

Exeter City Council

Ash Dieback Action Plan (ADAP)

Version 0.1 – Exeter City Council Ash Dieback Action Plan

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Document Control Sheet

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Executive Summary

This plan is to enable ECC to assess our current position and the potential effect of Ash Dieback in relation to our city and its inhabitants.

The outcome of this assessment will assist in our response to avert risk and mitigate the inevitable environmental and ecological impact.

This document lays out the Ash Dieback Action Plan for Exeter City Council

- About Ash Dieback and the need for the toolkit
- Benefits of Trees and Woodlands
- General management advice
- Ash Trees in the UK/ Region/ County/ Area
- Potential impact of Ash Dieback on landscape and biodiversity in Exeter City
- Potential impact of Ash Dieback on local landowners, land managers and homeowners
- Potential impact of Ash Dieback on local utilities and infrastructure organisations
- Recovery from the effects of Ash Dieback
- Potential impact of Ash Dieback on your organisation and the potential financial implications

In addition, a **Delivery Plan** is set out which covers:

- Production of a baseline ash tree survey
- Establishing a multi-agency structure
- Reviewing current legal practice
- Developing a risk management plan
- Producing a publicly available local bio-security tool-kit / guidance for ash dieback
- Developing and running local training
- Producing a communications strategy and public information
- Developing an Ash Dieback recovery plan
- Creating measured systems to monitor and assess the spread of ash dieback
- Preparing and developing a tree strategy to ensure preparedness for future tree diseases.

Key Findings, Recommendations and Actions:

- Only trees with an intolerable ratio of risk of harm are recommended appropriate works.
- Exeter City Council manages an estimated 200,000 trees of which there are 465 plotted ash, however this figure is likely to be far greater as many of the trees have not yet been individually recorded. In addition to this the council owns and manages approximately 40 hectares of broadleaved woodland.

- Homeowners taking felling operations into their own or untrained hands will be at greater risk due to the disease.
- Summer 2019 will give us a more conclusive idea of the progression within the city.
- This disease outbreak could cost ECC an extra £50,000 to £150,000 per year for the next 5-10 years.
- The existing Tree Risk Strategy will provide a means of managing the risks that infected trees pose to people and property.
- Our web document will be updated as and how the spread of the disease progresses.
- A document will be released on our internal news site aiding symptom recognition along with a facility for notifying our Tree Team.
- Tolerant and resistant trees should be retained, as should a proportion of dying or dead trees where it is safe to do so.
- Identify positions within the city for re stocking and doubling our planting numbers in advance of the biodiversity loss.
- Further plotting of ash on our existing mapping system and database alongside the use of a spreadsheet that accounts for dates, locations and numbers of trees lost to the disease.
- Our tree strategy will incorporate our reaction to the impact of events such as this.

1. Ash Dieback Action Plan Aims and Objective

What we want to achieve and how we are going to do this

Objectives include that the ADAP will (be):

- ‘An overarching Plan to identify, communicate and address the risks of Ash Dieback disease in Exeter.
- Identify and manage the risks from the disease to the environment (landscape and biodiversity), to public safety (falling trees) and to communication networks (roads and overhead cables)
- Identify actions that are a priority because they pose a short-term major risk, (as to public safety), and those that pose a longer-term risk (as to the environment) and require long term planning and budgeting.
- For non-woodland trees, consider both a worst-case scenario, where over 90% of ashes die or are clearly dying within a ten-year period, and a less severe scenario, where about 50% of non-woodland ashes are affected.
- Identify the likely costs of responding to the disease, and thereby identify where extra resources will be needed.

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3. Ashes and Ash Dieback

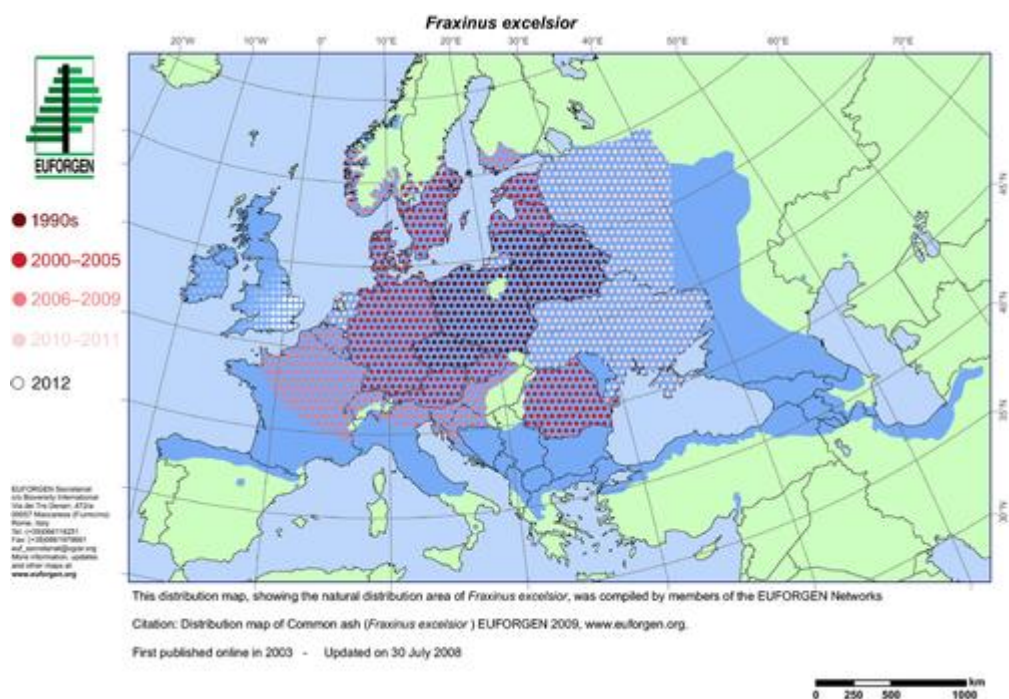
Understanding the ash tree population within the area covered by the plan, ash dieback as a disease, and the way in which the trees are likely to respond to infection.

This section should cover:

- **What is Ash Dieback?**

Ash dieback (*Hymenoscyphus fraxineus*) also known as *Chalara fraxinea*, is the most significant tree disease to affect the UK since Dutch elm disease. It will lead to the decline and death of the majority of ash trees in Britain and has the potential to infect more than two billion ash trees (over 1.8 billion saplings and seedlings to more than 150 million mature trees) across the country.

Arriving in mainland Europe from Asia in the 1990's *Chalara* has spread throughout Europe devastating up to 95% of trees, some showing a natural resilience. It was first recorded in the UK in Buckinghamshire in 2012, evidence suggests that it has been present since perhaps a decade earlier.



The disease is spread by the wind through spores produced from fungal fruiting bodies on fallen leaves, once infected the fungus destroys the trees vascular system preventing nutrients and water movement. Once weakened the trees are susceptible to secondary pathogens like honey fungus (*Armillaria* Spp.) Symptoms of the disease are lesions on the bark, blackening of leaves, dieback of branches and whole tree death. Where trees are badly infected they can develop decay and rot at the branches or root and stem base rendering the branches or whole trees unstable and dangerous. When dismantling or felling diseased trees experience has shown that there is a propensity for the stems and branches to shatter “like a grenade”. This will determine the removal methods required in each scenario. Trees

can become infected and can decline rapidly dependant on biotic factors, some trees can die within a couple of years where others may decline more slowly.

- *Where is Ash Dieback?*

From the south east ADB has progressively spread across the country, the first outbreak in Devon was confirmed in 2016 along the Exe valley south of Tiverton and has since been confirmed in most parts of the county. So far only small amounts have been identified in Exeter City. Approximately <10% was confirmed in the Valley Parks in September 2018. Further confirmed cases have been seen since, mainly on young trees.

- *How many ash trees are in our area?*

We have 465 ECC plotted, inspected and maintained ash trees, a far greater number are not plotted and are yet to be assessed.

The National Forest Inventory estimates that there are on average 887 ash trees per hectare in woodlands greater than 0.5ha plus 10,500 seedlings and saplings of ash per hectare of private sector woodland. There are an average number of 444 ash trees per hectare in small woods and linear features of ash habitat in England.

Linear feature numbers in Exeter have not been counted though with an assessed 40 Ha of woodland in the city it would suggest there are 35,480 ash stems with a diameter at breast height greater than 4cm and 420,000 seedlings and saplings.

4. Benefits of Trees and Woodlands

What may be lost in terms of ecosystem, landscape and biodiversity, and what will need to be replaced.

Trees and woodlands make Exeter a healthier, more attractive place to live, they help combat climate change and air pollution.

Exeter's urban forest contains an estimated >1 million trees and tree canopy covers approximately 24.5% (treeconomics 2018) of the city's land area.

Ash is most commonly in mixed woodlands, rather than as a sole canopy dominant. Its saplings are shade-tolerant, enabling it to respond well to fill any new canopy gaps.

- With regards tree and woodland biodiversity, an ancient woodland is the UK's most biodiverse land habitat, individual mature ash trees can support around 1058 total species including 12 bird species, 58 bryophytes, 78 vascular plants, 68 fungi, 239 invertebrates, 548 lichens and 55 mammals. 44 of these species (4 lichen, 11 fungi, 29 invertebrates) are entirely dependent on ash, 62 species are highly associated.
- Local air temperatures are reduced by shade and transpiration of trees which block up to 90% of solar radiation, cool buildings and reduce air conditioning costs by 20-30%. Ash however has a reduced ability to block sunlight, its leaves appear later in the season, are thinner and create a more dappled effect which influences the intensity of below-canopy light levels. Shade cast by the trees that replace ash will reduce the species types of plant, shrubs and trees that usually inhabit the ground level under ash trees.
- The high carbon-cycling and soil respiration rates that are characteristic of ash leaf litter are not conducive to accumulation of soil organic matter, this can help to reduce atmospheric carbon dioxide. A 40 year old broadleaf tree can sequester approximately 1 ton of CO₂ in its timber. Allowed to decompose naturally the CO₂ will be more slowly released.
- Urban trees intercept rainfall slowing water run-off, increasing ground water recharge and thereby reducing flood water volumes. The absorption and slow release of rain water lessens sediment transportation helping reduce water pollution.
- Ash helps reduce air pollution by absorbing toxins such as nitrogen oxides, ammonia and Sulphur dioxide through their leaves, bark and roots.
- As an adventitiously seeding tree ash seedlings establish prolifically in places where stabilizing soil on banks and hillsides reduces erosion; coarse and fine roots can form a dense network that binds soil together minimizing soil loss and anchoring into subsoil.
- As a commercial crop ash is one of Britain's most important timber hardwoods, meeting specific requirements for furniture and sports goods. As a firewood source ash grows quickly, has a low moisture content and a relatively high calorific value making it a popular choice for fuel wood. The nearest firewood alternative being sycamore though ash is a lot less susceptible to squirrel damage.

5. General management advice

National and local available guidance on managing Ash Dieback. Advice for all types of areas (urban, semi-urban, woodland) pertinent to ECC.

Having a planned approach may help us to retain more Ash trees for longer so that we can:

- Identify individuals with genetic resistance to the disease.
- slow down the pace of landscape change, allowing replacement trees time to grow before Ash becomes scarce.
- reduce the impact on biodiversity and associated species
- budget time and costs more effectively

Advice might need to be tailored to:

- Contractors
- Exeter City Council employees
- Managers, Directors and Councillors
- Local amenity users
- Community groups

6. Impacts

What will be the impacts of Ash Dieback? The possible impacts relating to ECC areas of activity.

These may include:

6.1 Landscape and biodiversity *“The natural climax vegetation (the plant communities which would develop and be present in the absence of human intervention) over much of the UK is broadleaved forest, dominated by trees such as oak, ash and small-leaved lime” (UK Biodiversity Action Plan)*

The impact on the landscape character cannot be denied, the loss of Ash trees specifically will be noticed by the public and in the main it will be noticeable that there are fewer trees. Losses to ecosystem services will be affected for example habitat and bird nesting / nesting material opportunities reduced, also ash seeds, leaves and flowers as a source of food. Ash leaves are quick to degrade due to reduced calcium levels, the leaves become readily available nutrients to add to the woodland humus layer, there are no other native woodland tree species that can achieve this as quickly. Species dependent on ash will be lost to the food chain and ecosystem reducing wildlife levels.

Losses to ecosystem services will include:

- Reduction in air quality.
- Potential for increased flooding as water retaining trees are lost in catchment areas.
- Increases in noise levels adjacent to roads as a result of the loss of the sound attenuation that trees provide generally.
- Losses of visual screens.
- The degradation and loss of wildlife corridors where ash is the dominant species.
- Loss of biodiversity where ash dependent species lose their habitat
- Increase in wind speed and air movement.

6.2 Local landowners, land managers and homeowners

Under the occupiers Liability Act 1957, tree safety is nearly always the responsibility of the property owner however there are exceptions such as when the land is leased and the rental agreement passes the responsibility for tree management onto the tenant. These rules not only apply to private dwellings but also all other types of property such as commercial premises, schools, charities etc.

Ash Dieback will not only be felt by ECC in our city, but also by many others in our communities. As well as land owners and managers we have many individuals who we are obliged to inform of our tree management. There are neighbourhood, park or ward voluntary action groups who show a keen interest in trees. We have 38 councillors who are not only interested in their ward environments themselves but also have the interests and enquiries from

residents who live in their areas to answer to. At ECC we are obliged to answer to enquiries through our councillors and to keep them informed.

The Exeter City Council Planning Team manages the city's Tree Preservation Orders and Conservation Areas and therefore they must be consulted before works are carried out to protected trees. This also applies to trees that are owned by Exeter City Council.

Sites of Special Scientific Interest are managed by the landowners but overseen by Natural England, there are two particular Sites of Special Scientific interest areas in Exeter; Stoke Woods and The Exe Estuary from Countess Weir downstream. ADB will require well considered and combined management in these areas.

Local utilities such as British Telecoms, Southwest Water and Western Power Distribution are also likely to be impacted by the disease.

7. Potential impact of Ash Dieback on your organisation

The impact to ECC and the services delivered. The impact on the statutory and non-statutory duties that ECC undertakes.

Health and Safety Impacts

- Potential for death or injury as a result of ADB related accidents
- Increased health and safety issues due to declining ash trees on roads, county parks, housing estates, schools, cycleways, bridle paths and footpaths
- Risks to statutory functions or service delivery such as retaining safe schools, public open spaces or highways.
- Risks to staff and user community from trees on adjacent land falling into ECC property.
- Risks from falling ash to infrastructure such as fencing, signs, equipment stores.

Economic impacts

- Increased liabilities in cases of death or injury as a result of ADB related incidents
- Inadequate staffing levels or the work required resulting in increased costs to recruit and retain the necessary staff.
- Increasing prices as a result of market competition for a limited pool of skilled tree contractors.
- Increased expenditure from direct and indirect costs as a result of ADB
- Additional costs of the disposal of waste products from felled, diseased ash

- Increased direct/indirect costs due to increased flood risk due to the loss of water retaining ash trees
- Costs of replanting needed to retain ecosystem services provided by ash e.g. flood reduction, urban shading, carbon storage and habitat for biodiversity.
- Increased liabilities as a result of risks to adjacent land and 'third party' property from your trees falling/ shedding branches.
- Drop in market prices for ash wood products due to excess ash on the market.

Reputational Damage

- Potential for disruption as a result of ADB management e.g. widespread road closures to deal with potentially dangerous trees.
- Political and reputational risks as a result of negative press over ADB management and public outrage and/or anxiety.
- Potentially strained relationships with land owners and managers as ADB spreads and increased costs fall on the private owners.

Environmental Impacts

- Landscape changes with impacts on tourism and recreational opportunities.
- Losses to ecosystem services such as reductions in air quality, potential for increased flooding, biodiversity losses, increases in noise levels adjacent to roads, losses of visual screens.
- Risks to protected species / sites through alteration of habitat structure, stability and composition e.g. loss of bat breeding/ feeding sites.
- Losses of carbon storage and sequestration.

The operational issues and potential financial costs for ECC that could occur as a result of Ash Dieback.

Firstly there will be a requirement for extra resources to be directed at the inspection of ECCs ash population, there is also likely to be an increase in the number of ash dieback related enquiries. It may be necessary to use our appointed contractor Devon Trees Services to assist with the increased levels of tree inspection.

The Tree Management budget will dictate annually how many trees we can afford to replant. We hope to raise funds for the increased planting numbers by investigating available grant aid, crowd funding opportunities and encouraging more community lead, memorial and donation planting.

Financially the uncertainty of when Ash Dieback will become a problem in Exeter and the unknown quantities of ash trees and their sizes and positions mean that even an estimate of costs and operational issues cannot yet be quantified. However with 465 plotted and monitored trees on the database we can assume there are more than double that amount of trees when including un-plotted trees in both woodlands, parks and ECC housing land that could be a risk to public and property.

An assumption of 1000 mature trees in ECC ownership is used for the following calculations;

What will happen if 50% / 75% / 90% of ash in our area is in decline or may die because of Ash Dieback in the next 5 years?

50%:

- 1 man surveying trees across the city including answering enquiries for 1 year. Contractor rates of £240 per man day x 240 days = £57,600 / 5 years = **£11,520 per year**
- 500 mature trees to remove including traffic management and other costs. Contractor rates at average £400 per tree (ref DTOG) = £200,000 / 5 years = **£40,000 per year.**
- Replanting where significant trees may be lost (allowing for regeneration in woodlands and parks) (465 trees / 50%) at 1:1 ratio and at £500/new tree = 232.5 trees x £500= £116,250 / 5 years = **£23,250 per year.**
Total £373,850 for a 5 year period or £74,770 per year.

75% for the above situations;

- 1 extra man surveying trees across the city including answering enquiries for 1 year. Contractor rates of £240 per man day x 240 days = £57,600/ 5 years = **£11,520 per year**
- 750 mature trees to remove including traffic management and other operational costs. Contractor rates at average £400 per tree (ref DTOG) = £300,000 / 5 years = **£60,000 per year.**
- Replanting where significant trees may be lost (allowing for regeneration in woodlands and parks) (465 trees / 75%) at a 1:1 ratio and at £500/new tree = 348.75 trees x £500= £174,375/ 5 years = **£34,875per year**

Total £531,975 for a five year period or £106,395 per year.

90% for the above situations;

- 1 extra man surveying trees across the city including answering enquiries for 1 year. Contractor rates of £240 per man day x 240 days = £57,600/ 5 years = **£11,520 per year.**

- 900 mature trees to remove including traffic management and other operational costs. Contractor rates at average £400 per tree (ref DTOG) = £360,000 / 5 years = **£72,000 per year**.
- Replanting where significant trees may be lost (allowing for regeneration in woodlands and parks) (465 trees/90%) at a 1:1 ratio and at £500/new tree = 418.5 trees x £500= £209,250 / 5 years = **£41,850 per year**

Total £626,850 for a five year period or £125,370 per year

Currently these financial costs will be absorbed by our Public Realm arboriculture budget as the trees failing become a high priority, the greatest cost currently will be the surveying and plotting of previously un-plotted trees.

8. The Delivery Plan

Resources required to deliver the aims and objectives of the plan.

Aims:

We aim to manage and reduce the risk to the people and property of Exeter with minimum disturbance to the conduct of public experience and activities. In addition to this we aim to reduce the impact on biodiversity, canopy cover, city treescape perspective and any detriment to the council's appearance of good management.

Objectives:

- Gather statistical information on our ash tree stock numbers and update our existing database by plotting and updating the council's tree inventory.
- Assess the geographical distribution of the disease and identify areas where it is most prevalent.
- Make an assessment of the health and condition of the council's ash population.
- Identify and quantify potential risk posed by trees that already have or are likely to succumb to the disease and prioritise works accordingly.
- Monitor the spread and effects of Ash dieback over time to gain a better understanding of the disease.

- Increase levels of tree planting to help mitigate the loss.

Intended method of operation.

- A full survey of the Councils ash population will commence in June / July when ash leaves have established and any dieback will be more evident.
- Walkover surveys will be used on general site visits as a quick method of assessing for hazardous trees that require urgent attention. Where defects are noted a more detailed inspection and tree risk assessment will be undertaken.
- Inspect and risk assess all known ash trees and plot any unrecorded ash using the Confirm database.
- Ash trees will be assigned a risk rating (using QTRA methodology) so that re-inspections and the priority of remedial works can be prescribed accordingly.
- Standard tree inspection and plotting methods are not likely to be cost effective, appropriate or practical for the assessment of large populations of trees such as those in woodlands. In order to overcome this we will use sample plots to gain an estimate of the distribution of ash, the number of trees effected and the severity of the disease. Boundary trees that could affect targets such as roads and property will be plotted separately as detailed above.
- A national standard assessment will be used which identifies 4 recognisable stages of dieback according to the percentage of crown that remains. Using this format along with QTRA we can readily identify a works programme.

National standard of assessment;

Ash Health Class 1 – 100 – 75% Canopy	Inspect in line with tree management policies
Ash Health Class 2 – 75% -50% Canopy	Increased inspection and possible work.
Ash Health Class 3 – 50% - 25% Canopy	Detailed and specialist inspection and/or work.
Ash Health Class 4 – 25% - 0% Canopy	Fell / Order necessary works.

Equipment and resources already in place

We currently have the facility to receive enquiries through our website with a link specifically for reporting incidence of ash dieback. We are also able to receive enquiries via the telephone, email and post.

The ECCs Parks and Open Spaces Operations Teams have chainsaw certificates and chippers that enable them to undertake small tree clearance and assist with the effort when they are urgently required.

The Councils appointed arboriculture contractors are flexible and capable of diverting resources to prioritise works, we will use a quarterly review system which will more regularly highlight any increase in work load and shortfall in staff resources making for a more efficient regime.

Exeter City Council are members of the Devon and Cornwall Tree Officers Group which holds quarterly meetings and provides a platform for information sharing between us and our counterparts across the county. We receive regular correspondence from the group and there are a number of more experienced senior members who are always forthcoming with advice when it is sought.

Key influencers

The Plan needs to cover communication with Stakeholders including:

- ECC Management, Directors and Councillors
- Devon Ash Dieback Resilience Forum
- Devon Wildlife Trust
- Devon County Council
- Exeter University
- Exeter College
- The Environment Agency
- Department for Environment and Rural Affairs
- Forest Research
- The Forestry Commission.

Priority 1 communications.

A document has been written titled *“Current stance of ECC on ash dieback”* has been forwarded to our management as an initial status document, this can be updated and distributed to all ward councillors, portfolio holders, executive committee and all ECC staff via email. We will update our primary stakeholders independently as and when requested to do so.

Priority 2 communications.

The wider public require clear communication about Ash Dieback, the Plan, the response to Ash Dieback and details of how Ash Dieback may impact upon them. With such a large amount of interested parties in the wider public notification directed to all are best made

via press release, the councils website and social media. This information can be updated when new information becomes available.

A document titled “Ash Dieback in and around Exeter, A public awareness document” has been prepared and is available for publication on our social media and web site.

Basic information and ADB reporting pages have been added to our website (May 2019).

A document titled “*Notes on Ash Dieback for enquiries*” has been distributed to our enquiries staff, this will be updated when there are significant developments to be able to give public enquirers current status information.

An addition will be inserted into our FAQ’s document on our website.

Documents will be updated once surveys have been completed and a firm grasp of the situation has been achieved.

The activities required to ensure the Action Plan is effective including:

Reviewing current legal practice.

The ECC Planning department will not be changing any legal practices unless or until Ash die back becomes overwhelming when the planning process for TPO's and Conservation Areas may be reviewed.

A 2012 Plant Health Order bans the movement of both ash seed and trees for planting. Ash logs can continue to be moved except for circumstances where a Plant Health Notice has been served.

The Town and Country planning Act 1999 and the legal framework relating to Tree Preservation Orders and Conservation areas and remains unchanged by the presence of ash dieback and each tree will be judged on its own merits. The existing exemptions for the removal of dead and dangerous trees allows for the speedy removal of the most dangerous trees. As for works to trees that do not require urgent and immediate action the normal processes should be followed and the Council must be given five days written notice of exempt works on protected trees to remove dead trees and parts that pose an immediate risk. For more information please use the following link <https://exeter.gov.uk/planning-services/heritage-and-environment/trees-hedges-frequently-asked-questions/tpo-and-conservation-areas/>

Hedgerow Regulations 1997 are also unchanged by the presence of the disease and the normal rules still apply. For more information please use the following link <http://www.legislation.gov.uk/ukxi/1997/1160/contents/made>

The Forestry Commission Felling Licence rules (the Forestry Act 1967) remain unaltered by the existence of the disease. Under the existing exceptions lopping and topping and the felling of trees in orchards, gardens, church yards and designated public open spaces are exempt from the requirement to obtain a licence. Dead trees are also exempt from the need for a licence. On this basis the rules are only likely to apply to ECC for operations that require the felling of woodland trees that are of a volume and size that would normally require a licence. For more information please use the following link <https://www.gov.uk/government/publications/how-chalara-fraxinea-affects-grantsfelling-licences-operations-note-30>

The Wildlife and Countryside Act 1981 has not changed as a result of ash dieback and the normal rules apply. There are exemptions for safety, however these should only be used in exceptional circumstances. For more information please use the following link <http://jncc.defra.gov.uk/page-1377>

Tree disease management does not take priority over the requirements of the Habitat Regulations.

Developing a risk management plan for short term risks, to public safety and communication networks and longer-term risks, to the environment e.g. Biodiversity impact; Landscape restoration.

The councils Tree Risk Strategy has been developed to ensure that the council meets its 'common law' duty of care to avoid acts or omissions that could cause foreseeable harm. The councils Tree Risk Strategy provides a methodology and framework for dealing with tree risk management that encompasses dead, dangerous and diseased trees. Ash dieback and its effects can be dealt with within the existing tree risk management framework albeit with an increase level of priority.

The council's Tree Strategy is currently under review, with the rise in globalisation and the ever increasing threats from pests and diseases a great deal of consideration will be made for ways in which we can combat these issues. We aim to achieve this by following good biosecurity practices and ensuring that we procure our planting stock from reputable nurseries that have necessary control measures in place to reduce the risk of introducing and spreading harmful agents.

The council will aim to create a more resilient and sustainable tree stock that is able to adapt and recover from the effects of pest and disease outbreaks.

Developing an ash dieback recovery plan

We will put plans in place to increase our planting numbers and aim to not only sustain the but also increase the city's canopy cover which is currently at 24.5% (2018). We aim to do this by replacing the lost trees with a diverse mixture of species that are selected for their site suitability to ensure they are appropriate for their setting and have the best possible chance to succeed.

Because Exeter City Council only owns approximately 18.05% of the city's area with the remaining 81.95% falling into private ownership efforts will need to be made to encourage people who are willing and have the space, to play their part in the recovery and enhancement of the city's urban forest. We will do this by increasing public awareness of the problem and offer free tree planting advice to the public as well as looking at opportunities to donate trees to homeowners who have the space.

Increasing diversity and the planting of indigenous tree species will go some way to speed up the recovery of the ecosystems that have been impacted by the loss of ash.

We will develop a Woodland Management Plan for all of the council's woodlands to ensure that they are managed in a holistic and sustainable manner that seeks to maximise their benefits to wildlife, biodiversity and the surrounding community. Because ash is a large component of the city's woodlands it is expected that the impacts

will be great and good management and investment will be required to aid with the recovery.

Preparing and developing a Tree Strategy

An update of the ECC Tree Strategy is underway and it is predicted that it will be ready for wider consultation by the end of August 2019. This document is intended to work in combination with the Tree Risk Management Strategy. These documents will be reviewed annually to ensure that it is up to date with the latest industry standards and guidance.

Creating measured systems to monitor and assess the spread of ash dieback.

A basic survey form has been created for use by ECC tree officers and contractors as a paper recording aid. This includes survey area, size and type, number, age structure and variety of trees, targets and class of ADB stage.

Alongside the existing tree database a spreadsheet has been created to record dates, reference identification number, location, ward, number of trees, age group, and extent of infection, QTRA risk rating, action required / taken and photographs for reference.

Our confirm system related to our ARC mapping system is already in use and will record information on mapping layers with ability to update or review historical information.

9. Action!

Summary of planned actions to counteract the negative effects of ash dieback. What is likely to change and what is likely to stay the same as we develop the plan.

- Communication with all relevant stakeholders, initial awareness documentation internally and public.
- Publicise intentions and organise information gathering from public, Make ADAP a public document, maintain the website and enquiry forms.
- Zone areas in order of target value, organise walkover inspections, survey plots, timing of surveys, manpower required, mapping and delegation of sample plots.
- Undertake survey - June- September
- Identify and prioritise areas for further / increased inspections.

- Prioritise and order works as necessary.
- Collate survey information to gain an understanding of the scale of the problem and costs involved.
- Using the spreadsheet and ARC GIS to highlight current levels of infection and monitor its progression across the city.
- Analyse data and feed information to stakeholders, peers and the public.
- Record and plot re-planting positions.
- Estimate the cost of replanting and recommend species according to site factors and objectives.
- Undertake tree planting at a ratio of at least 2:1 where it is practical to do so.

An action table follows in section 13.

10. Recovery from Ash Dieback

How we will recover from the impacts of Ash Dieback.

We will recover from the effects of ash dieback by:

- Develop a tree and woodland strategy that has sustainability and biodiversity at its core.
- Create a woodland management plan that encompasses all ECC owned woodland to ensure that there is a joined up holistic and sustainable approach to woodland management.
- Capitalise on any available grant funding for tree planting, wildlife protection / enhancement and woodland management.
- Increase tree planting numbers across the city.
- Identifying and retaining resistant ash trees.

Further information

Information and web links to organisations that are a useful resource for us and for those Organisations which monitor and study the progression of ADB in Exeter and Great Britain

Devon county council	www.devon.gov.uk
Devon Wildlife Trust	www.wildlifetrusts.org
Arboriculture Association	www.trees.org
Municipal Tree Officers Association	www.mtoa.co.uk
National Tree Safety Group	www.ntsgroup.org.uk
DEFRA	Department for Environment, Food & Rural Affairs - GOV.UK
Natural England	Natural England - GOV.UK
Forestry Commission	https://www.forestryengland.uk
JNCC	http://jncc.defra.gov.uk/
EFGRP	http://www.euforgen.org/
BSPP	https://www.bspp.org.uk/
Woodland trust	https://www.woodlandtrust.org.uk/
Forest research	Forest Research - GOV.UK
Royal Forestry Society	www.rfs.org.uk
Institute of chartered foresters.	The Institute of Chartered Foresters (ICF)
Forestry journal	Forestry Journal essential ARB Magazines for Foresters
Living ash project	Living Ash Project
The Tree Council	https://www.treecouncil.org.uk/

11. Priority actions

This element of the plan will be derived from the Delivery Plan above. The Sections below can be used as a framework.

#	Topic	Key people/ bodies affected	Actions	Priority	Costs (Low <£10K Medium £10K - £100K High > £100K)	Suggested Lead
1	Communication	<ul style="list-style-type: none"> ECC staff ECC Management and directors. Councillors General public Community groups 	<p>Communicate existing information, making ADAP freely available as a public document.</p> <p>Create and monitor website document and public enquiry form.</p> <p>Update information as and when new developments are made.</p>	High	Low	All email addresses available.
2	Plan and undertake surveys	J. Morshead B. Corke D. Johnson/DTS P. Rovira	Set survey areas and disperse survey form to operatives with dates and areas to undertake survey	High	Low	Contact details available
3	Short term risks	J. Morshead B. Corke P. Rovira D. Johnson/DTS	Order works to priority cases. Plot locations for re stocking.	High	TBC	N/A
4	Information	B. Corke J. Morshead	Disseminate and plot accumulated information to create a broad picture of longer term risk and values. Update stakeholders and website. Share information with DTOG / DADRF	High	Low	N/A
5	Longer term risks	B. Corke J. Morshead	From information identify potential problem areas with a view to increased inspection regimes. Identify areas with greater potential losses for prioritising re stocking Plot positions, species and figures for re planting.	High	Low	N/A
6	Regulation	B. Corke J. Morshead	Plan annual re-survey to assess disease development and areas of resilience.	High	Low	N/A