



TREE PROTECTION IN MIDLOTHIAN AND THE ROLE OF TREES IN MITIGATING CLIMATE CHANGE AND PROTECTING AND ENHANCING BIODIVERSITY

Report by Chief Officer Place

1 PURPOSE OF REPORT

- 1.1 The purpose of this report is to inform the Committee of the protection given to trees in Midlothian, their important role in mitigating the effects of climate change and their contribution to biodiversity.

2 BACKGROUND

- 2.1 At its meeting of 13 June 2022 the Committee requested a report with regard:

- the current legislation and policies that seek to protect trees and encourage their planting as part of the development process;
- the value trees have in mitigating against climate change; and
- trees contribution towards biodiversity.

- 2.2 This report is structured as follows:

- a) Section 3 sets out the legislative and regulatory framework with regard trees in Midlothian and includes consideration of:
- Midlothian Local Development Plan 2017 (MLDP) policy ENV11;
 - The use of planning conditions when granting planning permission to secure planting and the protection of trees during construction;
 - Tree protection as part of a conservation area; and
 - Tree Preservation Orders (TPO);
 - Scottish Forestry Tree Felling Licenses.
- b) Section 4 sets out the role of trees in mitigating climate change and their role in supporting and enhancing biodiversity.
- c) Section 5 sets out how we increase protection for trees and increase the tree canopy cover in Midlothian.

3 THE LEGISLATIVE AND REGULATORY FRAMEWORK

- 3.1 The legislative and regulatory framework with regard the protection of trees in different circumstances is set out below – outwith these

categories of protection and consideration there are no 'default' tree protection regulations:

Midlothian Local Development Plan 2017 (MLDP) Policy ENV11

- 3.2 MLDP policy ENV11 Woodland, Trees and Hedges is the primary policy for the protection of trees and hedges in the local development plan and is a consideration in the assessment of development proposal via the planning application process. Policy ENV11 states:

“Development will not be permitted where it could lead directly or indirectly to the loss of, or damage to, woodland, groups of trees (including trees covered by a Tree Preservation Order, areas defined as ancient or semi-natural woodland, veteran trees or areas forming part of any designated landscape) and hedges which have a particular amenity, nature conservation, biodiversity, recreation, landscape, shelter, cultural, or historical value or are of other importance.

Where an exception to this policy is agreed, any woodland, trees or hedges lost will be replaced with equivalent. Removal of woodland, trees and hedges will only be permitted where it would achieve significant and clearly defined additional public benefits. If a development would result in the severing or impairment of connectivity between important woodland habitats, workable mitigation measures should be identified and implemented, preferably linked to a wider green network.”

- 3.3 The presumption of policy ENV11 is against tree and/or hedge loss and sets out the position that their removal will only be supported where it would achieve significant and clearly defined additional public benefits. It also provides details of mitigation measures required where trees or hedges are removed. The policy protection afforded by policy ENV11 only applies in circumstances and locations where a planning application is being considered – it does not apply in circumstances where a planning application is not required.
- 3.4 The Council collects data on the location of ancient and semi-ancient woodland in Midlothian. This helps inform assessments on planning applications.

Planning Conditions attached to a Grant of Planning Permission

- 3.5 In granting planning permission for development the local planning authority can impose a condition/s to; protect a tree, protect a group of trees and/or require the planting of new trees. Such conditions can be subject to review/appeal or amendment by way of a subsequent planning application. Non-compliance with tree protection and landscaping conditions can result in planning enforcement action being taken to secure compliance.

Tree Protection as part of a Conservation Area

- 3.6 In a designated conservation area, legislation requires the Council to be notified of any works undertaken on trees that are above 75 millimetres in diameter (or where the tree is in a woodland it is 100 millimetres where the work is done to improve the growth of other trees), at a point 1.5 metres above ground level. These works would include cutting down, uprooting, topping or lopping of the tree. The notification of the Council of works to trees in a conservation area occurs through the submission to the Council of a 'Work To Tree' (WTT) application. Applications can be made through the Council's website.
- 3.7 The Council has six weeks to consider the application and decide whether or not a Tree Preservation Order (TPO) should be placed on the tree/s. If a TPO is not placed on the tree/s, then works applied for can proceed and the applicant is notified of the decision. Legislation does not require the need for replacement tree planting where trees, not being designated as a TPO in a conservation area, are being felled, although the Council does encourage replacement tree planting in such circumstances. The Council also works with applicants to encourage appropriate tree care works and management.
- 3.8 The Council cannot refuse a WTT consent or grant a WTT consent subject to conditions for tree works in a conservation area where the trees are not subject to a TPO. This is because the WTT process is prior notification of works *not* an application for consent. As such the Council cannot consider representations on a WTT notification. This report also sets out the protection afforded to trees subject to a TPO and how TPOs are designated.
- 3.9 The Council does not need to apply for a WTT application with regard trees on Council owned land in a conservation area. Statutory undertakers (utility providers) also have rights that exclude the need for a WTT application in a conservation area.
- 3.10 A plan showing the location of conservation areas and TPOs in Midlothian can be viewed on the Council's website.
- 3.11 Scottish Government guidance in the form of Planning Circular 1 2011: Tree Preservation Orders sets out in paragraphs 81 and 82 the penalties for undertaking unauthorised works to trees in conservation areas (without prior notification) and sets out replacement planting requirements. It is an offence to undertake tree works in a conservation area without going through the notification procedure – the Council can use its discretion to require replacement planting if trees are removed without going through the notification process.
- 3.12 Penalties - Planning Circular 1 2011: Tree Preservation Orders (paragraph 81)

“Anyone who cuts down, uproots, wilfully destroys a tree or wilfully damages, tops or lops a tree in a conservation area in such a manner as to be likely to destroy it, without giving the six weeks prior notification is guilty of an offence. A person found guilty of an offence shall be liable on summary conviction to a fine not exceeding £20,000 and on conviction of indictment to a fine”

3.13 Replacement of trees - Planning Circular 1 2011: Tree Preservation Orders (paragraph 82)

“If a tree in a conservation area is removed, uprooted or destroyed in contravention of section 172 of the Act (the Town and Country Planning (Scotland) Act) the landowner is placed under a duty to plant another tree of an appropriate size and species at the same place as soon as he or she reasonably can. The same duty applies if a tree is removed because it is dead, dying or dangerous or because it is causing a nuisance. The duty attaches to subsequent owners of the land, although the planning authority has powers to dispense with the duty.”

Tree Preservation Orders (TPOs)

- 3.14 Planning Circular 1 2011: Tree Preservation Orders sets out in paragraphs 29 and 30 that “It is an offence for any person in contravention of a TPO to cut down, uproot, wilfully destroy a tree or wilfully damage, top or lop a tree in such manner as to be likely to destroy it without the consent of the planning authority. A person guilty of an offence shall be liable on summary conviction to a fine not exceeding £20,000.”
- 3.15 Unlike the notification procedure for works to trees in conservation areas that are not subject to a TPO, there is no size threshold for which an application is necessary for works to trees subject to a TPO. An application for works to trees subject to a TPO is required, irrespective of the scale of works proposed and the size of the tree for which the works are proposed.
- 3.16 Works can be undertaken on trees subject to a TPO, including felling, but an application for (not just notification of) works must be submitted to the local planning authority and approval must be received from the local planning authority prior to works commencing. This approval is sought through the submission of a WTT application. Applications can be made through the Council’s website.
- 3.17 The local planning authority can require replacement tree planting where trees are subject to a TPO are felled. Although the priority is to retain trees protected by a TPO for amenity, climate change and biodiversity reasons it is acknowledged that sometimes trees need to

be felled for health and safety reasons or to facilitate a development in the public interest.

- 3.18 Alternatively, if the tree/s subject of a TPO is within the site boundary of a proposed development, then the proposed works to the tree/s can be applied for through the planning application process and considered as part of the determination of the application. A planning permission will take precedence over a TPO. Therefore a planning permission can allow the removal of a tree/s designated under a TPO.

Designation of a TPO

- 3.19 Midlothian Council has the power to issue a TPO on individual trees, groups of trees or areas of woodland if it appears to the local planning authority that:
- It is expedient to do so in the interest of amenity and/or,
 - that an individual tree, a group of trees or area of woodland is of cultural or historical significance.
- 3.20 At present the legislation does not support issuing a TPO solely on climate change mitigation or biodiversity grounds – despite it becoming increasingly evident that trees make a significant and positive contribution with this regard, and increasingly a planning judgment with regard ‘amenity’ can indirectly relate to climate change mitigation and biodiversity value. When considering the designation of an individual tree, a group of trees or area of woodland as a TPO consideration is given to the type of tree/s, the health and condition of the tree/s, their location, their contribution to local amenity and their cultural and historical value.
- 3.21 Since 1977 Midlothian Council, and its District Council predecessor, has designated 75 different TPOs in Midlothian covering a mix of individual trees, groupings of trees and areas of woodland. However, in some instances the trees subject to a TPO have been removed.
- 3.22 The primary legislation, regulations and guidance with regard TPOs and trees in conservation areas is as follows:
- The Town and Country Planning (Scotland) Act 1997 as amended by the 2006 Planning etc. Act and the 2019 Planning (Scotland) Act;
 - The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 as amended;
 - The Town and Country Planning (Tree Preservation Order and Trees in Conservation Areas) (Scotland) Regulations 2010; and
 - Scottish Planning Circular 1 2011: Tree Preservation Orders

Scottish Forestry Tree Felling Licenses

- 3.23 With the exception of private garden ground, irrespective of any other designations affecting a tree or woodland, where more than 5m³ of timber is to be felled, a felling license from Scottish Forestry (formerly Forestry Commission Scotland) is required. Up to 5m³ of timber can be felled in one location in each quarter of a year without the need for a felling license. Where an application is made to Scottish Forestry, the Council will be consulted.
- 3.24 Estimating and visualising what 5m³ of timber looks like is difficult - for comparison it is about the size of one medium oak tree, or a cuboid space approximately one metre wide, two metres tall and 2.5 metres long.
- 3.25 A felling license is not required for felling works in a private garden. Therefore where a private garden is not in a conservation area, or trees are not subject to a TPO or planning conditions, there is no protection against tree felling or any legislation requiring the replacement of trees felled. In these circumstances the Council has no authority to stop felling or require replanting to replace felled trees.

Protection of Trees

- 3.26 The report sets out the protection given to trees in Midlothian and provided for by legislation and regulations. Section 3 of this report sets out this is achieved by the:
- The application of MLDP policy ENV11 in the assessment of planning applications;
 - The use of planning conditions to safeguard trees and secure planting of trees;
 - Works to trees in a conservation areas;
 - Tree Preservation Orders; and
 - The requirements for tree felling licenses from Scottish Forestry.
- 3.27 This report indirectly highlights the gaps there are in tree protection, namely:
- The policy framework of the MLDP only applies to trees affected by a planning application. It does not provide direct protection for trees where a planning application is not required;
 - planning conditions will only apply to sites where there has been a grant of planning permission and that permission is being implemented;
 - Conservation areas only cover certain parts of Midlothian and where there is no TPO the Council cannot require replacement tree planting for felled trees. The only way the Council can stop tree works, in any location, is for the tree/s to be protected by a TPO;
 - TPOs only cover a comparatively small number of the trees in Midlothian and their issuing and review can be an administrative and resource intensive process; and

- Felling licenses are controlled by Scottish Forestry, not the Council, and permit up to 5m³ of felling in a location every quarter of a calendar year.

4 THE ROLE OF TREES IN MITIGATING CLIMATE CHANGE AND PROTECTING AND ENHANCING BIODIVERSITY

Brief Summary of the Primary Cause of Climate Change

- 4.1 There is an increasing understanding of greenhouses gases (e.g. carbon dioxide, methane, and nitrous oxide) and their relationship with climate change, and how increases in their presence in the earth's atmosphere, increases the temperature of the earth.
- 4.2 In brief, when short-wave radiation from the sun reaches Earth, most of it passes straight through the atmosphere and hits the Earth's surface - the Earth then absorbs most of this radiation and in exchange gives off longer-wavelength infrared radiation which in 'normal' circumstances heads back out to space, with some of it being trapped by the planet's atmosphere to maintain the earth's temperatures. The increasing volume of greenhouse gases traps an ever increasing amount of this infrared radiation in the atmosphere and in turn the radiation acts like a blanket causing the planet to heat up as heat is increasingly retained in the atmosphere. This process is known as the 'greenhouse effect'.
- 4.3 Since the industrial revolution (the second part of the 19th Century), we've been adding more and more greenhouse gases into the atmosphere, trapping even more radiation and in turn generating more heat. Instead of keeping Earth at a warm, stable temperature, the greenhouse effect is heating the planet at a much faster rate. We call this the 'enhanced greenhouse effect' and it's the main cause of climate change. Increasing global temperatures will lead increasingly to drought, flooding, wildfires, crop failures, economic pressures and failures, poor air quality and accelerated reductions in biodiversity.
- 4.4 To reduce climate change and the enhanced greenhouse effect, the amount of greenhouse gases being released into the Earth's atmosphere needs to be reduced.
- 4.5 Trees (in particular mature trees) are a well-known and accepted means of absorbing and retaining greenhouses gases, particularly carbon dioxide. The safeguarding and planting of trees is therefore all the more important as temperatures continue to rise.

Trees - Mitigating Climate Change

- 4.6 Using i-tree software Council officers have undertaken indicative work to identify the tree canopy coverage in Midlothian and also the environmental and financial value of the trees. Table 1 below, shows

the findings. The blanks in the table are where no financial value could be calculated using the software.

Table 1: Tree Canopy Study Results in Midlothian (source: i-tree)

	Bonnyrigg Ward	Dalkeith Ward	Penicuik Ward	Midlothian East Ward	Midlothian South Ward	Midlothian West Ward	TOTAL	VALUE
% Canopy Cover	15.5%	11.4%	8.5%	9.1%	12%	15.4%	12%	-
Carbon sequestered annually (metric tonnes)	362.5	872.5	2,143.9	2,651.9	4,870	2,113.4	13,014.2T	-
CO2 equivalent sequestered annually (metric tonnes)	1329	3,199.2	7,864.2	9,713.4	17,860	7,742.3	47,708.1T	£1,735,353
Carbon stored (total) (metric tonnes)	9102.7	21,911.8	5,389.1	66,510.4	122,300	53,017.3	278,231.3T	-
CO2 equivalent stored (total) (metric tonnes)	33,376.5	80,343.1	19,759.1	243,851.3	448,500	194,400.3	572,178.8T	£43,581,317
Carbon Monoxide removed annually (kg)	119.7	257.3	632.8	780.9	1,610	622.6	4,023.3kg	£285
Nitrogen Dioxide removed annually (kg)	652.8	1,403	3,450.3	4,258.3	8,770	3,394.6	21,929kg	£491.54
Ozone removed annually (kg)	6501.3	13,973	34,363.4	42,410.6	87,360	33,808.5	218,416.8kg	£25,637
Sulphur Dioxide removed annually (kg)	411.4	884.1	2,174.3	2,683.5	5,530	2,139.2	13,822.5kg	£86
Particulate Matter (2.5-10 microns) removed annually (kg)	2,177.7	4,680.4	11,510.5	14,206	29,260	11,324.6	73,159.2kg	£18,612
Particulate Matter (<2.5 microns) removed annually (kg)	315.9	679	1,669.8	2,060.8	4,240	1,642.8	10,608.3kg	£52,995

4.7 The table shows the canopy cover percentages of all six Midlothian Council Wards. The average tree coverage (canopy) across Midlothian is 12%. The average for the United Kingdom is 13%, but the average in the European Union is 35% (source: Friends of the Earth). Globally just under a third of the world is covered in trees (source: Columbia University).

4.8 Table 1 highlights trees in Midlothian were responsible for:

- an annual equivalent carbon dioxide sequestration of 47,708 metric tonnes with a financial value of £1,735,353; and
- the trees store an equivalent 572,178 metric tonnes of carbon dioxide with a financial value of £43,581,317.

4.9 The carbon storage of the trees is critical in the efforts to reduce the effects of climate change. Trees/forests help stabilise the earth's climate by absorbing almost a third of the carbon dioxide released from burning fossil fuels every year - around 2.6 billion tonnes.

Trees - Protecting and Enhancing Biodiversity

4.10 The protection and enhancement of biodiversity is closely linked to climate change and trees are a key player in this finely balanced relationship. The below list identifies some of the benefits provided by trees in this relationship (source: includes Earth Eclipse, Greenpeace and The Woodland Trust):

- Trees produce the only natural source of oxygen on earth - an acre of land full of mature trees can produce enough oxygen for 18 people in a year;
- Trees absorb pollutant gases such as carbon dioxide, nitrogen oxides, sulphur dioxide, ammonia, and ozone from the air and purify it. They filter particulates out of the air and trap them on their bark and leaves. Table 1 above shows the estimated volume of harmful gasses that are absorbed annually by trees in Midlothian. Removing the trees reduces this ability to store carbon dioxide and other greenhouse gases and their loss results in them going back into the atmosphere;
- Trees provide shelter and habitat for humans and animals. As an example a mature oak trees alone supports 2,300 species – 326 of which are entirely dependent on oak for their survival (source: The Woodland Trust);
- Trees are a major source of food and nutrition for humans, birds and animals both directly and indirectly;
- Trees are and can be a primary source of energy for heat and fuel, and can be sustainably produced;
- Trees reduce heat through providing shade and releasing water vapour through leaf pores to help lower temperatures and keep air moist;
- Trees help prevent soil erosion through binding soil together and help reducing flooding through take up of water through root systems, reducing run off of soil and sediment into rivers, and slowing down the rates of water flow from rain fall;
- Trees help with the appreciation of issues related to the Climate Emergency and connectivity with the natural world; and
- Trees, woodland and biodiversity help positively towards wellbeing and mental health.

- 4.11 Approximately 80% of the world's land biodiversity including many varieties of trees, plants, animals, birds, insects and fungi working together in complex ecosystems are found in woodlands and forests - forests cover about a third of the Earth's land area and about half of that is intact.

5 INCREASING PROTECTION FOR TREES AND TREE CANOPY COVER IN MIDLOTHIAN

- 5.1 To help mitigate the effects of climate change, protect and enhance biodiversity and provide enhanced amenity for the residents of Midlothian it is necessary that importance is placed on:
- Preserving existing trees; and
 - Promoting appropriate tree planting and woodland management.
- 5.2 There are challenges in delivering these objectives, namely:
- The balance of decision making on planning applications between tree protection and development;
 - The suitability and condition of trees in domestic gardens and their longevity, where people wish to remove them;
 - Protection of woodland outwith settlements not protected by TPOs;
 - The additional resources required to designate further TPOs and to determine applications for works to trees, e.g. management or felling requests;
 - Limited influence over new tree planting regimes outwith the Council's landholdings; and
 - Connecting fragmented woodland and wildlife habitats.

Assessment of Planning Applications

- 5.3 There is a balance to be had in the assessment of planning applications between supporting development, economic growth, the provision of need infrastructure and the loss of trees. In response to the Climate Emergency the preservation of trees, particularly mature and semi-mature trees, must have significant weight in the assessment of development proposals. Officers do already give significant weight to tree preservation in assessment of planning applications - this must remain at the forefront of the assessment of development proposals.

Midlothian Local Development Plan No. 2

- 5.4 The next local development plan, Midlothian Local Development Plan No. 2, which will be prepared during the current administration of the Council, presents an opportunity for greater tree preservation and increased tree canopy cover in Midlothian by:
- Consideration of new TPOs in Midlothian to help safeguard trees, particularly on sites that may potentially be allocated for development. TPOs could be considered for important strategic woodlands across Midlothian;

- Not allocating sites for development that will lead to loss of mature trees, even for access into the site;
- Require proposed development sites, including existing allocations which do not have planning permission, to have a set percentage of tree canopy coverage on the site;
- The promotion of further tree/woodland planting; and
- The Council considering using its own estate to plant new community woodlands as part of its net zero carbon ambitions, its ambitions to enhance biodiversity and to deliver quality environments for its residents, businesses and visitors.

6 RECOMMENDATION

6.1 The Committee is recommended to note the contents of the report.

Peter Arnsdorf
Planning, Sustainable Growth and Investment Manager

Date: 19 August 2022

Contact Person: Grant Ballantine, Lead Officer Conservation and Environment
grant.ballantine@midlothian.gov.uk

Background Papers: Midlothian Local Development Plan 2017