

The demise of Camden's street trees.



A report and proposals

Authorship, sources and support

This report is based on answers to Freedom of Information requests, information from Camden Open Data, a presentation made by Camden Tree Officers in 2015 and the study of recent academic and professional materials. Written by Harvey Flinder, a resident of Camden for over 30 years, it is supported by and represents the views of local residents groups, local Conservation Area Committees, Air Quality Action Groups, Councillors, and activists in local politics and environmental issues.

Executive Summary

Camden Trees Department has characterised large parts of the borough as having a significant subsidence problem. Their policy of bi-annual pollarding is based on the belief that this will protect the council (a) by having a maintenance programme that is defensible when subsidence claims arise and (b) leading to a reduced risk of them arising in the first place.

The consequences of this policy are degrading the urban environment in these wards and post codes to an unacceptable level. The leaf canopy is disappearing as streets are denuded of full sized trees while virtually all benefits provided by mature trees, be it air quality, shade, habitat and many others are fast disappearing.

The Council's Tree Officers know this policy is directly responsible for the premature death of otherwise healthy mature trees. Instead, as the Council's website states this being 'unfortunate but unavoidable', the report shows it is perverse, destructive, expensive and is not working.

Through Freedom of Information requests to the councils of Camden, Hackney, Westminster and Islington this new report establishes beyond doubt that the current policy is perverse, destructive, expensive and is not working. The report finds that of the four councils Camden has:

The fewest street trees.

The largest number of trees felled per annum

The most trees planted per annum

The most statistical data and records

The laxest replanting & monitoring programme

The weakest benchmarking for tree maintenance standards

The largest tree maintenance and planting budget.

and

The same low rate of tree related subsidence as its neighbours who do not routinely pollard their mature trees. .

The report concludes that the policy of bi-annual reduction also known as stripping and topping be stopped immediately. Furthermore, it proposes urgent amendments to the current Tree Policy in order to reverse this pointless destruction, promote a green and healthy environment and reassure residents whose confidence in the councils' competence has been severely eroded

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Today.

The density of street trees is diminishing year by year. In many wards all standard sized trees are stripped every two growing seasons. Many trees are not species that can be stripped (pollarded); they don't have vigorous epicormic growth, and, as a consequence, are slowly dying. The council know this and consider it, see their website, 'unfortunate but unavoidable'.

Trees that are brought to the point of dying are condemned and felled. Tree pits are then either filled in or replanted with dwarf trees. This generational change is fundamentally altering the urban landscape. It runs counter to the rules governing conservation areas, drastically reducing the local and borough - wide leaf canopy thus slashing the contribution street trees can make to Camden's environment, human health and air quality. All confidence residents may have had in the council's ability to manage our street trees has be completely eroded.


How Camden got here.

The council of course have a legal responsibility to manage our trees so they are both safe and healthy and a useful amenity. Until the middle of the last decade the council's tree dept, as with most councils, managed trees on an ad hoc basis. Following the drought years of 2004 - 2006, the worst in 26 years and particularly affecting the SE England, claims against the council for subsidence doubled. (The same was experienced throughout most London boroughs). This found the Council wanting. The trees department had little or no experience in defending itself against these claims and the pressure of pay-outs began to cause squeals in the finance department.

Coinciding with this rise in claims, central government were cutting the grant to councils. It is reported Camden Council had to absorb cuts in excess of £150 million over the years 2008 to 2018 and, at the time of reporting (2015), further cuts were anticipated. The council instigated departmental reviews.

Why carry out the analysis?

- 'Justify' tree maintenance budgets based on 'fact & figures'
- 2008/9, Council financial cuts of £96m (over 3yr period)
- 2014/15, further cuts of £70m (over 3yr period)
- From 2017/18, possible cuts in the region of 10m to 40m
- How can we improve Camden's urban forest based around risk, sustainability, diversity and resilience?




camden.gov.uk 

Image 1

- The Trees Department were told to make a presentation (Image 1) justifying their maintenance budgets based on 'facts and figures'. This demand from the council for an evidenced based policy forced the trees department to look for a strategy that could be argued on the basis of figures. Figures, of course, can lie but a council hungry for facts can easily be satisfied with figures and tables. This insistence on 'facts and figures' and 'risk' might have been perceived as a veiled threat: 'Do what we ask or see your budget cut and people losing jobs'.
- The strategy behind the presentation developed by the trees department was to show that street trees posed a risk, a financial danger in the form of insurance claims for subsidence, but that a draconian pruning regime of trees believed to be in high risk areas would manage, even eliminate this risk. This strategy would appeal to the finance department and justify the Tree department's budget. In this presentation the budget was reported as being around £440,000 in 2014, whereas according to a Freedom of Information request it was actually £752,381. Today, it is £763,589 with an additional tree planting budget from the Highways Dept of £45,000.

- Whether or not this analysis is wholly or partly true we can say, with a degree of certainty, that the current policy is driven not by a desire to nurture and conserve our trees but to characterise all street trees as potential threats and to invest time and money in the belief that a concerted effort will reduce this exaggerated threat. Furthermore, it has become the council's dogma. Trees that were never a risk have now become 'at risk'.

Camden's current thinking and attitudes.

In his letter of 13/4/18. Andrew Hinchley, Interim Head of Green Space, Place Management, Supporting Communities, says they *"fully acknowledge the importance and value of the tree stock but this does have to be balanced against the duties of the council and risks that they can present"*. He goes on to say; *"Tree related subsidence is one of the risks and in areas of shrinkable clay soil*, such as the BARA area, action must be taken to reduce the likelihood of damage occurring to property. The cyclical pollarding of trees and re-planting with a smaller species reduces the risk of damage to property on shrinkable clay soil. This form of management is industry best practice (please see the LTOA's [Risk Limitation Strategy For Tree Root Claims](#))"*. He finishes his letter inviting us to make suggestions for replacement trees and where we would like to see them.

*(It should be noted that 60% of all housing in the UK is built on shrinkable clay - see notes, O'Callaghan & Kelly).

- As mentioned above, the London Tree Officers Association developed a document entitled A Risk Limitation Strategy for Tree Root Claims in response to the same spike in tree root related claims throughout London boroughs that had triggered the departmental review. The document clearly lays out how councils should manage their trees with regard to defending themselves against claims. It's not designed to prevent tree roots damaging property, nor is it a tree maintenance manual. The report recommends planned crown reduction of trees near low buildings on a cyclical basis, the cycle to be determined by the specific siting, species and the desired height range of that tree. The cyclical period is not about keeping the canopy to a bare minimum but keeping trees to a controlled mass.
- It should be stressed that nowhere in the LTOA document is the word 'pollarding' to be found, nor is it ever recommended. The report also emphasises that it is mostly 20th century buildings or repairs and additions to older buildings that are at risk on clay soils, not victorian buildings that were built using lime mortar.
- The document recommends that councils should require of claimants a series of tests to prove a case of tree root damage. Trees are not always the cause of subsidence. There is a burden of proof required of insurers when making a claim. Loss adjusters cannot 'blame' the water table so they look to blame trees. Unfortunately, some councils are reluctant to fight these cases for even if they win they are still left with legal costs. It appears that the approach taken by Camden was to impose such a severe reduction programme that no loss adjuster could reasonably claim dereliction of duty on the part of the council.

- In addition to the the Risk Limitation document the Joint Mitigation Protocol was developed bringing together stakeholders so as to more easily facilitate the mitigation of subsidence claims, speed up the process and make provision for the value (CAVAT) of the tree. Councils are not duty bound to use the JMP. Under a Freedom of Information request we understand Camden’s Insurance Section will use it if requested by the claimants’ insurer. Westminster, Islington and Hackney councils use the protocol as a matter of course.

The council demanded ‘facts and figures’ . The following charts are two of several presented to the council by Camden Trees Dept in 2015. The first (Image 2) purports to show the number of claims over a 25 year period by post code. The source of these numbers is somewhat vague.

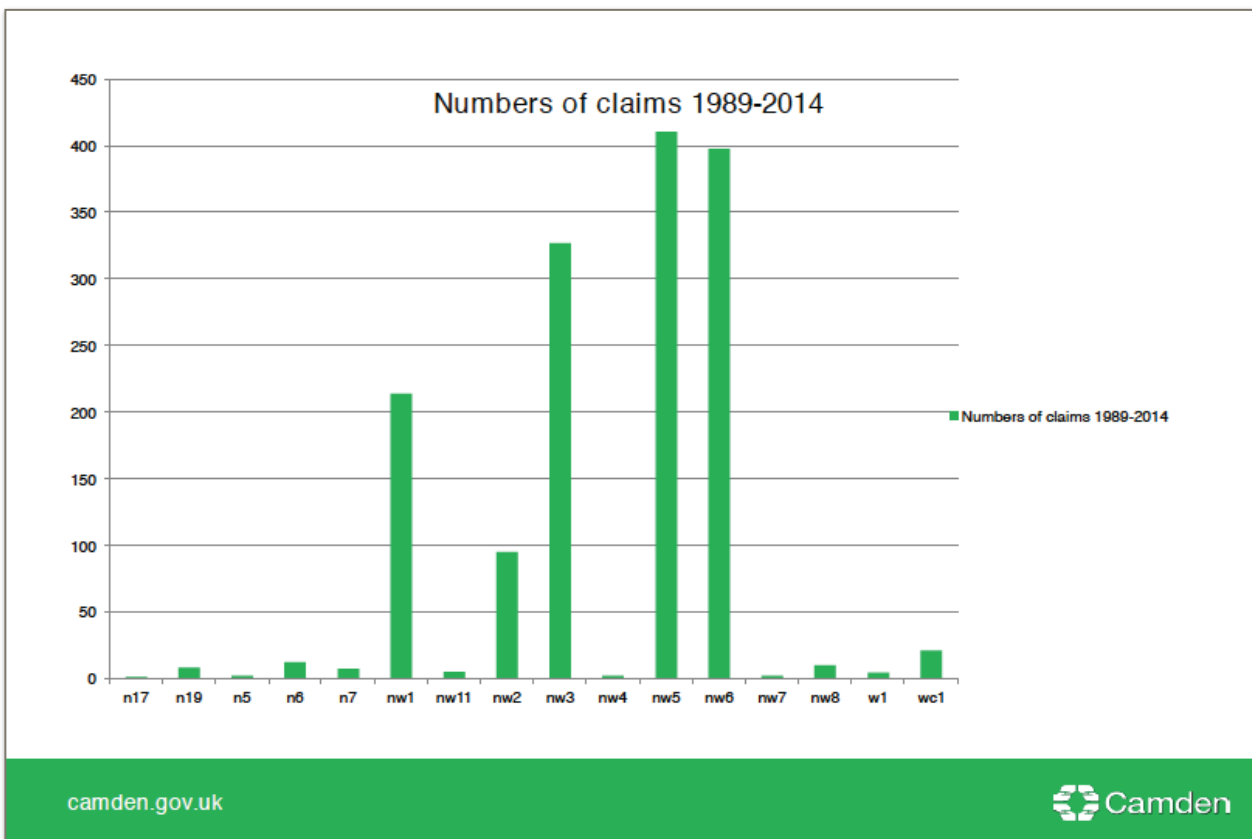


Image 2

All subsidence claims, tree related or not, are included in the data used. It is, however generally assumed that 10% of subsidence claims are not related to tree roots. In these ‘high risk’ areas the policy is to assume every tree is a risk and to strip (pollard) every tree every second winter.

These and other ‘facts & figures’ and the policy subsequently devised quickly became the dogma even though other ‘facts’ were clearly at odds with those being recommended.

The following statement and figures, written in March 2018, was sent to residents in emails by the trees department in response to complaints about pollarding.

'The pollarding of trees in Camden, particularly in known areas of tree related subsidence, such as Kentish Town, has been in place for over 30 years' (ed: since 1988).

'The robust maintenance programme has been successful in reducing subsidence cases, and the related claim numbers and costs to the Council:

2002 to 2007: annual average: 100 claims @ £920,000

2008 to 2013: annual average: 49 claims @ £500,000

2014: 23 claims @ £216,000

2015: 10 claims @ £93,500

2016: 2 claims @ £2,500'

The chart, 'Claim numbers 1989 to 2013' (Image 3) covers virtually the same period as the council say they have been pollarding trees . The chart indicates over 800 claims in the period 1989 - 2014.

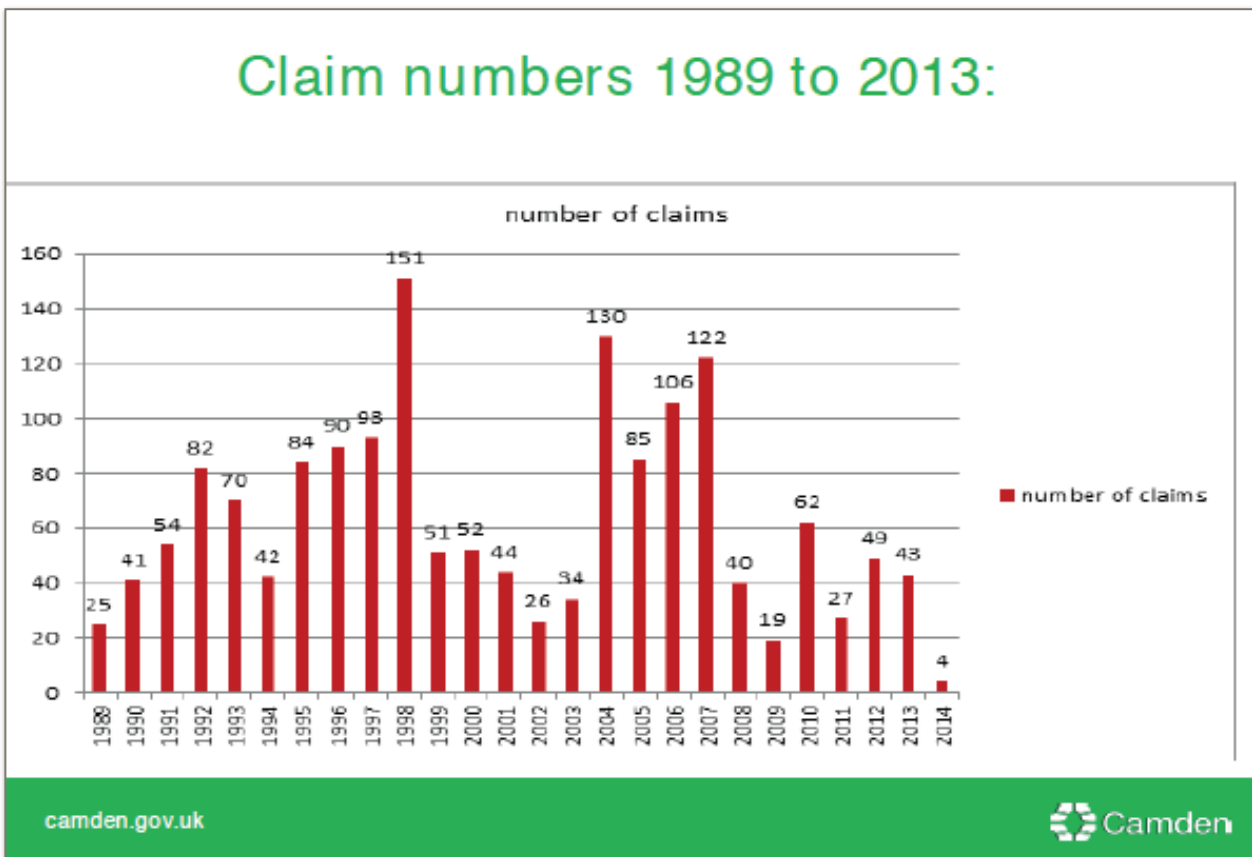


Image 3

The information in the charts and the figures given for claim reductions are clearly in contradiction with the statement given by the council officer. Indeed they show pollarding has had no effect whatsoever.

Recent findings

To try to bring some clarity to these conflicting pieces of evidence we made a Freedom Of Information request to Camden.

Question: For each year since 2010 please provide details of the number of claims against the council a) for subsidence, and b) for subsidence shown to have been caused by tree roots?

Answer: The following is for both a) and b):

2010: 5	2013: 5	2016: 16	
2011: 3	2014: 7	2017: 25	
2012: 6	2015: 15	2018: 4	Total 86

The figures provided in the answer to our FOI request to Camden for the past eight years show a total of 86 claims, while the Camden tree dept chart indicates 185 for the period 2010 - 2014. The two sets of dates don't exactly align but they do overlap.

For the single year 2010 the Council's chart indicates 62 claims, the FOI answer was just 5.

Significantly, the contention that claim numbers have been reducing because of the stripping policy is further contradicted by the FOI answer that shows claims against Camden actually increased between 2013 and 2017. However, just to put this into proportion the 25 claims received in 2017 represent 0.26% of all street trees in Camden. Indeed, if you count all the claims made for the past 10 years as reported in FOI answers, they equate to 1% of all street trees. This entirely accords with the separate findings of East Malling & Cambridge University Report, *see Note 7*.

By way of comparison we also sent an FOI request to Westminster, LBI and Hackney Councils. They state they "do not routinely pollard street trees and only pollard a few specific 'avenues' of London Plane trees or individual trees in exceptional circumstances'.

While they too do not differentiate between tree root and non-tree related subsidence, Westminster reports that from 2010 to 2017 they have received a total of 112 subsidence claims and that claims are on a downward trend from a high in 2011 of 25 to just one claim in 2018.

Hackney reports that from 2010 to 2018 (financial not calendar years) they have received 86 claims. Islington 104.

To recap, the four neighbouring councils reported claims as follows.

			No. of claims
Westminster	2010 - 2017	18,758 street trees	112 (0.6%)
Hackney	2010 - 2018	10,312 street trees	86 (0.8%)
Camden	2010 - 2018	9,500 street trees	86 (0.9%)
Islington	2010 - 2018	11,341 street trees	104 (0.9%)*

* only 7 settled

Assuming each claim represents one nuisance tree we see that the percentage actually causing damage is consistently less than 1% of the total tree stock in the boroughs.

The Camden policy is very expensive to maintain, quite apart from its damaging effects. The council have no in-house maintenance capability so everything is contracted out. Bi-annual stripping is much more expensive than the maintenance regimes employed by neighbouring councils. Camden council have said (during a meeting) that crown reduction costs more than pollarding but we have established with three separate tree surgeons that the cost is very similar.

If we want trees in the built environment we have to expect that sometimes the two will come into conflict. However, entirely sacrificing one for the other cannot be described as 'balanced'. It is rather like putting an entire town in prison because one or two citizens may break the law. Certainly there will always be a few trees that cause a problem. As we have seen this, in reality, is quite a rare occurrence. When it does happen it is usually better to remove the tree than disfigure it. However, the decision to do so should be done with respect to the trees' CAVAT value., ensuring that mature and important trees are protected.

Tree Care Standards.

From answers to FOI requests it is clear all four councils set out to comply with BS 8998 and best arboricultural standards but not all achieve this. Islington and Hackney appear to have been most successful in implementing these standards. For example, LBI and Hackney both use KPI's (Key Performance Indicators) to assess their contractors. Westminster use highly detailed specifications on tree works. Hackney use Phenological practice to determine when and how to conduct tree works with specific attention to tree type and species behaviour.

Camden, in contrast, have adopted a practice of knowingly destroying trees. They consider it 'regrettable but unavoidable'. This practice is widely considered useless and destructive and achieves nothing except to deplete the stock of mature trees. It demonstrates a callous attitude which we see again in tree works that are frequently carry out in Autumn when trees are still in full, green leaf, with a disregard to the tree's seasonal timing and the need to withdraw carbohydrates before over-wintering. Residents have even witnessed contractors stripping trees in late Spring just after buds have opened and new leaf appeared.

Neither Westminster, Hackney or LBI ever pollard Cat 2 ornamentals and only ever use this practice on fully epicormic species if at all.

In general we observe that while Camden provide by far the most extensive tree related statistical data, their practice and tree care standards fall well below that of their neighbours. Camden's oversight of contractors work is much more casual and ad hoc. They seem not to respect or regard the needs of individual trees with the same precision or expertise as the other councils and they remove / fell far more trees than any of the other councils.

<i>Camden average tree removal per annum</i>	<i>597</i>
<i>Hackney</i>	<i>236</i>
<i>LBI</i>	<i>348</i>
<i>Westminster</i>	<i>85.3</i>

From this we can see that Westminster who have by far the largest number of street trees and the lowest maintenance budget, remove the least number of trees each year. In contrast, Camden have fewer street trees than the other boroughs, remove more trees and plant more trees than the other three councils. The type and size of trees being planted is of particular importance to this report.

Mature Tree Loss and Air Quality.

In answer to an FOI question on how the tree management programme is integrated with plans and commitments to improve air quality, Camden responded by saying that *'the planting programme, and especially the planting of new trees is our main resource for contributing to improved air quality in Camden'*.

- Recent figures published by Camden show that between 2010 and 2017 Camden planted 3627 trees while 4,177 were felled in the same period, a net loss of 550 mature trees. In the past three years Camden have spent £225,000 felling around 1200 trees (c £180 per tree). While 500 more street trees were planted than felled over the same period, many of these 'trees' are actually dwarf species and will never provide the benefits of a mature standard tree. The trees felled were, by and large, mature trees.
- Trees will eventually die of natural causes or become unsafe and it is quite right that these trees be removed and replaced. Camden admit, that considerable numbers of street trees are being destroyed by pollarding. These are mature trees that would have made a contribution in reducing pollution. Epicormic trees such as London Plane and Lime (Linden) will regenerate after pollarding, although their canopy is greatly diminished. Other trees such as Maple, Whitebeam and all Ornamentals will slowly decline, develop basal rot and crown die back and will, inevitably die.
- In just two wards, we know all 11 trees felled in the Canteloves ward in 2017 were non-epicormic trees and 7 were of one species, Whitebeam. In the Belsize Ward, 10 trees have been condemned this year, again all non-epicormic species. The council's chart (Image 2) indicates at least 15 wards are affected. These trees are located in residential roads, many of which are used as rat runs and therefore experience high volumes of traffic. If they are replaced with sapling standards their usefulness will have been lost for 30 or 40 years, if replaced with dwarf trees or, as often happens the tree pits filled in, then their contribution is lost forever.

One expert, when asked about tree planting and how it can contribute to air quality said: *"..sure tree planting is important but trees take generations to grow to a useful size. The retention and care of existing trees is the greatest contribution that can be made to air quality"*.

- Camden disingenuously claim an annual carbon sequestration volume for each and every street tree in the borough. For example, a Norwegian Maple in Patshull Road, Ref No: 00015930, is credited with an annual carbon removal of 421.3 grams per year. In fact this tree is pollarded bi-annually and therefore only has a useful canopy of leaves one year in four, making the carbon removal figure an over-exaggeration of 75%. Under the current regime this tree is not expected to live beyond the end of this decade.

According to the Office of National Statistics' interactive map "How much pollution does vegetation remove in your area", an average square kilometre in the UK removes 5,616 kg of all pollutants. In the majority of Camden that figure is 0 kg. As a point of reference a square Km of Hampstead Heath removes 8,090 kg.

We found there is little or no integration of Tree Policy and environmental initiatives on Air Quality in any of the councils to whom we sent FOI requests. This is disappointing and suggests a lack of joined up thinking. Indeed, as the recent Climate Change report issued by the IPCC indicates, the levels of CO₂ have to be brought under control as a matter of great urgency. Currently the only means we have of removing and storing this greenhouse gas is through the action of vegetation, principally trees. The burden on health services is growing as more and more children and old people suffer with respiratory disease costing primary health care trusts millions of pounds every year.

Trees can make a substantial difference to air quality but according to Dr Mattias Disney of UCL 'they only do so when they are large, mature and in sufficient density'. The capture and extraction of pollution and CO₂ done by trees works at a very localised level. Trees on Hampstead Heath make zero difference to pollution levels on Camden Road. Camden needs to stop destroying trees and to look at how we can create groupings of new trees, like the traditional copse, in high pollution areas.

Financial implications

The current policy clearly has a very negative impact both environmentally and socially but the financial consequences are equally as serious.

Camden has the least number of street trees out of the four boroughs yet by far the highest budget for maintenance and planting. The budget is currently £763,589 plus an additional £45,000 for tree planting from the Highways Dept budget.

Camden have produced figures stating that around 400 trees are felled each year and slightly more planted. The Open data tree map shows a mature tree can easily be worth in excess of £10,000 though street trees are more usually worth significantly less. Nevertheless, a policy that destroys mature trees and either replaces them with valueless dwarf trees or not at all creates a net asset loss that is never replaced.

Felling trees is expensive - on average £180 per tree. In the past three years Camden has spent £225,000 felling trees, around 1,200 and on average double that of any of the other councils. If all the felled trees were replaced with standards the cost could be recouped in 30 - 40 years but that is not what is happening.

We asked ourselves the obvious question:

“If, for example, Westminster can maintain 18,759 street trees on an annual budget of £360,000 why can’t Camden with only 9,500 street trees?”

We don’t have all the answers but this we know.

1. The number of trees felled annually in Camden is 85% more than in Westminster
2. Neither Westminster, Hackney or LBI routinely bi-annually pollard any of their trees.
3. Tree maintenance is based on the assessment of each tree individually so some trees do not require expensive tree work for several years.
4. Only a few trees have regular scheduled tree work as a ‘light touch’ policy is the norm.
5. Newly planted trees in Westminster have a 95% survival rate so there is very little need to replace trees that are themselves replacements.
6. Hackney and LBI make their contractors responsible for the health of newly planted trees and the cost of replacement if they die, Camden do not.
7. Camden fell more trees and plant more than the other boroughs.

We know Camden loses many more new trees and therefore has to spend more than other boroughs replacing trees that were themselves replacements for trees that may well have died due to pollarding.

There is a strong case for neighbouring borough councils joining forces and sharing the costs of creating more areas of high density tree planting and for working together to protect and preserve those large and important trees we already have. Camden must learn to recognise not just the costs of trees but their true value. Clearly a policy that denudes trees of leaves, causes premature death and replaces them with nothing more than shrubs is a policy that wastes money and runs completely counter to the needs of today and tomorrow. If Camden brought its maintenance budget more in line with its neighbours, the considerable balance left could then be deployed in a major planting and re-greening of the borough.

Summary of some other results from FOI requests.

FOI requests were sent to Camden, Islington, Westminster and Hackney being neighbouring boroughs with a similar mix of housing stock and the same geology and weather. The questions to each were similar or the same.

These are a few examples of the comparisons that were discovered.

Q: For how many trees is the council responsible?

Answers: Camden 28,000 (9500 street trees)
Islington 31,354 (11,341 street trees)
Westminster 28,783 (18,759 street trees)
Hackney 27,604 (10,312 street trees)

Q: What is the current annual budget for maintenance and planting?

Answers: Camden £763,589 + £45,000 via Highways Dept
Islington £487,000
Westminster £360,000
Hackney £420,000

All councils have, remarkably, a very similar total number of trees but Camden's budget is 60% larger than Islington's and 120% more than Westminster's. Westminster has many more street trees than the other councils. Camden has the least.

Q: (abbreviated) Do you routinely pollard street trees, does this include non-epicormic trees?

Answers: Westminster said they only pollard specific avenues of mature plane trees.
Islington said they would only pollard trees that have previously been associated with property damage, otherwise crown reduction is the normal method for managing trees size and health.
Hackney said much the same as LBI and added Category 2 Ornamental trees, Rowan, Maple etc are only ever lightly pruned/reduced.

Neither Westminster LBI or Hackney routinely pollard trees. They do so only very specifically, on individual trees. The routine method of managing tree size in these boroughs is crown reduction which is as recommended by both the London Tree Officers Association and BS 3998/2010.

Q: (abbreviated) Do you benchmark best practice for tree maintenance. How do you ensure your contractors achieve this?

Answers: Islington said they insist on adherence to BS3998 / 2010. They have introduced Key Performance Indicators into their contracts which are

reported on via monthly meetings with the contractor. Failure to uphold can result in liquidated damages or ultimately dissolution of contract. Hackney have a very similar regime as LBI and are, if anything, more rigorous.

Westminster said contractors must work to detailed specifications and British Standards for the work. They benchmark against similar London Boroughs.

Camden said the council do not formally benchmark best practice. They follow the guidelines set out in 3998/2010 . They monitor a percentage of work when the contractor requests payment. If the work fails to meet specification the contractor is asked to return and complete the work.

Camden has the laxest policy towards the standards of its tree maintenance contractors with LBI and Hackney the most tightly controlled.

Q: (abbreviated) What is the maintenance programme for newly planted trees?

Answers: Westminster, Islington, Hackney and Camden all have similar programmes. The difference is that Islington and Hackney have active inspection programmes and any tree found to have failed (died) has to be replaced by the contractor at their own expense. Westminster claim a 95% survival rate. Camden simply gave details of the stated programme. Hackney have the most detailed and precise programme with an 18 month intensive programme to ensure best possible establishment.

Anecdotally, many newly planted trees in Camden are dead or dying. Irrigation tubes are blocked with dirt and pits are full of weeds.

Q: (abbreviated) Does the council have insurance cover for subsidence claims? If so with which company?

Westminster and Camden are insured through Protector.

Islington is self insured.

Hackney states their Public Liability policy is underwritten by QBE and indemnifies them against subsidence claims made by third parties.

The full list of FOI questions and the replies are now available as a matter of public record and can be viewed through the normal portals.

Conclusions.

The facts speak for themselves. Of the four councils questioned Camden has:

- The largest tree maintenance and planting budget.
- The fewest street trees.
- The largest number of trees felled per annum
- The most trees planted per annum
- The most statistical data and records
- The laxest replanting & monitoring programme
- The weakest benchmarking for tree maintenance standards
- The same low rate of tree related subsidence as its neighbours who do not routinely pollard their mature trees.

Camden are, in one example, spending double that of a comparable council on half the number of street trees in pursuit of a policy that produces no financial benefit, while at the same time systematically damaging the environment for generations to come. Residents' confidence in the competence of the council and the trees department has been severely eroded.

There is no scientific evidence to show that risk of subsidence can be controlled by removing leaves. Nor is there any statistical evidence that this practice reduces the number of tree root related subsidence claims. Camden's policy of stripping every mature tree across wards because one or two might cause problems is excessive, expensive, unbalanced and unsustainable. *See Note 7.*

Camden does not have a particular problem with tree root related subsidence. In reality, Camden's experience is very similar to that of neighbouring boroughs who do not pollard large numbers of street trees in order to maintain a balanced risk.

Camden's stated policy of reducing the leaf canopy flies in the face of common sense. The London Tree Officers Association cites twenty separate benefits derived from having a large, healthy stock of trees. Benefits ranging from reducing air pollution, CO₂ absorption and oxygen generation, shade, increasing property values to lowering human stress and providing habitat for wildlife. Benefits that only exist if trees have a useful sized canopy every year.

Slowly destroying once perfectly sound, mature trees and replacing them with dwarf varieties is non-sensical both environmentally and financially. Could the choice of trees be improved - certainly. Is it sensible to introduce diversity - yes but not for its own sake. Is it right to replace a tree that provides a multitude of benefits with one that provides none? Certainly not.

Most scientists and citizens know and recognise we are already experiencing the effects of climate change. We also know our roads are choked with polluting vehicles and our treeless streets are turned into concrete and brick ovens after only a few days of hot weather. We have never needed the cover and protection of trees more than we do now. Shade is not just pleasant it is essential.

When we look at improving air quality trees will only ever be part of the solution. But whereas all other measures must of necessity be about reducing pollution at source, trees are the only practical means by which air can be modified and cleaned.

We are told that ill health caused by pollution in London is nothing less than a health crisis. That it is responsible for ten thousand early deaths. That children regularly exposed to average levels of pollution in London are at risk of never reaching their full height while mental function in the over 60's can be seriously impaired.

Camden reports that the current level of leaf canopy is 23% and that it has only grown by 1% in the past 10 years. This may be optimistic when reviewed against the felling and planting figures as mentioned before. Clearly, now is not the time, if ever there was, to be reducing the leaf canopy. With a new approach, the cooperation of residents and businesses and an education programme we could double the leaf canopy. In truth, it should have been started twenty years ago. As the saying goes, "*you don't plant trees for yourself, you plant them for your grandchildren*".

There are innovative urban tree planting schemes being put into action all over the world. We can learn from their experience and develop some of our own ideas. Many residents are ready and willing to work with the council and help make Camden a better, greener and healthier place in which to live but **the council needs to take the lead and immediately stop bi-annual pollarding**. Together we can put the current, damaging and wasteful policy firmly in the past, and develop a new direction.

End.

Acknowledgements,

Many people have helped and supported the production of this report. Individual residents, residents' groups, Conservation Areas Committees, academics, The Woodland Trust's street tree initiative, people with long experience of municipal environmental issues, members of my family and last but not least all the residents and children who came to our local street party and covered the pavements and road with chalk drawings of trees. My thanks to them all. HF

Notes

Note 1. Pollarding is an ancient practice developed originally to produce more wood. It later became an ornamental practice. A maiden tree is allowed to grow to a specific height, then the leader is cut so that, in time, the tree develops out not up to form a parasol-like shape. Pollarding should be done at the end of each growing season by hand.

Camden like to call what they do pollarding but that is really only a euphemism for topping and stripping. Pollarding a mature or semi mature tree only disfigures it. If it isn't one of the following species, repeated stripping will kill the tree.

- Beech *Fagus* spp.
- Black locust / False Accacia *Robinia pseudoacacia*
- Catalpa *Catalpa* spp.
- Hornbeam *Carpinus* spp.
- Horsechestnut *Aesculus hippocastanum*
- Linden / Lime *Tilia* spp.
- London Planetree *Platanus xacerifolia*
- Mulberry *Morus* spp.
- Redbud / Eastern Redbud *Cercis canadensis*
- Tree of Heaven *Ailanthus altissima*
- Willow *Salix* spp.
- Yew *Irish & English*

Note 2. I had the good fortune to have a long conversation with Norman Barrs, a master builder and still working at the age of 78. He lived at 34 Bartholomew Road and his father's company WJ Barrs was the main contractor for repairing war damaged buildings in Kentish Town from the late 1940's up to the 1960's. There is hardly a house in our area he does not know or has not repaired. His business was later incorporated into Henry Hardy Builders and moved from Torriano Villas to Canonbury Road, Islington. We spoke at length about the issues we face. I discovered the following.

Trees in Islington are assessed individually. There is no blanket stripping as there is in Camden.

Our houses are not especially prone to subsidence. Indeed shrinkable clay is a very good, stable material on which to build.

90% of issues with ground movement, walls cracking etc are caused by repairs and extensions done with Portland cement and the paving over of front gardens. Only a few exceptions can be directly attributed to tree roots

He reports that as a builder and in his experience, cases of subsidence in Islington have remained low over the past 10-15 years. Furthermore, claiming a tree pit cannot be replanted because of utilities is 'complete nonsense'. Potential hazards underground are to be expected in an urban area but these can be overcome and worked around. It requires skill not an ignorant operative with a stump grinder. If in doubt the HSE can be brought in to assess the job and advise. Simply closing a pit on a weak excuse that there may be a problem is just a way of avoiding the expense of planting a new tree.

Norman well remembers our streets lined with substantial, mature trees originally planted when the area was first developed. How things have changed.

Note 3. Recently reported - 5.18 / Evening Standard.

Camden chops down more than 400 trees every year, new figures show. The Town Hall has spent more than £225,000 on felling over three years. Camden Council said trees are removed for "sound arboricultural reasons such as (if they are) dead dying or dangerous.

They don't quote a number of non-epicormic trees they have habitually stripped, thus hastening stress, disease and the inevitable death sentence.

According to the council's own figures the council have planted 1452 trees since 2014 (3 seasons) including 86 funded by the Mayor of London's Street Tree Initiative.

Camden tell us that every year they replace or exceed the number of felled trees with new trees (currently around 400) but dwarf trees can never replace the canopy of a mature standard tree and young standard saplings may take thirty years to reach a useful size. A closed tree pit is a tree lost forever.

Note 4. O'Callaghan and Kelly. Pruning is not the answer. (see selected refs)

O'Callaghan and Kelly clearly show in their paper "Tree-related subsidence. Pruning is not the answer", that pruning trees does not reduce the root plate and that as soon as stems and leaves re-grow water up-take is resumed and even increased as young, re-grown leaves transpire more than shading leaves at the top of a mature canopy. They clearly state that the idea that pruning offers a means to control tree water use sufficiently to provide a remedy for tree related subsidence is over simplistic and erroneous.

Note 5. Trees with high pollution absorption rates

Pine - Ponderosa, red, white & Hisoaniola
Oak - Scarlet, Red, Virginian, Live Oak, Turkey Oak
Douglas Fir
Bald Cypress
Common Horse Chestnut
London Plane
American Sweetgum
Elm
Ginko Biloba
Norway Maple
Common Ash
Wild Linden, Broad-leaved Linden
Catalpa

Note 6. Epicormic / non-epicormic.

This is not strictly an academic distinction. Many trees have dormant epicormic buds which may never develop into leaf stems. Epicormic growth is a stress response in all trees. If, for example, a limb is lost in a storm, some species will react the following season with epicormic growth as a strategy to replace lost biomass but some may not. A number of trees frequently used in urban environments have vigorous epicormic responses which the species seems to tolerate well. For example the London Plane. Others, while responding to cutting and pruning are far less tolerant. They become very stressed, their immunity is lowered and disease takes hold, both in the trunk and the crown. If this treatment is not repeated the tree may recover and continue to grow normally but if the treatment is repeated the tree will go into decline and die.

Note 7. Controlling water use of trees to alleviate subsidence risk Consortium for Horticulture LINK Project No. 212

There are approximately 100 million trees in the urban environment. Of these, a large, but undefined, proportion is in sufficient proximity to a building to pose a perceived risk of damage. However, even in a drought year, the number of actual cases of subsidence is only about 50,000. The risk of a tree causing subsidence damage which is related to species, foundation depth and soil type may therefore be less than 1%. If one could identify this 1% with any reasonable accuracy, they could be pruned accordingly. However, attempts in the past to develop methods of subsidence risk assessment have not been successful. The Arboricultural Association method of "Subsidence Risk Assessment" was withdrawn, as it was considered to be ineffective. Royal & Sun Alliance's recent efforts to develop a statistically based model TreeRAT (Tree Risk Assessment Tool) also have not been taken beyond an initial prototype stage.

If trees that pose a risk cannot be identified, then one alternative is to treat all trees, regardless of the risk they pose. The environmental consequences of this would be catastrophic; nor could there be economic justification for any such

policy as the cost of recurrent pruning would far outweigh alternative methods of remediation.

For example, even pruning 1% of the tree population could cost anywhere between £50-100 million. Thus, pruning universally is unlikely to be a viable method of alleviating subsidence risk.

Extract from Controlling water use of trees to alleviate subsidence risk

© BRE on behalf of the LINK Consortium for Horticulture LINK Project No. 212

Note 8

Camden Trees Department claim that a number of post codes within the boroughs' boundaries are particularly susceptible to tree root related subsidence. These being NW1, NW3, NW5, NW6. These post codes cover 15 wards, virtually all north of Euston Road. They are as follows: Belsize Camden Town, Canteloves, Fortune Green, Frogal and Fitzjohns, Gospel Oak, Hampstead Town, Haverstock, Highgate, Kentish Town, Kilburn, Regent's Park, St Pancras and Somers Town, Swiss Cottage, West Hampstead. Further work will be needed to determine whether the pollarding policy is equally deployed in all wards. Observations, so far, would indicate that some wards are harder hit than others.

Selected Refs:

<https://opendata.camden.gov.uk/Environment/Trees-In-Camden-Map>

[Risk Limitation Strategy For Tree Root Claims](#)

<https://opendata.camden.gov.uk/stories/s/Camden-Tree-Statistics/ad58-u6q7/>

<https://www.camden.gov.uk/theme/camden-bremen/ccm/navigation/leisure/outdoor-camden/trees/?page=6>

https://www.camden.gov.uk/ccm/cms-service/stream/asset/?asset_id=3393142&

<https://www.camden.gov.uk/ccm/navigation/leisure/outdoor-camden/trees/?page=6#section-6>

<http://democracy.islington.gov.uk/Data/Executive/200910151930/Agenda/TREE%20POLICY%20V12.pdf>

<https://trees.org.uk/...2015.../5-TUE-AS-Budgets-Claims-and-Costs.pdf.aspx>

<https://www.charteredforesters.org/.../Riccardo-Amone-Tree-Maintenance-Budgets.pd...> Al Smith & Dave Houghton. PDF copy available.

https://www.google.com/search?client=firefox-b&biw=1659&bih=910&ei=z07pWqTGKqyVgAbK67_4Dg&q=westminster+council+tree+maintenance+policy&oq=westminster+council+tree+maintenance+policy&gs_l=psy-ab.12...5386.7037.0.12578.7.7.0.0.0.76.486.7.7.0....0...1c..64.psy-ab..0.6.412...0i22i30k1j33i22i29i30k1j33i160k1j33i21k1.0.rRDO-ko1ANM

http://www.haringey.gov.uk/sites/haringeygovuk/files/haringey_tree_strategy_2008.pdf (see section 8.1)

[transact.westminster.gov.uk/.../
Trees & the Public Realm Adopted Strategy Septe...](http://transact.westminster.gov.uk/.../Trees_&_the_Public_Realm_Adopted_Strategy_Septe...)

<https://www.greenblue.com/gb/> (tree pit / utilities solutions)

<http://learninglegacy.independent.gov.uk/documents/pdfs/design-and-engineering-innovation/163-integrating-trees-and-utilities-dei.pdf>

<http://www.deeproot.com/blog/blog-entries/tree-pits-are-the-pits-but-we-can-make-them-better>

<https://www.forestry.gov.uk/forestry/infd-7rdw3g>

[http://dealgas-treeconsultancy.co.uk/dealga/files/resources/
Tree%20Related%20Subsidence%20Pruning%20is%20not%20the%20answer.pdf](http://dealgas-treeconsultancy.co.uk/dealga/files/resources/Tree%20Related%20Subsidence%20Pruning%20is%20not%20the%20answer.pdf)

<https://www.treepeople.org/tree-benefits>
Top 22 benefits of trees.

<https://academic.oup.com/treephys/article/32/5/565/1735443>
Epicormic buds in trees.

Proposed revisions to Camden's tree maintenance programme.

- Routine bi-annual stripping (pollarding) and topping of all trees is to be stopped immediately.
- Only in exceptional cases can epicormic trees be stripped (pollarded). The preferred reduction method should always be crown reduction.
- Non-epicormic trees will never be stripped and those that have been allowed to recover.
- Routine maintenance will be by light crown reduction and, if required, crown thinning.
- The council's tree officers will, in all circumstances, endeavour to save mature trees with minor disease problems rather than cut them down and replant.
- The council already inspects every tree in its charge on a rotating basis. The Trees Department will incorporate into this inspection regimen an entry on maintenance based on the individual assessment of species, type and extent of pruning, location and maximum height and spread. These parameters will dictate the cycle of tree maintenance for each tree.
- Where a tree has to be removed the council will replant with a standard sized tree. Consideration should be given to its eventual shape and size and whether species with high carbon sequestration rates can be used.
- For every tree removed across the borough two new trees should be planted.
- Small ornamental or dwarf trees will not be used routinely as replacements for standard street trees.
- Tree pits that have been closed must be reopened, inspected and if at all possible replanted with standard sized trees.
- Where utilities have been installed in or through tree pits non-mechanical methods for rotting down tree stumps should be used. For example, holes drilled into the stump and filled with dampened epsom salts will, if covered, rot away a stump in 12-18 months. New and innovative solutions are now available to accommodate both trees and utilities. If after best efforts a tree pit has to be closed then a new pit must be opened as close as possible.
- The council should actively seek to plant large specimen trees where space allows. For example in tree pits more than 7 meters from houses or potentially vulnerable buildings, on built out platforms and corner sites and in squares.

- Where young trees are planted the council's contractors should be responsible for watering and maintenance for the first three years. Any tree that fails must be replaced at the contractor's expense.
- The help and assistance of the local community including schools and shops should be sought in helping to keep young trees watered. A simple programme should be developed to inform people living or working near a new planting that a new tree has been planted and their assistance would be most welcome.
- In very hot weather or in vulnerable sites, drip-feed water bags should be installed on new plantings and the contractor made responsible for checking its status once a week.
- Trees species should be selected on the basis of those which are both appropriate to an urban setting and are known to be especially useful in removing pollutants from the air.
- Historic planting and conservation areas must be respected and any trees that need replacing should be on a like for like basis. The CAVAT value of the tree must be taken into account. The Trees department should consult with the local Conservation Area Committee on any proposed tree works.

(The cessation of bi-annual pollarding and the move to tri-annual crown reduction where necessary, should considerably reduce the costs of tree maintenance. Funds can then be re-directed to developing innovative and creative ways of planting more trees.)

- The Trees Department will engage with residents and work with greater transparency before decisions are finally made.
- The council will seek to work with local people and resident groups to open up new green spaces and to identify where these might be.
- The council will look at innovative ways of financing new tree planting and improving green spaces through initiatives such as the Mayor of London's programme, sponsorship and co-op ventures where residents provide the labour and the council funds materials and equipment.
- The council will take a leading role in the greening of Camden. It will show initiative and imagination in driving forward a progressive programme of action and awareness and engender a sense of pride in all our trees and green spaces.