

# **The City of Edinburgh Council**

## **Ash Dieback Action Plan**



February 2022

## **Executive summary**

Ash dieback is a serious tree disease epidemic caused by the fungal pathogen, *Hymenoscyphus fraxineus*. It causes canopy dieback and rapid death of ash trees. The wood of affected trees often becomes brittle, making tree removal difficult and dangerous and a safety hazard to outdoor space users, residents and arboricultural employees and contractors.

Many thousands of ash trees will need to be felled in the next 5-10 years. Due to brittleness, these felling operations may be more complex and costly than usual. There will also be significant tree surveying requirements that will need to be undertaken in addition to existing tree health and safety assessments, as well as additional tree planting to replace removed trees. This will present significant additional revenue and capital cost to the Council.

Surveying for ash dieback symptoms needs to take place between late June and mid-September as part of an annual survey and will largely be carried out by Assistant Tree and Woodland Officers. As more survey data is collected and collated, our understanding of required on-going survey and tree removal works will grow, which will inform the long-term Action Plan delivery resource requirements.

Resources will be required to fund additional arboricultural officers and associated equipment/vehicles needed to deal with the extra workload of ash dieback tree removals.

# 1. Objectives

The objectives of this Action Plan are to:

- Identify the local risks from ash dieback and develop a plan to manage them.
- Initiate a survey of the ash population.
- Evaluate the risks associated with ash dieback and establish a risk-based approach for identifying, dealing, and recovering from ash dieback.
- Identify the costs of ash dieback management and secure budget to meet these costs.
- Undertake tree works across the Council's outdoor estate to make people and property safe from ash tree disease and death.
- Raise awareness of ash dieback among stakeholders and the public.
- Determine and initiate actions for those non-Council ash trees which present potential danger to users of public spaces.
- Develop and implement an ash tree recovery plan to mitigate biodiversity, landscape and environmental losses, as well as a replacement programme in line with the Million Tree City planting programme.
- Establish a stakeholder working group to monitor and manage the Action Plan.

## 2. Ash trees and dieback

### 2.1 Edinburgh's ash population

The ash tree, *Fraxinus excelsior*, is a common native species of tree which is abundant throughout the UK. It is a deciduous broadleaf species which grows to a large mature size.

In 2013 an i-Tree Eco survey was undertaken in Edinburgh which estimated a total of 712,000 trees in the city, of which some 6% (42,720) are ash trees. The survey also estimates that 75% of the city's trees are in private ownership and 25% are owned by the Council. This suggests 10,680 ash trees are within Council ownership and 32,040 on non-Council land. However, this survey covered only land within the city bypass so excludes large parts of the City of Edinburgh administrative area containing woodland or individual ash trees.

There are currently 4,160 individual ash trees recorded on the Council's tree management database. However, this data set is incomplete as many Council trees remain unrecorded, notably on the former City Development account. We also know that the Council's Millennium woodlands contain an additional 27,000 young ash trees.

Ash is a very prolific species and tends to self-seed widely. It will be present on every type of site managed by the Council, including parks, cemeteries, woodlands, schools, care facilities, Council depots, Council housing gardens, cycle paths, walkways and roadside verges. It is a species with a very large mature size and so although 6% of the total number of trees may be ash, it is likely to represent greater than 6% of the total canopy cover.

Edinburgh's green spaces contain a number of specimen ash cultivars that are also susceptible to ash dieback, notably the weeping ash, *Fraxinus excelsior* 'Pendula', and the single-leaved ash *Fraxinus anomala*.

## **2.2 Ash dieback**

Ash dieback is a serious tree disease epidemic caused by the fungal pathogen *Hymenoscyphus fraxineus*, also known as *Chalara fraxinea*. It causes dieback and death of ash trees. Symptoms include dieback of shoots and branches, and withered, browned leaves that fall early. The dieback progresses through the crown and can kill a mature tree in two years. The wood of affected trees often becomes brittle, making tree removal more difficult and dangerous than usual.

The fungus originated in Asia, where it is a fairly harmless component of the woodland ecology, causing only minor damage to its host, *Fraxinus mandschurica*. It was transported to Poland in the mid-1990s, where it obtained access to *Fraxinus excelsior* and became extremely destructive. The fungus spread rapidly throughout Europe and its presence was confirmed in the UK from 2012. In the next 5-10 years, 95-98% of British ash trees are expected to become infected with ash dieback. A small proportion have some natural resistance to the disease, but 75-90% are expected to die outright.

## **3. Benefits of urban trees and woodlands**

### **3.1 The environment**

Trees have a strong positive impact on the local environment. They provide habitat for wildlife, including invertebrates, birds and bats, as well as supporting lichens, bryophytes and fungal species - key components of local ecosystems. Trees produce oxygen and filter pollution, improving air quality. They prevent soil erosion and keep sites stable. They act as long-term carbon sinks, slowing the effects of climate change. They also reduce the frequency and severity of flooding by intercepting rainfall above ground, absorbing it from below ground, and maintaining soil permeability.

### **3.2 Human health**

A healthy urban forest is important for human health and wellbeing. The presence of trees is associated with improved mental and physical health, including faster healing from illness, healthier pregnancies and a reduction in the occurrence of the major non-communicable diseases. Trees encourage use of green space, which improves social cohesion, increases physical activity and enhances mental acuity.

### **3.3 Benefits to the city**

Trees in cities improve the local economy by encouraging visits to shops, increasing property prices, increasing the productivity of workers, and decreasing spend on healthcare and storm water management. They enhance the landscape, providing visual screening, windbreaks and the reduction of noise pollution. Trees form landmarks throughout the city and contribute to

the sense of place. They insulate urban spaces, providing shade in summer and reducing the urban heat island effect.

## **4. Impact of ash dieback**

### **4.1 Health and safety**

The most significant risk of ash dieback is to the safety of residents and colleagues. Trees affected by ash dieback quickly become brittle and may drop branches or fall over. This can cause injury, property damage, road traffic accidents and fatality.

Arborists working on diseased ash, whether in the Council's squads or for contractors, face an increased safety risk due to the brittleness and unpredictability of the timber.

The Council has a duty of care to take whatever steps are reasonably practicable to prevent its trees from causing foreseeable harm. This legal duty requires that the Council take action to manage the safety risks presented by ash dieback. Private tree owners also have a duty of care, and residents with ash trees on their land will also need to take appropriate action.

### **4.2 Environmental damage**

Ash is a native tree which supports many invertebrate species which in turn support bird and mammal populations. Several dozen invertebrate species are obligate on ash and cannot survive without it, and several dozen more have a strong preference for ash as their habitat. The crown shape, late flush and early leaf fall of ash allows a number of ground cover species to grow underneath it in woodlands, and these species in turn support additional invertebrates. Some fungal species exist exclusively or preferentially on ash. The loss of ash trees will therefore significantly damage UK biodiversity.

There will also be a loss of other ecosystem services provided by ash. Some sites are likely to see an increase in noise pollution, air pollution, wind exposure, soil erosion, and flooding. Where ash forms a major component of wildlife corridors which connect multiple sites, such as cycle paths, their loss will fragment green networks and damage the ability of fauna to travel and spread. Large numbers of ash lost on slopes or riverbanks will damage river ecology and may lead to destabilised ground.

The Council has declared a climate emergency and committed to a target of net zero emissions by 2030. The loss of ash trees will set us back in achieving this target.

### **4.3 Loss of landscape value**

Ash is a significant component of Edinburgh's urban forest. The loss of ash trees will mean major visual changes to the landscape and to the character of our parks, woodlands, other green spaces, schools and the cityscape as a whole.

## **4.4 Financial impact**

There will be a need for significantly more tree health and safety surveying, and due to brittleness caused by ash dieback, felling operations will be more complex and costly than usual. This will add substantial cost to the Council's tree management budgets. There will also be a cost for the replanting needed to mitigate the losses.

There will be an economic impact on private landowners who need to fell ash trees, and this cost may be difficult for some residents to meet.

## **4.5 Reputational damage**

Ash dieback and associated tree works are likely to cause disruption when roads and infected sites need to be closed to public access. Residents may be resentful of the Council removing diseased trees and its impact on their neighbourhood. If ash trees fall and cause harm this may reflect badly on the Council and potentially lead to legal action and insurance liability claims.

# **5. Action plan**

## **5.1 Stakeholders and Working Group**

There are a number of key Council services and other organisations that will be affected by ash dieback and its management. Internal stakeholders are Education and Children's Services, Sustainable Development, Housing Services, Roads and Transport Infrastructure, Properties and Facilities Management, Cemeteries, Planning, Councillors and Communications. External stakeholders include Edinburgh Green Space Forum, Forest Kindergarten groups, the Water of Leith Conservation Trust, Edinburgh Leisure, and the Council's arboricultural contractors.

An Ash Dieback Working Group to implement and review implementation of the Ash Dieback Action Plan will be established from stakeholder representatives; others will be kept informed of its delivery.

## **5.2 Monitoring the spread of ash dieback**

Annual surveying will be undertaken each summer to monitor the spread of ash dieback and identify those trees that need removal. This will include:

- All public roads and highways, active travel routes, public footpaths and public rights of way – there is an estimated 1470km of roads and 118.2km of non-road footpaths across Edinburgh.
- All Council sites – public parks, cemeteries, public golf courses, the grounds of civic buildings, woodlands, school grounds, health and social care facilities, Council depots, Council house gardens, sheltered housing, etc.

In adopting a risk-based approach, the principal aim is to prevent trees from falling and causing harm. It will not be necessary to search through deep woodlands to find every diseased ash – only the ones which cause greatest risk will need to be removed.

An ash tree that becomes infected with ash dieback disease can go from full health to highly dangerous within two years, so the condition survey aims to cover all Council-owned ash trees on a two-yearly rotation.

Once each surveying season has been completed, we will have a clearer idea of how much ground each surveyor can cover in the available time and be able to calculate the long-term resource needs for future survey. This survey will also pick up ash trees that have not previously been recorded for future monitoring.

All survey staff will receive training from the Tree Council in identification and management of the disease.

## **5.3 Tree removals**

### **Removal of Millennium woodland trees**

There are around 258,000 semi-mature trees in the Council's Millennium woodlands, ash making up 10-15% of the species composition. As part of good woodland management practice, most of these woodlands are now due to be "thinned", so we will remove all ash trees during this process. This will create more light and space and so encourage healthy development of the remaining trees.

### **Removal of other trees**

Tree removals will be undertaken by both our own arboricultural teams and by our arboricultural contractors using a risk-based approach to prioritisation that considers tree condition, location and the type of site. There may be circumstances that merit the pre-emptive felling of healthy ash trees, although this will be minimised. In woodland settings, some ash may be retained as standing trunks or stacked as logs to create deadwood habitat.

Due to the additional hazards to arborists caused by the brittleness and relative unpredictability of diseased ash trees we will procure mobile elevated work platforms to dismantle those ash trees which have become too dangerous to climb by rope and harness. Access issues on some sites (e.g. Council house gardens) may require an alternative operational approach.

Extensive road closures/parking suspensions (including diversions where necessary) will be required if trees are to be removed within programme timescales, and so an effective process for arranging these will be developed.

## **5.4 Review of legal requirements**

### **TPOs and Conservation Areas**

Ash dieback felling is not exempt from the need for Tree Preservation Order consent and Conservation Area notification. Works orders will therefore be submitted through the ePlanning portal in accordance with the standard procedure.

## **Felling permission**

Many sites are exempt from the need for felling permission (i.e. public open spaces, domestic gardens, cemeteries, and any trees that are dead). Trees within schools and woodlands are not exempt and as tree removals will likely exceed the threshold of 5m<sup>3</sup> of timber within a calendar quarter-year they will require felling permission. We will therefore establish a process for obtaining permission for each relevant site, taking advice from Scottish Forestry on the most efficient way to do this.

## **Biodiversity**

The UK Forestry Standard requires the Council to manage its woodlands and wider landscape in a way that conserves or enhances biodiversity. Under the Nature Conservation (Scotland) Act 2004 the Council also has a duty to consider biodiversity in all of its work. This is affirmed as a priority in the Edinburgh Biodiversity Action Plan, which promotes the preservation and enhancement of the natural environment within the city.

Bats, birds and badgers are protected under the Wildlife and Countryside Act 1981. Any tree works undertaken by the Council must proceed in accordance with this legislation to minimise disturbance of these protected species.

## **Duty of care**

Under the Occupier's Liability (Scotland) Act 1960, the Health and Safety at Work Act (1974) and common law, the Council has a duty of care to ensure that our sites are reasonably safe. If large numbers of trees on a site become dangerous and we cannot remove them all within a suitable timescale, we may need to consider closing the site until we can make it safe.

## **5.5 Private trees**

Any works required on private trees which are a danger to the highway will be planned in collaboration with Roads and Transport Infrastructure. Statutory notices using the Roads (Scotland) Act will be utilised.

Although the Council has no statutory power to enforce removal of a dangerous private tree next to a Council managed public green space it can take a civil action where needed or issue advisory notes to owners. There may be ash trees on private land where we cannot identify the owner, or where the costs of identifying the owner would be prohibitive. In such situations, a decision will be required on whether to remove these trees at the Council's cost. There may be additional legal and estate services costs in identifying legal ownership or taking appropriate action where legal recourse is necessary.

## **5.6 Estimation of costs**

The recruitment of additional two additional arborist squads will be required to deal with the extra workload of ash dieback tree removals. This resource is required as an urgent priority.

The Forestry service will also need to purchase or hire additional large equipment, including tracked chippers and trailers, MEWPs, tractors with crane, and stump grinders.



## 5.7 Communication strategy

The removal of trees is an emotive subject for many. Public awareness of ash dieback and the actions necessary to manage its impacts are therefore important considerations. The following communication approaches will therefore be initiated:

- A public information campaign – social media, local press, Council website, public signage etc - will inform the public about the Council's ash dieback action plan and will also provide advice to owners of ash trees.
- An ash dieback management guidance note - to be circulated on social media and sent to any resident who is found to have a diseased tree.
- Political communications - keeping Councillors, MPs and MSPs informed of issues and progress.

## 5.8 Replanting

The Edinburgh Million Tree City Project aims to increase the city's tree population to 1,000,000 by 2030. This will involve planting around 250,000 trees, as street trees, woodlands, trees in private gardens and trees as part of new developments. Where appropriate replanting will take place where ash has had to be removed. Compensatory planting will be programmed for nearby locations should it not be suitable to directly replace removed ash. The planting programme will prioritise supporting biodiversity, including a focus on tree species which can best replace the ecosystem services currently being provided by ash. Where suitable, we will replant with genetically resistant ash when this becomes commercially available.

## 6. Useful links

The Tree Council's Ash Dieback Toolkit for Scotland – this provides advice for organisations on development of an Ash Dieback Action Plan:

<https://treecouncil.org.uk/wp-content/uploads/2021/06/Ash-Dieback-Action-Plan-Toolkit-for-Scotland-June-2021.pdf>

Scottish Forestry's advice on ash dieback management:

<https://forestry.gov.scot/sustainable-forestry/tree-health/tree-pests-and-diseases/chalara-ash-dieback>

Forest Research have provided information and advice regarding ash dieback:

<https://www.forestresearch.gov.uk/tools-and-resources/pest-and-disease-resources/ash-dieback-hymenoscyphus-fraxineus/>