

# Ash Dieback Disease Action Plan 2023-28



West Lothian  
Council

## DOCUMENT CONTROL

### Policy

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## Executive Summary

Ash dieback disease (ADD) is the most significant tree disease to affect broadleaved trees in the UK since Dutch elm disease gained prominence in the 1960s. ADD is caused by a wind-borne fungus (*Hymenoscyphus fraxineus*, popularly referred to as 'Chalara' due to its previous taxonomic name). These spores, carried on the wind, have a much greater dispersal rate than the fungal spores responsible for Dutch elm disease, which were/are transmitted by a beetle and this is leading to a much more rapid spread of Ash Dieback Disease around the country. Evidence of the spread within West Lothian to date suggests that it will lead to the decline and death of **at least** 75% of ash tree population across the council area over the next one to two decades.

The risk of harm from trees or branches falling is generally low but when it does occur can cause death or serious injury to people and significant damage to property. The council has a Tree Safety Policy which prioritises tree safety inspections and remedial action to those locations (zones) which are well-used and / or adjacent to important structures. The spread of Ash Dieback Disease (ADD) has been increasingly noticeable and has greatly increased the risk of tree failure and potential for harm. In 2020 ADD was added to the council's risk register as a high priority and a budget for 2021-22 and 2022-23 was approved to allow initial survey work and some pilot work on the ground to be undertaken.

From surveys undertaken to date it is estimated it has the potential to infect more than 18,480 ash trees (over 11,000 saplings and seedlings and some 5,000 semi- mature and 1200 mature trees) across the council area within areas of high use such as next to roads, school grounds and well-used public open space

The council is looking to make safe those trees significantly affected by ADD on its own land holdings and also has a role in advising private land owners regarding ash trees on their land. This is particularly the case where they may affect the safe passage of people and vehicles along the council-maintained road network and also with regard to protection of trees which are the subject of Tree Preservation Orders (TPOs) or lie within Conservation Areas.

No less important is the impact that ADD will have on the landscape, biodiversity and carbon capture benefits provided by the many ash trees across West Lothian. The council is keen to ensure that any trees showing good resistance to the disease are retained; along with allowing as many trees as possible, out with high use zones, to decline naturally. Where trees have had to be removed, replanting with suitable alternative species will be undertaken in appropriate locations.

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## 1.0 Introduction

This first edition of the West Lothian Ash Dieback Action Plan (WLADAP) sets out how West Lothian Council will approach ash dieback (*Hymenoscyphus fraxineus*). Ash dieback is the most significant tree disease to affect the UK since Dutch elm disease and has the potential to infect more than two billion UK ash trees and lead to the death of approximately 90% of them.

The experience of other local authorities, who have been dealing with ash dieback for longer, is that it will not be business as usual and it is necessary to plan for the disease and its anticipated impacts on council services.

As a first edition of the WLADAP this document has been prepared to provide background information for stakeholders about the disease, how it is likely to affect the management of the council's own assets and other duties the council may have with regards to trees on private land. Highlighting the considerable risks associated with the disease, and the steps that will need to be undertaken to help mitigate the disease's worst effects. The most immediate threat is the increased risk to public safety as a result of mature ash trees dying and subsequently falling or shedding large limbs.

This document updates the information gathered from various surveys undertaken over Summers 2020-23, includes lessons learned from some initial remedial work undertaken in early 2022 and provides a plan for action, including the resources required for this.

This is a working document and will require to be updated on an annual basis.

The loss of the ecosystem services currently offered by ash trees is a major concern. Ash trees store carbon, remove pollutants from the air, and intercept rainfall, they are a functioning part of a vital ecosystem. The financial value of these ecosystem services are immense.

There is also the loss of biodiversity and the impact on the appearance and quality of the landscape to consider. If the ecosystem services and other benefits currently provided by ash trees and ash woodlands are not to be permanently lost it will be necessary to carry out extensive replacement planting and plan for recovery.

## 2.0 Ash and Ash Dieback Disease

### 2.1 Identifying Ash Trees

Photographs of a healthy ash tree and its leaf are given below in table 1. Useful tree identification guides and books can be purchased at the council's country park visitor centres at Beecraigs and Almondell or you can use Apps such as that produced by the Woodland Trust<sup>1</sup>



	© Shutterstock – Peter Turner Photography Mature native ash tree ( <i>Fraxinus excelsior</i> )
	Leaf of an ash tree

Table 1 – Images of healthy ash

<sup>1</sup> [Identify Trees With Our Tree ID app - Woodland Trust](#)

## 2.2 Ash Trees in West Lothian

The native ash (*Fraxinus excelsior*) is a common tree found throughout Scotland. In West Lothian it forms a significant component of the native woodlands, found particularly along the rivers Almond and Avon and their tributaries. Many of the woods which were planted over the past 4 decades as part of landscape restoration of former mining and industrial land and in the creation of the “new town” of Livingston have ash within them.

Results from the Native Woodland Survey of Scotland (NWSS)<sup>2</sup>, and as tabulated in Tree Council Toolkit<sup>3</sup>, show that ash is the second largest tree component within native or nearly native woods across West Lothian and forms 14% of the woodland canopy cover.

Alongside trees within woods ash is a common species that can be found lining the roads of West Lothian (Table 2) and is also frequently found on farm and other land, including public open-space where it has been planted or has self-seeded to form small copses and also as individual trees within hedges, and along field margins.

In all these locations ash trees form an important element of the local landscape, provide a habitat for many other species, and contribute towards many ecosystem services such as carbon sequestration and carbon storage.

Less frequent but present in some parks and gardens are other more ornamental species of ash. These can also be affected by ADD.

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<sup>2</sup> National Woodland Survey of Scotland [National Woodland Survey \(sepa.org.uk\)](https://sepa.org.uk)

<sup>3</sup> Tree Council Ash Dieback Toolkit Scotland <https://treecouncil.org.uk/wp-content/uploads/2021/06/Appendix-2-Table-of-ash-woodland-by-local-authority-areas.pdf>





Individual Ash in hedge row

Table 2 – Road side tree



### 2.3 Ash Dieback Disease

Ash dieback, also known as 'Chalara', affects our native ash trees and other species of ash. It is caused by a fungal pathogen, *Hymenoscyphus fraxineus* (formerly *Chalara fraxinea*) which arrived from Asia to Europe during the 1990s and spread rapidly across the continent. Although the first official record in Britain was in 2021, evidence now suggests it had arrived here and was infecting trees as early as 2004.

This invasive fungus causes a range of symptoms depicted in table 3 from foliar leaf spots, leaf wilt to branch dieback, and often to the decline of the whole tree, sometimes aided by secondary infection of pathogens such as Honey fungus (*Armillaria spp*). Trees may also show lesions on the bark and at the base of the tree. Once infected, the majority of trees are eventually expected to die. A few ash trees may survive the infection because of genetic factors which give them resistance to or tolerance of the disease. Evidence from Europe suggests that around 10% of trees were found to be moderately tolerant to the disease, with 1-2% having high levels of tolerance.



	<p>Lesions on bark</p>
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Images - Jon Stokes

*Table 3 – Symptoms of ash dieback disease*

In West Lothian most of the ash in young woodland plantations is either dead or significantly affected by ADD, while larger mature trees in more isolated locations appear to be faring better. The environment, including weather conditions, also has a role in how trees decline from ash dieback, with trees growing outside of optimal conditions declining more quickly. Experience in Denmark and other parts of the continent has shown that some trees remain viable for many years after initial infection and some trees even recover. However, local observations over the past three years have shown a fast decline in many trees, from first showing signs of the disease to declining to a condition where <25% of their crown survives. The reason for this very fast decline, which has also been noted in other parts of Central Scotland, is not known. It may be due to a succession of wet and warm summers which would have provided ideal conditions for the spores to multiply and infect adjacent trees or the disease may be a different variant of that found in Denmark.

The current best guess, on which this action plan has been based on, is that between 50 and 75% and maybe as much as 90% of the ash tree population will die within the next 20 years, with most of this decline will be seen in the next 10 years.

## 2.4 Identifying Ash Dieback Disease

It should be noted that ash trees can sometimes suffer “dieback” due to climatic reasons and so it is important to correctly identify whether it is suffering from ADD as well as / or other diseases. The main symptoms are as follows: -

- Leaves develop dark patches in the summer.
- They then wilt and discolour to black. Leaves might shed early.
- Dieback of the shoots and leaves is visible in the summer.
- Lesions develop where branches meet the trunk. These are often diamond-shaped and dark brown.
- Inner bark looks brownish-grey under the lesions.
- Growth of new twigs growing upwards from branches and epicormic shoots further down the tree which are a reaction to stress on the tree.

There are a variety of online resources available to assist with identifying ADD including :

Tree Council’s Guide to ADD symptoms in larger trees<sup>4</sup>

Observatree – Chalara / ADD – mainly about ADD in younger trees and has some useful videos describing the disease and its effects<sup>5</sup>



© Jon Stokes



© Jon Stokes

**Ash leaves wilting due to ash dieback**

**A roadside ash in Ash Health Class 4**

<sup>4</sup> [Chalara larger \(treecouncil.org.uk\)](http://treecouncil.org.uk)

<sup>5</sup> [15\\_0043\\_One off literature Observatree Pest & Disease Field Guides Chalara\\_wip16](#)

## 2.5 Monitoring

West Lothian Council are continuing to survey and monitor ash trees across the county both on council land and on private land where trees are within falling distance of a council asset. Surveying takes place predominantly in the summer (trees in leaf) at present surveying has been undertaken on the whole adopted road network 1043km and adjacent paths, including housing estates, and trees on private land. Alongside this all schools and play areas have been surveyed and over 50 % of public open space has been surveyed. This will be continually expanded upon over subsequent years.

Ash trees that have been recorded will be revisited on a cyclical basis, this will be dependent on the current severity of the disease, the target value and the potential risk of harm.

### 2.5.1 sample surveys

To get an indication of the progression of the disease four sites have been selected for annual sample surveys, this will continue over subsequent years. The results appear to show that approximately 33% of trees that were resurveyed have declined from 2021-23, while approximately 58% have shown no change. (Figure 1).

The percentage of trees decline is approximately the same in 2021-22 (Figure 2), and in 2021-23, while in 2022-23 (Figure 3) there's a much smaller percentage of trees in decline. However, this may be due to a number of trees already being class 4, which cannot decline further.

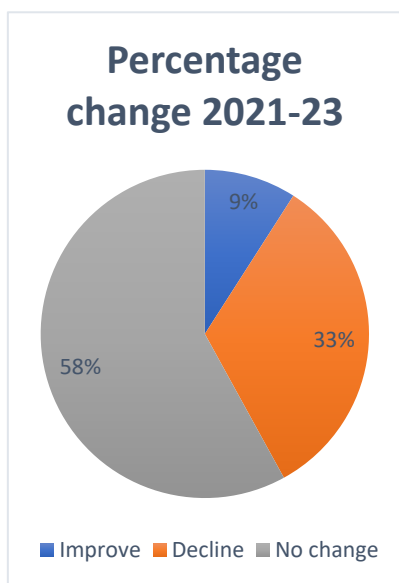


Figure 1. Progression over 2 years

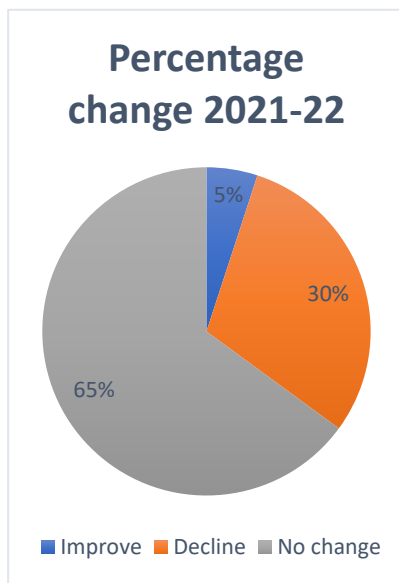


Figure 2. Progression year 1

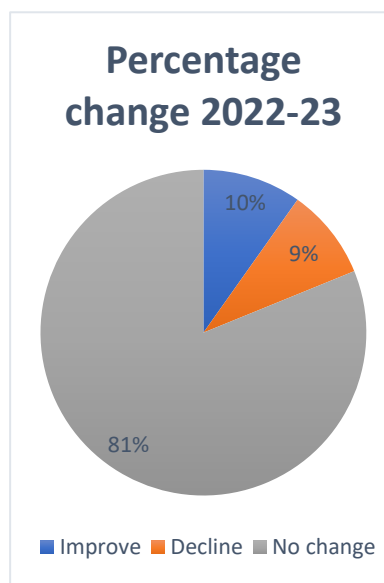


Figure 3. Progression year 2



Figure 4 is a visual class system based on the live canopy condition and cover, it is used as an identification guide to assess the current state of decline caused by the disease. The guide is used to determine when action is needed to address the risks posed by a trees decline. Recommendations are to start taking action on class 4 trees and it is advised that class 3 trees will become a safety issue. Trees within class 1 may have some degree of tolerance<sup>6</sup> and will be retained and monitored accordingly.

**Canopy assessment in summer (Trees in leaf)**

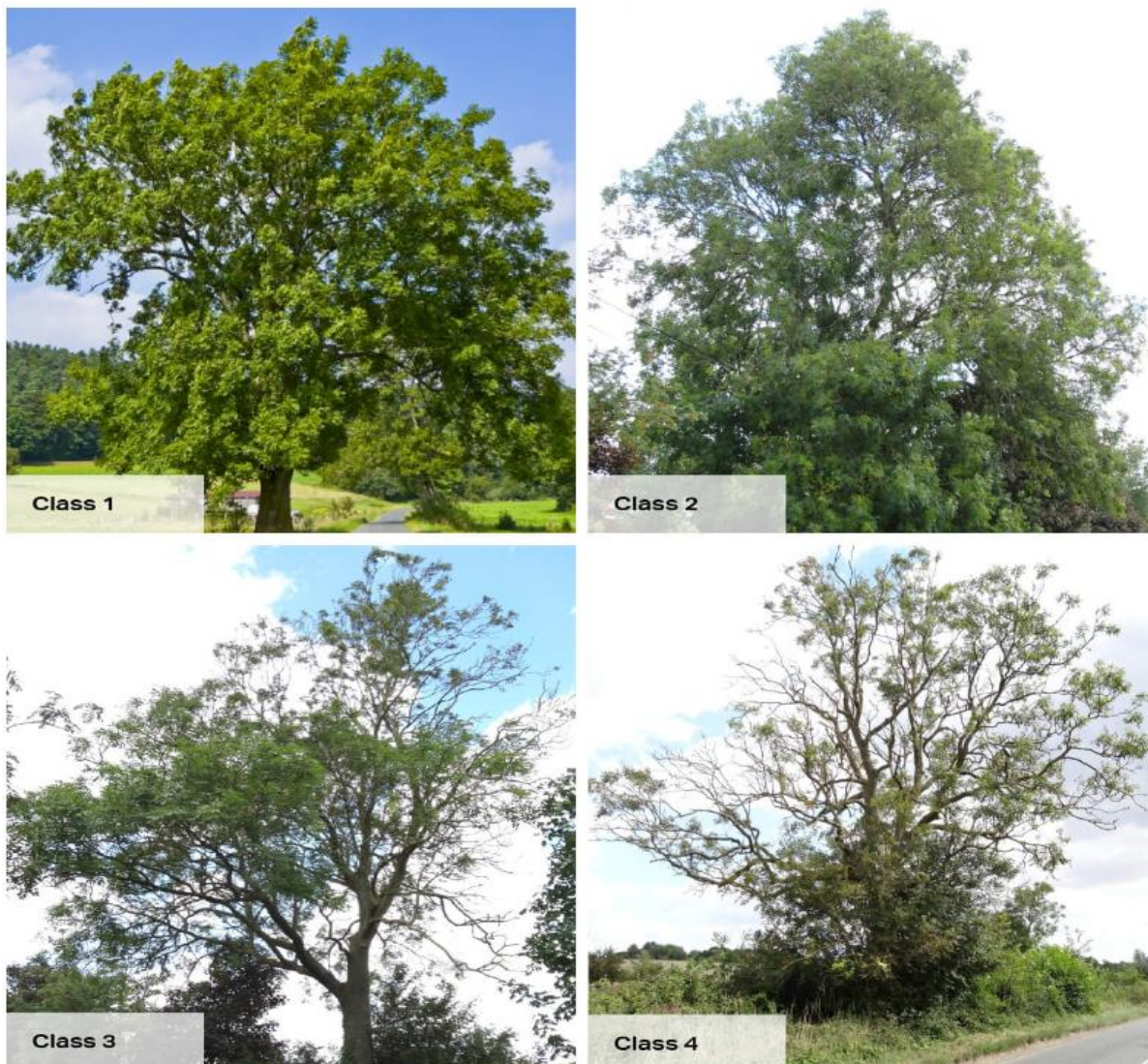


Figure 4. Ash Dieback assessment system Images - © Gary Battell

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<sup>6</sup> <https://livingashproject.org.uk/>

Figure 5 can be used as a guide to identify ash trees in the winter. This however this is less accurate and will only be used where necessary, West Lothian Council will continue to monitor trees during the summer when they should be in leaf.

**Canopy assessment in winter (Trees not in leaf)**

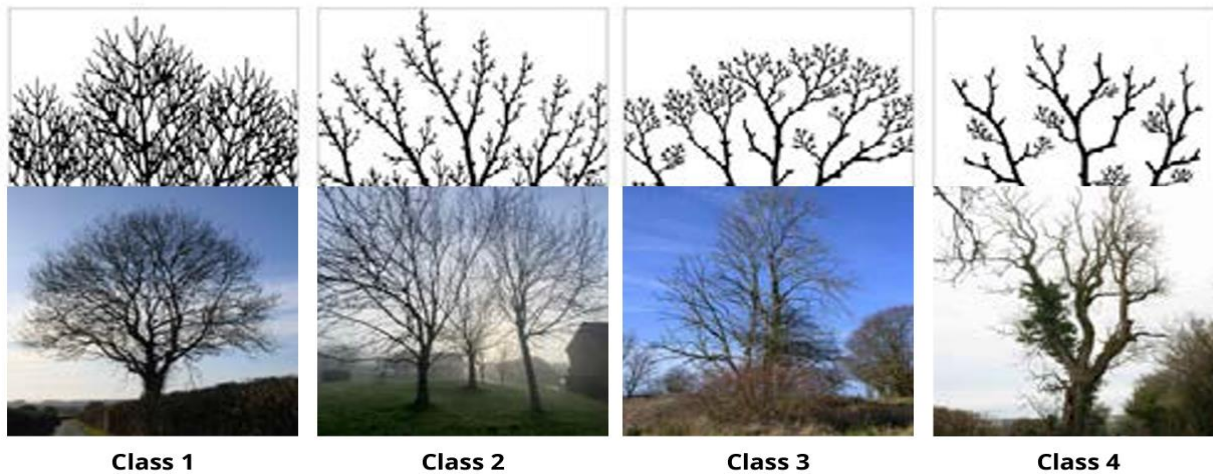


Figure 5. Ash Dieback assessment system - winter in dentification - Images © Jon Stokes



### 3.0 How will ash dieback affect West Lothian Council?

Local authorities that have experienced ash dieback for a longer period have recognised that the disease represents a ‘significant corporate risk’<sup>7</sup>. The main areas of corporate risk are identified under four separate headings (Table 4).

HEALTH AND SAFETY	ECONOMIC	REPUTATIONAL DAMAGE
<p>Potential for death or injury as a result of ash dieback related accidents, both to professionals working on trees and to the general public</p> <p>Increased health and safety issues due to declining ash trees on roads, owned and managed land such as in county parks, housing estates, schools, cycleways, bridle paths and footpaths</p> <p>Risks to statutory functions or service delivery such as retaining safe schools, public open spaces or highways</p> <p>Risks to staff and user community from trees on adjacent land falling into your estate</p> <p>Risks from falling ash to your infrastructure, such as fencing, signs, equipment stores.</p>	<p>Increased liabilities in cases of death or injury as a result of ash dieback related incidents</p> <p>Inadequate staffing levels and the ability (or inability) to undertake the work required resulting in increased costs to recruit and retain the necessary staff</p> <p>Increased expenditure from direct and indirect cost due to ash dieback e.g. additional staff and management activities, and the impacts this may have on other services and budgets</p> <p>Additional costs of the disposal of waste products from felled ash entering the waste management system</p> <p>Increasing prices as a result of market competition for a limited pool of skilled tree contractors</p> <p>Increased direct/indirect costs due to increased flood risk resulting from changes in the way water may be held back by tree roots, or absorbed into the soil, or taken up by ash trees</p> <p>Costs of replanting needed to retain ecosystem services provided by ash e.g. flood reduction, urban shading, carbon storage and habitat for biodiversity</p> <p>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</p>	<p>Potential for disruption as a result of ash dieback management e.g. widespread road closures to deal with potentially dangerous trees</p> <p>Political and reputational risks as a result of negative press over ash dieback management and public outrage and/or anxiety</p> <p>Potentially strained relationships with land owners and managers as ash dieback spreads and increased costs fall on the private owners.</p>
		<p><b>ENVIRONMENTAL IMPACTS</b></p>
		<p>Landscape changes with impacts on tourism and recreational opportunities</p> <p>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</p> <p>Risks to protected species/ sites through alteration of habitat structure, stability and composition e.g. loss of bat breeding/feeding sites</p> <p>Losses of carbon storage and sequestration</p> <p>Loss of biodiversity from the decline or extinction of species which are largely or entirely dependent upon ash.</p>

*Table 4. Source: The Tree Council, Ash Dieback : an Action Plan Toolkit*

The identified risks can be divided into those associated with the council being a landowner and those resulting from its statutory functions, where, as result of ash dieback there will be increased pressure on services.

Safety implications to the public will increase as the disease progresses, the decline and death of trees will lead to a degree of failure. Taking into account what is known about the disease and its spread, the decline and death of numerous ash trees will continue in the county over the coming years.

<sup>7</sup> [Ash Dieback: an Action Plan Toolkit for Scotland](#)

As a tree owner this will expose the council to a greater health and safety liability. Like all landowners the council has a duty of care under the Occupiers Liability Act <sup>8</sup> and must meet with this requirement to be able to defend potential civil claims.

To address this, it is necessary to be proactive in surveying and maintenance of the council's ash trees. With increased focus on declining trees in high target zone areas (e.g. major roads, busy public spaces), where if they fail or shed limbs there is an increased risk of harm or damage.

Even when the council is not the legal owner of a tree, reputation may be damaged if a tree was to fail, where a tree was deemed to be dangerous and not acted upon using statutory powers. This will mainly apply to trees at risk of falling on to the public highway<sup>9</sup>

Consequently, the scale of the health and safety risk caused by ash dieback alone will mean that it will not be 'business as usual' for the council – Figure 6.



**It is vital to understand that ash dieback will not be ‘business as usual’.**

Ash dieback is either already in an area or is likely to be in the next few years with potentially serious practical and financial impacts to many areas and organisations. Therefore, to manage ash dieback effectively a collective, co-ordinated approach across organisations and areas is recommended.

Figure 6. The Tree Council's statement on ash dieback<sup>10</sup>

In response to the disease it is important that resources are prioritised to address the areas where there is greater risk. Areas within West Lothian have been allocated target zones in line with the Management Plan for Trees and Woodland on West Lothian Council Owned land - **Section 5.1 Tree Safety Inspection - Management Plan for Trees and Woodland<sup>11</sup>**

<sup>8</sup> HMSO. 1957 & 1984. The Occupiers' liability Acts 1957 and 1984. HMSO

<sup>9</sup> Roads Scotland act – Section 91

<sup>10</sup> [Ash Dieback: an Action Plan Toolkit for Scotland](#)

<sup>11</sup> <https://www.westlothian.gov.uk/media/16467/Management-Plan-for-Trees-and-Woodland-on-West-Lothian-Council-Owned-Land/pdf/ManagementPlanforTreesandWoodland.pdf>

### 3.1 Economic impact

The estimated cost of Ash Dieback disease in Scotland costs could, potentially, run to £180 million.<sup>12</sup>

The risks and financial costs to the council can be divided into those associated with the council being a land owner and manager, and those resulting from its statutory duty. It is estimated that the mortality rate for ash trees in West Lothian could be up to 90% and all the following cost projections are based on this figure.

#### Trees on adopted highway land

Acting in its capacity as a Highways Authority the council is responsible for managing 1043km (648 miles) of carriageways and 1390km of footways. This excludes the M8 and M9 trunk roads maintained by BEAR Scotland on behalf of Transport Scotland. Over 3 years the whole adopted road network has been surveyed including that of private trees adjoining the highway, of this our database has over 8000 records which are either individual trees or trees surveyed in groups, for which the council are responsible for. Within this dataset there are approximately 1075 semi-mature and mature trees representing 25% of all ash trees on highway land.

As a result of ash dieback, it will be necessary to undertake the inspections of ash trees on highway land on a three-year cycle. In the case of mature ashes growing in sub optimal conditions, where the rate of decline is quickest, it is recommended that they are inspected on an annual cycle and checked at the base for lesions. Taking these factors into account the additional cost of surveying is estimated to be £75K over a five-year period. (This figure includes the cost of surveying trees adjoining the highway on private land).

It is estimated that the mortality rate for ash dieback in West Lothian could be up to 90% and all the following cost projections are based on this figure.

<b>Predicted mortality rate for mature ash trees</b>	<b>90%</b>
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Based on figures used by other local authorities the average cost of felling a single mature roadside tree is between £400 and £800. This will include traffic management, clearance and disposal.

<b>Average cost of felling a mature ash tree adjacent highway</b>	<b>£400-£800</b>
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To safeguard highway users and operatives, road works must be carried out in accordance with the Safety at Street Works and Road Works – A Code of Practice<sup>13</sup>. Where identified by a risk assessment, traffic

<sup>12</sup> <https://forestry.gov.scot/images/corporate/pdf/chalara-impact-report-scotland.pdf>

<sup>13</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/321056/safety-at-streetworks.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/321056/safety-at-streetworks.pdf)

management or even road closures will be necessary to carry out tree works adjacent to the public highway. Typical traffic management requiring stop/go boards or lights will cost £200-£600 per site per day. The cost of a road closure is much higher. For example, where WLC undertook tree works on the A706 – Avon Gorge to Linlithgow this necessitated a 6-day closure of the A706 which cost £7320.

To more accurately predict the cost of felling ash trees on highway land the recorded tree diameters (DBH – Diameter at Breast Height) can be used. Table 5 provides a breakdown for the felling of trees in two different DBH categories and the percentage in each category to estimate the total cost.

Estimated cost of removing semi-mature and mature ash trees on adopted highway land				
1075 trees @ 90% mortality				968 trees
DBH category (cm)	Percentage in category	Unit cost to fell	No. of trees	Cost
31-40	60%	£400	594	£237,000
41-100+	40%	£800	374	£298,000
<b>Total</b>				<b>£535,000</b>

Table 5. Estimated number of ash trees on adopted highway land that may require removal, totals cover all classes of decline, with the assumption of continuing decline resulting in 90% mortality.

Whilst there is a wide variation in the cost of removing a tree the high number means that it is not unreasonable to use an average to estimate the cost of the health and safety tree works required. Economies of scale will also mean there will be a saving which is also taken into account. The cost of removing diseased trees for health and safety reasons is likely to take place over a five to ten-year period.

The cost of replacement planting is based on the assumptions that three trees will be planted for every one tree removed and the cost of planting each tree using small nursery stock, including maintenance, will be £30. The total cost for replacing mature trees felled along the adopted highway will be in the region of £95K. The cost per tree when planting along the adopted highway will be lower compared to other types of council land. This is because most ash trees are situated in wide informal verges where cheaper and smaller nursery stock can be used. The total planted may vary, where a site may be deemed unsuitable for replanting, in these cases there will be an attempt to offset this in a nearby location.

## Public open spaces

Public open spaces are maintained by NETS Land & Countryside. Currently approximately 60% of open space has been surveyed and recorded, including that of Housing open space, and rights of way. All country parks and play parks have been fully surveyed.

Survey results to date indicate that there are both semi-mature and mature ash trees that may need attention. Once again it was estimated there would be 90% mortality within ash tree stock. Taking this into account these figures are approximate with 500 trees in open space, 800 in woodland open space, 394 in Housing open space, and 63 in or around play parks.

The formula used for calculating replacement planting costs on open space, Housing open space, and play parks is on a three for one basis is also provided with a unit price per tree of £100. Planting costs for woodland open space was the same as that used for Adopted highway Land at three to one with a unit price per tree of £30. The costs of surveying, felling and replacement planting have been estimated for other council land types and are also contained in Table 6

Identifying, removing and replacing council owned trees					
Activity	Area	Department	Cost (£)		
			Increased surveying 5 years	Felling £	Replacement planting
Removing*and replacing diseased ash trees on public open space land	Public open spaces including country parks 40%	NETS L&C	£7,000	£197,000	£159,000
	Public open spaces. Including country parks (Woodland) 60%	NETS L&C	£7,000	£295,000	£71,000
Increased tree surveying (*Removal also includes Pruning or reducing a tree so that it is no longer a risk)	Housing Open Space	NETS L&C	£3,000	£143,000	£118,000
	Play Parks	NETS L&C	£3,000	£22,000	£19,000
<b>Sub Total</b>			£20,000	£657,000	£367,000
<b>Total</b>					£1,044,000

Table 6. Estimated costs for surveying, felling and replacement planting.

## Education

The schools of West Lothian are subject to a 4-year tree safety survey of all tree stock, as well as this ash dieback specific surveys have been undertaken. As a result of this during 2023 a program of work was undertaken to deal with ash identified for removal. The work cost approximately £30k of which 101 trees were removed, with the total broken down in to the following age categories; sapling/young - 34, semi-mature - 47, and mature - 20.

The remaining trees are of Class 1 condition and will be resurveyed during the next 4 yearly education tree safety survey

An estimation of the cost replacement planting on a three for one basis is also provided with a unit price per tree of £100. The total for replacing these trees is approximately £30k



Ash within school grounds



## Statutory functions

The main area of concern is the risk that the council will be exposed to in carrying out its duties under the Roads Scotland Act 1984. Where the council has a statutory duty to ensure safe passage on the highway.

During the surveying of council managed trees along the road network, the opportunity was taken to also record trees on private land. There are estimated 1424 semi-mature and 1164 mature ash trees in private ownership adjacent to the highway on category A, B, C, U class roads and excluding trunk roads M8 and M9.

Table 7 gives an estimate of felling costs that are likely to be incurred.

Estimated cost of felling semi-mature and mature ash trees on private land along the adopted highway				
2588 trees @ 90% mortality				2329 trees
DBH category (cm)	Percentage in category	Unit cost to fell	No. of trees	Cost (£)
31-40	55%	£400	1282	£512,000
41-100+	45%	£800	1048	£838,000
<b>Total</b>				<b>£1,350,000</b>

Table 7. Estimated number of ash trees adjacent to highway on private land that may require removal, totals cover all classes of decline, with the assumption of continuing decline resulting in 90% mortality.

The unit cost of felling the trees has been estimated to be between £400 and £800 taking into account the level of traffic management requirement, clearance and disposal. This estimate may vary dependent on the volume of trees needing attention, in a single area or for one land owner.

Critical to an estimation of the cost to the council is predicting how proactive private landowners will be managing diseased trees adjacent to the highway and how frequently it will be necessary for the council to intervene and use its statutory powers following initial discussions with a tree owner. However, the council is more likely to have to fell trees which are difficult to remove because of their location and size.

Under Section 91 of the Roads Scotland Act 1984<sup>14</sup> the council in its Highways Authority capacity can serve notice on a landowner to require the removal of a tree deemed a danger to the highway, and where necessary carry out tree work in default of the landowner. The highways authority is not under a duty to use Section 91 and may choose not to serve a notice on a landowner especially where, if a tree fell, it would be unlikely to cause damage or harm.

The council in the first instance will prioritize dealing with ash trees that it owns or maintains, which is a requirement under the Occupiers Liability Act, these trees would be deemed a higher risk as far as strict

<sup>14</sup><https://www.legislation.gov.uk/ukpga/1984/54/section/91>

liability is concerned. Therefore it is anticipated that the council will not have the initial resources to identify all trees deemed as dangerous adjacent to highway, including determining the landowner and engaging with them over tree felling.

To further compound the estimate of the cost to the council, there is provision within the Act for the council to recover its costs in arranging and carrying out the work, although realistically only a small percentage of these costs are ultimately recovered from the tree owner. The reasons for this may be because the tree owner cannot pay, cannot be established or it is not viable to pursue recovery of the debt. The flow diagram in Figure 7 summarises the process.

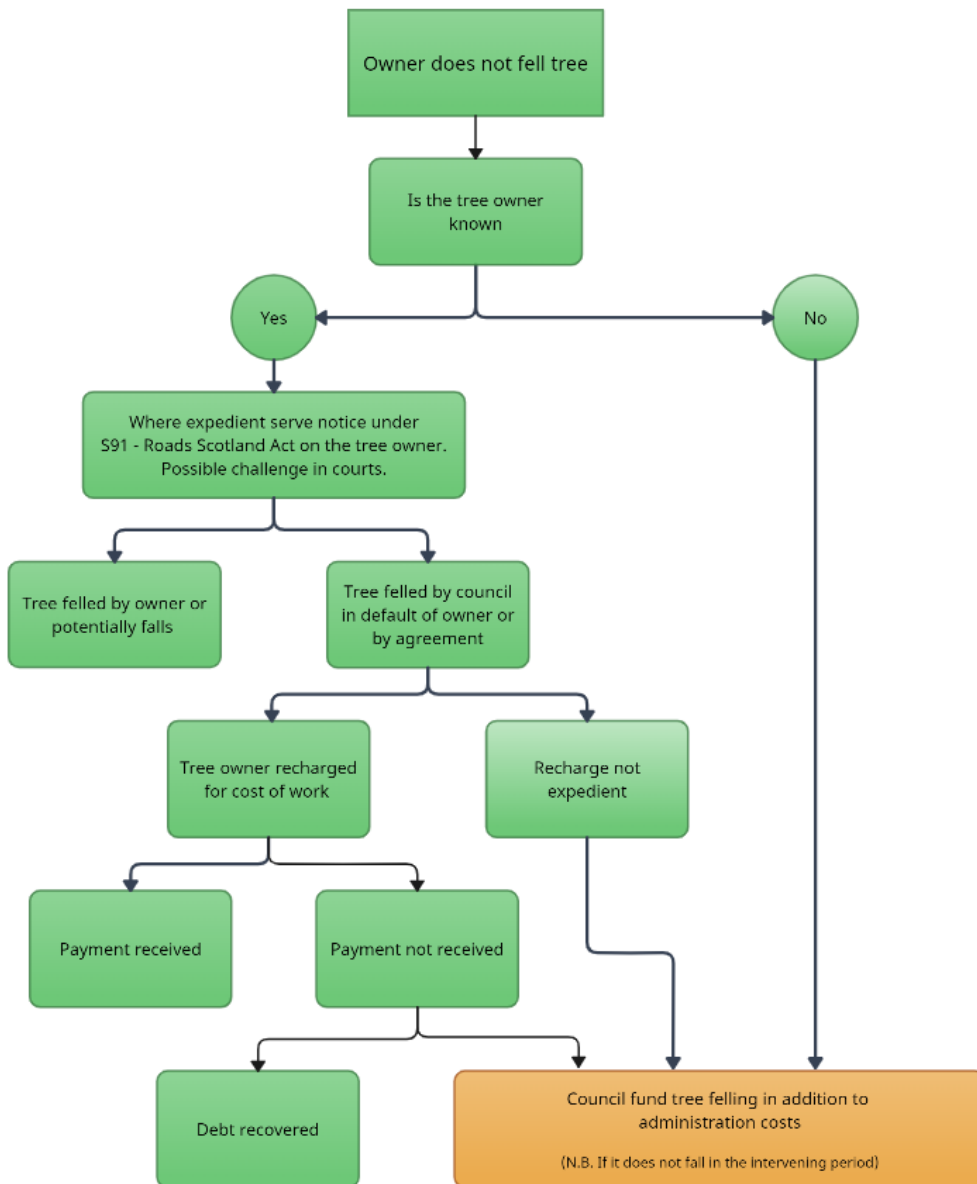


Figure 7. Flow diagram showing where the council will incur costs felling dangerous trees on private land adjacent to highway

The council is under a duty to remove a tree if it falls and blocks a highway, by removing the obstruction. Again, there is provision for the council to recover the costs from the owner, as private landowners are encouraged to remove or manage their standing dying trees adjacent to the highway, it will be necessary

to recover the cost of clearance if they do fall. This is particularly relevant when a tree owner is served with a notice to remove a standing tree who may be inclined not to carry out the work in the formal notice knowing that if they, negligently, let the tree fall onto the highway they may not be charged by the council for the tree's clearance.

Private landowners will be expected to shoulder a considerable financial burden when removing diseased ash trees adjacent to the highway. It is likely that relationships between private tree owners and officers will become strained where the council requires works to be carried out and is unable to offer any financial assistance.



### 3.2 Environmental impact

Ash trees provide a range of ecosystem services including flood mitigation, carbon capture and biodiversity, as well as being significant landscape features.

The loss of ash tree represents a loss of ecological benefits. However, dead and dying trees can be beneficial to invertebrates and fungi, therefore a measured approach will be taken in how ADD is dealt with.

Ash trees support a large number of other species, nearly a thousand species are known to be associated with Ash trees: 12 birds, 28 mammals, 58 bryophytes, 68 fungi, 239 invertebrates and 548 lichens. Of these 62 are highly associated with the tree, and 45 are restricted to it<sup>15</sup>. Those species that are in the last category or highly associated with Ash and already accorded threatened status are those at particular risk from ADD. There are 69 such species in the UK: 13 fungi, 6 bryophytes, 37 invertebrates and 13 lichens.

Assuming high levels of tree mortality, it is probable that one or two lichens will be at risk of extinction at a county level, while other obligate and highly associated species found in the county will experience large population declines.

The loss of Ash, especially from woodland, is likely to have other, less direct, consequences for biodiversity. The tree is especially notable for the rapid rate of decomposition of its leaves with a consequent high rate of nutrient recycling in stands where it is frequent. A shift of woodland composition towards other tree species as a result of Ash Dieback is therefore predicted to result in slower nutrient cycling, greater carbon storage, changes in soil formation, and shifts in soil community with resulting changes in ecosystem function.

In practical terms, understanding which site-specific species and communities (e.g. of woodland ground flora) are likely to be adversely affected by Ash loss will be important for woodland managers, so while retaining infected trees for as long as possible, they can choose appropriate replacement trees to plant or encourage natural regeneration.

Planning for any tree works being carried out by the Council, whether on Council owned or managed land or not must include consultation with the Authority's ecologists. As well as consideration of protected species, consideration must be given to places of particular nature conservation

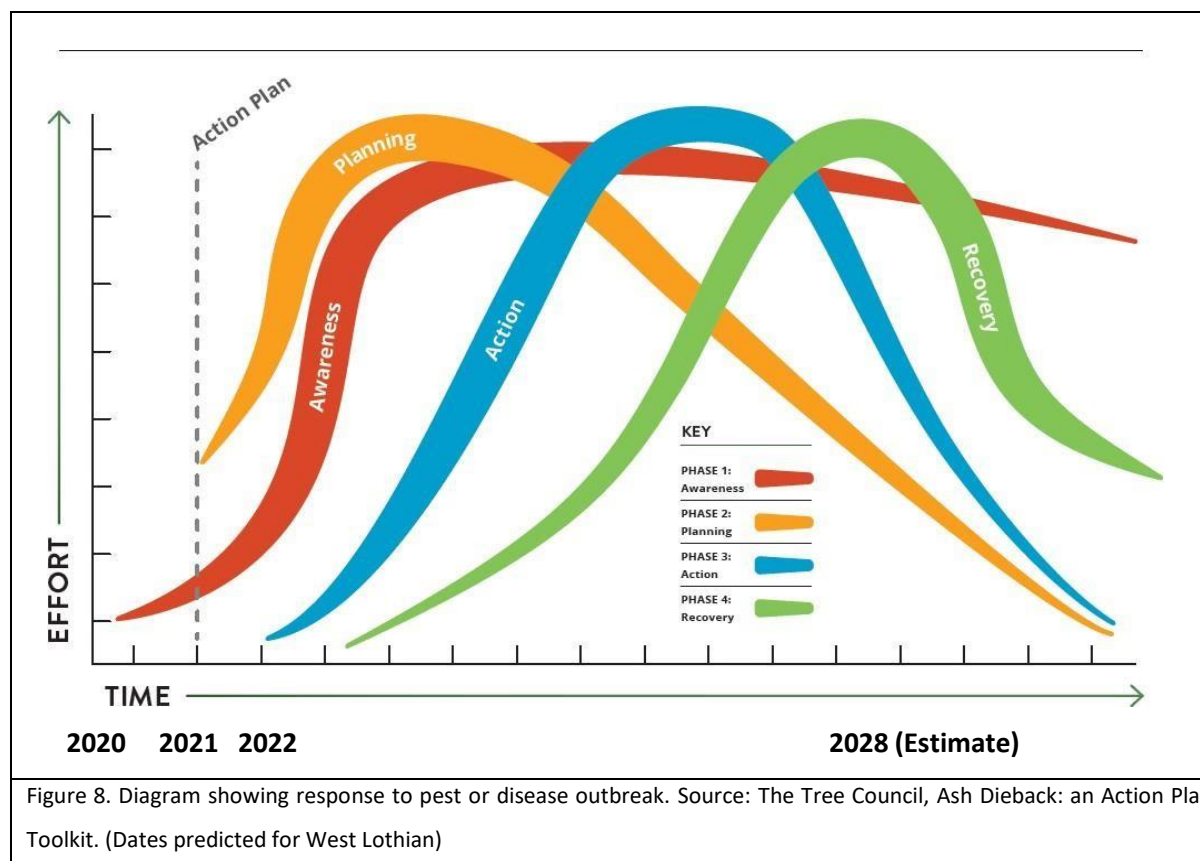
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<sup>15</sup> <https://treecouncil.org.uk/wp-content/uploads/2021/06/Appendix-8-Biodiversity-of-ash-trees-and-woodlands.pdf>

importance, including Local Nature Reserves and Wildlife sites and areas which meet the criteria for sites of interest for Nature Conservation, and with NatureScot for works within or adjacent to or with potential to affect National Nature Reserves, Sites of Special Scientific Interest, Special Areas of Conservation, and Special Protection Areas.

## 4.0 Action/Delivery Plan

Figure 8 shows four key parts of a recommended response to the potential outbreak of a tree pest ordisease. It is based upon the wider used protocol of an Emergency Plan and was the basis of the strategy used by Kent County Council in response to ash dieback.



### 4.1 Awareness

Awareness of ash dieback had increased nationally due to increased media reports when the disease was first found in 2012, however coverage has reduced despite its major effect. Now that the disease is wide spread in West Lothian the council will continue to build and expand on current awareness through different means. A council web page has been created with a range of information and advice: <https://www.westlothian.gov.uk/ash-dieback-disease> . The council will continue to use social media, posters/leaflets and other methods to raise awareness, for example using mail to make residents aware of works in their local area. The council will also arrange and run consultations and attend events ensuring steps are in line with West Lothian Council’s communication strategy.

Making members of the public aware of the disease will help gain momentum and support for later phases. It will also help them understand why there will be disruption to the highway network and council services.



## 4.2 Planning

An Ash Dieback Management Team has been set up as the first step in planning for the disease. The team comprises of the tree officers, a lead highways officer and principal solicitor. This will be the main forum discussing issues relating to ash dieback within the county and report to a Chief Officer. Figure 9 shows organizational chart of the ash die back team within West Lothian Council.

The first edition of the WLADAP has been prepared to inform councilors and officers about the disease and the corporate risk it poses. Following promulgation through the distribution of the plan, internal stakeholders will be asked to participate in a meeting to identify action points for their services areas.

The trunk road operators manage part of the network through West Lothian, it will be important to establish regular communication between the operator and the council over ash dieback where adjoining land meets. As well as working alongside utility providers to undertake joint operations where required.

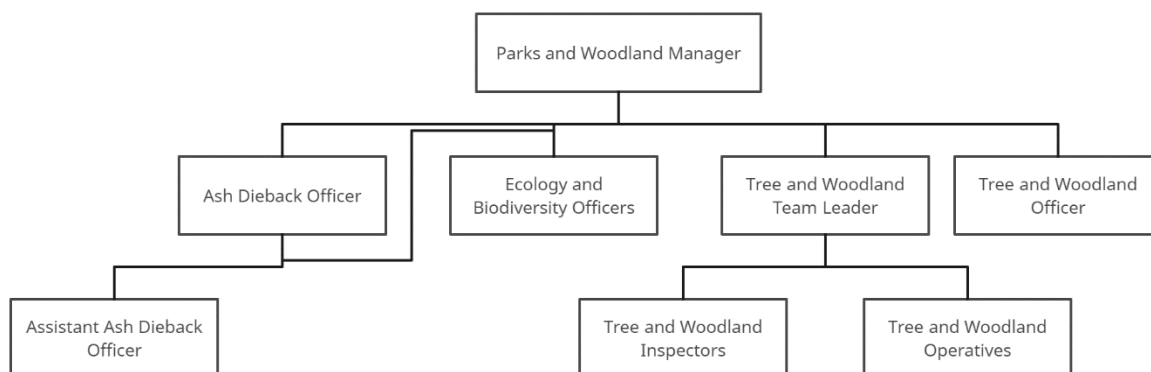


Figure 9 – Organisational chart of ash die back team in West Lothian Council

## 4.3 Actions: Monitoring

Ash dieback surveys commence each year between June and late September, future surveys will be cyclical following the West Lothian Tree and Woodland Management Plan. Surveys along the adopted road network have now been completed. Trees are categorised using the assessment system in Table 2, rating the ash tree condition from Class 1 to Class 4. WLC has used Treeplotter to create a record of location and condition of ash trees. Re-surveys carried out in 2023 and further work along roads has been programmed.

Sample sites have been selected for annual surveys to assess the progression of the disease discussed in Chapter 2.5

#### 4.4 Actions: Tree works

West Lothian have been active with undertaking felling/pruning operations whilst this document has been developed.

Operations have been undertaken in both 2022 and 2023. Contractors have been appointed until March 2025 to continue undertaking this specialist work. The majority of the sites to date have been along A roads, busy commuter routes, areas of high occupancy, and school grounds.

Tree works on diseased ash trees will be carried out where necessary. Trees and surrounding habitats will be surveyed by the Ecology and Biodiversity team to reduce and mitigate potential ecological impacts.

As outlined above there is a need to increase public awareness and it is proposed to use the council's website, social media and the regional press to achieve this. Inevitably, ash dieback will increase the number of enquiries made to the council and it is important that the right information is efficiently provided to members of the public on the web.

Every effort will be made to inform the public, relevant stake holders, and elected members of programmed work, this is especially important when there will be disruption to the road network due to traffic management such as road closures. Details will be posted on social media, and on the council's ash dieback page.

#### **NOTE: Risks of felling or pruning diseased ash trees**

Trees affected by Ash Dieback Disease can present extra risks for tree work, they can become brittle and can be very unpredictable and dangerous to climb, prune or fell. Those showing advanced dieback symptoms should not be climbed.

Work should only be undertaken by qualified and experienced arborists (tree surgeons) and, wherever possible, by mechanised means or from a mobile elevating work platform (MEWP).

It is important to ensure that anyone engaged to undertake this potentially dangerous work is fully insured and has the appropriate training, qualifications and experience.

For more information see: <https://ukfisa.com/Safety/Safety-Alerts/essential-information-on-the-felling-of-diseased-ash>

[Ash dieback: Exploding diseased trees risk lives - experts - BBC News](#)

## 4.5 Recovery

It is too early to understand the full extent of the recovery process.

We must accept that many ash trees will be removed around the county, dramatically changing the landscape and environment. Many of these mature trees cannot be replaced in a human's life time but we can insist on making our existing woodland more resilient and continue to look after our mature trees.

There will be opportunity for both tree replacement and natural tree regeneration through the proactive management of areas<sup>16</sup>. Where there is opportunity to utilise and encourage natural regeneration it may be possible to replace ecosystem services at a reduced cost.

Where new tree planting is undertaken it must be properly maintained and nurtured to ensure the trees mature and ultimately provide the replacement ecosystem services that are necessary.

## 5.0 Summary

The WLADAP sets out the risks associated with ADD and the potential impacts on West Lothian council. Highlighting how it has begun to affect the county's trees. Critically, it also sets out the anticipated risk to the council.

Responding to the disease will have demand on councils existing budgets and resources, but is a requirement on health and safety responsibilities, evidently the cost of addressing this issue will be considerable and place a massive burden on already severely restricted budgets

Surveying and monitoring are well under way but further work is required to continue to manage the changing situation.

Using the information contained in Chapter 3 the estimate for dealing with ash dieback on the council's land is estimated to be up to £1.2m Over the next 5 years, including surveying, felling and replacement planting.

The cost of felling ash trees on private land adjacent to the adopted road network is much greater and could be in the realms of £1.3m when applied to the main part of the road network.

All estimated budgets within Chapter 3 do not take in to account other cost implications such as administration, Ecological assessment and legal support.

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<sup>16</sup> Hill, L. *et al.* (2019). The £15 billion cost of ash dieback in Britain. *Current Biology* 29, R301-R316, May 6, 2019. Elsevier Ltd