

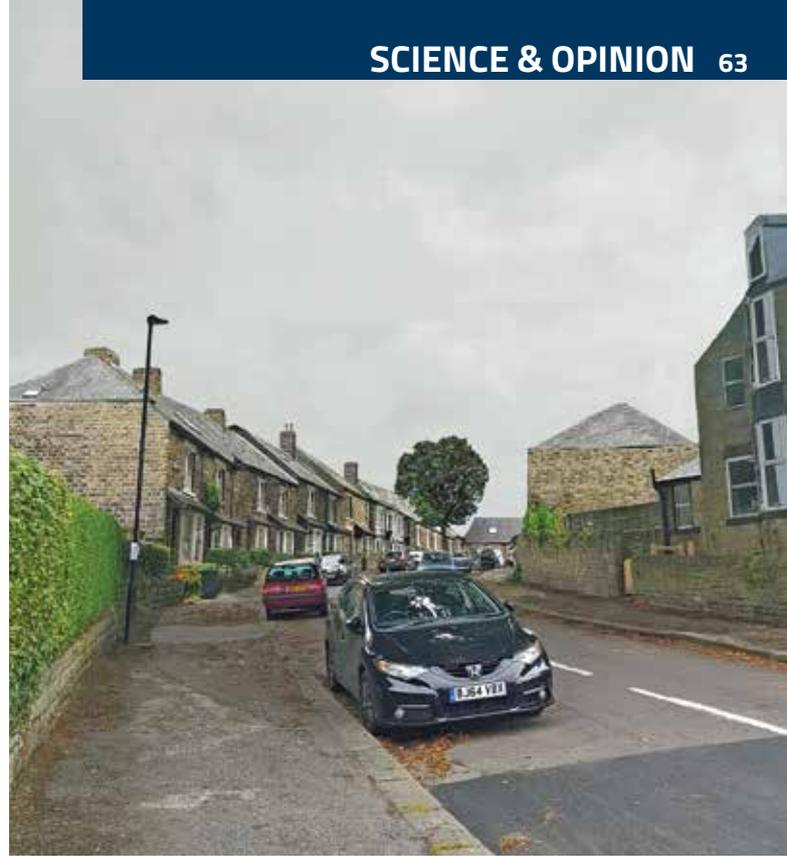


Sheffield's street tree management

Streets ahead or years behind?

Paul Barton

Pavement and repairs around a plane tree on Western Road. Displacement of the kerb can be seen. (Paul Barton)



Ladysmith Avenue, Nether Edge, as it looks currently (left) and an artistic impression of how it could look if the lime trees are felled as planned. (Paul Selby)

Unless you have been stranded on a remote desert island you will have heard about the 'goings on' in Sheffield. No other tree-related story has attracted such media attention and brought urban trees in to everyday conversation for so many people. In a social media and sound-bite hungry society, the arrests of recorder-tooting ladies, allegations of poisoned cups of tea and coming together of Jarvis Cocker and Michael Gove in defiance of the 'Streets Ahead' highways management contract has certainly raised the profile of arboriculture amongst the public. They say that there's no such thing as bad publicity, but the UK tree care industry is currently under fresh scrutiny and, in my opinion, we need to be ready to respond with confidence.

What's all the fuss about?

In 2012, Sheffield City Council (SCC) awarded Amey PLC a 25-year contract to upgrade and maintain the city's roads, pavements, lights and all other highway assets. The contract is a Private Finance Initiative (PFI) which means that the private company bears the upfront costs for the service then recharges the council at a more or less constant rate, therefore allowing the council to achieve what it could not otherwise afford. This public-private partnership (PPP) involved transferring many of the SCC staff involved with highways into employment with Amey, therefore retaining local staff under new management. At the beginning of the contract a fresh inventory survey of all highways trees was undertaken (which yours truly was tasked with in a previous job). This recorded around 36,000 significant trees. As a proportion of tree cover across the city, street trees represent just under 2% of the trees managed by SCC, and under 1% of total tree cover. Whilst this may set street trees in context for overall canopy cover¹, it belies the importance of street trees in the urban environment; they are surely the primary element of green infrastructure in an otherwise hard and grey environment.

In March 2018, following a Freedom of Information request, a snippet of the contract which had been previously redacted revealed a startling contract requirement: *'The Service Provider shall replace Highway Trees in accordance with the Annual Tree Management Programme at a rate of not less than 200 per year so that 17,500 Highway Trees are replaced by the end of the Term, such replacement to be in accordance with the Highway Tree Replacement Policy, unless Authority Approval has been obtained for deviation from this policy.'*

This revelation has been seen by protest groups such as the Sheffield Tree Action Group (STAG) as the smoking gun that proved their suspicions and vindicates their anger over the tree felling and replacement programme so far.

Seeing is believing

I visited Sheffield recently, intrigued to see for myself what has happened since I worked on the tree survey five years ago. I'd been following events via the Sheffield Tree Action Group (STAG) social media page but was concerned that I may have been only getting half the picture; after all, all media has some kind of bias and when it's

written by passionate people with little or no formal arboricultural knowledge, I suspected that events on the ground might not be quite as they seemed via the internet.

I visited three roads that have attracted a lot of attention: one hosting memorial trees planted in memory of former pupils of the local school who died in the First World War; the second longest lime avenue in the UK; and another which saw heated clashes between protestors, security staff and a number of arrests just days before my visit. I was genuinely shocked and confused by what I saw. Walking the streets armed with a map displaying which trees are identified for felling there appeared to be little arboricultural reason or logic to identify which trees were to be felled. Most trees were free from structural defects and were not showing symptoms of poor health, leading me to think that if they didn't require felling due to the first four 'Ds' (dead, dying, diseased, dangerous) then they must be either 'damaging' or 'discriminatory', the final two of the six 'Ds' defined in the council's five-year street tree strategy. Some trees had buttresses overlapping kerb stones, and some were pushing kerbs out of line, or causing minor cracking to the tarmac surface. And some appeared to be causing no damage at all. These are issues that certainly require remedial action, but they are common to most urban environments, and if, as claimed by Amey and SCC, 'felling is always a last resort', they certainly didn't seem insurmountable using relatively common engineering solutions which are also detailed in the same strategy document.

If you happen to stop and study a street tree in Sheffield at the moment, you will almost certainly be approached by someone asking who you are and what your intentions are. Volunteers are keeping a careful eye on many streets, watching and waiting in case trucks and chippers roll up to begin work. So,



First World War memorial street trees on Western Road, Crookes. Over half the trees are scheduled for removal and replacement. (Paul Barton)

inevitably I ended up in conversation with a number of locals, including some that would identify themselves as protestors. Their passion for street trees was striking, but so were their enquiries of me once I revealed my occupation: they seemed desperate to know what the arboricultural industry thought about what is happening to their city's trees. If you'll pardon the pun, I was stumped, but it has since given me plenty to think about.

Is removing and replacing almost half of a population of street trees over a 25-year period a poor strategy?

The answer to that surely depends on the condition and structure of the urban

forest as it exists presently. Many UK cities enjoy the legacy of Victorian tree planting, meaning we now have many large mature trees from a small palette of species. Whilst it is wonderful to have these trees now, an even age structure and narrow species selection leaves our cities vulnerable to rapid change when the tree population reaches senescence at a similar rate and where pests and diseases can devastate monocultures. In this period of austerity where many councils can barely afford basic tree maintenance let alone proactive planning for continuous tree cover, could Sheffield actually be ahead of the curve like no other city? Perhaps instead of focusing on the sometimes painful loss of large street trees now, we need to picture how Sheffield might look in 25, 50 and 100 years' time. Trees planted now could be regarded as semi-mature before the contract is complete.

With regard to the age structure of Sheffield's street trees, data available from the 2012 survey² attempts to age trees in bands of five years and shows a broad range of age classes, with few trees over 100 years old and around half under 50 years old. This makes such a rapid and comprehensive replacement programme appear less of a well-considered strategy. Besides, even if the strategy was to broaden out a top-heavy age structure, most urban foresters agree that trees' benefits are most fully realised at maturity; this phase of tree life should be seen as optimal and not the beginning of the end.³ To anthropomorphise this, I don't know many people who planned their funeral when they turned 18.

Balancing tree benefits with disservices

The benefits of urban trees are increasingly well known and publicised: carbon sequestration, temperature and storm-water regulation, air purification, noise mitigation, public health benefits, nature and landscape connections, cultural significance and economic benefits to name a few. Less well publicised and quantified are the disservices, or nuisances, that urban trees can provide, such as fruit/leaf fall, allergenicity, damage to infrastructure, blocking of light/heat/views and tree failure risks.⁴ Attempts to place a financial value on trees without accounting for these disservices are inevitably warped and give a false account of tree value. According to Amey,⁵ this is why they have not used a tree valuation model to perform cost-benefit analyses when taking decisions on whether to replace or retain and maintain trees. Some of these disservices are of significant importance in a city with narrow streets in the north of England where large tree crowns commonly overhang front gardens, gutters and most of the highway. Perhaps it's not surprising that the response rate and number of objections as a result of the consultation surveys about proposed tree works was so low. After all, we've all heard the 'I like trees, but ...' phrase enough to know that these disservices really do affect residents' opinions about street trees. The question therefore is, can disservices be adequately managed in order to maximise tree benefits, or is replacement the best option? This needs tackling on a tree-by-tree basis by skilled arboriculturists working in collaboration with highways engineers and managers, and, dare I say it, with local people as they are primary stakeholders. As John Parker recently wrote in this magazine,⁶ there is no silver bullet for resolving conflicts between trees and hard surfaces. It takes a lot of skill and a collaborative approach to successfully manage these situations.

Even if a financial value hasn't been attributed to Sheffield's street trees and the benefits that they provide, I am not sure that that is what gets people out of their houses to protest felling in their neighbourhood. It's something deeper than that: an innate desire for a connection with nature and an appreciation of the aesthetic beauty and intangible benefits that trees provide.



An example of one of the many Sheffield streets adorned with mature lime trees. (Paul Selby)

Urban forestry is as much about people as trees

The strength of feeling of some Sheffielders has taken SCC and Amey by surprise and resulted in a toxic and unsustainable situation which has pitted local people against the council and its contractors. Trees are the focal point on this occasion, but I can't help feeling that the root of people's concern is as much about perceived heavy-handed authority and a poor democratic process as it is about the trees. Urban forestry governance should be integrative, socially inclusive, strategic and embracing in its mandate.⁷ Nowadays in the West there is a growing public expectation of involvement in decision-making and a move away from centralised, top-down governance towards more community engagement and participation. Although Amey/SCC have delivered 1.3million letters and responded to 318,000 enquiries (not all tree related) about the highways contract, this seems to have been conducted as part of a largely one-way flow of information: consultation by name but not collaboration whereby local people are given influence over decisions which affect their health and well-being. Besides, once a

contract has been signed that stipulates a replacement programme for almost half the street tree population, there isn't much left to discuss, and wheeling out phrases like 'tree removal will only be considered as a last resort' not only contradicts the contract terms but serves to misinform and patronise local people.

Ethical questions

What, if anything, does all this mean for you and me? If you're a signed-up member of the AA, you've agreed to abide by the code of ethics. In case you've not committed them to memory or tattooed them on your forearm, they include:

- Every member shall uphold the integrity of the profession.
- Every member shall strive for increasing an objective knowledge of trees and of arboriculture in all their contexts and apply this knowledge to the benefit of society.
- Every member shall endeavour to promote public understanding of trees and arboriculture and to increase the public regard for the profession.
- Every member shall practise his or

her profession with due regard to sound ecological, social, economic and environmental principles to the advantage of present and future generations.

Amid the furore of this complex and emotive situation should we as an industry and as an association be taking action to uphold the integrity of our profession and promote better public understanding and regard for the profession? I would argue yes; if we as tree care professionals can't do our bit to help this dire situation then who can?

The Sheffield Streets Ahead contract is providing a fascinating but depressing case-study on how not to do urban forestry. In many respects it has done the right things: securing funding, carrying out a full inventory survey and ongoing survey regime, using a computerised management system, employing experienced and qualified arboriculturists and undertaking public consultation. But somehow along the way key elements have been seriously misjudged, resulting in the current disastrous situation. A poorly thought out long-term strategy which missed the opportunity for public collaboration and a lack of understanding of the importance of street trees have thrown Sheffield into the public eye, and the arboricultural industry with it. More than ever, it's vital that we as tree care professionals dedicate ourselves to promoting the importance of trees and offer a sound, evidence-based rationale for long-term strategic management of our cities urban forest.

1. Sheffield City Council. (2016). *Sheffield Trees and Woodlands Strategy 2016–2030 (draft)*. Viewed online at: https://sheffield.citizenspace.com/place-planning-1/trees-and-woodlands-strategy-consultation/supporting_documents/SCC%20Trees%20Woodlands%20Strategy%20Consultation%20Draft.pdf.

2. Amey/Sheffield City Council. (2016). *Streets Ahead 5 year tree management strategy, revision 07*. Viewed online at www.sheffield.gov.uk/content/dam/sheffield/docs/roads-and-pavements/streetsahead/Streets%20Ahead%205%20Year%20Tree%20Management%20Strategy.pdf

3. Barrell, J. (2018). *Tree Value: The Missing Metric in Built-environment Management*. Paper presented at the Ecobuild Green & Blue Infrastructure Programme.

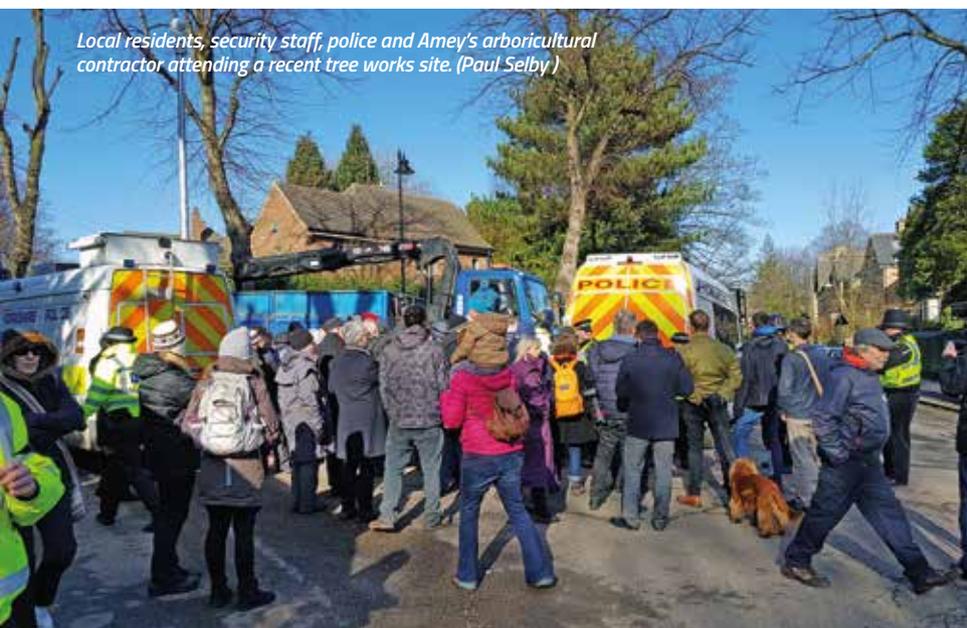
4. Davies, H., Doick, K., Handley, P., O'Brien, L., and Wilson, J. (2017). *Delivery of Ecosystem Services by Urban Forests*. Forestry Commission: Edinburgh. Viewed online via: www.forestry.gov.uk/publications.

5. Personal communications by email, April 2018.

6. Parker, J. (2017). 'Trees and footways: a tree officer's view'. *The ARB Magazine* 177, summer, p. 53.

7. Sheppard, S., et al. (2017). 'Urban forest governance and community engagement', in Ferrini, F., Konijnendijk van den Bosch, C., and Fini, A, ed., *Routledge Handbook of Urban Forestry*, pp. 389–419.

Local residents, security staff, police and Amey's arboricultural contractor attending a recent tree works site. (Paul Selby)



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