High Peak Borough Council

Good Practice Guide 5 Ash Dieback Action Plan (ADAP)

April 2020

Document Control Sheet

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Executive Summary

This document provides an overarching plan to identify, communicate and address the risks of Ash Dieback Disease within the High Peak

- The disease is already present in the High Peak and is expected to spread rapidly with between 50% to 90%, of our ash trees to be infected, with many dying within 10 years. There is no cure.

- Nationally the outbreak is estimated cost £15 billion[1]

- Current advice recommends that land managers should already be identifying their ash tree population, assessing ash tree condition, monitoring for any change over time, and be planning mitigation for the expected loss of a large proportion of ash trees. Such works should look to minimise the loss of ash trees as a habitat used by other species and as an important tree in the landscape by, for example, undertaking compensatory tree planting with site appropriate species in advance of the expected loss of ash trees.[2]

- Trees infected with the disease can rapidly decline and become prone to branch loss and failure therefore become and elevated risk. Increased tree management including inspections, monitoring will be required.

- A recent assessment of HPBC tree stock indicates that in the region of around 14% of the tree population is made up of Ash with a very rough initial estimate that there are in region of 55,000 ash trees in the HPBC area, with around 12,000 of these outside the National Park and at least 4000 in the urban and peri-urban area. Many of these trees will be on land owned and managed by HPBC much of it within the public realm. We already have records of the location of around 1000 Ash trees. A working figure of 5000 Ash semi mature and mature trees owned by HPBC is suggested as an initial estimate

- It is necessary to put the appropriate resources in the management of ash dieback (ADB) to manage the risk and liability as well as potential reputational damage to the council. This action plan seeks to set out how we address these issues.

- Trees have multiple benefits and provide eco-services such as storing carbon mitigating pollution and attenuation of flood water. Ash trees in the High Peak contribute are an estimated £16,000 plus per year of eco-services in the urban areas alone. These urban ash trees have an

[1] https://www.fera.co.uk/news/ash-dieback/

[2] FC Operations Note 46a Date: 07.08.2019

amenity and capital asset value of around £23 million and the cost of replacement is very conservatively estimated £500,000

- There will be heath and safely implications if the matter is not dealt with in planned and properly resourced manner there is potential both of liability but also reputational damage to HPBC. A managed approach will help to limit long term costs both financial and environmental.

- Additional staff resources will be required for inspection and monitoring. The budget for tree management to cover the uplift in tree felling and other tree works. It is essential that there are resources for replacement planting to mitigate the tree loss. The costs need to be further considered and may low to start with increasing with time in addition to extra staff the additional review required is in the region of £200,000 per year for 10 years.

- This reports sets out an initial action plan of the works required to ensure that the ADB outbreak is dealt with effectively.

1. Ash Dieback Action Plan Aims and Objective

The Objectives of this ADAP are to :

1. Provide an overarching plan to identify, communicate and address the risks of Ash Dieback disease within the High Peak

2. Set out how HPBC will Identify and manage the risks from the disease to the environment (landscape and biodiversity), to public safety (falling trees) and to communication networks (roads and overhead cables)

3. Identify actions that are a priority because they pose a short-term major risk, (as to public safety), and those that pose a longer-term risk (as to the environment) and require long term planning and budgeting.

4. The report is based on two scenarios a worst-case scenario, where over 90% of ashes die or are clearly dying within a ten-year period, and a less severe scenario, where about 50% of non-woodland ashes are affected.

5. Identify the likely costs of responding to the disease, and thereby identify where extra resources will be needed.

2. Ash trees and Ash Dieback Disease

2.1 Background

2.1.1 Ash dieback is a fungal disease of ash trees *Fraxinus excelsior*. First recognised in Poland in 1992, it was initially given the name *Chalara fraxineus*, then *Hymenoscyphus pseudoalbidus*, and finally *Hymenoscyphus fraxineus*. The disease is fatal for most young ash trees, others succumbing from pests and other pathogens once weakened by ash dieback. **Current estimates estimate that the cost of this disease will be £15billion nationally** [3]The disease is already present in the High Peak and we can expect the disease to be present across the whole of the High Peak, and for a high proportion, probably most, of our ashes to be infected, with many dying back and dying. Responding to this, and restoring the damaged landscape, will be a major challenge.

2.1.2 The fungus has spread rapidly across Europe. First recorded in Britain in 2012, evidence suggests it arrived here perhaps a decade earlier. It is now widespread in the wider environment (that is outside tree nurseries) in East Anglia, south-east England, Lancashire and eastern Scotland. The first reported case in the High Peak area was in 2016. Currently incidences of the disease area being noted across the borough (June 2019). Experience from other areas of the country is that once it gets a hold it appears to spread rapidly.

2.1.3 There is no cure for the disease, and any treatment to prevent infection is likely to be prohibitively expensive. Furthermore, no immunity exists. However, trees do exhibit varying degrees of resilience. In Denmark, 10% of trees have been found to be moderately resistant to the disease, with 1-2% having high resistance[4] . Even the long term fate of highly resilient trees is not known since they can continue to be re-infected each year and this may over time lead to reduced vigour and increased susceptibility to other pathogens such as honey fungus Armilleria. A small proportion of trees, young and old, are highly susceptible to the disease and are severely affected soon after the disease arrives in any area. This initial wave of damage can give the impression the impact of the disease will be far worse than that actually experienced[5] .

2.1.4 Research has revealed that Britain's ash trees have a greater genetic diversity than those in Denmark, and a higher proportion of an allele which confers resilience, offering hope that fewer of our trees may succumb. The

[3] https://www.fera.co.uk/news/ash-dieback/

[4] Jo Clark, Living Ash Project

2 Iben Margrete Thomsen, University of Copenhagen

Living Ash Project[6] , established by a partnership of organisations including Defra and Forest Research, is currently carrying out screening and selection trials to identify individuals with a high degree of tolerance which may be cloned or bred for future restocking. However, it remains sensible to plan on the basis that a high proportion of our ash trees will eventually be killed or severely damaged.

2.1.5 The disease is spread by the wind through spores produced from fruiting bodies on fallen leaves, particularly on their central stem (technically the rachis), and in some cases on small, moist pieces of infected shoots. Infection mostly occurs through spores landing on leaves or twigs but, importantly, can also occur at the base of trunks. Where such root collar infection occurs, the affected trees can, if infected by honey fungus, rapidly become unstable and dangerous, without any obvious dieback symptoms in the canopy. Basal infection seems to occur mainly in forests and woodlands.

2.1.6 The disease affects all ash trees: young or old; maiden, coppice or pollard. Young trees and coppice re-growth succumb quickly because they are unable to seal off infected areas rapidly enough to prevent their main stems being infected all the way through. However, many healthy, otherwise unstressed, mature trees can apparently survive for many years.

2.1.7 In the long term there is no way of stopping the spread of the disease. In the short term spreading can be delayed by the removal of fallen leaves (rarely practical except with isolated trees in an urban environment) and by taking biosecurity measures, with woodland workers and visitors moving outside infected areas taking care to wash their boots and vehicles to remove any leaves and small pieces of infected shoots . Biosecurity is in any case desirable to prevent the spread of other tree diseases: ash is further threatened by the possible future arrival of the emerald ash borer *Agrilus planipennis* which has caused widespread devastation to ashes in North America.

2.1.8 Typically infection rates follow a J-shaped curve, with high levels of infection only apparent about 8 to 10 years after the fungus first arrives in an area. Experience from Suffolk, Kent and the outbreak near Tiverton in Devon then suggests over 90% of woodland trees will exhibit symptoms, often severe ones. The degree to which the disease impacts on individual trees can, however, vary considerably between years – a progression towards death is not inevitable, although trees that are weakened will become more susceptible to other pathogens.

2.1.9 In non-woodland situations, there is currently considerable uncertainty about levels of infection, dieback and mortality. Factors that will influence the severity of the disease in these situations include levels of tree stress, the density and age of trees, continuity of landscape features such as

[6] http://livingashproject.org.uk/

hedges, and the prevalence of other pathogens such as honey fungus. A worse case situation is that, as for woodland trees, over 90% will exhibit severe symptoms within 5 to 15 years. The current majority view is that it is more likely that about 50% of trees will be affected within this timescale to the extent that they are at risk of shedding large limbs, although views differ considerably on this point

2.1.10 In 2013, Defra produced a Chalara Management Plan which set out a number of high level actions necessary to respond to the disease. This plan focuses heavily on tackling ash dieback in woodland settings. Ash woodlands area in important feature of the limestone areas of the High Peak ash dieback poses a high hazard, based largely on the high number of woodland ash in the county and high levels of landscape continuity.

2.1.11 In February 2015 The Tree Council wrote a report for Defra on responding to the disease in non-woodland situations. The report proposes an action plan for central government based on the assumption that ash dieback in non-woodland trees will pose serious national issues.

2.2 Current General Management Advice

2.2.1 Advice on how to manage infected woodlands and urban and peri-urban areas (but not rural non-woodland features such as hedges) can be found in a guidance document produce by the Forestry Commission [7].

2.2.2 The two key issues are firstly when to fell trees, and secondly what to replace them with. **The consensus is that pre-emptive felling should be exceptional and that infected trees should be felled only once they are clearly dying or pose an imminent danger**. This advice is given mainly on the basis that

(a) we must take every opportunity to identify and retain those rare trees that are highly resilient to dieback, and

(b) the decaying wood within dead and dying trees is a valuable wildlife habitat.

However, in some cases for reasons of economics and safety, especially alongside main roads it may at times be sensible to fell early. Occasionally it may be appropriate to pollard trees rather than fell them, to encourage deadwood habitat.

2.2.3 The choice of trees to plant or encourage as replacements for lost ash is not straightforward. No one native tree or even several species together will fully substitute for the ecological traits, biodiversity or commercial attributes

[7] https://www.forestresearch.gov.uk/tools-and-resources/pest-and-disease-resources/ash-dieback-hymenoscyphus-fraxineus/

of ash. Instead, replacement planting should focus on a diversity of species, the exact mix being dependent on site-specific characteristics informed by climate change resilience and ecosystem service delivery. The emerging HPBC good practice guide tree planting will be a reference of species

2.3 Ash trees in the High Peak

2.3.1 Ash is an important tree in the High Peak. It is an important component of the landscape character of tree in both rural and urban locations as woodland and field boundary trees as well as an amenity tree in parks and open space. Ash can be long lived and some ancient and veteran ash trees in the borough will be under threat.

2.3.2 Based on the data available it is estimated that around 14% of the trees in the borough are ash trees, and it is the second most frequently found tree. It is a native tree which is important not only for biodiversity with nearly 1000 species associated with it and 45 of these only ever found on Ash +but also the landscape character of the area.

2.3.3 The majority of the HPBC area (around 75%) is within the Peak District National Park (PDNP). PDNP have estimated that there area round 8 to 9 million ash trees of various ages in the PDNP area as a whole, and ash is the overwhelmingly dominant tree in the woodlands of the steep limestone dales, where it may comprise up to 99% of the tree cover.[8] PDNP be the lead authority within the national park for managing the ash dieback issue however its is important the HPBC work in partnership with them. HPBC have responsibility for a few sites within the PDNP including managing some highway trees in this area.

2.3.4 Based on surveys of the council's tree stock, a recent canopy cover survey of the borough and nationally available data a broad estimate of the number of ash trees in the High Peak is around 55,000. The highest proportion of these will be in the Peak District National Park (PDNP Area within woodlands, but also as road side trees.

Table 1: Estimates of number of Ash trees

Ash tree numbers initial estimates	Estimated No of ash trees	Loss at 90% death rate	Loss at 50% death rate
whole High Peak BC area	55,500	49,950	27750
PDNP (in HPBC)	41160	37,044	20580
HPBC Outside PDNP	11830	10,647	5915
HPBC built up areas only	4147	3,732	2073.5
HPBC owned managed Ash trees ESTIMATE	5000	4,500	2500

[8] https://www.peakdistrict.gov.uk/looking-after/strategies-and-policies/landscape-strategy/ash-dieback

2.3.5 To date we have records of the location and condition of over 1000 ash trees either on HPBC land or highway trees HPBC manage on behalf of DCC. Whilst most highway trees in urban areas are recorded not all trees on council land are recorded because of the way we record data most of the record trees will be mature trees, but they only represent a fraction of the trees. Given this the above figures will be an underestimation.

2.3.6 Further work needs to be done to improve the figures we have but working on an estimate of around 5000 semi mature to mature ash trees under HPBC management, would be a reasonable starting figure.

2.3.7 In an event the impact of Ash die back is likely to be significant and more serve than the impact of Dutch elm disease in the 1970's which Buxton due to its altitude was partially protected from and some mature elm trees remain. Also elm suckers and there is a renewal of growth all be it immature which act as replacements Ash is a more abundant tree and it does not sucker neither does the disease appear to be effected altitude

2.3.8 Another consideration is the location of the ash trees that HPBC manage. The majority of trees managed by HPBC area in Parks and open space, cemeteries, social housing, As well as adjacent to highways as amenity planting of street trees. Therefore many of these trees are in areas which are frequently occupied by people, traffic or other infrastructure as such risk management is a critical consideration in the management of these trees. HPBC has a tree risk management strategy which sets out how we manage trees and risk[9].

2.3.9 The first action is to make it a priority to identify mature ash trees not already recorded on the tree management system because of the so that the risk can be managed. On going monitoring and additional resources for tree felling and replacement are required. With potentially a significant increase in mature trees requiring attention for safety issues within a short timescale this will have a resource implication in terms of staffing, contracting and budgets. Careful management in the initial stages are important as the risk, reputational damage and liability to the council as well as the cost will escalate of the issues are not dealt with promptly and effectively.

[9] https://www.highpeak.gov.uk/media/118/Good-practice-guide-4---tree-risk-management/pdf/Tree_Strategy_-_Good_Practice_Guide_4_-_Risk_management_strategy_reviewed_2016.pdf

3. Benefits of Trees and Woodlands

3.1 Introdiction

Woodlands, trees and hedgerows are important to both the quality of life and environment, and are essential to life. Trees will play a role in mitigating the effects of climate change through carbon storage, flood mitigation and urban cooling; and encouraging and supporting woodland creation helps to manage flood risk. They are also an important feature in creating a high quality local environment. The Case for Trees – Forestry commission, (2010)[10] and 'Trees in Townscape' (2012) produced by the Trees and Design Action Group (TDAG)[11] bring together research, case studies and policy background with regards to the benefits of trees, particular in built up areas.

3.2 Value of High Peaks Trees – initial assessment

3.2.1 Putting a finical value on all the benefits society receives from trees is challenging but using established methodology the first steps in assessing the value of High Peak tree population have been undertaken. These provide an initial insight into what the value of the trees in the High Peak might be. There are some limitations to the data collated so far but it gives an idea of magnitude of the value and what might be lost.

3.2.2 The first step was to undertaken a canopy cover survey using aerial photos and this was used to extrapolate an initial estimate of the value of HPBC trees. The details will be covered in a separate report.

- **19.6%** urban tree cover, equal to an area of **2167** hectares of trees average tree cover in urban areas in **England is 16%**
- **10.5%** over all tree cover including the Peak District National Park area and the open countryside.
- based on an average tree density of 58 to 82 per hectare, it is estimated that there are in the region of **125,000 to 177,000** in High Peak's urban areas.
- based on information form the EZY treeV data base there are lot of mature trees with few young trees there over 130 different species or varieties of tree recorded with **Sycamore (21%), Ash (14%) and Lime (11%)** being the most commonly recorded species

[10] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718033/eng-casefortrees.pdf

[11] http://www.tdag.org.uk/trees-in-the-townscape.html

Based on comparisons with the average findings of other more detailed studies in the UK and using the above estimated figures trees in the urban areas of the High Peak [12]may contribute the following ecological services

- intercept an estimated **50 to 70 million litres** of water every year, equivalent to an estimated **£72,000 to £100,000** in sewerage charges avoided.
- remove an estimated **25 to 35 tonnes** of airborne pollutants each year, worth more than **£150,000 to £200,000** in damage costs.
- remove an estimated **800 to 1150 tonnes** of carbon from the atmosphere each year, this amount of carbon removal is estimated to be worth **£180,000 to £250,000**
- store an estimated **27,000 to 38,000 tonnes** of carbon, this amount of carbon is estimated to be worth **£6 to 8.5 million**
- have a replacement value of **£143 to 200 million have** an asset value of **£600 to 850 million**, an evaluation based on public amenity.

3.2.4 Trees clearly have potential to contribute to the local economy and mitigate some of the effects of climate change as well as create a more resilient environment. There are other benefits of trees which aren't quantified here in particular the biodiversity benefits.

3.2.5 Using this data as a guide we can make a broad assessment of the financial impact in terms of loss of ash trees

Table 2: Value of ash trees in the HPBC area

	HPBC whole area	HPBC outside PDNP	HPBC owned trees
Estimated no of trees	55500	11800	5000
Estimated value of lost Eco-services per annum (Flood attenuation, pollution mitigation and carbon capture)	£175,000	£37,000	£16,000
Value of Stored carbon	£2.73 Million	£580,000	£246,000
Capital asset value (CAVAT)	£265 million	£56million	£23 million

[12] Urban area is based on the area defined as the built up area in the local plan

3.3 Biodiversity value of Ash in Derbyshire and the High Peak

3.3.1 Across the UK, 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[13] . Of these 62 are highly associated with the tree, and 44 are restricted to it. Those species which are in the last category or highly associated with ash and already accorded threatened status are those at particular risk from dieback. 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 some species are at risk of extinction and at the very least large population declines.

3.3.2 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.

3.3.3 Special attention should be paid to Sites of Special Scientific Interest and other places of particular nature conservation importance where ash is a significant feature.

[13] Mitchell et al. 2014. Ash dieback in the UK: A review of the ecological and conservation implications and potential management options. Biological Conservation 175, 95–109.

4. Potential impact of Ash Dieback on HPBC

4.1 Health and Safety Impacts

4.1.1 When trees become infected as the disease advances the tree can become brittle and prone to limb failure. With younger trees the progress of the disease can be rapid and lead to entire tree death within 1 or 2 years. With older trees decline may be slower older but the safety of the trees will need to be managed.

4.1.2 A careful monitoring program needs to be in place to ensure that the location of trees is identified and the appropriate risk assessment and monitoring program is undertaken in accordance with the tree risk management strategy.

4.1.3 Failure to have a properly considered and resourced monitoring and tree management program will lead to increased potential for liability for claims from damage and injury caused by trees failing this could lead to reputation damage.

4.1.4 This will also extend to some degree to trees on private land. The council has certain duties with regards to dangerous trees on private land under The Miscellaneous (Local Government) Act 1976. Also with regard to Trees on private land protected by TPO's and in Conservations Areas. The church authorities also transfer the duty to manage closed church yards to the Local Authority. Failure to deal with these issues effectively risks transferring the liability for these private trees to the council as well.

4.2 Financial and resource implications

4.2.1 There will be an additional cost of tree works with an increase in felling being undertaken as well as remedial pruning. It is anticipated that there will be an increased demand for tree work contractors and the overall cost of tree works will increase as there will be a limited pool of suitably skilled staff, this may impact all tree works contracted by the council not just to ash trees and an uplift in costs is possible.

4.2.2 At section 3.2 we estimate that HPBC could be responsible for around 5000 semi mature / mature ash trees.

4.2.3 For example Harehills Park Glossop has been fully surveyed it has 212 trees 78 are Ash trees and the vast majority are mature it is a high footfall area and the risk requires management. The cost of managing this park along over the next 10 years, tree works and replanting could cost between £40,000 (90% or ash trees need to be removed) to £25,000 (50%).

4.2.4 There is a need for additional financial resources to able able to deal with trees which become a risk swiftly an effectively.

4.2.7 There is also the need for additional staffing to cover tree management including inspection of trees arranging and managing tree works and replacement planting. There will need to be as well as anticipated increase in TPO applications, public enquiries and requests under the Local Government (Miscellaneous Provisions) Act 1976 to deal with dangerous trees on private land. As an absolute minimum a tree inspector shared across the alliance will be required, although dependant on the number of trees effected another full time inspector may required to tree with tree works and inspections given the anticipated uplift in work load. Anticipating this need and recruiting early will enable and effective and proactive response to this issue which will save money in the longer term.

4.2.8 To safe guard the environmental benefits of trees for the future it is essential that there is adequate replacement planting within a reasonable timescale and reflect the value of the trees lost. The HPBC tree policy currently sets a principal of at least a 1:1 basis, HPBC local plan requires planting on a 2:1 basis. However, emerging tree policy will be looking at increasing / maintaining a tree population in relation to the canopy cover this is important so the potential environmental benefits are not lost. Built up areas within the High Peak in have a canopy cover on average of 19.59%, Urban Forestry and Woodland Advisory Committee (FWAC) Network[14] recommend that a minimum canopy cover target for urban areas should be 20% and that targets should be set locally. It is important to recognise that whilst the average canopy cover figures close to the minimum recommended trees are not evenly distributed and some wards have cover as low 3.81%. Also Ash die back will have a significant impact on the existing figures given that there is potential to lose up to 14% of the tree population a reduction in canopy cover of 2.75%, if only 50% of the ash are lost this will be 1.4% reduction. Also Ash dieback is not this is not the only disease posing a threat to tree cover.

4.2.9 A single young tree cannot replace the ecological and aesthetic value of a mature tree within a limited timescale. Therefore better way to approach tree replacement would be to consider the volume of the canopy. If we take an average mature street tree to have a canopy volume in the region of 202.5m^3 [15] and that of a standard young tree to be 0.85m^3 [16] it would take 238 trees to immediately replace the volume of canopy lost. However it is reasonable to allow for the growth of the replacement trees so a minimum 4:1 replacement could potentially equate to a similar crown volume in around 15 years with good growth. There is also the potential for added benefits in the longer term.

4.2.10 Not all trees should be planted as standards and there will be opportunities to plant trees at a smaller size in some locations the cost of planting these trees will be less per tree although it will take longer for the canopy cover to

[14] file:///C:/Users/monicag/Downloads/FR_FC_TreeCanopyData_leaflet.pdf

[15] Crown dimensions radius x radius x height of crown (not whole tree) 4.5m x 4.5m x 10m = 202.5 m^3

[16] 0.75m x 0.75m x 1.5m = 0.85m^3

be restored. Dependant impact of Ash dieback the scenario is that we will need to plant between 10,000 and 18,000 trees at an average cost of say £25/ tree that is between £250,000 and £450,000 spread over 10 to 15 years to replace just the loses to Ash die back on council land. This is clearly another financial pressure. It is possible that some of the cost of replanting could be met from grant funding particularly if HPBC work in partnership with community groups.

4.3 Environmental impacts

4.3.1 The losses of trees will potential lead to the loss or significant change of important habitats, with the potential to lead to the local extinction of rare species. Ash is a very important native tree in this area and ecosystems have developed over millennia in which Ash is an important component. Rapid changes such as exacerbated by other pressures make it difficult and in some cases impossible for species to adapt.

4.3.2 The estimated loss of eco- services (discussed at section 3.2) is estimated at between £87,500 and £157,500 per year over the HPBC area as a whole. For example the loss of trees from the catchment area will put reduce rainfall interception and increase the rate of runoff therefore putting greater pressure on the drainage system this could lead to increased infra structure costs. In addition to this these trees have £2.5millon of stored carbon that will eventually be released when they are felled.

4.3.3 There is also a real need to ensure that trees are replaced to maintain the eco benefits and other non-tangible benefits which accrue from trees. Trees are important at building resilience to climate change. It is therefore important that comprehensive tree planting program is an essential part of the action plan.

4.4 Reputational Damage

4.4.1 There is potential for the Local Authorities reputation to be harmed if there is negative press with regards to the handling of Ash Dieback for example if there is an incident with an ash tree which fails causing injury of damage due to the disease or there is disruption to services for example road closures.

4.4.2 Also the council is often the first port of call for information on issues such as this and have a clear set of advice and an action plan shows that consideration has been given the potential risk from this disease.

5 Taking action

5.1 Introduction

5.1.1 This action plan sets out to identify and manage the risks from the disease to the environment (landscape and biodiversity), to public safety (falling trees) and to communication networks (roads and overhead cables). It also considers the likely costs of responding to the disease, and so identifies where extra resources are likely to be needed.

5.1.2 Using protocols commonly used by emergency planners the diagram below in figure 1 and this document is the start of the planning stage and it will set out what actions are required. It is anticipated that as the plan is enacted there will be increasing awareness of the issue.

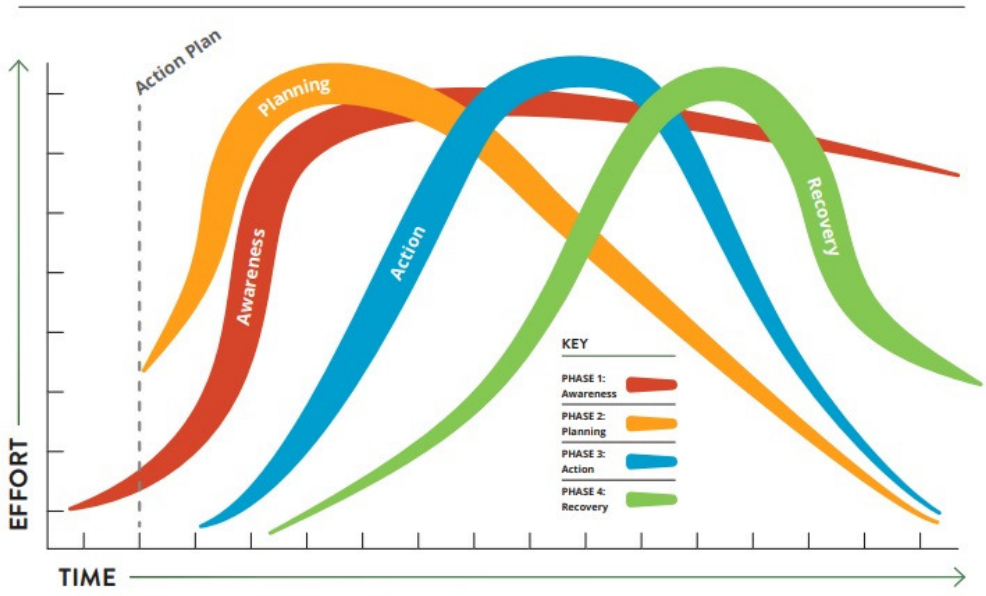

Figure 1: Phases of management of a tree pest or disease

5.1.3 The approach taken to identify necessary actions is to the split them between those that are a priority because they pose a short term major risk, to public safety, and those that pose a longer-term risk, eg to the environment. Other actions are identified to address regulation, training, business and forward planning needs.

5.2 Scenarios

5.2.1 For non-woodland trees, the approach considers both a worst case scenario, where over 90% of ashes die or are clearly dying within a 5 -15 year period, and a less severe scenario, where about 50% of non-woodland ashes are affected within the same period to the extent that they are dead, dying or likely to at least shed large limbs. The current majority view is that the second scenario is more likely. In woodland situations, particularly in single-species stands, current evidence suggests that over 90% of ashes are likely to die or be severely affected.

5.2.2 Whether risks are short or long term, and whether we experience the worst case scenario or one that is less severe, a proactive, coordinated and enduring response is required to ensure the most effective and cost efficient response. Proactive planning is needed if the Borough is to manage the disease well and prevent it becoming a crisis and increasing the risk of liability and reputational damage.

6. The Delivery Plan

6.1 Introduction

6.1.1 The table below identifies the key actions required to address each of seven major issue or risk areas. Risks to public safety and communication networks are considered to be short term risks (i.e. likely to be faced within a decade), those to the environment longer-term risks. For each action, an assessment is made of its priority relative to others and its likely costs (split very broadly in high, medium and low), and lead organisations are suggested.

6.1.2 Actions which need to occur primarily at a national level, such as identifying and cloning high-resistance trees and preventing the introduction of emerald ash borer and other pests and diseases, are not included in this table: they are of high importance, but not of particular relevance to a borough level action plan.

6.2 Resources - Existing

6.2.1 The Alliance has two Arboricultural Officers one working in each geographical authority area. The HPBC officer is responsible for all tree related issues including managing and inspecting trees on HPBC land and highway trees for DCC; dealing with planning applications in relation to trees and landscape; protected tree issues dealing with applications,

appeals and unauthorised works. The officer also manages the tree work contract and contractors. The SMDC officer manages the same areas of work excluding Highway trees and trees on housing land.

6.2.2 The Alliance manages its tree work contract via a panel of contractors companies work across the alliance

6.2.3 We will be working with contractors to risk assess and prioritise works to trees carefully taking into account the current guidelines with regards to working and movement in respect of Covid 19.

6.2.4 There is other staff that have transferable skills that can be used to delivery some of the actions. Grounds Maintenance (AES) staff will contribute towards identifying trees with issues and dealing with some of the smaller trees that require removal. These along with staff that visit sites for whatever reason can potentially assist in the monitoring of the spread of the disease. These staff will require training and a system of communication finds need to be established.

6.2.5 Communicating information to the public will involved some training of Customer services staff and the council webpage and social media can be used to advise the public and get out messages with regards to action that needs to be taken

6.3 Resources required

6.3.1 I discussed estimated costs associated with various scenarios in section 4.2 this needs to be considered in further and as more information is gathered it will be possible to more accurately establish costs.

6.3.2 Additional arboricultural staff may be required at present the current staff are working at capacity and without the provision of other services being effected the anticipated up turn in work load cannot be accommodated. The initial requirement would be for additional tree inspection capacity and management of tree. Additional resources here will create some capacity for the staff resources to deal with the uplift in other areas and concentrate on the strategic issues.

6.3.3 The Arboricultural contract has recently been reviewed and is structured to provided greater capacity for dealing with an up lift in tree works related to Ash dieback.

7 Initial action plan

Section 1: Plan delivery, communication and strategic planning						
	Topic	**Key people/ bodies affected**	**Actions**	**Priority**	**Costs[17]**	**Suggested Lead**
1.1	Action plan delivery	High Peak Borough Council	Establish a steering group to coordinate and promote plan and monitor it. (Grounds maintenance (AES), Communications, H&S)	High	Low	AO
1.2	Communication	All sectors, including public sector land managers, contractors, general public, farmers and other private land managers	Develop and deliver a communications plan to provide information and guidance to landowners and managers, tree professionals (especially those not in professional associations), Parish Councils the general public and media	High	Low	AO / Communications
1.3	Increase staffing	HPBC /SMDC	Seek approval to employ a Tree Inspector to deal with increased work load specifically tasked with tree inspection and tree work contact management. To ensure the swift and effective identification of risks and prioritisation and implementation of appropriate action	High	Medium	Head of Development Services
1.4	Knowledge exchange	DCC, PDNP, DWT, NE, SMDC	Liaise with wider forums - information sharing	High	Low	AO
1.5	Strategic Planning	HPBC - AO, Parks project team, Local Plan, Regeneration	Ensure that emerging polices including local plans, planning policy, revised tree policy and good practice guides take into account the implications of ADB and other serious tree pests.	Medium	Low	AO
1.6	Financial Planning	Finance	Allocate funds for dealing with Ash Die back and allocate a specific finance code and monitor budgets	High	Medium	Head of Development Services
1.7	Training	HPBC, Parks, H&S, AES, Housing, contractors DCC,	Ensure staff that undertake visits sites and undertaking inspections have good basic knowledge of ADB and can identify it, give general advice and have a method of reporting it.	Medium	Low	AO/AES

[17] (Low <£10K Medium £10K - £100K High > £100K)

Section 1: Plan delivery, communication and strategic planning (continued)						
	Topic	**Key people/ bodies affected**	**Actions**	**Priority**	**Costs**[18]	**Suggested Lead**
1.8	Reporting system	HPBC, Parks, H&S, AES, Housing, contractors DCC	Develop an online ADB reporting system that can be used in staff and external bodies to report trees on HPBC land explore how this might be linked to Ezy treev system	High	Low	AO/Northgate/ Communications
1.9	Plan review	HPBC	Review the plan periodically at least annually to revise light of additional data and information Monitor national advice and information available	High	Low	AO

Section 2: Short term risks to public safety and communication networks						
#	**Topic**	**Key people/ bodies affected**	**Actions**	**Priority**	**Costs**[19]	**Suggested Lead**
2.1	Establish an Ash dieback survey /inspection regime	HPBC/DCC	Identify trees on sites managed by HPBC (including urban highway trees for DCC) to prioritise in accordance with established general risk category as set out in the Tree Risk Strategy. Requires additional staff the costs associated with are addressed at 1.3	High	Low	AO/ TI
2.2	Establish and instigate a re-inspection and monitoring program	HPBC/DCC	Ensure frequency of monitoring of ash trees in all areas is appropriate dependant is on risk	High	Low	AO/TI
2.3	Establish a method of assessing the stage of disease/ risk	HPBC/DCC	Required to ensure effective and appropriate level of response and prioritisation of works	High	Low	AO/TI
2.4	Undertake works require as a result of inspections	HPBC/DCC	The monitoring and survey work will identify trees which require pruning or removal. These works need to be undertaken in accordance with a prioritised scheme of work	High	High	AO/TI

[18] (Low <£10K Medium £10K - £100K High > £100K)

Section 2: Short term risks to public safety and communication networks (continued)						
#	**Topic**	**Key people/ bodies affected**	**Actions**	**Priority**	**Costs[20]**	**Suggested Lead**
2.5	Ash tree on private land potentially a risk to third party property of public (non highway) land	HPBC	HPBC have powers to deal with private trees posing an imminent hazard to Third party or public non highway land if requested to do so. We can serve notices and if no action taken enter land and make safe the tree and recover costs. Follow existing trees on private land risk protocol as set out in Advice note.	High	Low	AO/legal
2.6	Ash on private land adjacent to Highways	DCC	DCC have the powers to deal with private trees and enforce their removal where they are a risk to the highway. DCC will be requested to clear define the reporting system and other arrangements the service level agreement with HPBC DCC will bear the cost although legislation allows for this to be recovered it will need resource inputs from staff to undertake survey, serving notices and recovering costs.	High	Low/ medium	DCC
2.7	Protected trees	HPBC	Trees protected by TPO or in a Conservation Area which become infected by the disease will lead to and increase in applications and requests for advice	High	Low	AO
2.8	Potential for unqualified or insured rogue traders to take advantage of situation	HPBC/DCC	With increasing public concern and an increased demand for tree work contractors uninsured and / or unqualified contractors may take advantage of the situation leading potentially high risk tree works being undertaken and unauthorised works to protected trees. This will require monitoring and communication with trading standards and form part of the communication strategy (1.2)	Medium	Low	AO/trading standards/HSE /Communications

[20] Low <£10K / Medium £10K - £100K / High > £100K)

Section 3 Longer term risks to the environment						
#	**Topic**	**Key people/ bodies affected**	**Actions**	**Priority**	**Costs** [21]	**Suggested Lead**
3.1	Biodiversity Impact	HPBC DCC PDNP DWT	Liaise with owners and managers of designated wildlife sites to assess impact and assist in developing strategies to minimise impact	Medium	Low	AO/DWT
3.2	Impact on ancient, veteran and heritage trees	HPBC DWT	In addition to designated sites Identify veteran and ancient trees, ancient woods with ash Encourage people to list notable trees on treezilla / woodland trust tree hunt.	Medium	Low	AO/DWT
3.3	Promote best practice to enhance biodiversity	HPBC / DCC/ AES , contractors and public	Promote the healthy, sustainable, management of hedges, woods, etc to increase their resilience to ash dieback and other diseases.	Medium	Low	AO/ communications/
3.4	Landscape restoration – Planting guidance	HPBC /DCC /DWT developers and landowners	Provide regional landscape character area and habitat specific advice on suitable replacement trees. Develop Good practice guide for tree planting in the High Peak	Medium	Low	AO
3.5	Landscape restoration – encourage planting	HPBC /DCC /DWT developers and landowners	Promote schemes and grant funded tree planting where available. Also develop and deliver a scheme to encourage land managers to plant/encourage replacement trees, in advance of the disease. Investigate opportunities for the development of a tree replacement scheme to provide free / low cost trees to landowners to mitigate tree loss due to ash dieback	Medium	Low	AO/DWT

[21] Low <£10K / Medium £10K - £100K / High > £100K)

Section 3 Longer term risks to the environment (continued)						
#	**Topic**	**Key people/ bodies affected**	**Actions**	**Priority**	**Costs** [22]	**Suggested Lead**
3.6	Biosecurity Contract management	HPBC/AES/Contractors	Develop a tree purchasing standard to ensure high levels of biosecurity / provenance in trees purchased by HPBC. Ensure best practice biosecurity procedures are in place with contractors	Medium	Low	AO/ procureme nt
3.7	Explore appropriate use of products of ash felling	HPBC/AES/Contractors	Explore outlets for wood and arising other than fuel (Biomass and firewood) which reduce the rate of loss of stored carbon. Including strategies for deadwood habitat enhancement	Medium	Low	AO

[22] Low <£10K / Medium £10K - £100K / High > £100K)

7. Further information

Fera – Ash dieback	https://www.fera.co.uk/news/ash-dieback/
Forestry Research Ash die back	https://www.forestresearch.gov.uk/tools-and-resources/pest-and-disease-resources/chalara-ash-dieback-hymenoscyphus-fraxineus/chalara-manual-1-introduction-and-contents/
Forestry Commission	http://www.forestry.gov.uk/ashdieback
Forestry Commission - A case for trees	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718033/eng-casefortrees.pdf
Forestry Commission - A case for trees - benefits of trees	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718033/eng-casefortrees.pdf
HPBC Tree Policy Good Practice Guide 4 – Tree risk Management (GPG 4)	https://www.highpeak.gov.uk/media/118/Good-practice-guide-4---tree-risk-management/pdf/Tree_Strategy_-_Good_Practice_Guide_4_-_Risk_management_strategy_reviewed_2016.pdf
HPBC tree policy	https://www.highpeak.gov.uk/article/1450/Tree-management
JNCC	http://archive.jncc.gov.uk/chalara
Living Ash project	http://livingashproject.org.uk/
Map of distribution of ash die back in GB	http://chalaramap.fera.defra.gov.uk/
Peak District National Park and Ash dieback	https://www.peakdistrict.gov.uk/looking-after/strategies-and-policies/landscape-strategy/ash-dieback
Suffolk County Council presentation 'Chalara: On the front-line'.	http://rfs.org.uk/learning/external-advice-and-guidance/tree-diseases/
TDAG trees in the Townscape Tree Design Action Group (TDAG) trees in the Townscape	http://www.tdag.org.uk/trees-in-the-townscape.html

8. Abbreviations

ADB	Ash dieback disease
AO	Arboricultural Officer
BCT	Bat conservation Trust
DCC	Derbyshire County Council
DWT	Derbyshire Wildlife Trust
FC	Forestry Commission
HPBC	High Peak Borough Council
NE	Natural England
PDNP	Peak District National Park
SCC	Staffordshire County Council
SMDC	Staffordshire Moorlands District Council
TI	Tree Inspector
TPO	Tre Preservation Order
WT	Woodland Trust