

NORTH SOMERSET COUNCIL

Ash Dieback Action Plan



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1 Executive Summary

This Action Plan sets out the North Somerset Council approach to managing ash dieback. We have used the format set out by The Tree Council to ensure users are able to compare our response to national guidance and to other Councils.

Ash dieback, *Hymenoscyphus fraxineus*, (formerly referred to as *Chalara fraxinea*), is the most significant disease to affect the UK since Dutch Elm Disease which was first recognised in the 1960s. It will lead to the decline and death of most ash trees in Britain and therefore has the potential to infect more than two billion ash trees across the country.

Our trees and woodlands represent a key element of the character of North Somerset, as well as providing a range of services in the natural environment including supporting and regulating ecosystems, cooling the air, slowing the movement of water, capturing carbon dioxide and pollutants, producing oxygen as well as bearing fruits and leaf litter which contributes to soil development. To lose these services will mean a noticeable impact on the environment, far beyond the immediate visual change that will be observed. The replanting programme (recovery phase) will be just as important to the project as the felling works to reduce the risk from ash trees to acceptable levels.

The Tree Council, working with a wide range of professionals from organisations across the UK, has developed a toolkit to support local authorities and other large organisations to prepare their response. This Action Plan is based on that Toolkit.

Ash trees are a fundamental part of the culture we have in the UK. They are a common tree in North Somerset and make up about 16% of the total tree cover (iTree survey 2018). It is estimated that North Somerset has close to 200,000 ash trees, from seedlings through to veteran trees, and that North Somerset Council are responsible for about 80,000. Our surveys focused on trees that pose a real risk to property or people due to size or location meaning that we highlight about 10% of the trees we are responsible for.

Most woodlands managed by North Somerset are dominated by ash trees. Our roads are lined with ash and it is one of the key species our wildlife depends upon.

The loss of ash trees will lead to a major visual change across the district. The loss of any tree will change the way nature behaves, from the flow of rainwater, to the local temperature and movement of noise too. Our residents will notice the change and they will want to see us respond, manage the risks

but also to ensure that we do all we can to repair the loss as soon as we possibly can.

For local landowners, land managers and homeowners as well as the local authority there will be a financial impact as we all seek to find our best approaches to respond. Where possible there will be benefits in working together for the best outcomes for biodiversity but also for the most effective, efficient, and economic solutions.

To recover we will need to ensure that as a minimum we aim to replace the trees we lose where appropriate, but where funding can be identified we must seek to improve areas, replace trees with species which provide similar ecological benefits, or identify alternatives which improve the biodiversity of each area. Ash Dieback is encompassed in our Green Infrastructure Strategy. It is our intention to in part address the loss of ash trees by improving woodland connectivity and species diversity across the whole district, using our own land, and working with private landowners.

It became obvious that ash dieback arrived in North Somerset in 2019 – but is likely to have been here for longer. The disease has arrived in North Somerset at a challenging time for the organisation in terms of financial planning following the impact of COVID. We will endeavour to identify suitable funds to rise to

meet that challenge, seek to develop collaborative relationships for the best ecological outcomes with the resources we have but above all to ensure that we continue to serve our community with an approach that seeks to turn such a negative impact into a positive outcome.

Our Green Infrastructure Strategy will enable us to embed an approach which prepares us for landscape scale impacts and develops resilience for the future. We are about to start a more extensive approach to ash dieback and residents will notice more tree felling as a result of this. This will also mean more disruption on roads and open spaces but we will keep people informed when this will be happening in their area. Please keep an eye out for tree planting opportunities.



Figure 1: Ash woodland

2 Ash Dieback Action Plan Aims and Objectives

Our aim is to effectively address the risks presented by the impact of ash dieback on people and property, conserve the ecosystems ash trees are found in across the district, and prepare for a positive regeneration phase seeking to achieve a net biodiversity gain in 10 years' time and landscape recovery in 30 years.

Our objectives are designed to support an evolving approach so we can build on the initial findings of the first survey. This means that we have developed our methods to provide an overarching plan to identify, communicate and address the risks of ash dieback in North Somerset, and build a more resilient approach for the future.

Due to the unpredictability of the ash dieback disease and the varying impacts on our trees, we will be adopting

a very flexible approach to ash tree management, informed by on-going research into the disease.

An important part of our Action Plan is to set up an Officer's Ash Dieback Working Group. This operational focused team will meet regularly to ensure the ash dieback action plan objectives are met and the project progresses. We will also create a wider stakeholder group to allow for updates and consideration of additional factors as raised for the community.

It is vital that we build resilience through new replacement planting using a range of species. Species selection will address some of the ecological losses caused by the disease and guidance has been published by **The Tree Council**¹ to support tree owners on choosing replacements.

The Ash Dieback Action Plan will:

- Establish the complexities of physically managing the disease and associated risks
- Assess the potential cost implications to the council
- Assess required resources to manage the disease
- Consider other environmental and ecological factors
- Establish an effective communication plan
- Consider how to address trees across the whole of North Somerset including those on private land which may affect the highway
- Discuss joint working
- Address recovery in terms of the removed trees

¹ <https://treecouncil.org.uk/wp-content/uploads/2020/06/Tree-Council-Ash-dieback-tree-owners-guide-FINAL.pdf>

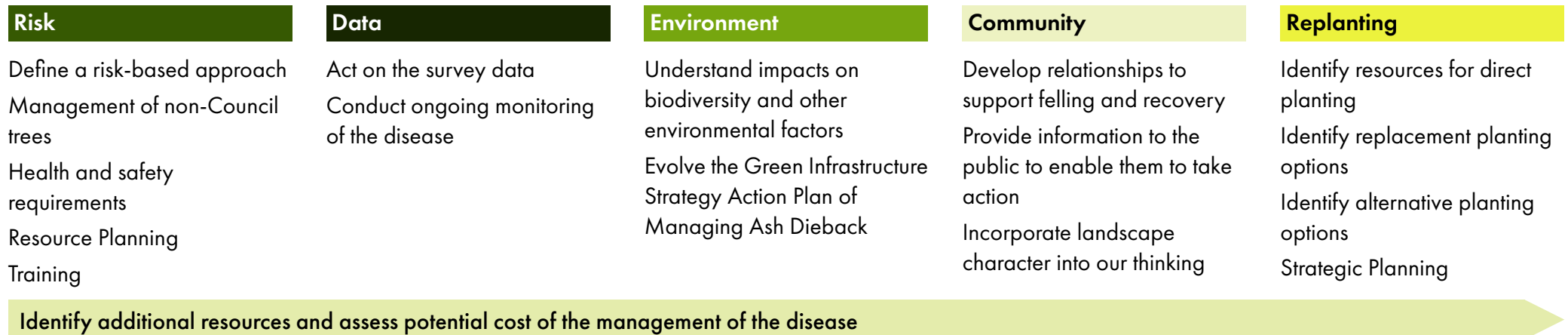


Figure 2 – Action Plan Objectives

The Ash Dieback Action Plan aims to initiate the management plan for the disease across the district, whilst considering all the complexities. The task of managing ash dieback is immense across the whole country. There is no simple solution but by having processes in place and beginning to understand the level of resources required over the coming years, we will be able to better approach the active tree removal that will be required while ensuring adequate communication with the public.

The level of tree removal has not been witnessed since Dutch Elm Disease in the 1970's. Many Elm trees still grow in the UK, usually being killed by the disease again at a young age. The Ash Dieback Action Plan must also address how we will recover from this potentially devastating disease. Our approach to the disease will evolve and adapt depending on our experiences and the Ash Dieback Action Plan will be updated and amended as needed by the Ash Dieback Working Group.

The detailed survey of ash trees in the summer of 2021 has formed the basis of our Ash Dieback Action Plan. Our Tree Risk Management Plan identified key areas to drive the survey work and builds a picture of where we are likely to have ash trees in high-risk areas.

The survey has created a much clearer picture of the scale of the impact of ash dieback in North Somerset, but it is likely that there are still further trees yet to be identified.

We now have the use of an active tree database system and have incorporated the surveyed ash map layer from our mapping system into this so we can identify any trees that have not been picked up on through the normal course of inspection duties.

We cannot predict the progression of the disease after the survey, so if any trees experience a rapid decline there could be an increase to the risk level that we would be unaware of. This highlights the requirement for a monitoring programme to be included in the Ash Dieback Action Plan.

As a Highways Authority we must also consider the progression of the disease and how it will affect trees in private ownership which are within falling distance of the highway. Ash Dieback will increase the risk associated with ash trees significantly.

The task of identifying potentially dangerous trees on private land was acknowledged within the 2021 survey where we specified the inclusion of any

severely and obviously affected ash trees within falling distance of the highway with clear objectives to identify only the most severely infected. We will use this data and begin to develop the best approach for us to notify and where possible work with private landowners.

We must establish the best way to determine who is the responsible landowner for ash trees on private land and this is likely to involve land searches. We plan to develop a site notice specific for ash dieback with advisory information which can be attached to trees on private land adjacent to the highway. If the tree is dangerous then we will serve a Notice.

The Ash Dieback Working Group will begin to identify approaches for communicating with private landowners to ensure the right level of response to the disease.



3 Ashes and Ash Dieback

3.1 What is Ash Dieback

Ash dieback is a serious disease of native European ash (*Fraxinus excelsior*) caused by the fungus *Hymenoscyphus fraxineus*, formerly known as *Chalara fraxinea*. The pathogen causes leaf loss and crown dieback weakening the trees and usually leading to premature tree death through secondary infection and/or environmental stress. European ash is most severely affected, although some exotic ash species are also vulnerable. Young trees usually succumb rapidly to infection. Although there is no treatment, a small percentage of ash may be resistant to, or tolerant of, the infection. Survivors can be used for breeding tolerant ash trees for the future.

3.2 Recognising the Symptoms of the Disease

There is a range of signs which can help identify infected trees:

- dead or dying tops of trees and abnormal clusters of twigs resulting from re-growth;
- wilting leaves visible in summer;
- lesions or wounds on the branches/stalks and sometimes at the base of trees;

- dieback of leaves which become dry and blackened;
- small white fruiting bodies growing on ash leaf stalks;
- staining of the wood under the bark.

The nature of the infection results in tissue death and branch failure, which in turn, will have health and safety implications. For more information, including how to recognise and report the disease, visit the **Forest Research²** website.



Figure 3a: Among the first symptoms that an ash tree might be infected with *Hymenoscyphus fraxineus* is blackening and wilting of leaves and shoots (Forest Research)



100% canopy



75% canopy



50% canopy



25% canopy

Figure 3b: Images of the progression of ash dieback disease (Tree Council)

² <https://www.forestresearch.gov.uk/tools-and-resources/ftfr/pest-and-disease-resources/ash-dieback-hymenoscyphus-fraxineus/>

4 Benefits of Trees and Woodlands

It is estimated that 16% of all trees in North Somerset are ash; it is our most common and widespread tree. Although the disease is unpredictable it has the potential to kill up to 95% of ash trees over time. This will have a major impact on the district's landscape, the wildlife it supports, and the other ecosystem services that trees provide such as:

- filtering the air;
- storing carbon;
- reducing flooding;
- providing shade;
- protecting soils.

It is essential that we recognise the significance of the loss of our ash trees. In this section we look at the benefits that these trees provide, as part of our wooded landscape and the ecosystems across our district and the strategic approach we are taking at North Somerset council.

At a time when scientists are demonstrating that we are experiencing significant biodiversity losses and starting to see impacts of climate change we now find that we will lose a large proportion of our trees to ash dieback. Whilst we are not able to accurately predict exactly how many trees will be lost, we can start to understand the connections with the services that trees provide within the natural environment.

It is widely known that trees are appreciated by the public as part of the green space which is characteristic of the district. We know that our tourism economy depends on this, with the choice many make to set up their lives here shaped around the environment they can find homes in.

But beyond the aesthetic appeal, trees are key to supporting wildlife, providing shelter, structure within the ecosystem, food and playing a key role in the water and nutrient cycles which keep the environment healthy by regulating movement of carbon, nitrogen and other particles which are in the atmosphere.

Within this, our air quality and local climate are affected by the presence of trees, noise is absorbed by trees, particularly in the summer months when tree canopies are at their most resplendent phase. The roots of the trees help to stabilise soils and contribute to slowing water movement which can help to prevent flooding.

Data taken from a 2018 iTree ecosystem analysis (a tool which uses data to demonstrate the structure, function and value of urban forests), shows ash trees in North Somerset as being the most common and important tree species. Ash trees directly sequester 1800 ton of carbon per year, contribute to 19.3% of carbon storage by trees in the district and contributes

to avoided water run-off by 59,465 cubic metres of water.

Ash is a native broadleaf tree and study has shown that 1,058 species have an association with it. Some tree species have characteristics similar to ash but none match it entirely. Of the 1,058 species found on ash in the UK 44 (29 invertebrates, 11 fungi and 4 lichens) only occur on ash and a further 62 are described as 'highly associated' with it.

The loss of our ash trees to the disease will have huge environmental implications. It is vital that we continue with tree planting programmes using a range of species to help mitigate the loss.



5 General Management Advice

5.1 Ash Dieback in North Somerset

Ash trees occur across the whole of North Somerset in almost all environments. They are a dominant species in our woodland, feature as specimen trees in our parks and open spaces, are roadside and hedgerow trees and occur on most of the land that we manage.

Our priority is to manage the risk from infected trees. The disease can cause limb failure and whole tree failure. Where trees are weakened by the disease, other secondary decay pathogens are quick to colonise, and this can accelerate the decline of the tree and increase the risk rapidly.

There is no avoiding the fact that tree removal will therefore be required across the whole district. In cases where an infected tree requiring felling sits amongst healthy trees but in a high-risk location, all adjacent ash trees will be removed to avoid future costs, minimise disruption to residents and visitors and risks to tree surgeons through multiple re-visits.

Although we will therefore be removing healthy trees this is the safest and most efficient use of our resources. The trees will likely be infected by ash dieback if neighbouring trees are diseased and although the decline is unpredictable, it will be inevitable for most, if not all of the remaining trees.

5.2 Our Approach

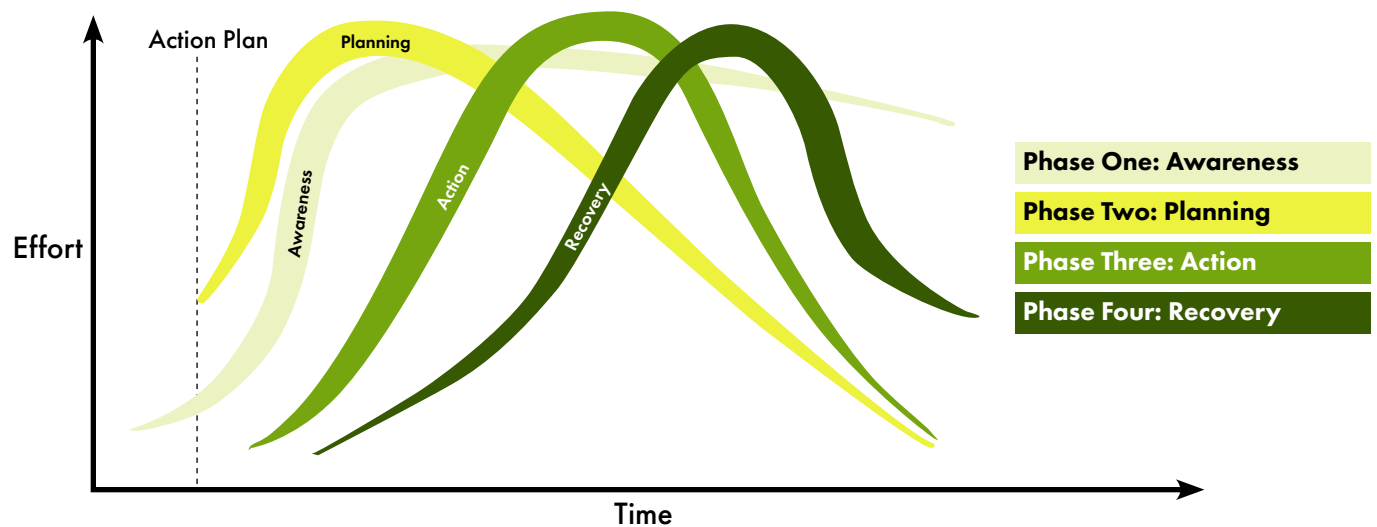
The approach we have taken has been informed by the research carried out by The Tree Council, which sets out the phases of response to a tree pest or disease. Figure 4, taken from the Tree Council's Ash Dieback Action Plan Toolkit highlights the 4 key stages in response to Ash Dieback.

These phases comprise:

- Awareness/anticipation: raising awareness about ash dieback and the issues it may cause and realising that work needs to be undertaken to understand and deal with the problem.

- Planning/assessment: preparing and developing an ADAP to help manage the problems caused by the ash dieback.
- Action/response to ash dieback: undertaking actions (e.g. pruning or, where necessary, felling trees) to remedy the problems faced due to ash dieback.
- Adaptation and recovery from ash dieback: landscape restoration in the wake of ash dieback, an essential element of any emergency process.

Figure 4: Phases of management of a tree pest or disease (Tree Council)



We have combined this with our understanding of our current position to develop our own response and add further detail for the Action phase. Figure 5,

is a visual representation of the expected progression from scoping of a typical work package through the expected stages for the survey and felling works.

These work package phases combine to build the ash dieback work programme, as seen in Figure 6.

The recovery phase has been included in our Action Plan objectives.

5.3 Surveying

We have good general knowledge of the tree population of North Somerset through a previous iTree survey and mapping of tree locations through the National Tree Map, however there is no detailed register of trees under North Somerset Council management which has affected our ability to understand the extent of the disease and its impacts.

This means that our priority action has been to undertake a survey of ash trees owned by us, where they present a risk. A new tree database system (Arbortrack) has given us a tool to be able to gather data for our tree stock which can be used to help us build resilience for any future pest and disease.

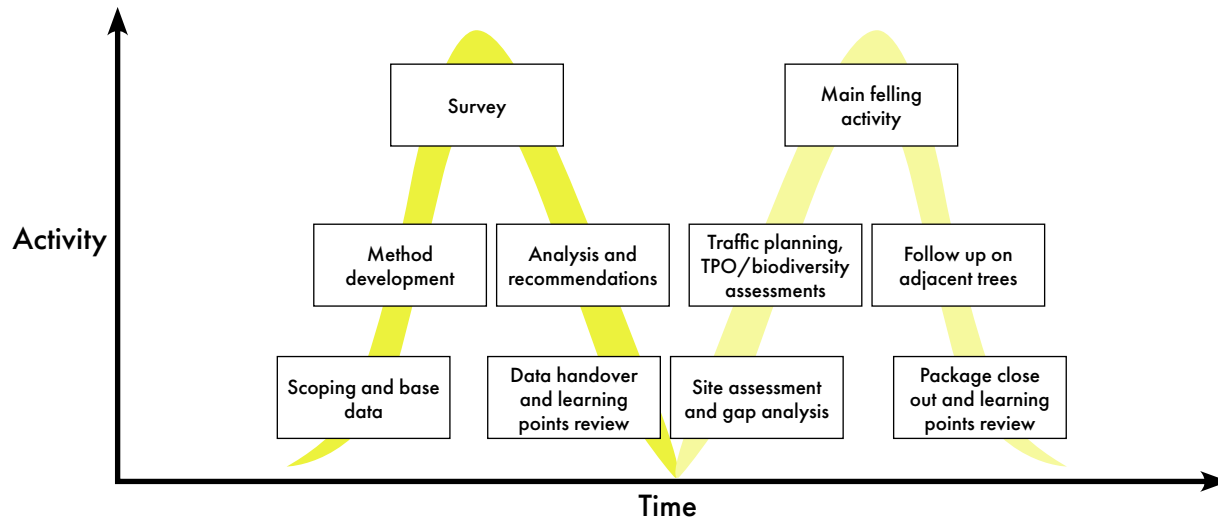


Figure 5: Projection of the expected progression within each work package with expected stages for the survey and felling works (Tree Council)

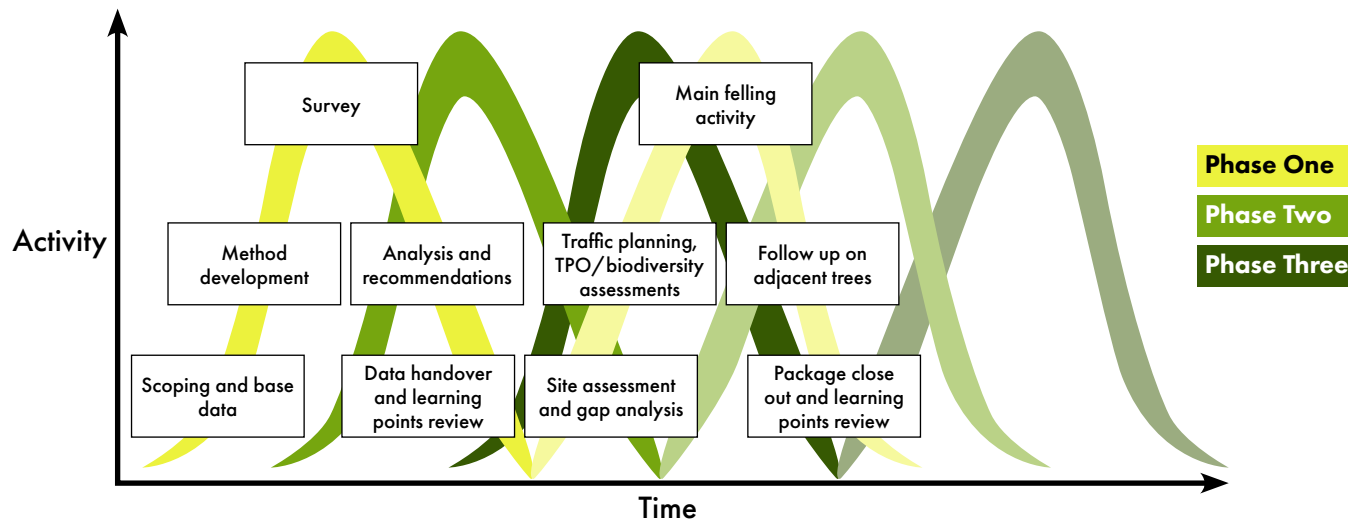


Figure 6: A representation of how survey and work package phases combine to build the programme (Tree Council)



Figure 7: Council management of the disease since its presence was detected in 2019

The optimum time to carry out the survey work is in the summer when the trees are in full leaf. This is because we assess the canopy health of the trees. An initial survey was carried out in the summer of 2019 which confirmed ash dieback was now present in the district. This led to a more comprehensive survey of the majority of our ash trees in summer 2021 to identify ash within our ownership that may present a risk to persons or property including highways, parks and open spaces, woodlands and other miscellaneous sites. We also sought to identify any ash trees with advanced symptoms adjacent to the highway within private property. The survey included collating information about the size of the tree, its precise location and the percentage of remaining healthy canopy – a recognised starting point when identifying the effects of ash dieback.

Our survey methodology closely followed the approach that we take for our current tree

³ <https://www.n-somerset.gov.uk/my-services/libraries-leisure-open-spaces/parks-countryside/trees/our-trees>

⁴ <https://www.qtra.co.uk>

inspections where we focus on high risk locations. For more information please read our **Tree Risk Management Plan**³. In line with our tree risk management approach there has not historically been a need to record details of individual trees.

A risk-based approach determines which locations should be addressed first, based on the impact of a tree failure, with a second level of prioritisation based on tree condition. We use a method known as QTRA (**Quantified Tree Risk Assessment**⁴).

QTRA therefore focuses our attention onto our busiest locations which tends to be the highway. Where privately owned trees are within falling distance of the highway a landowner has a duty of care to manage the risk associated with them.

This survey was the first step in identifying potentially dangerous trees across the district which now require management as well as providing the data required to begin a management plan for the disease, including addressing the resource requirements and a recovery strategy.

According to our QTRA approach we will not be carrying out any tree removal of infected trees where the risk caused by the trees is low no matter what its condition. The ash will be left standing and will decline at varying rates. This creates an opportunity to increase standing deadwood which offers an invaluable habitat; and there is a chance that disease resistant trees will be discovered.

By observing areas where we have been able to leave ash trees, we will see those which are showing a good degree of tolerance to the disease. These trees will be important for sourcing seed and growing other future resistant trees. We will work with relevant parties to ensure we can take full advantage of any disease resistant trees on our land and begin a programme of propagation for the future. We must also plan to increase species diversity by underplanting in these areas where appropriate. By increasing the tree species diversity, we will be building future resilience against other diseases and climate change.

Certain trees will be identified and managed wherever possible by monitoring, pruning or eventually pollarding. This means we will be able to retain our larger, older, ecologically significant ash trees and those which are important from a landscape perspective for as long as possible and where justified resources can be extended to manage these trees appropriately.

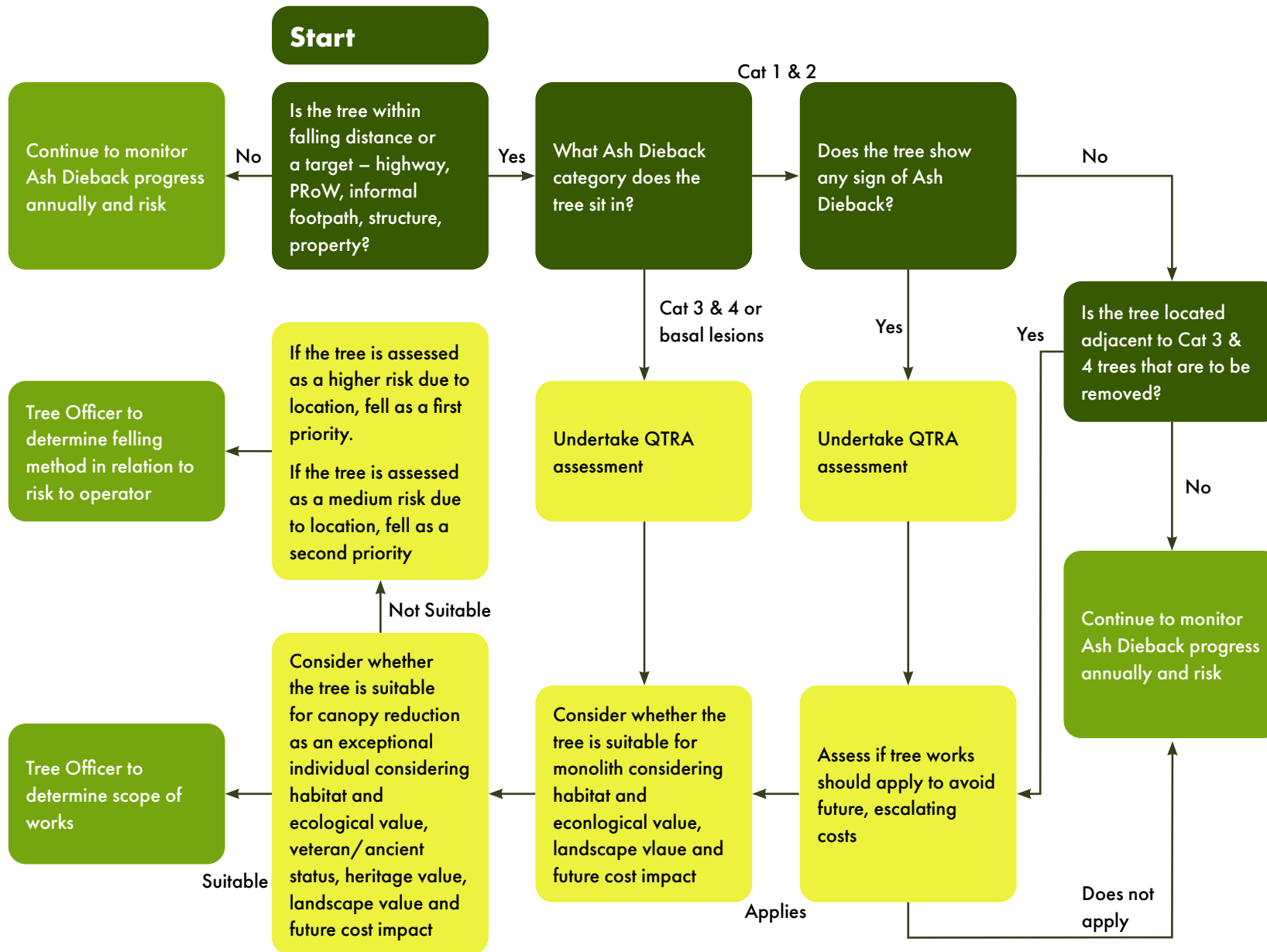


Figure 8 illustrates the decisions required as part of determining the action required for trees affected by ash dieback.

A key feature of our decision making relates to avoiding future, escalating costs, disruption and risk to tree surgeons. This will mean that when we are removing severely infected ash trees, we will remove all ash trees in the immediate vicinity irrespective of their condition. This is to prevent re-occurring costs such as road closure fees, contractor setting up costs and utility shut downs; but also less overall disruption to highway or park users and avoiding tree surgeons working in dangerous trees unnecessarily.

Figure 8: Ash Dieback Decision Path

Summer 2021 Survey Results

The number of ash trees identified from the survey will continue to increase as we include each tree within our woodlands, as we resolve any landowner and responsibility uncertainties and if it is decided that we must take on tree management on any unregistered land.

The following table gives a breakdown of trees identified in the survey and their remaining healthy canopy at the time of the survey. The progression of the disease is unpredictable, and trees may decline very rapidly. Nearly all the trees on North Somerset owned land are now showing signs of ash dieback. As the disease is unpredictable it is impossible to say what the condition of these trees will be, even 12 months from the date of the original survey. We must also therefore consider that this is only a point in time. We will need to monitor the condition of these trees and re-assess priorities for removal as required.

Category % of healthy crown remaining at time of inspection	Number of Trees based on proactive survey information in TRMP and Highways
Class 1 – 100-76% healthy crown remaining.	Approx. 7000
Class 2 – 75-51% healthy crown remaining	Approx. 2000
Class 3 – 50-26% healthy crown remaining	Approx. 500
Class 4 – 25-0% healthy crown remaining	Approx. 300

Table 1: Classification of trees surveyed in 2021



Category 1; 0-25% Ash dieback



Category 2; 25-50% Ash dieback



Category 3; 50-75% Ash dieback



Category 4; 75-100% Ash dieback

Figure 9: Sketched images representing the 4 categories of ash dieback (also see Figure 3b above)

A work programme has begun for the removal for the highest risk trees, starting with those identified as being in category 4 in the survey and focussing on those in the highest risk areas.

There are also many thousands of ash trees on private land within falling distance of the highway. For those that are clearly identifiable and fall into Category 4 the Council will seek to serve notices on landowners to highlight the risk.

The image in figure 10 is an example taken from our mapping tool which translates the survey results to give us an overview of ash trees and their condition across our area.

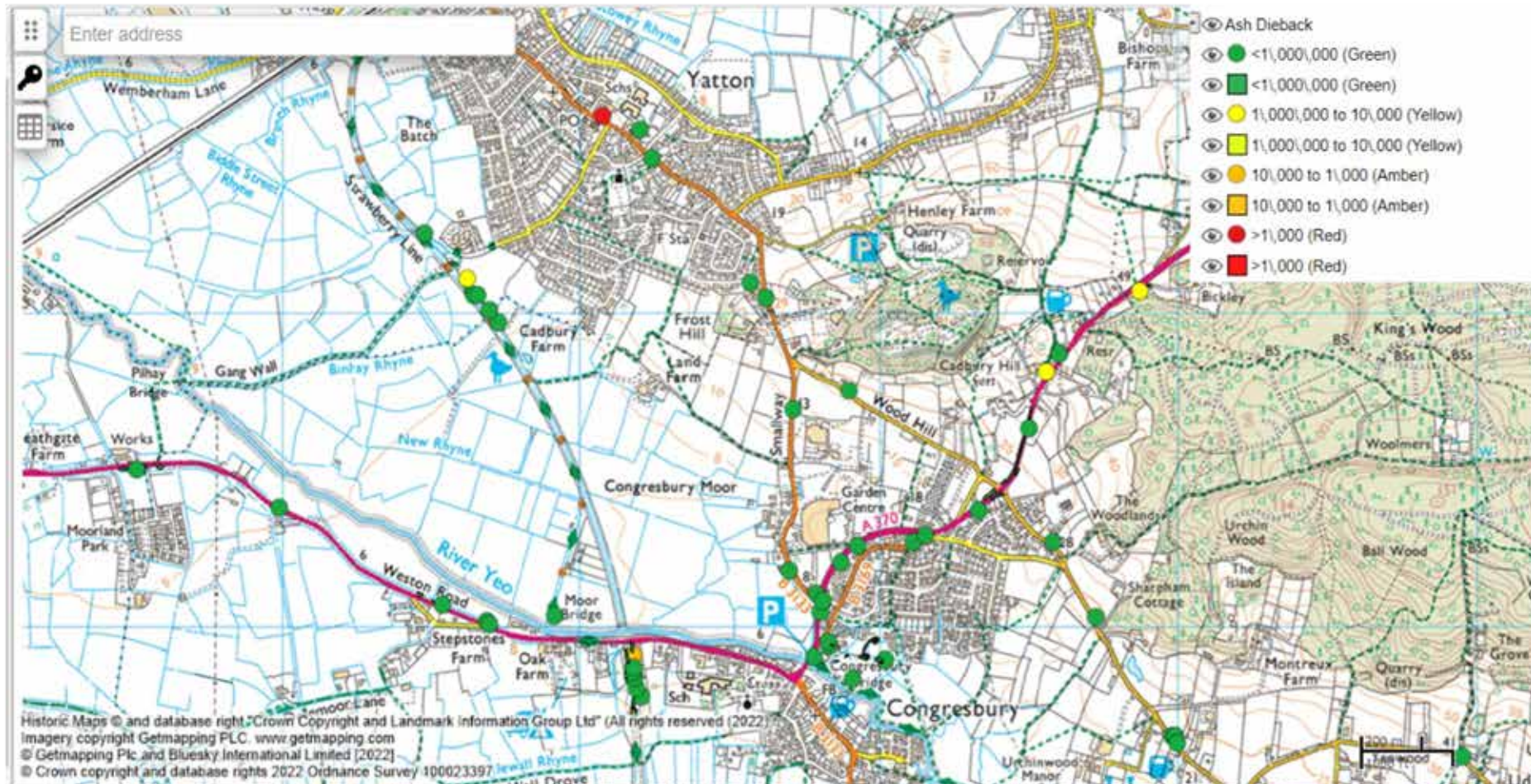


Figure 10: Example of ash dieback mapping tool

5.4 Practical Operations

Highway tree removal and any other tree removal where access allows, will require the use of additional machinery. Whilst the use of machinery adds significant additional costs to the work, it is considered industry good practice and also the most efficient means of removing the trees as it reduces the length of road closures and disruption and also improves safety for staff. Any trees on private land could be also factored into road closures or major traffic management schemes.

As stated previously, in high-risk areas requiring major traffic management schemes, we will not have the option of retaining healthier trees to see if there is any natural tolerance to the disease. The small percentage of trees predicted to show tolerance mean that in time, where the disease had been identified, most ash trees will succumb. Experience shows that leaving the healthier trees standing results in the need to return each year until all the trees are removed.

Tree removal operations are often complicated further by having to work closely with utility companies. The most common encounter is with live electricity lines and often before any tree work can be carried out an electricity shut down is required. This is organised by contractors but will often dictate when operations can commence.

Anecdotal evidence is showing that infected trees can become unstable very quickly, making them difficult and dangerous to climb. It has long been known that dying parts of ash trees rot very quickly so this is very likely. Infected trees will rapidly be considered too dangerous to use traditional tree climbing methods so the use of MEWPs (Mobile Elevated Work Platforms) will be standard. Where we have trees in high-risk areas that cannot be accessed by MEWP or other machinery, we will have to consider their removal prematurely to enable the safe dismantling of the tree.

It is likely that contractors with the right machinery will be in high demand so pre booking and planning is essential if we are to secure the equipment we require. North Somerset Council's approach is to use our existing grounds maintenance contract to work specifically on infected ash trees across the district.

Tree removal on this scale is likely to be disruptive and upsetting to the residents and visitors to North Somerset. Communication and planning of our schedules is essential to prepare the public for tree removal operations.

5.5 Trees adjacent to Land under North Somerset Council Responsibility

Where trees are identified as presenting a risk to land under our responsibility, including the highways network, and we have been unable to build a

positive correspondence with the landowner, we will use the legal mechanisms available to us to inform landowners of their responsibility and it may be that we must act ourselves to make a tree safe. We would be entitled to claim back any expenses incurred. This presents a range of complexities which will be dealt with on a case-by-case basis and managed through the Ash Dieback Working Group.

5.6 The Ash Dieback Working Group

We will be creating an Ash Dieback Working Group made up of council officers including representation from: Communications, Street Works, Highways, Legal, Health and Safety, Parks Team, Ecology and the Tree Team. The group will ensure the effective delivery of the ash dieback programme together with determining ways of working with private landowners, developing appropriate communication to raise awareness of the impacts of the disease and ensuring learning points are captured and interpreted into improvements throughout the project and beyond.

The Natural Environment Manager will oversee the co-ordination of the project to ensure that we achieve our objectives and develop methods which will enable us to respond to future impacts more effectively.

The group will initially meet once a month.

The process will be supported by a Risk Register which will inform the activities of the project and ensure that any delegation to contractors is managed responsibly. The working group will keep this under review.

5.7 General Management Advice for landowners

Landowners, leaseholders, and property managers have a responsibility to manage the trees on their land. Below we provide some basic advice, you can find links to more detailed guidance and other organisations who may be able to help at the end of this document.

5.7.1 Information for Tree Owners

Tree owners have a legal duty of care and must maintain their trees in a reasonably safe condition. We are only responsible for trees growing on council land, including highway land.

In many cases, trees that are next to roads and public rights of way are the responsibility of the neighbouring landowner. Where a tree on private land poses an obvious danger to the highway users, if we have identified this as part of our wider inspection programme, we will contact the landowner and explain what work needs to be done and when it should be completed by. The tree owner

is responsible for the condition of the tree, ongoing monitoring and the cost of this work.

For most landowners, the first step will be to contact a tree surgeon. They will be able to provide quotes for the work required and advice on what traffic management will be needed while the work is carried out. The Arboricultural Association has an approved **contractor and consultant directory**⁵.

Landowners should also check the standing advice for protected wildlife before any work starts.

5.7.2 Information for Woodland Owners

If you own woodland which contains ash you should be aware of the following.

- It is recommended that you create or update a management plan to take account of the current or likely future impacts of ash dieback.
- Forestry Commission grants are available for new management plans on woodland areas over 5 hectares.
- Markets for lower grade timber are available which may help reduce the cost of felling.

Specific guidance on managing woodland containing ash is available in Forestry Commission Operations Note 46.

To find out about Forestry Commission grants, tree felling licences, regulations and managing private

woods and forests, visit GOV.UK or contact your local area office.



Figure 11: Photo of traffic management required for tree works on the highway

5.7.3 Tree Works and Traffic Management

If you need to manage traffic while work is being carried out on a tree, you will need to apply for a **Temporary Traffic Regulation Order**⁶.

It is essential that you fully investigate what is required in terms of traffic management to ensure the users of the highway are safe during any tree work

⁵ <http://www.trees.org.uk>

⁶ <https://www.n-somerset.gov.uk/my-services/parking-travel-roads/roads-streets/road-closures-temporary-traffic-management/applying-close-road>

operations. Your chosen tree surgeon should be able to advise, and they should hold the relevant public liability insurance.

5.7.4 Tree Works and Utilities

If there are overhead cables or other services near trees requiring removal you must take this into consideration and work with the utility companies. Your chosen tree surgeon should be able to advise.

5.7.5 Public Rights of Way (PRoWs)

If you have Public Rights of Way on your land, you should be aware of the following.

- Trees alongside the route are the landowner's responsibility.
- Works should be carried out in a way that allows use of PRoW where possible.
- If the work you are planning will endanger people using the PRoW then you will need to apply for a **Temporary Closure Order**⁷.
- To enable landowners to take action, fees for a five-day closure may be waived; however fees will apply for longer closures, please check the website for current rates.
- Applications for closures will need to meet the legal test that there is a risk to the safety of users.

- You will need to provide details of your planned works and how you will prioritise trees that might impact any PRoW, i.e. to minimise closures and inconvenience to users.
- Any damage caused to the surface of the path through the delivery of the works will need to be repaired and applicants will be required to reinstate to no lesser standard than that at the time of the application.



Figure 12: Photo of a fallen ash on a Public Right of Way

5.7.6 Tree Preservation Orders (TPOs), Trees in Conservation Areas, and Felling Licences

To check whether the tree requiring work is subject to a TPO, or in a conservation area, contact the tree officer before starting any work. Details can be found on the North Somerset Council [website](#)⁸.

We predict an increase in the volume of tree work applications as a direct result of ash dieback which may mean there will be additional delays in processing applications.

Current advice is to continue to process applications for work on ash trees in the same way as any other protected tree and we may still consider serving Tree Preservation Orders on ash trees. Applications will be assessed on a case-by-case basis.

Please refer to the **Tree felling – getting permission**⁹ document, available online to determine whether the Forestry Act 1967 applies

See our Useful Links section to find where further information is available online.

5.7.7 Other applicable legislation

There are a number of pieces of legislation applicable to the situation presented by ash dieback which will influence how we deal with different situations:

⁷ <https://www.n-somerset.gov.uk/my-services/parking-travel-roads/roads-streets/road-closures-temporary-traffic-management/applying-close-road>

⁸ <https://www.n-somerset.gov.uk/my-services/libraries-leisure-open-spaces/parks-countryside/trees/protected-trees>

⁹ <https://www.gov.uk/government/publications/tree-felling-getting-permission>

- Local Government (Miscellaneous Provisions) Act 1976, section 23: gives local authorities discretionary powers to deal with dangerous trees (risk to persons or property), on land not owned by the council
- The Highways Act 1980: the council can serve notice requiring the cutting or felling of a tree which by reason of its condition is likely to cause danger by falling on the highway
- Hedgerows Regulations 1997: permission must be sought before the removal of a hedgerow
- Wildlife and Countryside Act 1981: offers protection for wild birds, their nests and eggs
- The Conservation of Habitats and Species Regulations 2017: prohibits the disturbance of any wild species, their resting place or breeding site
- Town and Country Planning Act 1990: the Act through which tree preservation orders are made by a local planning authority (LPA) in respect of trees or woodlands, to prohibit the: cutting down, uprooting, topping, lopping, wilful damage, or wilful destruction of trees without the LPA's consent.
- Forestry Act 1967: this Act requires a felling licence if the volume of trees to be felled is more than 5m³ in any quarter.
- Health and Safety at Work Act: this Act secures the health, safety and welfare of persons at work and protects others against risks to health or

safety in connection with the activities of persons at work.

- Occupiers Liability Act: covers the liability of occupiers and others for injury or damage resulting to persons or goods lawfully on any land or other property from dangers due to the state of the property
- There is also a multitude of case law surrounding the failure to maintain trees, including where trees have not been maintained and subsequently fell in full or in part beyond the boundaries of a private property.



6 Impacts of Ash Dieback

We have prepared a detailed risk register for the ash dieback programme. Here we summarise some of these risks, which may help others to consider the impacts on their own organisation. We will seek to mitigate losses where possible during the recovery phase.

There are a number of key factors that need to be applied to all decisions made about our response and ongoing management and recovery from ash dieback, summarised in the table below.

Decision Factor	Details
Available Resources	All decisions are subject to the availability of resources and our approach to avoid future costs.
Safety	Prioritise safety of members of the public, staff and all workers contracted to work on or near our trees. Safety is central to all decisions and will take priority where risk levels are high.
Biodiversity	If the tree is safe, we will prioritise its value to wildlife and the services it provides in the ecosystem to support our responses to climate change and biodiversity loss. This means that ash trees will be left to decline naturally where it is safe to do so.
Green Infrastructure	Trees provide a range of services which support our daily lives including contributions to air quality, slowing the movement of water in the landscape, cooling the environment, providing shade and much more.
Amenity and character	The lush green character of North Somerset is shaped by the trees in our landscape and this aspect will be considered in our decision making, where the safety priority is met.

Table 2: Decisions Factors

6.1 Key Risks Identified

6.1.1 Landscape and Biodiversity

We recognise that the loss of so many trees of a single species will have a detrimental effect on the wildlife species which depend on ash. We will endeavour to ensure that any replacement planting carried out, or alternative mitigation measures, will consider providing for those species as far as resources allow. We must incorporate supporting the recovery into our plans, which may include alternative planting methods, natural regeneration as well as direct replanting where resources can be identified.

Where we are having to remove large numbers of trees there will also be ecological considerations. On many occasions assessment and mitigation will be required for protected species, with bats being of major concern. Ash trees and the ivy often found on them offer significant bat roosting opportunity and linear tree features used as flight paths may be drastically altered or removed completely due to the disease. We will follow the industry guidelines to protect bats.

We will investigate opportunities to collaborate and explore relationships to develop alternative schemes where direct replanting is not practical and seek to entwine our approach within the Green Infrastructure Strategy action plan of increasing canopy cover

across North Somerset and enhancing Nature Recovery Networks.

Areas we will focus on include:

- air quality;
- flood management;
- noise and visual impact;
- habitat conservation and development;
- carbon;
- pollinators.

Ash Dieback is reflected in our Green Infrastructure Strategy which includes aspects such as increasing canopy cover, improving woodland and habitat connectivity, responding to the climate emergency and biodiversity losses. The strategy will develop our approach to managing trees and woodlands within our landscape, enabling us to build on the improvements that will be made and develop the ways we work with these important assets.

This work will include the development of our recovery plan to ensure that we are able to make effective use of our limited resources to follow up from the work to fell the trees affected by the disease.

6.1.2 Local Landowners, Land Managers, and Homeowners

We also recognise that the people living and working alongside our own land will be managing

the impacts of ash dieback too. Where possible we will aim to work together to:

- consider the opportunity of sharing road closures;
- provide information to enable our neighbours to take action;
- develop joint mitigation plans where feasible
- ensure neighbours are kept informed when our project will impact on them;
- respond to enquiries effectively to ensure trees that present a risk are addressed.

6.1.3 Local Utilities and Infrastructure Organisations

There are many interactions with roads, rail, rivers, woodlands, wildlife sites, parks, and other properties. To manage these effectively we will:

- ensure we use a consistent approach to managing our own activities for clarity;
- develop our relationships to ensure we have the correct contacts for each organisation;
- inform them when trees are identified as being under their responsibility;
- respond promptly when we receive notifications from others;
- monitor progress on referrals to us, and referrals from us;
- use these developments to continuously improve our methods.

7 Potential Impacts of Ash Dieback on North Somerset Council

Our comprehensive risk register approach has identified potential impacts on our organisation. The key impacts are summarised here and our approach has been developed to respond to these risks and manage them effectively.

7.1 Health and Safety Impacts

- Potential for death or injury as a result of ash dieback related accidents.
- Increased health and safety issues due to declining ash trees on roads, parks and open spaces, children's centres, cycleways, bridle paths, and footpaths.
- Risks to statutory functions or service delivery such as retaining safe public open spaces, or highways.
- Risks to the community from trees adjacent to property
- Risks from falling ash to our own properties and infrastructure.
- Risk to contractors dealing with the trees



Figure 13: Tree works on a highway

7.2 Economic Impacts

- Increased liabilities in cases of death or injury as a result of ash dieback related incidents.
- Impacts on existing officer roles likely to require additional support.
- 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 our trees falling/shedding branches.
- Drop in market prices for ash wood products due to excess ash on the market.
- Opportunities to derive income from timber and woodchip resulting from felling

While the cost of tree removal varies greatly depending on factors such as access and traffic management The Tree Council anticipates the cost to manage ash dieback in the UK exceeding £15 billion over the next 10 years. The time scale for the requirement of tree removal is unpredictable but it can be assumed that most of these costs to manage the disease will occur over the next 5 years.

For a typical highway tree removal operation the following costs can arise:

	Cost	
	Mainly mechanical	Mainly manual
Equipment		
Tree shear	£12,500	-
Tractor & 10" Chipper	£3,000	-
Tractor & Timber Trailer	£1,600	£2,250
Mobile Elevated Work Platforms		£1,100
Personnel		
Team Leader	£1,011	£10,125
Groundsman	£809	£8,325
Ecology Consultant	£4,164	£12,492
Traffic Management	£4,950	£14,850
Days required	5	15
Total:	£28,034	£49,142

Table 3: Example costs of a tree removal scheme comparing mainly manual operations with mainly mechanised operation

This example was to deal with a stretch of A-road containing approximately 50 ash trees that required removal. Even if only some of the Council's 80,000 trees require traffic management as part of felling, the implications of this level of cost are significant. It should be noted however that every situation will be different and will be assessed and organised as such. The example covers the costs both with and without machinery.

As trees are felled there is the possibility to use this valuable resource for purposes such as wood chip, logs for fuel, biochar and other uses which may generate an income. However the process of tree removal does not result usually in the felling of timber-sized trunks but removal in pieces to enable safe reduction in size. We will be exploring the options for this resulting wood.

7.3 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 pressure and/or anxiety.
- Potentially strained relationships with landowners and managers as ADB spreads and increased costs fall on the private owners.

7.4 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.
- Affecting connectivity of Nature Recovery Networks



Figure 14: Ash trees and the ivy surrounding them provide habitats for birds and bats

The risks related to ash dieback are regularly reviewed and discussed at senior levels within the organisation. The Ash Dieback Working Group has been structured to provide an escalation process, so that as the project progresses issues can be raised when needed. This provides certainty that we will be held accountable for our actions, that our key decision makers are kept fully informed and that the pathways for the future recovery phase are being created.

7.5 Monitoring

An important part of the management of the disease will be to monitor and prepare for the decline of the ash trees in North Somerset. The monitoring process will ensure we have successfully included all the trees we are responsible for, where they currently present an acceptable or tolerable level of harm but are likely to become an unacceptable risk of harm over the next 5 years. Monitoring of the disease will enable us to prioritise where we need to carry out tree removal works.

Further monitoring through tree inspections will assist in calculating the total number of trees on land managed by us throughout whole woodland areas so we can more fully address the landscape and ecological losses caused by the disease.



8 Our Communication Plan

Our Communication Plan aims to ensure that our local communities:

- understand the extent and the serious implications of the ash dieback problem in North Somerset
- are able to place that problem in the context of a wider national issue
- understand the measures being developed to deal with the disease locally
- understand the impacts of the work being carried out and the actions we are undertaking to mitigate risks and minimise impacts
- support the council's overall approach as a means to ensuring public safety and reducing the risk of infecting other currently healthy trees through the spread of honey fungus
- understand their responsibilities as landowners and managers where ash trees are present.

We have carried out an analysis of key stakeholders and identified key internal reporting requirements. External communications include informing the public about the disease and notifying tree owners of their responsibilities. We will endeavour to collaborate where relationships will support our objectives. All other enquiries will be on a response basis.

Where communication is required with tree owners, we seek to engage to ensure works are completed.

Where deeper collaborations will enable a significant improvement to our recovery objectives, we will work to develop those relationships and build on these for the long term. Many such relationships do already exist, and we aim to keep developing our approach for the benefit of all stakeholders. We will establish a wider stakeholder group comprising local organisations and individuals through which we can maintain communication about the progress of the ash dieback programme.

As the project progresses and we begin to appoint additional contractors, we will update our records and manage these through the Ash Dieback Working Group to ensure a consistent approach.

All key staff for the project will be included in the Working Group, either as regular attendees, through the circulation process, or as consultees where professional advice is required. Tasks arising will be logged and monitored with updates included in the monthly report and outcomes minuted as required.

We will use a variety of communication channels (one example in Figure 15) to ensure that the public are kept informed of our work but also to raise the profile of the disease in the community and the responsibilities of those with ash on their land.



Figure 15: Example of signage used to identify affected trees

9 The Action Plan

A high-level summary of the Action Plan follows. The day-to-day activity will be managed by the Tree Team with key monitoring and reporting being delivered by the Principal Tree Officer. Progress will be monitored monthly by the Working Group and overseen by the Project Manager who is the Natural Environment Manager, with an escalation process in place should any key tasks be delayed. The delivery of the Ash Dieback Action Plan is a key feature of the Green Infrastructure strategy and will be monitored through that process by the Head of Open Spaces, Natural Environment and Leisure.



Figure 16: Areas of responsibility for ADAP delivery

Action Plan

- Short term – to be completed by end of 2022
- Medium term – to be completed by end of 2023
- Long term – to be completed by end of 2024
- Ongoing – some areas of work will be continuing throughout the period of the action plan

Risk

Objective	Details	Lead	Resources	Timescale	Priority
Define a risk-based approach	Confirm that the QTRA approach and our Tree Risk Management Plan is the approach we will take to manage risk of ash dieback.	ADBWG	Officer time	Short	High
	Keep the Corporate risk register Ash Dieback (ADB) entry updated.	Project Manager	Officer time	Ongoing	High
	Record all risks in an Ash Dieback Project Risk Register.	Project Manager	Officer time	Ongoing	High
	Develop an Ash Dieback Working Group (ADBWG) to manage the project effectively, including the production of a Terms of Reference for this group.	Project Manager	Officer time	Ongoing	High
Management of non-Council trees	Develop a process for identifying and responding to ADB on land where ownership is unclear	Project Manager	Officer time	Short	Med
	Create a process for managing dangerous trees on private land under the Miscellaneous Provisions Act	Tree Team	Officer time	Short	High
Health and Safety requirements	Identify from our list of leaseholders where we have land with ash management requirements, whose responsibility it is and signpost to guidance where this responsibility sits with other parties.	Project Manager, Tree Team, Property Team,	Officer time	Short	High
	Prepare a checklist of pre-work contractor requirements to manage and report on health and safety of ash dieback works.	Project Manager, Tree Team	Officer time	Short	High
	Assess and manage the risk of a shortage of contractors/sub-contractors and machinery.	Project Manager, Tree Team	Officer time	Med	High

Objective	Details	Lead	Resources	Timescale	Priority
Resource planning	Ensure adequate staffing for the administration of ash dieback-related applications for Tree Preservation Orders, Conservation Area, etc.	Project Manager	Officer time, financial	Short	High
	Allocate funds to create additional, dedicated ash dieback teams of tree surgeons through our existing contract with Glendale.	Project Manager	Financial	Short	High
	Calculate the approximate costs of additional machinery and traffic management per annum for tree removal and consider the benefits of long-term lease of certain kit to reduce the use of sub-contractors. Start collating financial costs of ash dieback.	Project Manager, Tree Team	Officer time	Med	High
	Quantify the potential cost of replacement tree planting and successful natural regeneration and the resource requirement to do so.	Project Manager, Tree Team	Officer time	Med	Med
	Identify the most cost-effective means of meeting the ongoing need to monitor ash trees in situ and during removal (i.e. for bird/bat presence) and develop our survey data for all tree stock on North Somerset land, including the opportunity to recruit an apprentice.	Project Manager	Officer time	Short	High
	Investigate opportunities for a temporary placement within the team to support the admin duties which will include reaching out to private landowners.		Officer time	Short	High
	Training	Provide training for all relevant staff (Area Officers, Rights of Way staff, Parks staff) to identify ash dieback and when a tree has become a significant risk and how to report it.	Project Manager, Area Officers	Officer time	Short
Provide training in relation to ecological considerations of ash dieback removal for council staff and contractors.		External Ecological Consultant/NSC Ecologists	Financial	Short	High

Data

Objective	Details	Lead	Resources	Timescale	Priority
Act on the survey data	Analyse the survey information gathered in 2021 and develop a management programme based on this data.	Principal Tree Officer Project, Street Works, Highways	Officer time	Short	High
Conduct ongoing monitoring of the disease	Monitor disease progression and highlight to the ADBWG the current tree classification levels and the percentage of trees that have declined quickly since the last survey.	Project Manager	Officer time	Ongoing	High
	Appoint a temporary post of Ash Dieback Tree Inspector to continue the monitoring and build the results into the database system (Arbortrack).	Project Manager	Officer time, financial	Short	High
	Use tree database system to gather data for our tree stock which can be used to help us build resilience for any future pests and diseases.	Tree Team	Officer time	Ongoing	High

Environment

Objective	Details	Lead	Resources	Timescale	Priority
Understand impacts on biodiversity and other environmental factors	Consider impacts relating to ecosystem health and habitats.	Project Manager	Officer time	Short	Med
	Consider impacts relating to climate change, air quality, flood resilience, and related strategies.	Project Manager	Officer time	Short	Med
	Leave standing deadwood where possible; leave dead trees standing where possible; allow natural regeneration so potentially resistant trees can emerge as per our risk management process	Tree Team, Tree Contractors	Officer time	Ongoing	High
	Limit removal of affected trees in areas of low-risk target areas to aid resistance to the disease as per our risk management process.	Tree Team, Tree Contractors	Officer time	Ongoing	High

Objective	Details	Lead	Resources	Timescale	Priority
Evolve the Green Infrastructure Strategy Action Plan of Managing Ash Dieback	Use learning arising from the ash dieback project to inform our Green Infrastructure action plan.	Project Manager	Officer time	Ongoing	Med
	Promote the recognition of trees as assets – the role they play in delivering ecosystem services, climate change adaptation/mitigation, reducing the heat island etc.	Project Manager	Officer time	Med	Low
	Create a strategy which enables collaborative approaches to Ash Dieback management and replacement planting across departments and with external stakeholders.	Project Manager, Tree Team	Officer time	Med	Low

Community

Objective	Details	Lead	Resources	Timescale	Priority
Develop relationships to support felling and recovery	Identify stakeholders and carry out a RACI analysis to identify roles and responsibilities, accountabilities, who needs to be consulted and who kept informed.	Project Manager, Communication and Marketing	Officer time	Short	High
	Ensure all key internal stakeholders are involved in the ADBWG.	Project Manager	Officer time	Short	High
	Create a wider stakeholder group to allow for updates and consideration of additional factors as raised for the community	Project Manager, Principal Tree Officer	Officer time	Short	Med
	Ensure we have a communications plan for ADB.	Project Manager	Officer time	Short	High
	Work with external stakeholders to align approaches where feasible.	Project Manager,	Officer time	Short	Med

Objective	Details	Lead	Resources	Timescale	Priority
Provide information for the public to enable them to take action	Encourage the public to continue using MyAccount to report trees of concern.	Project Manager, Communication and Marketing, Area Officers, Tree Team	Officer time	Ongoing	Med
	Develop articles for the public/landowners to inform about ash dieback and their responsibilities.	Project Manager, Communication and Marketing, Area Officers, Tree Team	Officer time	Short	High
	Further develop our web page to provide links to advice and guidance.	Project Manager, Communication and Marketing	Officer time	Med	Med
	Use social media to promote the issue and our response.	Project Manager, Communication and Marketing	Officer time	Med	Med
	Where neighbours are responsible for ash trees, engage with them as part of planning works.	Tree Team	Officer time	Short	High
	Establish an acceptable safe way for our neighbours to manage their own trees while taking advantage of road closures and traffic management by discussions with our contractors and within ADBWG	Project Manager, Tree Team	Officer time	Short	High
	Develop a site notice specific for ash dieback with advisory information which can be attached to trees on private land adjacent to the highway. If the tree is dangerous then we will serve a Notice.	Project Manager, Tree Team, Area Officers	Officer time	Short	Med
	Use signage at tree removal sites to inform the public that we are carrying out ash dieback-related tree removal.	Tree Team, Contractors	Officer time	Ongoing	Med

Objective	Details	Lead	Resources	Timescale	Priority
Incorporate landscape character into our thinking	Consider heritage aspects in our risk assessment and legislation review.	Project Manager, NSC Archaeologist	Officer time	Ongoing	Med
	Ensure landscape character is a factor in our recovery planning.	Project Manager	Officer time	Ongoing	Med
Consider felled timber uses	We will consider the possible uses of timber resulting from felled ash, including the generation of income.	Principal Tree Officer	Officer time	Ongoing	Med

Ash Dieback Tree Replacement Programme

Objective	Details	Lead	Resources	Timescale	Priority
Identify resources for planting	Identify resources for all proposals, which may include alternative funding sources.	Project Manager	Officer time	Med	Med
	Investigate options for sponsorship programmes or donations.	Project Manager	Officer time	Med	Med
Identify replacement planting options	Include direct replacement planting wherever felling occurs dependant on site suitability.	Project Manager, Tree Team	Officer time	Ongoing	High
	Build a log of alternative sites for when direct planting is not practically achievable.	Tree Team	Officer time	Ongoing	High
	Maintain our recording of potential tree planting locations.	Tree Team	Officer time	Ongoing	High
	Sign post all other landowners and project managers to tree-planting opportunities, grants and guidance.	Project Manager, Tree Team	Officer time	Ongoing	Med

Objective	Details	Lead	Resources	Timescale	Priority
Identify alternative planting options	Promote natural regeneration in appropriate areas.	Project Manager, Tree Team and Parks and Open Spaces			
	Where planting is preferable but difficult to implement identify alternative locations.	Tree Team	Officer time	Ongoing	Med
	Monitor and assess disease-resistant trees for future propagation	Tree Team	Officer time	Ongoing	Med
Strategic planning	Update Woodland Management Plans to address the loss caused by Ash Dieback.	Project Manager	Officer time	Med	Med
	Build all models identified into the GI strategy for a long-term embedded recovery.	Project Manager	Officer time	Med	High
	Ensure that emerging policies including local plans, planning policy and good practice guides consider ash dieback and other serious tree diseases/pests.	Project Manager	Officer time	Med	High

10 Further Information

Below are all the links referred to in this document.

- **North Somerset Ash Dieback¹⁰** – our web page.
- **Apply for a temporary road closure¹¹** – how and when to apply for a temporary traffic regulation order.
- **Arboricultural Association: Find a Professional¹²** – directories of registered consultants and approved contractors
- **Arboricultural Association: Ash Dieback – Practice Guidance¹³** – guidance for tree owners, tree contractors, and consultants.
- **Ash Dieback: A guide for Tree Owners¹⁴** – published by The Tree Council, Defra and the Forestry Commission
- **Countryside stewardship¹⁵** – information on available grants.
- **Forestry Commission¹⁶** – information on grants, tree felling licences, regulations, and managing private woods and forests.
- **Forestry Commission: Office Access and Opening Times¹⁷** – Local Office contacts for Forestry Commission.
- **Forestry Commission: Operations Note 46¹⁸** – Managing Ash in Woodlands in Light of Ash Dieback.
- **Forestry Commission: Operations Note 046a¹⁹** – guidance on the management of individual ash trees.
- **Forest Research: Ash Dieback (*Hymenoscyphus fraxineus*)²⁰** – identification of ADB, reporting, etc.
- **Highway trees²¹** – information on how we manage our trees and how to report problems
- **National Tree Safety Group²²**: Guidance and Publications – guidance on trees and public safety.
- **Protected species²³** – government advice on protected species.
- **Royal Forestry Society²⁴**: Reports – case studies on managing ash dieback.
- **Temporary Path Closures** – how to apply to close a Public Right of Way to allow for works to be carried out safely.

10 <https://www.n-somerset.gov.uk/my-services/libraries-leisure-open-spaces/parks-countryside/trees/ash-dieback>

11 <https://www.n-somerset.gov.uk/my-services/parking-travel-roads/roads-streets/road-closures-temporary-traffic-management/applying-close-road>

12 <https://www.trees.org.uk/Find-a-professional>

13 <https://www.trees.org.uk/Help-Advice/Public/Ash-Dieback-%E2%80%93-Practice-Guidance>

14 <https://treecouncil.org.uk/science-and-research/ash-dieback/public-guidance/>

15 <https://www.gov.uk/government/collections/countryside-stewardship-get-paid-for-environmental-land-management>

16 <https://www.gov.uk/government/organisations/forestry-commission/about/access-and-opening>

17 <https://www.gov.uk/government/organisations/forestry-commission/about/access-and-opening>

18 <https://www.gov.uk/government/publications/managing-ash-in-woodlands-in-light-of-ash-dieback-operations-note-46>

19 <https://www.gov.uk/government/publications/managing-ash-trees-affected-by-ash-dieback-operations-note-46a>

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

21 <https://www.n-somerset.gov.uk/my-services/libraries-leisure-open-spaces/parks-countryside/trees/our-trees>

22 <https://ntsgroup.org.uk/guidance-publications/>

23 <https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications>

24 <https://rfs.org.uk/insights-publications/rfs-reports/>

- **Tree Felling Licence**²⁵ – guidance for when you need to apply.
- **Tree Health Resilience Strategy**²⁶ – the government’s approach to protecting England’s trees from pest and disease threats.
- **Tree Pests and Diseases**²⁷ – identify, report, prevent, and minimise the introduction, spread and impacts of tree pests and diseases in the UK.
- **Tree Species Selection for Green Infrastructure**²⁸ – a guide for specifiers.
- **Tree Wardens**²⁹ – more information on how to become a Tree Warden



25 <https://www.gov.uk/guidance/tree-felling-licence-when-you-need-to-apply>

26 <https://www.gov.uk/government/publications/tree-health-resilience-strategy-2018>

27 <https://www.gov.uk/government/collections/tree-pests-and-diseases>

28 <https://www.tdag.org.uk/tree-species-selection-for-green-infrastructure.html>

29 <https://www.n-somerset.gov.uk/my-services/libraries-leisure-open-spaces/parks-countryside/trees/tree-wardens>

This publication is available in large print, Braille or audio formats on request.
Help is also available for people who require council information in languages other than English.
For all enquiries please contact 01934 426 513

