 per sq. m;²⁹
 - d. Netpave, a synthetic net placed on areas of grass to prevent erosion through pedestrian and light vehicle traffic Netpave 25, for light traffic, costs £15 per sq. m, and Netpave 50, the heavy-duty version which requires more arduous site preparation.
- 4.6 These alternative surfaces are porous, and therefore allow rainfall to penetrate the ground below, relieving the pressure on underground drains. We would like to see the Mayor engaging in a campaign to promote these alternatives. However, the use of these will only address drainage issues, and will not necessarily serve to protect the character of a street, or the greenery of front gardens.
- 4.7 The RHS has its own campaign on the protection of front gardens, which we have already mentioned in this report. The 'London in Bloom' campaign is another awareness-raising organ which communicates to people the value and importance of at least retaining some space for plants, hedges and trees in front gardens. The Mayor could support, in the form of publicity and promotion, London in Bloom and other such competitions and campaigns to raise the profile of the issue. For example, he could host the launch of the competition at one of his weekly press conferences, taking the

²⁸ Transcript of Environment Committee meeting, 15 March 2005, page 3

²⁹ BBC website

opportunity of the media attention at those events to promote coverage of this important environmental issue. He could also consider placing articles in The Londoner newsletter, which is delivered to all households in London.

4.8 The Mayor could offer financial and other support to those organizations that are already campaigning on this issue. For example, Carlo Laurenzi from the London Wildlife Trust spoke of the need for further research to determine the extent of loss of green space in front gardens. He told us of the organisation's expertise in analyzing geographical data, but said that they could not afford to buy a licence for the relevant software in order to carry out a London-wide analysis. The Greater London Authority already possesses the necessary licences, and could provide the London Wildlife Trust with access to the software to enable them to carry out further research to establish where and to what extent the phenomenon is happening within London, by commissioning the research, which would enable the Authority under its license agreement to make available its data for the purposes of that research.

Recommendation 1

The Mayor, in partnership with relevant stakeholders, should initiate an awareness-raising campaign to inform Londoners about the detrimental environmental impact of paving over front gardens, and to raise the profile of environmentally sustainable alternatives to concrete and paving slabs. We invite the Mayor to tell us in his response to this report what action he plans to take towards this end.

Recommendation 2

The Greater London Authority should make available its data for use by the London Wildlife Trust or other suitable organisation to conduct a more detailed analysis of the extent and patterns of hard surfacing in front gardens, in order to inform future policy and initiatives.

Recognition of the importance of London's front gardens

4.9 The paving over of front gardens is mentioned in passing as a biodiversity issue in the Mayor's Biodiversity Strategy (page 50, paragraph 4.40). At the State of London Debate in May 2004, the Mayor was reported as saying, 'I would like the power to say we can stop people concreting over their gardens and parking their cars on them. In parts of London, and particularly around the North Circular Road where gardens have been concreted, you get flash floods and the run-off is massive'. However, despite these encouraging statements, gardens are not mentioned at all in the Mayor's London Plan. Given the scale we have now identified of the loss of green space in London's front gardens, we would at a minimum now expect the Mayor to include consideration of the strategic importance of London's gardens in the revised London Plan next year. This should include consideration of important issues relating to building developments

³⁰ Guardian, Saturday 22 May 2004

on land formerly used as back gardens, as well as the issues considered in this report relating to front gardens.

Recommendation 3

The Mayor's revised London Plan should include consideration of the strategic importance of London's gardens as a crucial environmental resource, wildlife habitat, amenity resource and flood protection system. It should set objectives for the promotion and protection of the large area of green space that is made up by front gardens, and should encourage and enable London boroughs to do the same in their own development plans.

- 4.10 There is growing concern among London boroughs about the scale of the transformation from front garden to driveway, and the resulting impact on the environment. Nick Lester from the Association of London Government told us, 'I think that the general points that people have made about the loss of front gardens are ones that most London councils if not all London councils would share, tempered to a certain extent by the need for personal choice in people's own property'. So what, if anything, can London boroughs do about it?
- 4.11 There is nothing in planning or any other law to prevent a homeowner from covering their front garden with concrete or any other surface. Nor should there be it is for individuals to decide what to do with their own gardens. Local authorities do have some (albeit limited and difficult to enforce) powers under planning law and regulations and can use parking control policies to manage the numbers of new driveways that are installed. These powers seem to be the only available options for local authorities wishing to implement policies to promote and protect front gardens. The extent to which local authorities are aware of and make use of these powers varies widely across London. And the powers themselves are complex and difficult and resource-intensive to enforce, which significantly detracts from a local authority's ability to pursue policies to manage the numbers of new driveways that are created.

Permitted development rights

- 4.12 It is a legal requirement that anyone who wishes to use their front garden as a driveway must install what is known as a pavement crossover at the point at which vehicles will cross the pavement. This involves the installation of a drop in the kerb. Outside conservation areas, the installation of a pavement crossover in front of a single-dwelling house is what is known as a permitted development there is no need to apply for planning permission because it is deemed automatically to be granted.³²
- 4.13 Permitted development rights can be suspended by local authorities, using what is known as an Article 4 Direction, which has the effect of suspending permitted development rights so that minor developments such as pavement crossovers are subject to planning controls and require planning permission. Article 4 Directions are

³¹ Transcript of Environment Committee meeting, 15 March 2005, page 6

³² The law on permitted developments is set out in the Town and Country Planning (General Permitted Development) Order 1995

almost exclusively used in conservation areas, because they are expensive and difficult to enforce in non-conservation areas. Even within conservation areas, there are several factors which prevent widespread or effective use of Article 4 Directions to limit the numbers of new crossover applications that are granted. Craig Wilson, Director, Transportation and Highways, Royal Borough of Kensington and Chelsea, told us that the fact that Article 4 Directions provide for compensation to be paid to occupants was a significant disincentive for local authorities. He said, 'if you are talking about adding £10,000-20,000 to the value of a property in the context of inner London, the compensation factors make councils start thinking twice about signing Article 4 Directions'. Some Article 4 Directions provide for a maximum percentage of front gardens to be converted to driveways, but such Directions are apparently difficult to hold. For example, Christine Eborall from the Ealing LA 21 project told us about the Hanger Hill Garden Estate, where there is a 50 per cent maximum in place which is, according to Ms Eborall, not being adhered to.

- 4.14 Outside conservation areas, permitted development rights are in place for single-dwelling houses, so that the power of local authorities to limit the numbers of new driveways using planning law is effectively limited to houses of multiple occupancy (ie flats or houses converted into flats). For years, local authorities and Transport for London (which is responsible for the strategic road network) actually encouraged people to install driveways, thus relieving the pressure on on-road car parking spaces.³⁶ But more recently, some London boroughs have started to develop a policy of limiting the numbers of new pavement crossovers by refusing planning permission where a crossover is not a permitted development either because of Article 4 Directions or because the dwelling is not single-occupancy.
- 4.15 Some London local authorities have extended such policies beyond the boundaries of conservation areas under the aegis of their unitary development plans. These policies tend to apply to all applications for crossovers where permitted development rights do not apply, which essentially refers to applications for crossovers in front of flats, or houses converted into flats. For example, The City of Westminster received 26 applications for new pavement crossovers between 1999 and 2005, of which ten were refused and seven were withdrawn. This relatively high rate of refusal is, according to Westminster's planning department, a result of the inclusion of the following policy in the City Council's draft replacement unitary development plan:

Policy Trans 26: off-street parking in forecourts and front gardens:

(A) The use of private forecourts or front gardens for parking vehicles will be resisted unless authorised or arranged as part of an approved overall development proposal or else within a comprehensive scheme of environmental traffic management or street scene enhancement.

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³³ Transcript of Environment Committee meeting, 15 March 2005, page 6

³⁴ Transcript of Environment Committee meeting, 15 March 2005, page 26

³⁵ Transcript of Environment Committee meeting, 15 March 2005, page 27

³⁶ Transcript of Environment Committee meeting, 15 March 2005, page 6

- (B) The City Council will encourage the removal of such parking provision from front gardens or shop frontages or forecourts where it currently exists and will seek to remove permitted development rights for such minor operations where the quality of the local townscape or street scene justifies such action.
- (C) In the interests of maintaining the good appearance of new development and preventing the loss of existing on-street parking provision, the Council may impose conditions to withdraw permitted development rights and to secure the permanent retention of authorised and integral off-street parking provision. ³⁷
- 4.16 Another example is the London Borough of Camden. The London Borough of Camden's engineering and traffic policy limits crossovers in Camden to 40 per annum. Their UDP sets out the considerations that will be taken into account by the Council when looking at planning applications for the development of forecourt parking:
 - a. The contribution which the existing forecourt or garden, and its means of enclosure, makes to the visual appearance of the area;
 - b. The cumulative visual impact of any existing roadside and / or forecourt and front garden parking in the area;
 - c. The nature and extent of any landscaping, surfacing or other ameliorative works which may be proposed to offset any adverse visual impact; and
 - d. The likely implications for the safe and free flow of traffic on the highway network.³⁸
- 4.17 Camden also has criteria against which crossover applications are assessed. These were introduced in 2001. The criteria are that: there must be at least 4.8 metres between the front of the house and the back of the pavement; site lines must be unimpeded by obstructions such as trees; and 'Where the proposed crossover is located within a current Controlled Parking Zone (CPZ) or an area which the Council has formally agreed will become a CPZ, the application will not be approved if it requires any amendments to the CPZ that are detrimental to that scheme in Traffic/Parking management terms'.³⁹ Since 2000, Camden has received 114 applications which included the creation of a crossover. Of these, 27 (24 per cent) were granted planning permission, 40 were withdrawn, seven were permitted development and a further 40 (35 per cent) were refused.⁴⁰
- 4.18 Such policies have to be based in the context of planning law, and authorities are therefore limited in the range of reasons they may cite for refusing planning permission for new crossovers. This range has been extended by case law established by the Royal London Borough of Kensington and Chelsea, which has successfully challenged the generally accepted interpretation of the law in order to refuse crossover applications. Craig Wilson, Director, Transportation and Highways, told us of a case in which the Borough had refused to allow a crossover applied for under s.184 of the Highways Act 1980. The case had, 'extended, you might say, the provisions of the Highways Act 1980 by a court case which found in our favour, where it was deemed that the council

³⁷ E-mail from City of Westminster Department of Planning and City Development, 12 May 2005

³⁸ London Borough of Camden, Adopted UDP, Policy EN26

³⁹ London Borough of Camden, Crossover policy

⁴⁰ Letter from London Borough of Camden Performance & Support Team, Planning Division, 5 April 2005

could take into account things beyond [those] which were actually stated in the Highways Act in s.184'.⁴¹ The Highways Act sets out the following matters which may be taken into consideration when deciding applications for new crossovers:

- a. Prevention of damage to the footway;
- b. safe access to and egress from premises; and
- c. the need to facilitate the passage of vehicular traffic on the highway.
- 4.19 The Royal London Borough of Kensington and Chelsea successfully argued that this list was not exclusive, and that other considerations could also be taken into account. Using this newly recognized power, the Royal Borough of Kensington and Chelsea now refuses quantities of applications for crossovers. Craig Wilson told us, 'we still do allow crossovers on occasion, but we want a substantial gain, and usually that is garage access not a single garage access, but a multiple garage access, things like that I think somewhere in the neighbourhood of three to four [off-street] spaces for, basically, one [on-street] space'. 42
- 4.20 By way of comparison, the London Borough of Barnet approved 85 per cent of applications for crossovers received between 2001 and 2005 a total of 2,341 out of 2,769 applications. The London Borough of Wandsworth approved 754 out of 1003 applications 75 per cent between 2000 and 2005. The London Borough of Sutton's approval rate was 94 per cent between 2000 and 2004; Havering's was 97 per cent; Islington's was 76 per cent; and 70 per cent of applications in Merton were built. Clearly these statistics can only be indicative we do not know the reasons for each and every permission or refusal. However, against a general pattern of high approval rates, those boroughs which have implemented policies designed to reduce the numbers of crossovers appear to be having some success.
- 4.21 The use of planning law and policy to control the numbers of new crossovers presumes that there is adherence to and enforcement of the law requiring a crossover to be installed where cars will cross the pavement. There are no statistics available as to how many driveways in London have been installed without an authorized crossover. But this is a significant enough issue for London's local authorities to promote private legislation in Parliament to enable them to enforce the law on illegal crossovers. Since 2003, ⁴³ London local authorities have been empowered to take action against those who illegally cross the pavement in the absence of an authorized crossover. Nick Lester from the ALG told us that, 'this is a fairly lengthy procedure, including giving people notice and giving them the right to appeal against that notice, but the end product is if no other agreement or action is taken, councils can take physical steps to stop an unauthorized crossover being used. That is quite an important step forward'. ⁴⁴
- 4.22 Prior to this legislation coming into force, and since, there has been minimal enforcement of laws against illegal crossovers. Nick Lester went on to say that, '[the

⁴³ The London Local Authorities Act 2003 provided powers for councils to block unauthorised crossovers at the homeowner's expenses

⁴¹ Transcript of Environment Committee meeting, 15 March 2005, pages 20-21

⁴² Transcript of Environment Committee meeting, 15 March 2005, page 21

⁴⁴ Transcript of Environment Committee meeting, 15 March 2005, page 7

new powers] have not been used that much so far, because it takes time, and the end part is relatively draconian by making it at the occupier's expense. Consequently, people are being very cautious about bringing that in, but it is an indication of the fact that people take this issue very seriously'. Ealing's Local Agenda 21 project on hard surfacing of front gardens reported that, 'enforcement where planning permission is turned down, where the front garden has been hard surfaced and there is no crossover, or reinstatement when a kerb crossover has been illegally constructed appears to be minimal. The cost of taking legal action is the main reason and a secondary one is lack of resources. The view is that it is not worth taking the risk on something that is likely to be overturned by a court or where the fine is derisory'. 46

- 4.23 There is some scope for using tree preservation orders to protect street trees from being removed to make way for crossovers. Dr Dave Dawson, from the Greater London Authority's Environment Team, told us that tree preservation orders (TPOs), which could be put in place for reasons of amenity, could also be used in a way that would have a knock-on effect of preventing crossovers or paving of front gardens. He said, 'while people may get permission to overrule a tree preservation order, at least that is some assistance in trying to preserve the trees and characters of front gardens ... boroughs could ... be much more proactive in using TPOs and that would, second-hand almost, work against both crossovers and paving of front gardens'.⁴⁷
- 4.24 It is for individual London boroughs to decide their own political approach to this issue, and to determine their own planning decisions, enforcement efforts, and policy priorities. However, given the ALG's view that most London boroughs are concerned about the rate at which front gardens are being converted into forecourts, there would seem to be considerable scope for sharing good practice and lessons learned among authorities wishing to put in place policies to manage the numbers of new driveways installed in their areas. This is particularly important when local authorities introduce parking restrictions. Local authorities' parking policies should take into account the likely impact of new parking restrictions on homeowners' desire to use their front garden as a parking space. The Association of London Government hosts a 'liveable London' conference each year. This would be an ideal opportunity to share best practice among local authority planning teams, for those local authorities who may wish to adopt policies to limit the conversion of front gardens to forecourts.

Recommendation 4

We recommend that the Association of London Government host a seminar at its next Liveable London conference to share knowledge and experience of using planning, transport and other policies to manage the numbers of new pavement crossovers, enforce the law relating to illegal crossovers, take account of the likely impact on front gardens when introducing parking restrictions, and more generally to promote locally the environmental significance of front gardens.

⁴⁵ Transcript of Environment Committee meeting, 15 March 2005, page 7

⁴⁶ Ealing LA 21 Report, page 10

⁴⁷ Transcript of Environment Committee meeting, 15 March 2005, page 30

4.25 The power of local authorities to implement these policies is significantly restricted by the fact that for single-dwelling buildings, pavement crossovers are a permitted development. This means that they may only apply their policies to planning applications that do not fall into this category. From the point of view of parking policies, environmental protection, and walking and cycling policies, there is no reason to differentiate in planning law between houses and flats. The Office of the Deputy Prime Minister commissioned a review of permitted development rules in September 2003, but the issue of crossovers was only referred to very briefly because of a lack of statistical evidence of the scale of the problems we have identified in this report. Now that we have identified the alarming scale of the loss of London's front gardens, we call on the Government to amend planning regulations to remove permitted development rights as they relate to pavement crossovers. This would enable those local authorities wishing to manage the numbers of new driveways to do so more effectively and comprehensively. Those authorities that do not wish to pursue such policies could simply include in their local development plans a presumption that such applications will be approved.

Recommendation 5

We recommend that the Government amend the Town and Country Planning (General Permitted Development) Order 1995, to enable local authorities to require planning applications to be submitted for all proposals to install pavement crossovers.

Appendix 1: Individuals and organisations who provided views and information to the Committee

London Boroughs:

Barking and Dagenham Islington

Barnet Kensington and Chelsea

Bexley
Brent
Bromley
Enfield
Hammersmith and Fulham
Hammers
Sutton

Lambeth
Lewisham
Merton
Newham
Redbridge
Sutton

Havering Tower Hamlets
Hillingdon Wandsworth
Hounslow Westminster

Non-governmental organisations:

London Wildlife Trust

Peter Holman MI Hort, Managing Trustee, London in Bloom

Ealing Local Agenda 21 Pollution and Public Health Project Group

Lynn Hunter, Voice for Amenity Horticulture Frank Wuggenig, Director, Designature

Leigh Hunt, Royal Horticultural Society

London residents:

Adrian Audsley

Steve Terry

Sandra Irvine

Steve Dunkin

Robin Lambert, UKIP

Ann Bott

John Knowles

J Wilson

Jim Trimmer

Dr Geoff Butcher

Paul Ruffle

Patricia Redmond

John Tellick

David Mark

Chris Drayson

Gardi Vaswami, Barnet Green Party

Executive bodies:

Environment Agency

Dr Dave Dawson, Greater London Authority Environment Team

Association of London Government

Appendix 2: Applications for Pavement Crossovers to London Boroughs, 1999-2004

This table shows the numbers of applications for planning permission to install pavement crossovers by a selection of London Boroughs from 1999 to 2004. The figures were provided by London local authority planning departments. The figures in italics are extrapolated from figures for other years, where figures for all the years from 1999-2004 were not available. The estimated total figures for inner and outer London are based on averages for the sample of Boroughs that provided figures. The figures are intended to illustrate the scale at which Londoners are seeking to transform their front gardens into car parking spaces - the table does

not include figures as to how many of these applications were approved.

Borough	1999	2000	2001	2002	2003	2004	total
Camden	23	23	23	23	23	23	138
Greenwich							
Hackney							
Hammersmith & Fulham	77	77	77	77	77	77	462
Islington	47	54	31	26	18	20	196
Kensington & Chelsea	16	17	19	19	13	10	94
Lambeth	125	125	125	125	125	125	750
Lewisham	218	140	261	286	296	220	1,421
Southwark							
Tower Hamlets	0	0	0	0	0	0	0
Wandsworth	200	200	200	200	200	200	1,200
Westminster	2	4	4	4	10	1	25
Average	98	88	102	105	106	93	609
Estimated total inner London	1,174	1,058	1,229	1,263	1,267	1,119	7,306
Barking & Dagenham	757	757	756	687	769	814	4,540
Barnet							
Bexley	726	740	786	742	829	764	4,587
Brent	1,166	923	963	1,391	1,380	1,176	6,999
Bromley	732	722	777	743	746	674	4,394
Croydon							
Ealing							
Enfield	581	581	557	512	644	612	3,487
Haringey	222	222	159	244	252	231	1,330
Harrow							
Havering	1,105	1,105	1,105	1,222	1,184	909	6,630
Hillingdon	50	50	50	50	50	50	300
Hounslow	<i>552</i>	747	437	436	522	622	3,316
Kingston upon Thames							
Merton	909	741	913	919	972	1,000	4,545
Newham	259	149	265	239	515	127	1,554
Redbridge	1,191	1,162	1,375	1,447	1,184	1,134	7,493
Richmond upon Thames							
Sutton	1,204	1,197	1,462	1,132	911	946	6,852
Waltham Forest							
City of London							
Average	945	910	961	976	996	906	5,603
Estimated total outer London	18,908	18,192	19,210	19,528	19,916	18,118	112,054
London estimated total							119,360

Appendix 3: Previous reports from the London Assembly Environment Committee

The Environment Committee's reports are available to download free of charge from www.london.gov.uk/assembly/reports/environment, or on request from the Secretariat, telephone 020 7983 4423 or janet.hughes@london.gov.uk

The Mayor's environmental strategies – a letter from the Environment Committee to the Mayor, August 2005

Sustainable buildings – a letter from the Environment Committee to the Mayor, June 2005

Power to the people – small-scale renewable energy in London, May 2005

Down the drain – London's water supply and usage, March 2005

Environmental aspects of the Mayor's budget – a letter from the Environment Committee to London Assembly party group leaders, January 2005

Hazardous London – disposal of hazardous waste, December 2004

Protecting the City Environment – graffiti, litter and fly-tipping, April 2004

Implementing the Municipal Waste Management Strategy, April 2004

Young London speaks – young people's views on improving the street environment, February 2004

EU Directives affecting waste electrical and electronic equipment, February 2004

Raising the standard? – review of the capital standards campaign on street cleanliness, February 2004

Power in partnership – response to the public consultation draft of the Mayor's energy strategy, April 2003

Response to the public consultation draft of the municipal waste management strategy, December 2002

Flooding in London, November 2002

Scrutiny of the Mayor's draft noise strategy, October 2002

Scrutiny of the Mayor's energy strategy, July 2002

Graffiti in London, May 2002

Scrutiny of the Mayor's draft waste strategy, November 2001

Green spaces in London, November 2001

Transportation of nuclear waste by train through London, October 2001

Rewarding recycling – an investigation into barriers to greater recycling in London, June 2001

Scrutiny of the Mayor's draft air quality and biodiversity strategies, May 2001

Appendix 4: Principles of London Assembly Scrutiny

An aim for action

An Assembly scrutiny is not an end in itself. It aims for action to achieve improvement.

Independence

An Assembly scrutiny is conducted with objectivity; nothing should be done that could impair the independence of the process.

Holding the Mayor to account

The Assembly rigorously examines all aspects of the Mayor's strategies.

Inclusiveness

An Assembly scrutiny consults widely, having regard to issues of timeliness and cost.

Constructiveness

The Assembly conducts its scrutinies and investigations in a positive manner, recognising the need to work with stakeholders and the Mayor to achieve improvement.

Value for money

When conducting a scrutiny the Assembly is conscious of the need to spend public money effectively.

Appendix 5: Orders and Translations

How to Order

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