

Culture and Communities Committee

10.00am, Tuesday, 13 December 2022

Response to Motion by Councillor Osler - Trees

Executive/routine Wards Council Commitments	Routine All
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1. Recommendations

- 1.1 It is recommended that Culture and Communities Committee:
 - 1.1.1 Notes this update on current arrangements for tree management and maintenance across the city;
 - 1.1.2 Approves the approach set out in paragraphs 4.9 – 4.19 for tree management and maintenance;
 - 1.1.3 Approves the approach set out in paragraphs 4.21 – 4.25 for engaging with residents and businesses;
 - 1.1.4 Note the future actions to be explored; and
 - 1.1.5 Discharges the actions agreed by the Council on [30 June 2022](#) in respect of the Motion by Councillor Osler on Trees.

Paul Lawrence

Executive Director of Place

Contact: Steven Cuthill, SE Locality Transport and Environment Manager

E-mail: steven.cuthill@edinburgh.gov.uk | Tel: 0131 529 5043

Response to Motion by Councillor Osler - Trees

2. Executive Summary

- 2.1 This report responds to a motion by Councillor Osler, approved by the Council on [30 June 2022](#), which requested a report on the Council's plan for:
- 2.1.1 Information and engagement for local communities in advance of tree planting; and
 - 2.1.2 Managing and maintaining trees planted under the Edinburgh Million Tree City project (including tree watering) and existing trees within the city's green spaces.

3. Background

Tree Numbers

- 3.1 At its meeting of [28 January 2020](#), Committee recognised the value that urban trees play in addressing the Climate Emergency and global biodiversity losses, supporting the ambition for Edinburgh to be a "Million Tree City" by 2030.
- 3.2 In 2017, it was estimated that there were approximately 730,000 trees in the city, of which around 182,000 (25%) were managed by the Council, with the remaining trees in private ownership.
- 3.3 As reported to Committee on [26 April 2022](#), in the period October 2021 to March 2022, 25,230 young trees were planted, and 898 tree removals were recorded, leaving a net increase in tree numbers of 24,332.
- 3.4 Planting around 25,000 trees per year will be required to enable the city to reach its million-tree city goal by 2030.

Tree Losses

- 3.5 Tree numbers are also affected by losses from felling, damage, vandalism, and tree pests and disease. Tree diseases have the most devastating effect on the diversity of woodlands, as well as on specimen trees throughout the city's parks and green spaces.
- 3.6 Dutch Elm Disease and, more recently, Ash Dieback have resulted in significant tree losses. While Dutch Elm Disease has been managed for many years, the

progress of Ash dieback and the health and safety implications of the disease has led to the production of the Ash Dieback Action Plan, which was approved by Committee on [1 February 2022](#). The impact of the significant loss of ash trees in terms of numbers and loss of habitat will present an ongoing challenge to achieving the one-million trees target by 2030. Additional planting will need to be undertaken to mitigate these losses. A further report on Ash Dieback is planned for Committee in March 2023.

Weather

- 3.7 The summer of 2022 brought some of the highest temperatures recorded in the UK. The increase in heat resulted in a lack of soil moisture content within the top metre of soil - the "root zone" – and created what is referred to as an agricultural and ecological drought. The dry conditions of summer 2022, exacerbated by climate change, can be expected once in 20 years as a result of the extreme heat rather than changes in rainfall patterns.
- 3.8 The monthly rainfall figures gathered at the Royal Botanical Garden (Edinburgh) gathered by [SEPA](#) between November 2021 and October 2022 ranged between 31% to 97% of the monthly mean. This shows how much drier 2022 has been compared to other years. Actual monthly rainfall recorded (and monthly mean in brackets) in millimetres for 2022 are given: January 18 (56.5); February 43.5 (95.6); March 24.8 (41.6); April 26 (37.8); May 30.8 (45.5); June 22.6 (57.1); July 28 (64.1); August 60.6 (64.6); September 50.2 (75); and October 72.7 (82.2).

Tree Planting

- 3.9 The Council generally specifies the use of standard trees or occasionally extra-heavy standard trees for streets, parks and gardens, and specimen planting. Smaller trees, such as whips or transplants, are used for planting large areas and woodland areas. The cost of a standard tree ranges from £80 to £300, whereas a whip or transplant ranges from £0.50 to £5, plus planting and aftercare.
- 3.10 How a street tree is planted and cared for affects its total lifecycle costs. For example, a [study](#) suggests that over a 50-year time period, a standard tree will cost £13,906 (adjusted for inflation), including the potential for it to be replaced up to four times over that period.
- 3.11 Sustainable urban forests require human intervention, which is especially true for street tree populations, as they are constructed through human-driven cycles of planting and removal. A significant amount of tree planting is now undertaken and planned as part of the Edinburgh Million Tree City project.
- 3.12 Arboricultural work is mostly carried out by the Council's in-house Forestry Service supported by specialist contractors. Safety inspections, disease surveys, and planned and reactive assessments are progressed by Trees and Woodlands Officers and Assistants.

Tree in the City Action Plan

- 3.13 The current "[Tree in the City](#)" Action Plan sets out the Council's approach to tree management. It outlines policies that cover the majority of tree-related concerns

and provides guidance on how the Council will deal with these concerns. The document is in the process of being refreshed and will be shared with the Committee following community engagement.

4. Main report

- 4.1 Trees enhance the sustainability and liveability of the city by providing health, environmental, and community benefits, but the provision of these benefits is dependent upon trees surviving to maturity.
- 4.2 The requirements for tree management and maintenance vary depending on factors such as tree age, condition, risk of disease, location (such as street tree, in parks and greenspaces, or woodlands), etc., throughout the city.
- 4.3 Tree mortality rates are likely to differ based on tree size, species, condition (e.g. crown deterioration), tree health, establishment-related maintenance, and land use.

Current Arrangements for Tree Maintenance and Management

- 4.4 To date, watering has generally only taken place during the first spring or summer after planting; however, the frequency of watering and quantity of water required varies depending on local conditions.
- 4.5 To support the watering of trees, a framework contract is in place for:
 - 4.7.1 Tree planting, tree pit construction, planting in hard standing, tree planting in soft landscaping;
 - 4.7.2 Tree watering; and
 - 4.7.3 Tree maintenance.
- 4.6 This contract runs from 6 January 2020 to 5 January 2024 and makes provision for up to £100,000 per annum of expenditure (to date expenditure has been nearer £41,000 which reflects the budget available in the service).

Standards for Tree Management

- 4.7 Tree stewardship is the post-planting maintenance of trees. [Research](#) suggests that trees that are stewarded are approximately 5.18 times more likely to survive. Young tree establishment in planting programmes generally improve if maintenance activities are undertaken such as mulching, staking, watering, pruning, and weed removal.
- 4.8 While the British Standard (BS8545:2014: Trees – from Nursery to Independence in the Landscape: Recommendations) does not recommend any particular frequency or duration of watering, it recommends consideration of local conditions.

Plan for Tree Maintenance and Management

- 4.9 A key component of tree management and maintenance is ensuring that the Council sources the best quality tree stock to plant and also that these trees are planted correctly (in line with best practice).

- 4.10 A tree supply contract is now in place, where the Council has specified the quality standards of plant material that are expected.
- 4.11 In addition, officers recognise that watering of newly planted standard and extra-heavy standard trees to date has generally been inadequate and can result in tree losses, although this is not monitored.
- 4.12 Ideally, newly planted standard and extra-heavy standard trees should be watered twice weekly during the growing season for the first three to five years.
- 4.13 During this establishment period it is recognised that the following would improve survival of trees:
- 4.12.1 Quality versus quantity;
 - 4.12.2 Tree watering between April to September; and
 - 4.12.3 Tree stewardship, aftercare, and maintenance.
- 4.14 It is therefore proposed to revise the Trees in the City strategy to make a solid and serious commitment not only to tree planting, but to proper aftercare as the trees establish.
- 4.15 This could include, but not be limited to, ensuring that newly planted trees are monitored, and that regular maintenance is planned to ensure that they successfully establish. This could include weeding (either by herbicide or by the use of mulch), watering or fertilising according to conditions, and adjustment or removal of tree ties or guards.
- 4.16 While it is recognised that there could be significant costs associated with adequately watering newly planted trees during the establishment period, this would likely result in higher total numbers of trees reaching maturity compared with planting as many trees as possible and then not adequately following up on aftercare. This may mean that the Council will plant fewer trees in future but, by investing in maintenance, more trees will become established and remain healthy.
- 4.17 It is anticipated that four seasonal maintenance staff could support this approach to tree watering.
- 4.18 The service will carry out an assessment on whether an in-house team could be responsible for tree planting, watering and maintenance to reduce the reliance on external contractors in the future.
- 4.19 It is important to recognise, however, that a comprehensive programme of tree maintenance and management may not be possible within the resources available.

Further Actions to be explored

- 4.20 Several other ideas are being explored to improve tree survival rates in the city, which include:
- 4.21.1 Integrating tree planting in sustainable urban drainage system designs so that trees are able to uptake water from underground storage;

- 4.21.2 Preparation for tree planting in hard landscaping areas to improve conditions within the root zone as survival depends on a tree's ability to adapt to site conditions and develop and expand its root system. This may be as simple as incorporating granules that retain water or ensuring backfill material incorporates suitable drainage and watering systems or is made up of suitable substrates in the planting pit; and
- 4.21.3 Ensure that there is a diverse choice of tree species incorporated in planting designs that have varying degrees of drought-resistance and drought-sensitivity. This is only possible in areas where there is not a desire to establish native woodland

Information and engagement with local communities

- 4.21 The Council does not currently notify local residents when trees are planted in their local area.
- 4.22 However, officers recognise that local communities play an important role in helping with managing and maintaining trees in the city. From reducing vandalism through to protecting, monitoring, and maintaining trees, there are many opportunities available that can help trees flourish.
- 4.23 It is proposed to develop plans to help residents, businesses, partners, and others can get involved, including developing a tree stewardship scheme, where residents and businesses can become involved in participate in tree care (perhaps by 'adopting' a tree). Members of the public or businesses will be encouraged to adopt one tree or more in front of their home or premises to undertake straightforward tasks such as weeding, watering, leaf clearance, etc. Guidance will be provided.
- 4.24 In addition, it is intended to:
 - 4.24.1 Develop a tree warden scheme or other voluntary effort to encourage local residents to adopt and look after trees in their neighbourhood;
 - 4.24.2 Encourage residents to identify land suitable for tree planting;
 - 4.24.3 Host tree giveaway events that encourage residents to plant trees in their gardens;
 - 4.24.4 Promote the benefits of trees and provide tree care information via community and interest groups and providing information on tree planning and tree planting events;
 - 4.24.5 Pair interested volunteers with planting events through organisations such as The Conservation Volunteers, Edinburgh and Lothians Greenspace Trust, EVOC, etc;
 - 4.24.6 Develop contacts for participating in citizen science opportunities and create opportunities for citizen science (e.g., local primary school involvement in Wee Forests) to gather important information about tree health in the city.
- 4.25 To support this, a communications plan is being developed to progress the above actions, working with partners where appropriate.

5. Next Steps

- 5.1 This report sets out the current and proposed actions that officers will progress in respect of tree management and maintenance and communicating with residents.
- 5.2 A communications plan to encourage residents to become more involved in tree planting and maintenance is being developed.
- 5.3 The Council will continue to work with partners to progress Edinburgh's Million Tree City project and to identify opportunities (e.g. Wee Forests) to encourage tree planting in the city.

6. Financial impact

- 6.1 The actions outlined in this report will be progressed within the existing resources of the service, where possible.
- 6.2 A review of the way in which the service allocates resources to activities is underway and is expected to conclude by the end of March 2023. Following this, if the actions outlined in this report are not able to met from existing resources, this will be reported to Committee.

7. Stakeholder/Community Impact

- 7.1 The activities set out in paragraphs 4.21 – 4.25 are designed to support greater stakeholder/community involvement in tree planting, management and maintenance across the city.
- 7.2 A tree giveaway event is being prepared for 2023 so that residents can take ownership of one or more trees to plant in their garden and support the city's aim to achieve one million trees by 2030.

8. Background reading/external references

- 8.1 None.

9. Appendices

- 9.1 None.