

Cabinet Member Briefing Note



Subject: City for All - 3000 trees

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Approved by: Sarah Rye – Head of Public Realm and Security

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Response required

Does the cabinet member agree that designing highways buildouts is an appropriate solution to facilitating more tree planting sites in the City.

Does the cabinet member agree to incorporating new green infrastructure within the 3000 trees pledge towards an undertaking equivalent environmental benefits is a practical solution to the finite number of potential tree planting locations in the public realm.

Overview

One of the City for All Cleaner and Greener pledges for 2018/19 is 'We will plant 3000 trees by 2020'. This briefing note sets out how this target will be achieved through a combination of planting on Westminster's public realm, working with partners to facilitate planning on private land and incorporating the council's wider green infrastructure programme into the target.

An average of about 200 trees per year have been planted in streets in recent years. Just over 300 trees were planted in the 2018/19 planting season. Therefore 2700 more trees are required to meet the 3000 trees target.

The total number of current potential tree planting sites in Westminster's highways is approximately 700, extrapolated from a recent survey of about half of the potential tree planting sites in streets. It is estimated that as this point Westminster's streets will be 'full' from a tree planting perspective.

It is estimated that up to a 1000 new planting sites could be created in streets by creating build outs into existing parking bays. The cost of this intervention in the highway is estimated to be between £5500 - £10000 per site and will require a longer time frame than the current City for All pledge.

In addition to the potential 2000 new trees accounted for above, future tree planting will include ongoing tree replacement in the streets, and smaller numbers in parks and housing estates.

The benefits of tree planting in Westminster can be measured by their ecosystem services such as amounts of carbon sequestration and carbon storage. Whilst the City for All pledge cannot wholly be met by tree planting, the benefits from other greening initiatives in the City since 2018 are projected to make up the shortfall in carbon benefits.

Trees in the City

There are currently about 9300 trees on Westminster's streets. Overall the street tree population of Westminster has increased by about 3000 over the past 15 years. Just over 300 street trees were planted in the 2018/19 planting season, compared to an average of around 200 per year over recent years.

A survey of potential tree planting sites has recently been undertaken by the council's Arboricultural Officers in about half of the wards in the City. The survey was carried out on a street by street basis and found 350 potential planting sites. Extrapolated from this, the estimated total number of current potential tree planting sites in Westminster's highways is 700.

It is anticipated that following the planting of the additional 700 trees there will be very limited options available for planting trees on streets. There will continue to be a renewal programme and where opportunities arise suitable trees will be planted.

Tree planting in parks and on housing estates will also take place when opportunities arise, but it is not anticipated that tree numbers will be substantial.

It is for the above reasons of limited space on the footways and in parks that it is proposed to increase the number of trees by building out into the highway. The recent parking occupancy survey and trend data shows that in some areas parking occupancy is decreasing. Therefore, there is the opportunity to utilise some of this space to plant trees. It is estimated that up to 1,000 trees could be planted in suitable streets. The cost per site is estimated to be £5.5k - £10k which includes the cost of the tree, maintenance, staff costs as well as highways costs. It is proposed that this is delivered over a 5 year period 19/20 – 24/25 at 200 sites per year.

The above equates to 2000 trees which could be planted in the streets toward meeting the City for All pledge. Locations would need to be carefully selected according to the principles below.

Site Selection

Potential sites, for both street trees and those proposed for planting in the highway, are identified by both practical site considerations and townscape considerations, with reference to Westminster's published guidance [Trees and the Public Realm](#). The unique character of Westminster is closely related to the amount, type, distribution and layout of green infrastructure. The proposed tree planning regime will ensure that the character of Westminster's townscape is retained. Sites are excluded where the following constraints are identified:

- Below ground services
- Vaults and cellars
- Narrow pavements
- Highway safety for example sight lines, or obstruction to movement of pedestrians or vehicles
- Interference with other highway infrastructure for example traffic signs and street lights
- Proximity of building lines, buildings or balconies oversailing the footway.
- Harm to residential amenity
- Urban design and the historic environment is also considered, to ensure that trees are sited so that they contribute to the townscape.
- Streets already fully stocked with trees

Appropriate selection of sites for tree planting helps to maximise life span and ensures trees do not need to be removed prematurely to prevent conflict with the functions of the street, surrounding buildings or residential amenity.

Species Selection and Maintenance

Alongside site selection, the success of Westminster's street tree planting and tree maintenance relies on choosing the right trees for the right places. As a rule of thumb, the largest tree that the site can accommodate is selected, in order that canopy cover and environmental benefits are maximised.

Other considerations include:

- species diversity and biodiversity
- other ecosystem services - for example air quality, pollution absorption
- size, form and canopy shape
- townscape and urban design considerations
- resilience to the harsh street environment
- climate change resilience
- aesthetic qualities
- specific negative characteristics for example brittle branches or surface rooting
- resistance to pest and diseases.

The gradual increase in street tree numbers over an extended period allows selection of the best tree stock from nurseries, attention to biosecurity to limit the risk of spread of pests and diseases, and also ensures trees are planted and watered with due care to ensure their best chances of survival. Most importantly it ensures a sustainable tree population with a balanced age structure, so that there is a steady succession of new trees, and so that canopy cover is maintained. The impact of planting several thousand trees in the street in a short space of time is a high risk of elevated rates of tree death as a result of inadequate planting stock and greater biosecurity risks. It also risks inability to source appropriate sites and species selected, thereby resulting in limitations on the lifespan of the trees if they have to be removed prematurely. A 'bulge' in the population also presents problems at the end of the life of the trees, and whilst not all trees would die at precisely the same time, it is likely that large numbers would need to be removed within a short time period, resulting in a rapid decrease in canopy cover.

Tree Planting Costs

The cost of supplying and planting a standard street tree is £350 per tree which then requires 2 years maintenance at £230 per tree.

As a consequence of planting more street trees there will need to be an increase in both capital and revenue budgets to cover the increased planting, ongoing pruning costs and increased staff costs to deliver. This has been factored into the current capital bid for trees

The costs of planting the trees in the highway would be greater than standard street tree planting. The cost of installation is estimated to be between £5500 - £10000 per site, depending on conditions which would mean installation costs ranging from £5.5 million - £10 million. These costs cover the cost of the tree, planting, early years maintenance and staff costs as well as the highways works. A capital funding bid is being submitted but alternative sources of funding will also be considered including, CIL bids and private sector (business) and grant funding. The timescale for this type of planting would necessarily extend beyond the City for All pledge period and it is proposed that the trees are planted over a 5 year period at 200 trees per year.

Sustainability Benefits

As well as the aesthetic benefits that trees contribute to the City there are a myriad of sustainability benefits that trees provided which help to ensure a climate resilient Westminster. These include flood resilience, pollutant removal, regulating micro climates and carbon sequestration and storage. As an authority in the heart of central London the carbon sequestration and storage benefits of trees are of significance as they can help to mitigate against the impact of climate change in London that is experienced as hotter drier summers and wetter milder winters.

Based on figures from 'Valuing London's Urban Forest' (2015), 3000 new trees in Westminster would provide:

Carbon storage	936 tonnes
Carbon sequestration	30 tonnes per year

If 2000 trees are planted as outlined above, that would result in a shortfall in these benefits of:

Carbon storage	312 tonnes
Carbon sequestration	10 tonnes per year

Site selection, management and maintenance are crucial for a thriving tree population. Green infrastructure includes various types of planning from grassland and green roofs to shrubbery. The requirements for site selection management and maintenance can differ significantly from those required for trees. The density of buildings in the city presents many sites which are too small or inappropriately located for trees but can be fully utilised by other green infrastructure. Officers consider that the shortfall in the trees target in the short term will be achieved through the continued installation and investment in green infrastructure across the city. Green infrastructure provides the same sustainability benefits as trees but on a smaller scale. Extending the benefits that trees provide by installing green infrastructure into smaller plots and spaces in and around existing public realm and land holdings ensures that the benefit of trees are extended into spaces that otherwise could not be utilised.

Stakeholders and Partnership Working

Earlier this year the council published 'A Partnership Approach to Open Spaces and Biodiversity in Westminster'. In this document the pressures and challenges associated with providing green infrastructure in the city are explained and the importance of working with partners is acknowledged and encouraged for future greening projects. Officers consider that partners and stakeholders will be central to the authority successfully planting an additional 3000 trees in the city.

BIDs and the wider business community, major land owners and neighbourhood forums are some of the partners that officers regularly engage with that will play a central role in the delivery of trees. Discussions have been initiated with these and other stakeholders to review opportunities to plant trees and will continue over the coming months.

The inclusion of trees and greening in all public realm schemes will continue to be promoted with all partners and ensure planting opportunities are identified.

From very early discussions it is anticipated that more than 200 trees could be planted through these partnerships, but it is too early to finalise a target.

Conclusion

The planting of 3000 trees across the city is achievable in collaboration with existing partners but not within the timescale set by the City for All pledge.

Planned Planting (2018 – 25)	2000
Tree planting (2018-19)	300
Tree planting (2020-22)	700
Highways planting (2020- 25)	1000
Collaborative Planting (projected 2020 – 2025)	200- 500

Neighbourhood Forums / Neighbourhood CIL

BIDs and the business community

Major Land Owners

Private Developers

Public Realm Projects

Green infrastructure (environmental equivalence projected for 2019 - 2025) 500 equivalent

Schools Clean Air Fund green infrastructure (2019 – 20)

Public Realm Projects

Community projects

The figures above set out how the environmental benefits of planting 3000 trees will be realised through planting 900-1000 trees between 2018/19 and 2020/21, extending the timeline to allow for up to 1000 trees to be planted on kerbside build outs, prioritising tree planting in green infrastructure projects with partners and focussing on opportunities to plan trees in wider community infrastructure commitments.

Additional staff resource would be required to achieve planting at a rate greater than 300-350 per year. Even with additional resource, the risk of failure to deliver a higher planting rate is high, as a result of limitations to suitable tree stock availability and uncertainty over recruitment.

Additional funding for tree planting, tree maintenance and the proposed highways build out options have been submitted as a capital bid for £10million, over 5 years, in the current bidding round.

It is suggested that there is an opportunity with this update to reframe this commitment to ensure that tree related objectives go beyond tree planting numbers to encompass optimal tree canopy cover for the City and maximising the wider environmental and community benefits which trees provide alongside other green infrastructure.

Appendix 1

Cabinet Member Briefing Note: City for All – 3000 trees dated 15 May 2019