

Recommended Revised Tree Planting (Council Land) Target

Author: Climate Change Member Working Group, PCC

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To: Cabinet on 15 November 2015

Agreement: The contents of this paper was **unanimously** agreed by the members of the Working Group

Recommendation

The Working Group recommends to Cabinet and Full Council that:

1. The Trees and Woodland Strategy be amended with the effect of raising the council's target for tree canopy coverage on council owned land (excluded leased out land) from 22% to 25%, and to achieve such a target by 2035. This target should be known as '25% by 2035' target.
2. Achieving such a '25% by 2035' target (which is an increase from the current tree canopy coverage of 20%) should be via a mix of woodland style planting and urban 'street tree' style planting.
3. The location of new planting should be targeted to those sites owned by the council whereby the planting of trees would offer the greatest number of ecosystem benefits. In addition, the existing policy to target wards with low current tree canopy coverage should remain.
4. If the above target is agreed, Cabinet and Full Council should note that this is likely to involve the planting of around 10,000 trees per annum on council owned land.
5. The financial costs associated with achieving the above target be recognised (including maintenance costs, which generally is the vast majority of the cost rather than the purchase of the tree), but that such costs should be met through the council considerably stepping up its efforts to secure grant funding to cover 100% (or very close to) of such costs. As such, other than as referred in recommendation 6 below, no additional funding is being sought by the Working Group in order to achieve the above target.
6. Additional revenue funding be agreed, of around £70,000 per annum, in order to secure (a) additional staffing support (cost c£50,000 pa) to: undertake the work required to bid for funds; to maintain the evidence base to support locations to deliver new planting; undertake ground truthing of sites identified for potential planting; and overall manage the delivery of the ambitious tree planting programme, the scale of which will be similar to that achieved under the Development Corporation programme of the 1970s/80s; and (b) a small funding pot (c£20,000 pa) to be used to help directly deliver the tree planting targets in any particular year where 100% grant funding cannot be secured.

Introduction

By way of background, Full Council agreed in October 2020 a tree related motion (see below), and placed responsibility on the Climate Working Group to progress it.

This paper provides a summary of the options considered by the Working Group, and a set of recommendations for a way forward.

The recommendations are those of the Working Group, though the Working Group acknowledges the contributions by officers and external advisors in assisting with the establishment of the recommendations.

The Motion:

The motion that was AGREED at Full Council in October 2020 (unanimous) was as follows:

"Council notes that:

1. an increase in tree planting was one of the measures proposed in the motion declaring a climate emergency that was agreed in July 2019, as a means of helping the City Council and the City as a whole get to net zero carbon by 2030

2. many councils have adopted ambitious tree planting targets, whereas the Peterborough City Council Carbon Management Plan, adopted in March 2020, proposes that the Council will plant only 400 new trees on its land each year until 2030.

3. Friends of the Earth are advocating that there should be a doubling of tree canopy cover across the country by 2045 to help tackle both the climate and biodiversity emergencies.

4. Peterborough City Council is a partner in the Forest for Peterborough Project, which has a target of planting 230,000 trees (one for every resident in the city) between 2010 and 2030, of which around 120,000 still remain to be planted.

Council therefore instructs the cross-party working group on Climate Change and relevant officers to:

1. Carry out an audit of council owned land in the city to identify possible planting opportunities.

2. research and recommend much more ambitious tree planting targets for planting on Council land and to submit to Full Council not later than March 2021 amendments to the Trees and Woodland Strategy and the Carbon Management Plan to include the proposed new targets.”

Progressing the Motion

In summary, the Climate Change Member Working Group has held a considerable number of sessions in order to progress the request from Full Council, including receiving expert advice from external bodies.

Early in the consideration process, it became apparent that there was insufficient time and resources to meet the March 2021 target set by Full Council, especially in terms of a comprehensive audit of Council owned land. In February 2021, therefore, Cabinet resolved that it:

“Supports the work of the Climate Change Cross Party Working Group to identify mechanisms to enable the Council to significantly increase tree canopy cover across the city over the next ten years and to present detailed proposals within a maximum 12 months detailing how this can be achieved.”

This paper meets the above Cabinet request, as well as the original Full Council motion request.

The case in favour of tree planting

The Working Group acknowledge from the outset a strong, in principle, case in favour of tree planting, for a wide variety of reasons including: biodiversity gain; landscape benefits; flood risk mitigation; and helping to adapt to a changing climate (urban cooling effect) to name but a few. On top of all that, there is a strong case to plant more trees to help ‘capture’ carbon from the atmosphere. Indeed, the UK’s Committee on Climate Change recommends as a ‘key finding’ in its **Land Use: Policies for a Net Zero UK¹** (2020) that the UK needs to increase “UK forestry cover from 13% to at least 17% by 2050 by planting around 30,000 hectares (90 – 120 million trees) of broadleaf and conifer woodland each year.”

Establishing the evidence

A work programme to tackle the motion was set up as soon as possible, the speed and scale of which having to take account of time and resources available.

Consequently, a full and detailed audit of all council owned land was not possible. It was, however, and on a pragmatic basis, possible to undertake a preliminary desk-based analysis and audit of likely potential planting sites. This analysis

¹ See [Land use: Policies for a Net Zero UK - Climate Change Committee \(theccc.org.uk\)](https://www.theccc.org.uk/our-reports/land-use-policies-for-a-net-zero-uk/)

focused on Habitat Opportunity Mapping work that was recently undertaken within Northamptonshire and Peterborough as part of a partnership project within the Nene Valley Nature Improvement Area (NIA).

Habitat opportunity mapping is a Geographic Information System (GIS) based approach used to identify potential areas for the expansion of key habitats. It aims to identify possible locations where new habitat can be created to enable delivery of particular benefits, whilst taking certain constraints into account. The project looked at mapping new opportunities for habitats across the whole of Northamptonshire and Peterborough. Opportunities were mapped based on opportunities to:

- enhance biodiversity for three different broad habitat types (broadleaved and mixed woodland, semi-natural grassland, and wet grassland and wetland);
- reduce surface water runoff;
- reduce soil erosion and improve water quality;
- ameliorate air pollution; and
- increase access to natural greenspace.

The biodiversity opportunity maps highlight areas that are best located in terms of their connectivity to existing habitat patches and are therefore most appropriate from an ecological point of view. In addition to mapping the individual opportunities, maps were also combined to highlight opportunities to enhance multiple services at the same time.

That study was used as the baseline for the task set by the Motion to look at tree planting opportunities within Council owned land. The data was then spatially cut to the curtilage of that land within Council ownership and control (c4,000ha). In line with the principles of the forthcoming Environment Bill's vision of Local Nature Recovery Strategies, sites were only selected which provided proven biodiversity opportunity which were then further filtered to those sites that offered the most combined ecosystem opportunities. A maximum of 5 ecosystem benefits can be achieved and thus for the purposes of this study those sites that offered the most combined benefits were selected. The table below shows the **potential** land quantity available where maximum benefits are perceived. These sites will need to be further 'ground truthed' to ensure that they are suitable (it is envisaged that this process will deselect a significant number of sites through constraints not captured within the desk based study):

Combined ecosystem benefits	Area (ha) identified
5	7.5
4	38
3	96

Thus, in conclusion, it appears at least theoretically possible for some tree planting to occur on up to 96ha of council land where multiple (at least 3 out of 5) ecosystem benefits may be achieved. The quantity of **theoretical** land available detailed above gives some reassurance of the **actual** availability of land to deliver future tree planting. In reality, the **actual** figure is likely to be significantly lower than the **theoretical** figure, once constraints and community opinions are taken into account (a process which has not been undertaken). Nevertheless, it sets a 'ceiling' of potential land opportunities.

The Cross Party Climate Change Working Group is aware that this approach does not meet the requirement for a detailed audit of Council owned land. A full detailed audit remains an option supported by the Working Group, and such an audit would complement the habitat opportunity mapping already done, and would equally help ground truthing of sites identified via the desk top exercise.

In reality, the full detailed audit (including the benefit of site investigations) is something that will take a number of years to be fully achieved and maintained as an up to date record, and it is acknowledged that no budget (or officer time) is presently available for such a task.

Establishing a tree 'target'

The Council's current adopted tree planting target, as established in its Trees and Woodland Strategy, is based on **canopy coverage** rather than a raw tree planting target. The current policy is as follows:

[para 9.2.24 – last bullet] “Previously the City council have not set targets for tree canopy cover increase, in excess of the natural gains as trees grow and mature. A 10% overall increase in canopy cover within the Council’s direct control is viewed deliverable and challenging target within the next 10 years. A 10% increase in green cover (canopy cover) can potentially eliminate the effects of climate change on increasing surface temperatures (CABE Space (no date) ‘The benefits of urban trees’). Canopy cover on council owned land within the Council’s direct control (not leased out) currently stands at 495.2 ha. A 10% increase would result in a further 49.5ha of additional canopy cover being required. In order to achieve this objective the council aims to target those wards where currently canopy cover is lowest. Simplistic modelling based on an average tree canopy of 0.012 ha (the average canopy spread from the canopy cover data) would indicate that a further 4126 trees would need to be planted on council owned land. However the delivery of the desired canopy cover is dependent on the growth rate of the trees as they mature. The size and nature of planting will be specified accordingly on the planting locations available. Delivery of these targets will be dependent on constraints within the land ownership. A more ward -by-ward individual target setting was considered impractical to both set and deliver. Instead, the more overarching 10% increase, with a targeting of wards with low current cover, is the most practical and flexible approach.”

The following paragraphs provide commentary on options considered for revising such a target, including whether the target should be a ‘tree planting per year number’ based, or remain a ‘canopy coverage’ target.

Initial discussions were based on setting a target related to PCC’s contribution to PECT’s Forest For Peterborough (F4P) target (F4P target is 230,000 new trees over 20yrs across all land, 2010-2030). The Council has been a long running partner within the F4P project and 8,936 trees have already been planted on Council owned land to date towards that target.

Two further refinements were considered that applied pro-rata planting targets based on the council’s entire (non leased out) landownership and its land ownership solely within the urban area.

The Working Group consider a number of options relating to what its contribution could be, in tree numbers, to helping meet the F4P target, and these were broadly in the 25-50,000 newly planted trees on council owned land, of which around 9,000 had already been planted by the council, leaving around 16-41,000 more trees to be planted over the next 10 or 11 years.

Ultimately, the Working Group decided not to progress a revised target related to tree planting numbers, and instead turned its attention to tree canopy cover (as per the current policy), but revising the target for such canopy coverage. The reason for this was that whilst a tree planting target may lead to an easy to understand headline ‘target’, canopy cover targets allow tree planting to be targeted where there are the greatest gains to be achieved and also allow a cost effective means of monitoring tree populations and the effectiveness of planting programmes.

Thus, whilst the Working Group fully supports the on-going work of PECT in delivering the F4P, and supports the council making contributions towards it, it decided to focus attention on a revised target for the council itself which relates to canopy coverage.

To further help this process, an evidence gathering meeting was held by the Working Group to help formulate a target and methods to fund the proposal. This key witness evidence gathering session was held on the 15th July 2021 with representatives of the Forestry Commission, Peterborough Environment City Trust and an independent arboricultural consultant, who was once a tree officer for Bristol City Council and equally an advisor to the Woodland Trust. The event was held in public and a recording can be viewed at <https://www.youtube.com/watch?v=uP6ibX1ST9s>.

Having determined that a target relating to canopy cover was the way forward (as it is in the current Trees and Woodland Strategy), the Working Group discussed a wide range of options as to what that target be, noting that the current canopy coverage on council land was just over 20%. As a reminder, the current Strategy seeks to increase the coverage from 20% to 22%.

As part of the discussion, two important factors were also considered:

- (a) the impact of ash-dieback (which has just started to arrive in Peterborough, and can reasonably expect to result in the loss of around 80% of all ash trees in the district over the next 5-10 years)

(b) the natural growth of existing trees which, even if the council did not plant any further trees, would continue to grow and provide an increase to canopy cover.

The precise figures which can be attributed to (a) and (b) above can only be a broad estimate, but following scrutiny of the evidence in these two matters (based on the quantity of ash known on PCC land, and the likely increase of canopy cover from existing (non-ash) trees), it was established that the two elements of (a) and (b) would in effect cancel each other out i.e. the canopy coverage lost via ash dieback would be similar to the gain in canopy cover from the maturing of all other trees.

The Working Group then went on to determine what the new canopy cover target should be, and broadly looked at three options:

Option 1: Retain the current target of an increase from 20% to 22%, with the end date being tree maturity (ie. potentially 100 years+)

Option 2: Increase the target to 30% by 2030

Option 3: Increase the target to 25% by 2035

To help put these targets into context, it is worth establishing the approximate scale of such planting required:

Option	Current canopy coverage (at 20% of all PCC land)	Land required to meet additional canopy coverage	Indicative tree planting required*	Annual rate (approx.)
1: Current (i.e. 22%)	495ha	50ha	4-5,000	500 (for next 9 years)
2. 30% by 2030	495ha	250ha	250-300,000	30,000 (for next 9 years)
3. 25% by 2035	495ha	125ha	100-150,000	10,000 (for next 14 years)

**these are indicative, as the canopy coverage achieved varies depending on the type, size and location of tree, and whether planted in a woodland form or as a single 'street tree'.*

To further put the above figures into context, the Council over recent years typically plants 100- 1,000 trees a year, excluding replacement trees for any trees felled.

It is also worth noting that the land requirement under options 2 and 3 are in excess of the land identified by the desk top exercise referred earlier in the paper (96ha maximum), meaning other land would also need to be planted upon, despite lower ecosystem benefits arising as a consequence.

The current policy in the Strategy is one which maintains the recent rate of planting, whilst the two alternative options would be a substantial increase in the rate of planting.

After considerable deliberation, and taking account of both the urgency to plant trees (to meet both the climate and the biodiversity crisis we face) and the deliverability of the options (in terms of land availability and finances), the Working Group determined that the revised target **should be to achieve a 25% canopy coverage by 2035.**

Resources to deliver this target.

It is acknowledged by the Working Group that the recommended revised target is very ambitious, but nevertheless necessary and appropriate. The Working Group acknowledge that the scale of tree planting will have to increase by 10-20x the current tree planting programme, and recognise that this scale of planting resembles that of the Development Corporation days, which had the benefit of considerably greater resource and even its own tree nursery to produce stock.

Understanding the resource need, and availability of resource, was a key part of the Working Group deliberations.

The evidence gathering session with external contributors clearly highlighted a broad range of opportunities for external funding which could be explored, such as: Forestry Commission; Woodland Trust; and Trees For Cities, to name but a few. These funding opportunities range from contributions to merely cover the cost of the tree to

broader wide-ranging schemes that cover both supply, planting and maintenance (up to 10 years maximum). It should be noted that no scheme fully covered the full cost to plant and maintain the tree stock throughout its entire life expectancy.

On the flip side, albeit in a limited number of cases, evidence² has demonstrated that it is possible that land planted with trees has a lower maintenance cost than the current (no trees) maintenance cost, such as on land currently intensively managed as cut grass. It should also be noted that one option to investigate to help deliver the proposed target, at potentially lower cost (including maintenance) is regenerative woodland creation, whereby land is set aside, with appropriate protection from rabbit and deer, to natural form as a woodland. Whilst not suitable in all circumstances, this is certainly an approach the council could include as part of a package of measures to deliver the canopy coverage target. Some grants do allow for such woodland creation schemes.

It was further noted by the Working Group that trees and woodland can deliver wider economic benefits and cost savings, albeit these being hard to quantify or monetarise. For example, trees can help mitigate against flood risk, meaning savings from flood risk management elsewhere and less direct losses from flood events; trees can help with urban cooling in summer, and heat loss in winter, in both instances helping to save other energy costs; and well landscaped trees can bring pride and investment to an area, again bringing economic benefits as a consequence. Attempts to place a financial value on some of these issues can be done, and trees can be regarded as a kind of capital asset. For example, a recent i-tree evaluation of our tree stock aimed to quantify and value our tree stocks role in air pollution removal, carbon storage, carbon sequestration and reductions in surface water runoff. In addition, the amenity value of the tree stock was calculated. The report demonstrated that the current tree stock alone offers a present ecosystem value of £36.12 million over 80 years for all other benefits combined, plus total carbon storage value of £10.3 million. Increasing our tree stock can only be concluded that it would serve to increase these returns.

Turning to the precise issue of meeting costs for tree planting, in principle the Working Group agreed that the new canopy cover target should (and could) be entirely met via external funding sources, not only for the trees themselves, but the planting and maintenance, albeit the Working Group noted officer reservations whether that would be possible. That said, the Working Group agreed that a small annual fund of £20,000 is recommended, to be used, for example, to match fund or 'top up' any particular grant scheme where a full 100% grant is not available, or to deliver a small planting scheme where no grant was available.

To illustrate the grant funding potential, the Council has just (Sept 2021) successfully been awarded a grant of c£260,000 by the Forestry Commission. The bid for that grant comprised a mix of tree planting types, and also included maintenance costs for 3 years. The grant will (based on Forestry Commission's own costings, which formed part of the bid process), enable approximately 3,300 trees to be planted in Peterborough over winter 2021/22. This is a fantastic start towards stepping up our tree planting ambitions, though the Working Group acknowledge it will only amount to meeting about 3% of the overall target figure being recommended, and implies that grants of something like £5-15m will need to be secured over the next 14 years in order to deliver the target (and deliver the target with close to net neutral capital cost for the programme). It is also worth noting that these 3,300 trees will still have a maintenance cost from year 4 onwards, an amount which will require a funding solution to be found.

It was however also agreed by the Working Group that currently resources do not exist within PCC or Aragon to fully explore and bid for these funds in the first place, nor keep up to date the evidence base needed to enable high quality bid submissions to be prepared. This staffing deficiency was further highlighted when witness evidence showed the staffing resource of a comparable authority was in the region of 11.5 staff compared to the 4.5 employed within the Aragon contract.

The Working Group therefore agreed that additional staffing resource was needed, and that such resource was not likely to be forthcoming from external funding sources.

There was considerable discussion on the scale of need for additional resource, ranging from 1-6FTE, potentially as a newly created dedicated team which oversaw: the maintaining of the evidence base; the ground-truthing of sites to

² See [Trees or Turf for Urban Green Space - Woodland Trust](#)

makes sure suitable sites are found, the correct species planted and appropriate planting programme for each site devised; the submission of bids; and the broad overseeing of delivery of the target.

Whilst there is considerable doubt as to the scale of officer need to meet the '25% by 2035' target, a minimum of 1FTE additional staff was deemed necessary, at a broad cost (including on-costs such as pension, NI, etc) of around £50,000 per annum. This should be seen as a minimum, and ideally a small new team of perhaps 4FTE would be more appropriate and realistic, at a cost of perhaps £200,000 pa. To begin with, however, the Working Group would like to see new funding set aside for 1FTE at around £50,000 annual cost, and monitor the effectiveness of such a resource.

In addition to all of the above, the Working Group is keen that the Council explores all opportunities to gain 'sponsorship' (or similar arrangements) of new tree planting, thereby potentially delivering some tree planting and maintenance at low / nil cost, albeit administering such a scheme can require significant resource in itself.

Finally, the Working Group acknowledge that meeting the new canopy cover target is entirely dependent on being successful at securing external grants/sponsorships. As such, the new target of '25% by 2035' should be caveated in the Strategy with a 'subject to securing external funding'.

Revised Strategy Wording

The precise rewording of the Strategy is recommended as follows:

[para 9.2.24 – last bullet – revise to as follows] “For the first time in 2018, Peterborough City council set a target to increase the tree canopy coverage on its own land. The target was set at a 10% overall increase in canopy cover (i.e. up from a current coverage of 20%, to an increased coverage of 22%), and that planting be undertaken over the 10 years to 2028 which would, over decades, have the effect of meeting that target once the trees matured. In November 2021, and in recognition of the climate and biodiversity emergency we face, the Council radically stepped up its ambitions, and established a revised target of a 25% tree canopy coverage, with such coverage achieved by 2035 (known as the '25% by 2035' target). To achieve this target will require a ten- to twenty-fold increase in tree planting over the next 10-15 years on council land, and require around 100-150,000 trees to be planted, from small woodland 'whip' style planting, to larger specimen street trees. Meeting such a target will be dependent on securing grants and other funding. If achieved, this scale of tree planting will be a major contribution by the council to mitigating the effects of climate change, boost considerably the biodiversity of the district, and help humans and animals adapt to a changing climate (through, for example, the urban cooling effect of trees, improving air quality and the flood mitigation benefits that trees provide). The identification of sites for the new tree planting will be driven by: sites whereby tree planting would offer the greatest ecosystem benefits; sites within wards which currently have low tree canopy coverage; and consideration of any wider deliverability issues on a site by site basis.

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