

Ceredigion County Council Ash Dieback Action Plan (ADAP)

Version 1.0



Cyngor Sir
CEREDIGION
County Council

Document Control Sheet

Version	Revision	By	Date
1.0	Draft to Final	OS	29/01/21

Executive Summary

This document lays out the Ash Dieback Action Plan for Ceredigion County Council.

In line with the best practice approach advocated by Defra and the Tree Council, Ceredigion County Council have developed this action plan to outline how to manage the anticipated risks and issues associated with the spread of Ash Dieback across the county. Some guidance is available from Welsh Government but this has not been largely updated since the 'Chalara Dieback of Ash – Response for Wales (2016)' document published in 2017.

This action plan has been prepared to help make sure that the necessary work streams are put in place to ensure that the county is ready and adequately resourced both to respond to the effects of the disease and to minimise long term adverse impacts through promoting resilience. The Chalara disease is already prevalent across the county and is already noticeable to those who are aware of it. With promoted awareness the presence of Ash Dieback will become even more noticeable in the next five to ten years.

Based on experience from other northern European countries, it is prudent to assume that Ash Dieback may result in the loss of up to 90% of Ash trees in Ceredigion. However, the levels of decline and mortality that will result are matters of considerable uncertainty.

The County Council will take a risk based approach to the management of Ash Dieback. The emphasis will be on maintaining the highest levels of health and safety for the public whilst aiming to minimise the impacts on landscape, ecology and the environment. High risk areas are considered to be highways, schools, parks, and other areas where the public has access.

More information pertaining to Ash Die Back can be found on the Council's web site at;

<https://www.ceredigion.gov.uk/resident/coast-countryside/conservation-and-wildlife/Ash-Dieback/>

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2. Introduction

- 2.1. This first edition of the Ceredigion County Council Ash Dieback Action Plan sets out how Ceredigion County Council will confront Ash Dieback (*Hymenoscyphus fraxineus*). Ash Dieback is the most significant tree disease to affect the UK since Dutch elm disease and has the potential to infect more than two billion UK Ash trees and lead to the death of approximately 90% of them
- 2.2. The experience of other local authorities, who have been dealing with Ash Dieback for longer, is that it will not be business as usual and it is necessary to plan for the disease and its anticipated impacts on council services
- 2.3. As a first edition this document focuses on making stakeholders aware of the problem and assessing the considerable risks to the council resulting from the disease. It also outlines the steps that will need to be undertaken to help mitigate the disease's worst effects. The most immediate threat is the increased risk to public safety as a result of mature Ash trees dying and subsequently falling or shedding large limbs.
- 2.4. The Tree Council has produced a second edition of its Action Plan Toolkit which provides best practice to large organisations on how to plan for Ash Dieback and mitigate its effects. The document provides useful information about the background to the disease, its spread, affects and how to plan for the disease using the experiences of organisations who have coped with having the disease for longer.
- 2.5. In the same way as The Tree Council's Action Plan Toolkit is now in its second edition, it is proposed to update Ceredigion's Ash Dieback Action Plan to take into account evolving best practice and address any deficiencies in the current edition. It is also hoped that later editions of the plan will be have an emphasis on a programme of recovery

3. Ashes and Ash Dieback

- 3.1. Ash Dieback, sometimes known as '*Chalara*', affects Ash and other *Fraxinus* species of trees and is caused by a fungal pathogen.
- 3.2. The fungus, *Hymenoscyphus fraxineus* (anamorph - *Chalara fraxinea*), arrived from Asia into Europe during the 1990's and has spread rapidly. Although the first official record in Britain was only as recently as 2012, anecdotal evidence now suggests it may have arrived here over a decade earlier.
- 3.3. This invasive fungus causes a range of symptoms from leaf and branch Dieback to death of *Fraxinus excelsior* (Ash) trees and other *Fraxinus* species. Once infected, a high proportion of trees will die. A few Ash trees may survive the infection because of genetic factors which give them tolerance of, or resistance to, the disease but the percentage of the UK's Ash trees that are likely to be resistant to the fungus is unknown (as at the middle of 2018). Evidence from mainland Europe suggested that only 10% of trees were found to be moderately resistant to the disease, with 1-2% having high levels of resistance.
- 3.4. The rate of decline of any individual tree varies with age, young trees dying quickly and mature trees deteriorating more slowly.
- 3.5. Ash Dieback, is the most significant tree disease to affect the UK since Dutch Elm disease killed millions of trees back in the 1960's & 70's.
- 3.6. Ash Dieback will lead to the decline and death of up to 90% of Ash trees in the UK, with the Ash being widespread across Wales and Ceredigion. This includes outside of woodlands in the form of hedgerow and specimen trees along roads, other public rights of way (PRoWs) and in public spaces including schools, parks and other spaces. Ash is one of our three main hedgerow trees, alongside oak and beech.
- 3.7. Infection with Ash Dieback causes trees to become brittle, shed limbs, and subsequently they may fail; anecdotal evidence suggests that infected trees deteriorate more quickly in Wales than reported from England due to the climate. The structural changes to the timber in dying Ash significantly increase the risk of failure.
- 3.8. Ash trees are not only attractive and widespread features in our landscape, they also removing significant amounts of carbon from the atmosphere, alleviate flood risk, and provide a unique habitat to associated biodiversity.

4. Distribution of Ash Trees

4.1. The distribution of individual trees within Wales is shown below in Figures 1 & 2.

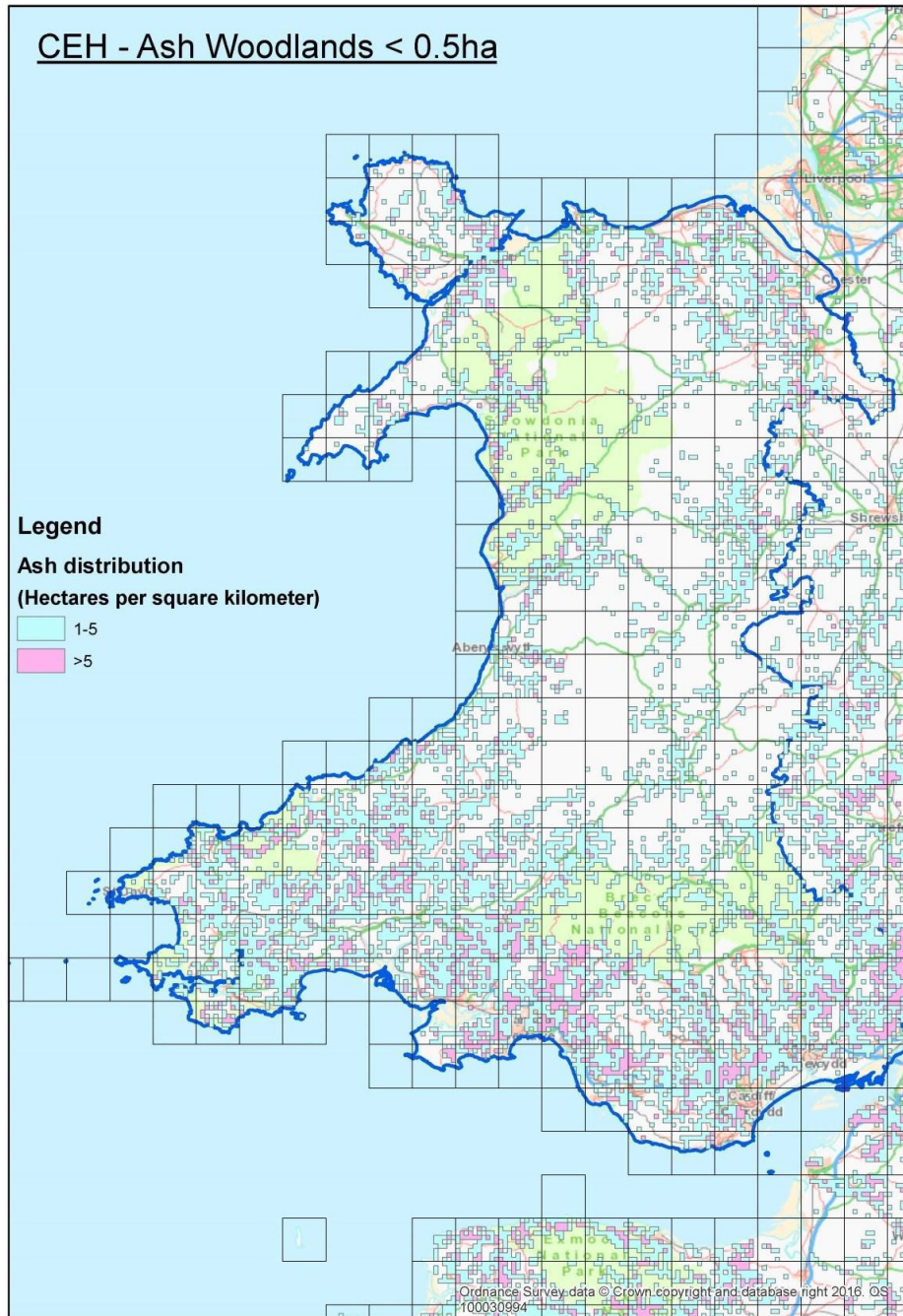


Figure 1 Distribution of Ash woodlands of less than 5 hectares in Wales based on data held by the Centre for Ecology Hydrology (CEH) from a countryside survey undertaken in 2007.

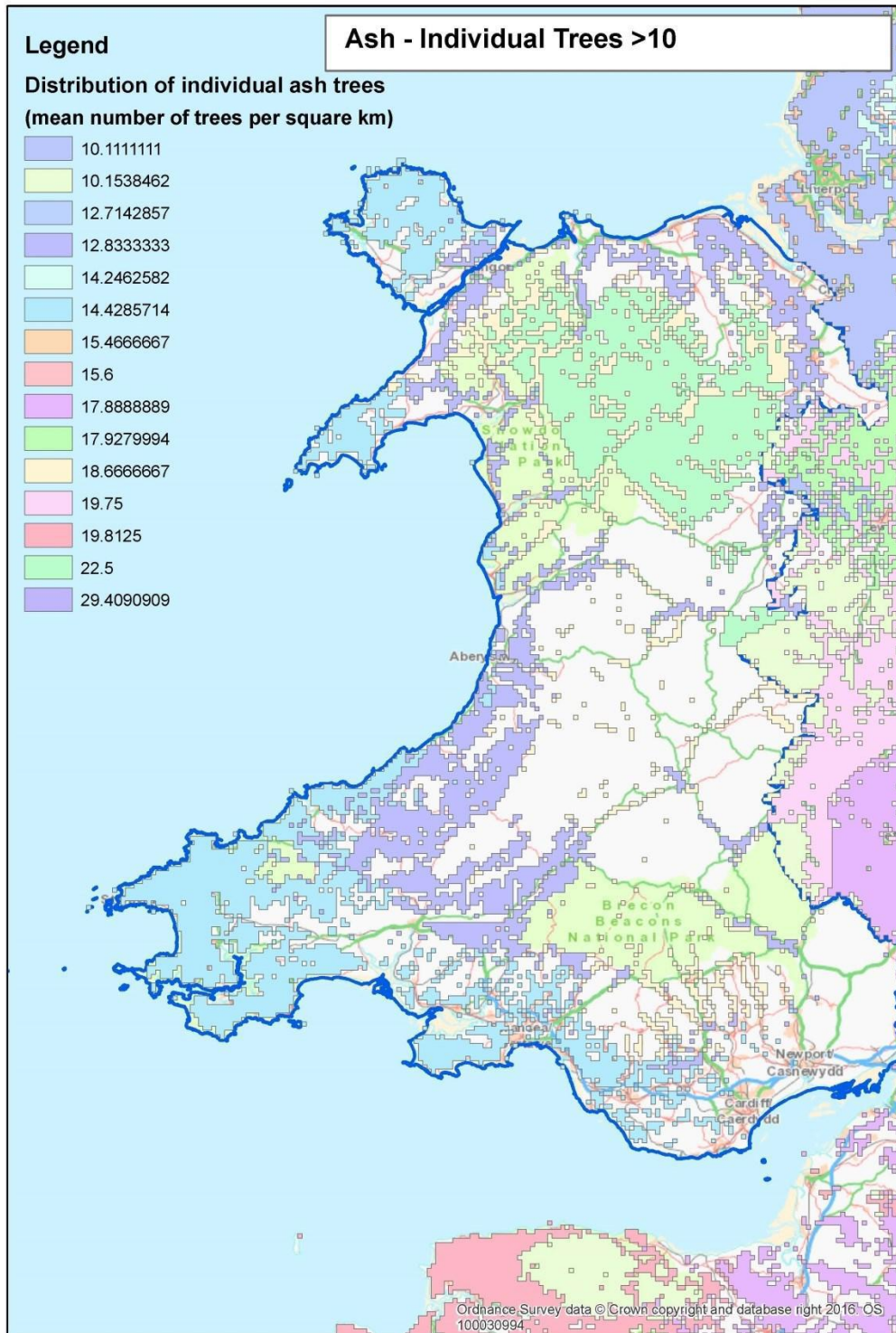


Figure 2 Distribution of individual Ash trees (where there are more than 10 trees per square kilometre) based on data held by the Centre for Ecology Hydrology (CEH) from a countryside survey undertaken in 2007.

4.2. The extent of confirmed cases in Wales of *Hymenoscyphus fraxineus* in Ash on 22nd November 2016 is shown below in Figure 3.

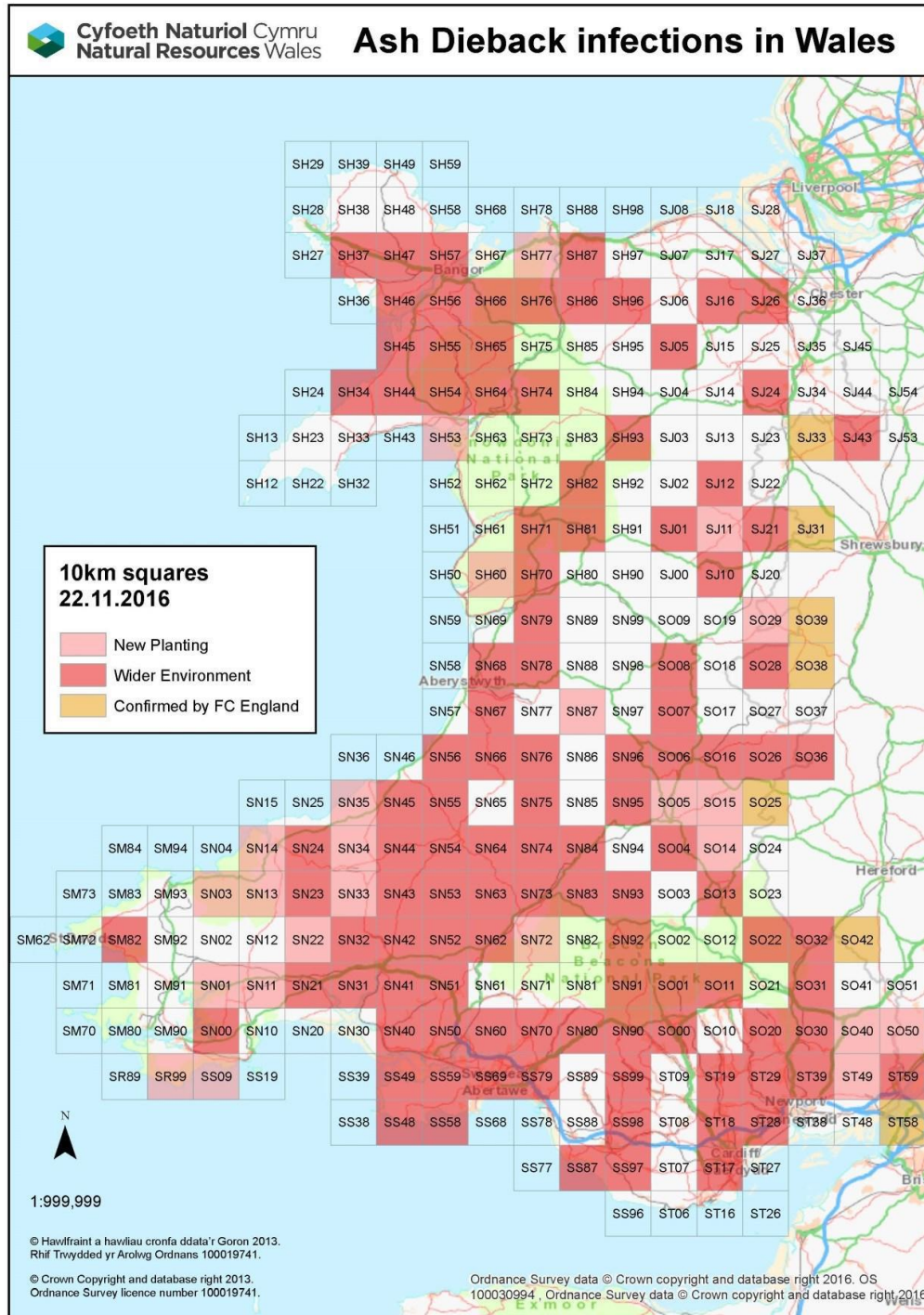


Figure 3 Extent of confirmed cases in Wales of *Hymenoscyphus fraxineus* in Ash on 22nd November 2016 published by Natural Resource Wales.

4.3. The Council will be required to establish an overview of Ash trees in either ownership or adjacent to Ceredigion County Council assets, how they are distributed across these Council assets and their current health condition in

order to manage the issue of Ash Dieback appropriately, thereby discharging its duty of care and ensuring landscape recovery and connectivity to comply with the Environment Act.

- 4.4. It must be assumed that there is a significant number of Ash trees growing on Council owned or managed land:
- School grounds, Ceredigion has 43 schools;
 - 8 Local Nature Reserves or wildlife sites, 7 of which are partially or fully wooded;
 - County road verges;
 - Council offices;
 - Cemeteries;
 - Care homes;
 - Allotments;
 - Public open spaces;
 - Council farms;
 - Other Council estates.
- 4.5. The number of Ash trees where the Council is not the owner but has a duty of care is likely to be even greater than the number of trees in Council ownership:
- Third party owned trees within falling distance of public highways;
 - Third party owned trees within falling distance of PRowS;
 - Third party owned trees within falling distance of schools and other Council owned and managed land with public access
- 4.6. In order to gauge the extent of the issue, officers from Highways and Environmental Services and Coast and Countryside have carried out initial sample inspections targeting Ash trees within falling distance of highways, in and near school grounds and in Council owned or managed woodlands.
- 4.7. Extrapolation from initial pilot data collection on roadside Ash trees along A, B, C and U/C roads across Ceredigion suggests that we have an estimated 47,000 Ash trees within falling distance of public highways in the county. This roughly equates to 1 Ash tree for every 50m of highway.
- 4.8. Initial sampling of Council owned or managed tree covered land suggests that there are around 9,960 Ash trees within the combined wider town areas of Aberystwyth, Tregaron, Lampeter, Aberaeron and Cardigan alone. However, where trees are not publicly accessible, it may not be necessary to remove dead or dying trees.

- 4.9. Four of the Council's school sites have been sampled to date, suggesting that there may be around 250 Ash trees with the potential to impact Ceredigion's schools.
- 4.10. It has been predicted to cost £15 billion to deal with Ash Dieback across Britain. The largest proportion of this cost, £9 billion, is the loss of ecosystem services provided by Ash trees. These ecosystem services include improving air quality, mitigating the effects of climate change, carbon sequestration and flood attenuation that will be foregone as a result of the disease.
- 4.11. The estimated cost of safety felling in Britain is £4.7 billion, comprising £2.8 billion for roadside safety felling and £1.6 billion for safety felling in urban areas.

5. Impacts

5.1. Health and Safety

- 5.1.1. As the disease advances in an infected tree, 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.
- 5.1.2. A careful monitoring program needs to be in place to ensure that the location of Ash trees are identified and the appropriate risk assessment and monitoring program is undertaken in accordance with the tree risk management strategy.
- 5.1.3. 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 would also lead to reputational damage.

5.2. Landscape

- 5.2.1. It is anticipated that the majority of Ash trees will be affected to some degree, as such, the effect of the disease on our landscapes could potentially be more severe than that of Dutch Elm disease in the 1970s. Although baseline information on the former prevalence of mature Elm trees is lacking. Ash is more abundant than Elm ever was throughout Wales. While the rootstocks of most Elms survive and continue to send up suckering growth, this is not true of Ash. On the other hand, many otherwise healthy mature Ash trees are likely to survive for many years, some perhaps indefinitely.
- 5.2.2. The impact on the hedged landscapes may be particularly evident. The decline of mature Ash trees, especially those which are isolated rather than within lines of trees, will exacerbate the loss of hedgerow trees already happening across the county, the number of mature specimens dying or being felled being greater than the number of young trees encouraged to grow as replacements.

5.3. Biodiversity

- 5.3.1. 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. Of these 62 are highly associated with the tree, and 44 are restricted to it. Those species that 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.


- 5.3.2. Assuming high levels of tree mortality, it is probable that one or two lichens will be at risk of extinction at a county level, while other obligate and highly associated species found in the county will experience large population declines.
- 5.3.3. 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.
- 5.3.4. In practical terms, understanding which site-specific species and communities (e.g. of woodland ground flora) are likely to be adversely affected by Ash loss will be important for woodland managers, so while retaining infected trees for as long as possible, they can choose appropriate replacement trees to plant or encourage.
- 5.3.5. Planning for any tree works being carried out by the Council, whether on Council owned or managed land or not must include consultation with the Authority's ecologists. As well as consideration of protected species consideration must be given to places of particular nature conservation importance, including LNRs and Wildlife Sites and sites which meet the criteria for Sites of Interest for Nature Conservation, and with NRW for works within or adjacent to or with potential to affect NNRs, SSSIs, SACs and SPAs.

6. How will Ash Dieback affect Ceredigion County Council

6.1. Local authorities that have experienced Ash Dieback for a longer period have recognised that the disease represents a ‘significant corporate risk’. The main areas of corporate risk are identified under four separate headings

Health and Safety	Economic	Reputational
<p>Potential for death or injury as a result of Ash Dieback related accidents</p> <p>Increased health and safety issues due to declining Ash trees on roads, county parks, housing estates, schools, cycle ways, bridle paths and footpaths</p> <p>Risks to statutory functions or service delivery such as retaining safe schools, public open spaces or highways</p> <p>Risks to staff and user community from trees on adjacent land falling into your estate</p> <p>Risks from falling Ash to infrastructure such as fencing, signs, equipment stores</p>	<p>Increased liabilities in cases of death or injury as a result of As Dieback related incidents</p> <p>Inadequate staffing levels or the work required resulting in increased costs to recruit and retain the necessary staff</p> <p>Increasing prices as a result of market competition for a limited pool of skilled tree contractors</p> <p>Increased expenditure from direct and indirect costs as a result of Ash Dieback.</p> <p>Additional costs of the disposal of waste products from felled, diseased Ash</p> <p>Increased direct/indirect costs due to increased flood risk due to the loss of water retaining Ash trees</p> <p>Costs of replanting needed to retain ecosystem services provided by Ash e.g. flood reduction, urban shading, carbon storage and habitat for biodiversity</p> <p>Increased liabilities as a result of risks to adjacent land and ‘third party’ property from your trees falling/ shedding branches</p> <p>Drop in market prices for Ash wood products due to excess Ash on the market.</p>	<p>Potential for disruption as a result of Ash Dieback management e.g. widespread road closures to deal with potentially dangerous trees</p> <p>Political and reputational risks as a result of negative press over Ash Dieback management and public outrage and/or anxiety</p> <p>Potentially strained relationships with land owners and managers as Ash Dieback spreads and increased costs fall on the private owners</p>
		Environmental Impacts
		<p>Landscape changes with impacts on tourism and recreational opportunities</p> <p>Losses to ecosystem services such as reductions in air quality, potential for increased flooding, biodiversity losses, increases in noise levels adjacent to roads, losses of visual screens</p> <p>Risks to protected species / sites through alteration of habitat structure, stability and composition e.g. loss of bat breeding/ feeding sites</p> <p>Losses of carbon storage and sequestration</p>

- 6.2. The risks identified can be divided into those associated with the council being a landowner and those resulting from its statutory functions, where, as result of Ash Dieback there will be increased pressure on services.
- 6.3. The council is exposed to the greatest health and safety liability where it is the tree owner. Like all landowners, the Council has a duty of care under the Occupiers Liability Acts and must meet with this requirement if it is to defend potential civil claims of negligence brought against it. In the worst scenario, the Council could be held criminally liable in the courts for a death caused by a falling Ash tree if it were found to be grossly negligent.
- 6.4. To address the increased healthy and safety risks presented by Ash Dieback it will be necessary to be more proactive in the surveying and maintenance of the Council's Ash trees. More specifically it will be necessary to identify declining trees in high-risk areas, where if they fall or shed boughs, are likely to cause damage or harm.
- 6.5. Even if the Council is not the legal owner of a tree there is also a risk that its reputation could be damaged if it did not act using its statutory powers to deal with trees that are deemed dangerous. This will mainly apply to trees that are at risk of falling onto busy stretches of public highway or other areas of public access.
- 6.6. Consequently, the scale of the health and safety risk caused by Ash Dieback alone will mean that it will not be 'business as usual' for the council.



It is vital to understand that ash dieback will not be 'business as usual'.

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

- 6.7. [Appendix A](#) is a guide for the assessment of diseased trees using a system based on the percentage of live canopy cover. The guide can used to determine when action is necessary to address the risks posed by a tree's decline. It is recommended to take action when approximately 50% of the crown remains. Where there is Dieback but the crown remains in Health Class 1 a tree may have degree of tolerance and will require monitoring.
- 6.8. It should be emphasised that the above safety recommendations are only necessary where there is a risk of harm or damage if tree failure occurs.
- 6.9. Where trees are identified as being a risk it will be necessary to have resources to carry out works to the Council's own trees or in the case of privately owned trees resources to engage with the owner and resolve the

issue. Tree works carried out adjacent to the highway will require traffic management and inevitably lead to traffic disruption.

6.10. Due to the scale of completing a survey across all council owned trees, a prioritised approach will be required to ensure that the high-risk areas are principally surveyed first.

6.11. To achieve this a qualitative risk analysis has been carried out in the format of a 3 x 3 risk matrix. This has been developed and considers the likelihood of injury and severity for each service in the authority identified to likely be affected by Ash Dieback. Consideration has been given to variables such as;

- the estimated quantity of Ash trees as determined in section,
- estimated number of users who use the service and
- for highways road speed and visibility.

6.12. Risk analysis matrix

Category	Likelihood of injury	Severity	Scoring	Survey
A Roads	3	3	9	Year 1
B Roads	3	3	9	
Schools	2	3	6	
Play areas	2	3	6	
C Roads	2	2	4	Year 2
U/C Roads	2	2	4	
Public Open Spaces	2	2	4	
Car Parks	2	2	4	
Cemeteries	2	2	4	
Allotments	2	2	4	
Care Homes	2	2	4	
Cycle ways	2	1	2	Year 3
PRoW	2	1	2	
Council Offices	2	1	2	
Nature Reserves	2	1	2	
Council Farms	1	1	1	

		Severity		
		Minor Injury 1	Major Injury 2	Death 3
Likelihood of occurrence	Almost Certain 3	3 Medium	6 High	9 High
	Likely 2	2 Low	4 Medium	6 High
	Not likely 1	1 Low	2 Low	3 Medium

- 6.13. From the service area prioritisation matrix and anticipated resource availability, it is recommended that the higher risk areas; public highways A and B roads, schools and play areas are completed in year 1 followed by those identified above in years 2 and 3. Should additional resource become available then the timeline to complete the initial survey across all areas can be compressed.
- 6.14. The Council does not have a specialist tree team capable of undertaking the removal of mature trees on its own land and will therefore be reliant on tree contractors to carry out this type of work. The services of tree contractors may become more difficult to secure and the Council may have to pay a premium to employ competent firms.
- 6.15. In relation to the council’s statutory functions, there will be additional demands on administration and legal services to help identify tree owners, serve notices under the Highways Act to make trees safe and recover costs.
- 6.16. Under Section 154 of the Highways Act 1980, the Council in its Highways Authority capacity can serve notice on a landowner to require the removal of a tree deemed a danger to the highway, and where necessary carry out tree work in default of the landowner. The Highway Authority is not under a strict duty to use Section 154 and may choose not to serve a notice on a landowner especially where, if a tree fell, it would be unlikely to cause damage or harm. Public footpaths, C Roads and Minor Surfaced Roads in rural areas will be considered a much lower priority than other busier stretches of the highway network.
- 6.17. The number of proposals to carry out work to trees protected by the Local Planning Authority will increase as a result of Ash Dieback and these will have to be considered on their merits taking into account the guidance available. There is evidence that some owners want to fell healthy protected Ash trees that could have a high level of tolerance to the disease and these applications should be resisted.

- 6.18. There is anecdotal evidence that, when being felled or dismantled, Ash Dieback makes trees behave unpredictably and there is a need to ensure method statements specifically highlight and address these risks.
- 6.19. The loss of ecosystem services currently provided by Ash trees will be huge and whilst health and safety concerns are immediate, this should not be wholly at the expense of planning replacement tree cover. Planting at an early stage will retain biodiversity, safeguard ecosystem services and mitigate the environmental effects of Ash Dieback.
- 6.20. When planning and undertaking tree works, it is necessary to ensure protected species and habitats are safeguarded. This would be most effectively dealt with by adopting a protocol in conjunction with Natural Resources Wales (NRW). In particular, it is important that standard survey methods are adopted to assess the likelihood of the presence or absence of European Protected Species (e.g. bats, dormice). Where protected species are present, it will be necessary to obtain a licence and work closely with NRW. Every effort should be made to safeguard protected species, as they will already be at risk as a result of the catastrophic loss of Ash tree and woodland habitat.
- 6.21. Bats are one of the key protected species of concern and it is necessary to ensure that their roosts and habitat is safeguarded. The Bat Conservation Trust's publication Bats in Trees provides best practice guidance on protecting bats during tree works and will be followed by the council when carrying out Ash Dieback tree works. In accordance with the advice, works to trees that have a high bat potential will be supervised by the council's ecologist or other licensed bat worker.
- 6.22. When liaising with landowners over infected trees the council will make them aware of the need to safeguard protected species and habitats

7. Estimating the financial cost

- 7.1. The risks and financial costs to the Council can be divided into;
- those associated with the Council being a landowner and
 - those resulting from its statutory functions.

7.2. Associated costs with the Council being landowners

7.2.1. As detailed in section 4, an extrapolated estimate was provided with the following breakdown of Ash trees:

- Highway = 47,000 of which an estimated number of 5,000 is within ownership of Ceredigion County Council
- Council managed land = 9960
- Schools = 250

7.2.2. It is estimated that the mortality rate for Ash Dieback in Ceredigion will be 90% and the following cost projections are based using this figure.

7.2.3. To safeguard highway users and operatives, road works must be carried out in accordance with the Safety at Street Works and Road Works – A Code of Practice. Where identified by a risk assessment, traffic management or even road closures will be necessary to carry out tree works adjacent to the public highway. Typical traffic management requiring stop/go lights will cost between £200 and £300 per site. The cost of a road closure is much higher.

7.2.4. Whilst there is a wide variation in the cost of removing a tree, the high number means that it is not unreasonable to use an average to estimate the cost for the works required.

7.2.5. Based on figures used by other local authorities, the average cost of felling and removing a mature roadside tree is between £400 and £800

7.2.6. To further improve the accuracy of the predicted cost of felling Ash trees the surveyed tree heights can be used once collected. The table below provides a breakdown for the felling of trees in three different height categories and the broad percentage in each category to estimate the total cost.

Estimate cost of removing diseased Ash trees					
15210 x 90% mortality				13,689	Trees
Height Category	Percentage in category	Unit cost to fell	No of Trees		Cost
<10m	20%	£150	2738		£0.41M
10-20m	67%	£500	9172		£4.58M
>20m	13%	£800	1880		£1.5M
				Total	£6.49M

7.2.7. The cost of replacement planting is based on the assumptions that three trees will be planted for every one tree removed using small nursery stock.

7.2.8. An initial survey will need to be carried out to assess the number and condition of the Ash trees. At the time of producing this action plan, the initial survey for high-risk areas is being developed in preparation for tender. It will be necessary to develop an inspection programme in line with a Tree Risk Assessment methodology. When this information is available, a detailed cost and resource programme can be developed.

7.2.9. There is also the need for additional staff resource to undertake an accurate survey of the quantity, and condition of Ash trees that poses a risk to Ceredigion County Council, maintain an inspection programme, procure, and manage the necessary tree works. A breakdown of the roles and responsibilities has been detailed in [Appendix B](#).

7.2.10. The provision for an internal Ash Dieback Officers will be required along with additional support officers for survey work and S154 processing.

Identifying, removing and replacing Council owned trees				
Survey costs	Felling	Replacement Planting	Staff	Total
£200k	£6.49M	£2M	£700k*	£9.39M

* Based on 10 year programme

7.2.11. The table below provides the annual funding required for a recommended 10 year delivery programme.

10 year delivery programme annual funding requirement	
Task	Funding
Survey costs	£20k
Felling	£649k
Replacement Planting	£200k
Staff Cost	£70k
Total	£939k

7.2.12. Figure 4 shows an outline prediction of how the residual risk to the Council changes based on funding commitment.

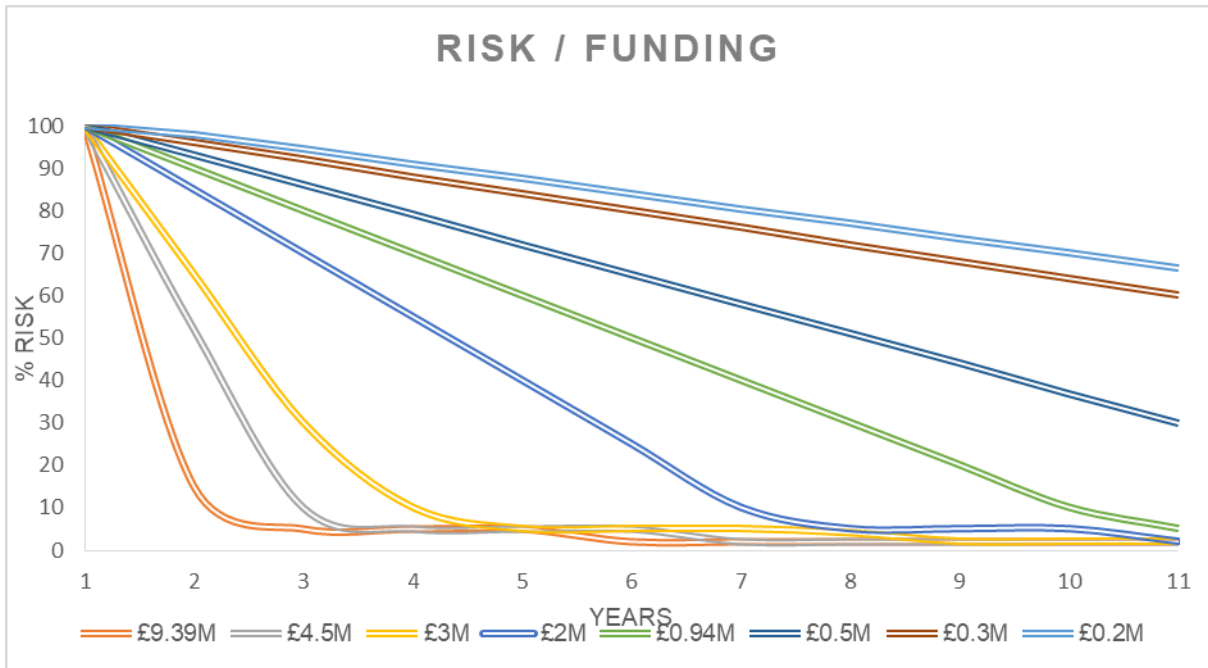


Figure 4 Risk/Funding Chart – Landowners

7.2.13. Note, the annual budget figure for the recommended 10 year period above is linear. In reality costs initially will be less as we set up and refine the process and will quickly rise to a peak at 50-60% programme completion. The risk will fall during this period and following the peak the annual funding requirement is predicted to diminish year on year. However, there are significant unknowns to Ash Dieback and it is therefore recommended that the funding requirement is reviewed periodically. A likely scenario for the spend/budget profile is depicted overleaf in Figure 4.1

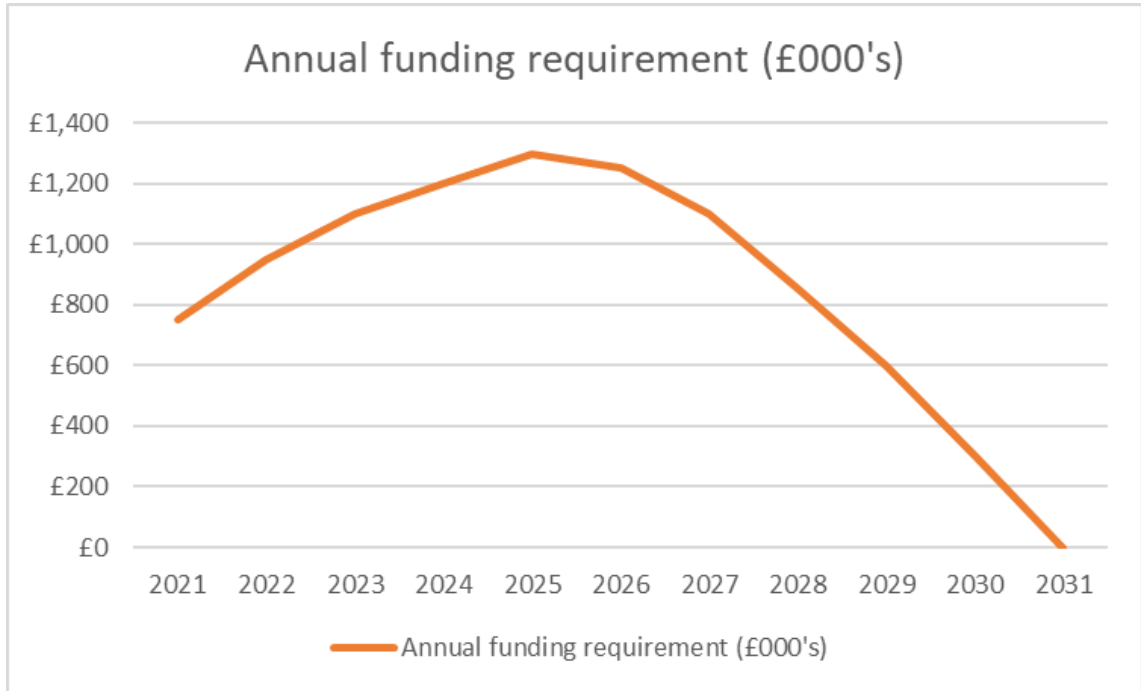


Figure 4.1 Anticipated/Predicted budget allocation requirement

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Annual funding requirement (£000's)	750	950	1100	1200	1300	1250	1100	850	600	300	0

- 7.2.14. Economies of scale will also mean there will be a saving. The cost of removing diseased trees for health and safety reasons is likely to take place over a five to ten year period with most of the cost being incurred in the first three years.
- 7.2.15. The current contractor frameworks available to the Council have been identified and at the time of writing this action plan there is an ongoing exercise to tender for a specialist framework.
- 7.2.16. There will be an additional cost associated with the management of Ash Dieback 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 due to the availability of competent contractors. This may have an impact on all tree works contracted by the council not just to Ash trees and an uplift in costs is possible.
- 7.2.17. In preparation, Ash Dieback awareness training has already been delivered to highway inspectors and building maintenance officers.

7.3. Associated Statutory function costs

7.3.1. The main area of concern is the risk that the council will be exposed to in carrying out its duties under the Highways Act 1980.

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

7.3.3. Using the extrapolated sample survey figures from section 4 and the same methodology for landowner removal costs:

Estimate cost of removing diseased Ash trees on private land adjacent to highway					
42000 x 90% mortality				37,800 Trees	
Height Category	Percentage in category	Unit cost to fell	No of Trees		Cost
<10m	20%	£150	7560		£1.13M
10-20m	67%	£500	25326		£12.66M
>20m	13%	£800	4914		£3.93M
				Total	£17.73M

7.3.4. As detailed in Section 6, Under Section 154 of the Highways Act 1980 the Council being the Local Highways Authority can serve notice on a landowner to require the removal of a tree deemed a danger to the highway, and where necessary carry out tree work in default of the landowner. To further compound the estimate of the cost to the Council, there is provision within the Act for the Council to recover its costs in arranging and carrying out the work itself, although realistically only a small percentage of these costs are ultimately recovered from the tree owner. The reasons for this may be because the tree owner cannot pay, cannot be established or it is not viable to pursue recovery of the debt.

7.3.5. Statutory function costs to the Council has been identified from:

Statutory functions costs			
Activity	Area	Estimated cost	
		Survey / Admin (5 Years)	Felling
Increased surveying costs Issuing and serving notices Felling Ash trees on private land adjacent to public highway in default of landowner	Highways Act 1980 S154	£200k*	£17.7M
Administration of LPA tree works applications to fell diseased Ashes	Tree Preservation orders and conservation areas	£20k*	N/A
Ordering the felling of dangerous Ash trees on private land which are a danger to adjoining property	Local Government Miscellaneous Provisions Act 1976	£20k*	£30k*
Sub Total		£0.24M	£17.73M
		Total	£20M

*Predicted figures based on other authorities costs.

7.3.6. The chart below shows an outline prediction of how the residual risk to the Council is reduced based on funding commitment.

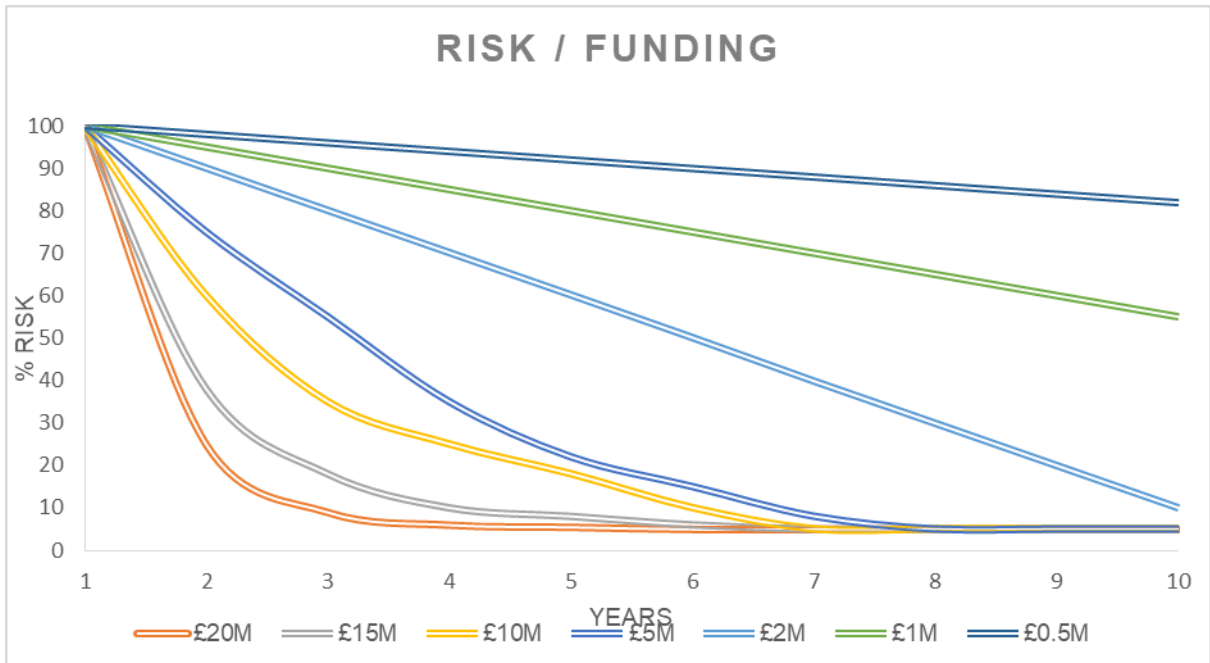


Figure 5 Risk / Funding Chart - Statutory Duties

7.3.7. Note, again the annual budget figure for the recommended 10 year period above is once again linear. In reality costs will follow a similar profile to Figure 4.1. In addition

the period to complete may well need to be extended beyond 10 years. However, there are significant unknowns to Ash Dieback and it is therefore recommended that the funding requirement and completion period be reviewed periodically.

- 7.3.8. To address the weaknesses in the above assumptions it is important that costs of Ash Dieback to the Council's services are accurately recorded and used to improve the accuracy of future cost predictions. One of the actions proposed is to set up a unique cost code for dealing with Ash Dieback to enable easier auditing of figures. Officers will also be instructed to record the time spent dealing with Ash Dieback.

7.4. Opportunities

- 7.4.1. Private landowners will be expected to shoulder a considerable financial burden when removing diseased Ash trees adjacent to the highway.
- 7.4.2. Opportunities may be available to achieve an income through the sale of Ash wood. Ash is a moderately valuable timber and an excellent source of firewood, however it is anticipated that an increase in supply may drop the value of firewood. Consideration should be given for how to best make use of this resource.
- 7.4.3. It may be possible to assist landowners. Where the Council are planning to carry out essential works, support may be offered to undertake tree felling/pruning works at the same location and recharge at cost to the Council.
- 7.4.4. The Council will continue its cooperation with the Welsh Local Government Association and the Farming Unions to lobby the Welsh Government for funding to tackle Ash Dieback.

8. Immediate Actions

- 8.1. So far, there has been limited action in response to the disease and this will need to change as it progresses. The cost of dealing with the disease may be greater if actions are delayed.
- 8.2. A detailed delivery plan has been produced in Appendix C. This delivery plan identifies the key actions required to address each of the 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).
- 8.3. Using the information contained in Chapter 7 the estimate for dealing with Ash Dieback on the council's land is estimated to be £9.38M.
- 8.4. The cost of felling mature infected and dangerous trees on private land adjacent to the highway is much greater but less clear and has been estimated to be £20M. In addition to this figure, there will be the cost of continual surveying for Ash Dieback.
- 8.5. A high priority task will be to undertake surveys in accordance with the priority rating in section 6. This task should be carried out quickly and accurately. It is proposed that a walked survey inspection is completed for each of the Council's Schools and Play areas.
- 8.6. For the A, B, C and unclassified roads, a vehicle mounted GPS enabled HD video camera will be used to record footage of each side of road. This method of survey has been chosen after completing a task to research and compare other survey techniques. This included a comparison of hyper spectral imagery, high-resolution aerial imaging and a walked inspection. The walked inspection offered the highest accuracy, however required additional resource and timeframe to complete.
- 8.7. The completion of the initial survey will provide the information required to produce a detailed cost and provide an accurate cost profile.

Topic	Actions	Priority	Cost	When
Action plan delivery	Establish a steering group to coordinate and promote this action plan, monitor it and to revise the plan as necessary.	High		2021
Initial Survey of High Priority areas	Survey high priority as identified in section 5. Schools, Playgrounds and Principle A & B routes to identify locations of Ash trees and their condition. Establish and populate a tree database to capture this information.	High	£50k	2021
Undertake works require as a result of inspections	The monitoring and survey work will identify trees that require pruning or removal. These works need to be undertaken in accordance with a prioritised scheme of work	High	#£939k	2021 - 2031.
Ash on private land adjacent to Highways	The Council have the powers to deal with private trees and enforce their removal where they are a risk to the highway. The Council 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	#£2M Dependant on landowner response and recharge costs recovered.	2021 - 2031.

Figures based on a linear spend/funding profile. Please refer to Figure 4.1

8.8. As outlined in [Appendix C](#), there is a need to increase public awareness. A leaflet has already been distributed to all Ceredigion households and it is proposed to use the Council's website and social media to further publicise Ash Dieback.

The distributed leaflet is attached in [Appendix D](#)

Inevitably, Ash Dieback will increase the number of enquiries made to the council and it is important that the support is in position to accommodate.

9. Conclusion

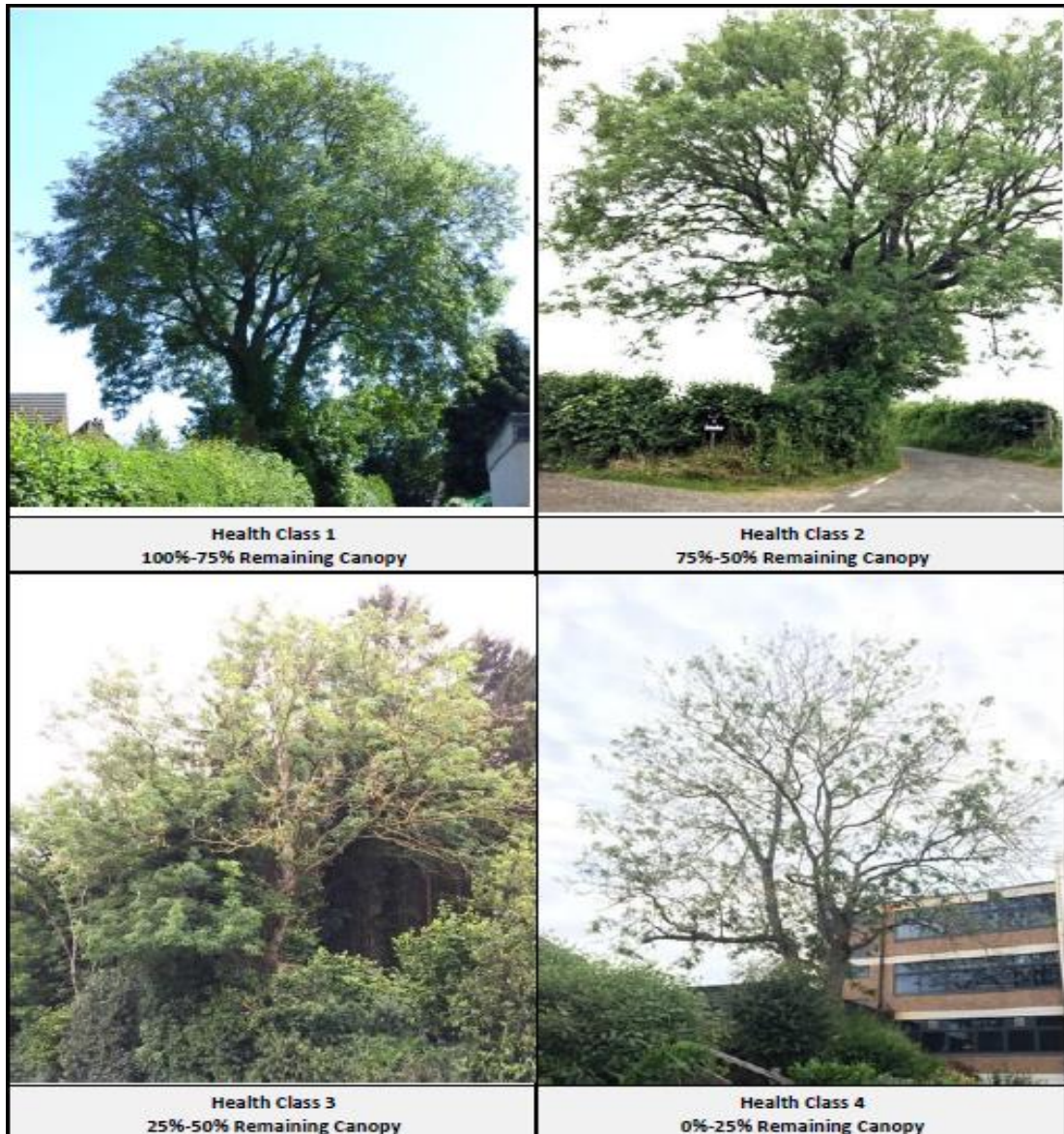
- 9.1. This Ceredigion County Council Ash Dieback Action Plan explains the background to the disease, how it is now prevalent in Ceredigion and the anticipated risks to the council.
- 9.2. At the time of preparing this first Ash Dieback Action Plan councils are having to begin preparing for the disease using existing resources and budgets. It is evident that the cost of addressing the health and safety effects of the disease alone will be considerable and place a massive burden on already severely restricted budgets.
- 9.3. In order to provide an estimate for dealing with Ash Dieback on council land an initial survey must first be commissioned and completed to address the high-risk areas. The results of this survey should be used in conjunction with section 7 to demonstrate the anticipated funding requirement to address these risks.
- 9.4. Requirement to prioritise the funding for and recruitment of internal Ash Dieback Officer and support officers.
- 9.5. A Corporate Ash Dieback Management Team should be set up as the first step in delivering the action plan. The team should comprises of key officers from the relevant service areas that may include Highway & Environmental, Economy and Regeneration, Finance and Procurement, Legal and Governance and Customer Contact.
- 9.6. Training for all highway inspectors and superintendents with an emphasis on identifying Ash Dieback and the tree risk assessment methods used for the disease has already commenced. Should the highway inspectors be identified to carry out the continual survey for Ash Dieback then a change in current working practice will be required for two man teams.
- 9.7. Consideration should be given for the inclusion of Ash Dieback on the Corporate Risk Register.

Appendix A

Ash Tree Health Assessment

There are 4 health classes which are based on remaining canopy cover.

Health Class	Remaining Canopy
1	100% – 75%
2	75% - 50%
3	50% - 25%
4	25% - 0%



Examples from Ceredigion

Class 1 100% – 75% Canopy cover remaining



Class 2 75% – 50% Canopy cover remaining



Class 3 50% – 25% Canopy cover remaining



Class 4 25% – 0% Canopy cover remaining



Appendix B

Staff resource requirements

During the lead up to hosting of the National Eisteddfod in Tregaron, an exercise was undertaken to complete a tree safety survey on each approach to the town. Risks identified were then actioned and S154 notices issued where required.

This exercise demonstrated the administration support functions required for this task. The team comprised of 1 FTE coordinator and 1.5 FTE administration support.

From this experience, it is anticipated that a similar resource level will be required to deal with Ash Dieback.

Ash Dieback officer (coordinator) duties and responsibilities:

1. Implement and report on the Council's Ash Dieback Action Plan, working across Council services and in partnership with other organisations, elected members and the public to raise awareness of Ash Dieback, to respond to the many issues it raises and implement appropriate replacement tree planting schemes.
2. To advise all relevant services within the Council regarding matters relating to Ash die back and tree safety management on or adjacent to properties the Council manages, including private land adjacent to all Council assets.
3. To communicate the Council's Ash Dieback plan and its approach to tree safety management across the Council and to the general public and stakeholders.
4. To manage and coordinate tree safety surveys and condition inspections of trees which represent a risk to Ceredigion County Council.
5. Liaise with relevant service areas within the authority to ensure that they understand and implement the Council's approach to Ash Dieback and that all necessary training for this purpose is provided.
6. All work identified in the tree safety surveys is carried out using appropriate working methods to the necessary standards and following the Council's procurement framework for Arboriculture Work.
7. Advice is provided to private landowners with respect to enquiries regarding Local Government Miscellaneous Provisions Act 1976, S154 Highway Act Notices and any other appropriate legislation for safety works to be undertaken on trees in their ownership by the Council.
8. Manage and coordinate contractor procurement in accordance with the Council's framework to undertake tree safety works on private trees where landowners refuse or are unable to undertake the necessary works.
9. Appropriate replanting proposals are implemented and maintained by the Council that will adequately compensate for the trees lost to Ash Dieback and other reasons for tree failure.
10. Work with the Communications team and using appropriate methods, communicate the Council's approach to tree management and Ash Dieback to colleagues, elected members, partner organisations, the press, social media and the public.

11. Provide on-site environmental supervision, toolbox talks and advice regarding Ash Dieback tree safety management and tree planting.
12. Organise the delivering of training to officers, elected members and the public on matters relating to tree safety and Ash die back with particular reference to wildlife legislation, habitat and species protection and appropriate working methods.
13. Develop and implement a tree safety inspection programme in association with the new code of practice for Highway safety inspections.

An exercise to identify available resource with suitable capabilities has been carried out. This task identified that the authority has the following resources:

- Countryside Officer
- Senior Ecologist / Biodiversity Officer
- Ecologist, Highways and Environmental Services
- Grounds Maintenance Manager

Ash Dieback is already adding directly to the workload for the above officers. In order to continue to provide the current statutory and essential functions that these officers deliver and to sufficiently address Ash Dieback it is recommended that additional positions are funded.

Recommended resource

Resource	FTE	Cost
Ash Dieback Officer (Coordinator)	1	£35k*
Administration Support	1.5	£35k
	Total	£70k

*Carmarthenshire County Council recently recruited for a similar position that was advertised at grade structure I (£32,234 to £35,745). NMWTRA have also advertised for multiple similar positions, although the duties differ slightly at grade S4 (£30,451 to £32,234).

Appendix C

Detailed Delivery Plan

The table below identifies the key actions required to address each of the 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),

Actions that 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 the level of this action plan.

Consistent with several other local authorities across England and Wales, CCC is adopting the approach to managing Ash Dieback that is set out by the Tree Councils Ash Dieback Action Plan. The strategy is a risk based approach that provides a prioritised framework to address and reduce the risk to life.

Section 1: Plan, delivery, communication and strategic planning

* Low <£10K Medium £10K -£100K High >£100K

Action	Topic	Key people / Bodies	Actions	Priority	Cost
1.1	Action plan delivery	Ceredigion County Council	Establish a steering group to coordinate and promote this action plan, monitor it and to revise the plan as necessary.	High	Low
1.2	Communication	All sectors, including plan delivery bodies, general public, farmers and other land managers, garden centres, agricultural suppliers, farming unions NFU&FUW	Develop and deliver a communications plan, to promote engagement by those bodies asked to help lead delivery of this plan, and to provide information and guidance to farmers, foresters, woodland owners, other landowners and managers, tree professionals (especially those not in professional associations), government and agency staff, colleges, the general public and media.	High	Medium

Ceredigion County Council Ash Dieback Action Plan (ADAP)

1.3	Increase Staffing	Ceredigion County Council	Recruit Ash Dieback (Coordinator) officer with arboriculture expertise. Review existing resource levels and consider the recruitment of 1.5 FTE Administration Support.	High	Medium
1.4	Knowledge exchange		Liaise with wider forums for information sharing	High	Low
1.5	Financial Planning	Finance	Allocate annual funding as depicted in Figure 4.1 to manage Ash Dieback on council owned land and up to £2M to address risks associated with the Council's statutory duties.	High	High

Section 2: Risks to public safety

* Low <£10K Medium £10K -£100K High >£100K

Action	Topic	Key people / Bodies	Actions	Priority	Cost
2.1	Establish an Ash Dieback survey and inspection regime	Ceredigion County Council	Survey sites managed by CCC to include county roads within Ceredigion to identify locations of Ash trees and their condition.	High	Medium
			Review data on Ash tree distribution and number. A risk based inspection should be adopted. Where appropriate adopt new survey techniques as they become available.	High	Low
			Establish and instigate an inspection and monitoring programme	High	Low
2.2	Establish and instigate an inspection and monitoring program	Ceredigion County Council	Ensure frequency of monitoring of Ash trees in all areas is appropriate dependant on risk	High	Medium
2.3	Establish a method of assessing the	Ceredigion County Council	Required to ensure effective and appropriate level of response and prioritisation of works	High	Low

Ceredigion County Council Ash Dieback Action Plan (ADAP)

	stage of disease/ risk				
2.4	Undertake works require as a result of inspections	Ceredigion County Council	The monitoring and survey work will identify trees that require pruning or removal. These works need to be undertaken in accordance with a prioritised scheme of work	High	High
2.5	Ash tree on private land potentially a risk to third party property of public (non-highway) land	Ceredigion County Council	CCC 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.	High	Medium
2.6	Ash on private land adjacent to Highways	Ceredigion County Council	CCC have the powers to deal with private trees and enforce their removal where they are a risk to the highway. CCC cost will need to be recovered. This will require resource inputs from staff to undertake survey, serving notices and cost recovery.	High	Medium
2.7	Protected Trees	Ceredigion County Council	Trees protected by TPO that become infected will lead to an increase in applications and requests for advice.	High	Low
2.7	Ash trees near overhead cables.	Telephone and electricity distribution network operators	Survey, plan, inspect, fell and replace Ash trees.	High	High

Section 3: Long-term risks

* Low <£10K Medium £10K -£100K High >£100K

Action No	Topic	Key people / Bodies	Actions	Priority	Cost
3.1	Biodiversity impact	Council ecology and Countryside Officers	Provide advice across the Council on protected species survey requirements prior to tree works; liaise with NRW to secure required licences.	High	Medium
3.2			Draw up and disseminate Council-internal wildlife method statements for required tree works.	High	Medium
3.3			Identify sites or individual trees with species specific to Ash, or highly associated with it and under threat and Ash trees with exceptionally important veteran features.	High	Low
3.4			Take action to conserve these key trees, including remedial work, and any important linked species.	High	Low
3.5			Work closely with Estates team and Ash Dieback Officer to identify Council owned land for replacement tree planting.	High	Low
3.5	Landscape restoration	Council Estates team and officers across the Council as appropriate; other landowners and managers, both private and public	Identify Council owned land suitable for replacement planting with reference to Special Landscape Areas, Bee-lines, sites meeting SINC criteria, the Wales National Forest plans, habitat connectivity	High	Low
3.6			Procure replacement tree planting; three trees for each mature tree lost.	High	Medium
3.7			Develop and deliver a scheme to encourage land managers to plant/encourage replacement trees.	High	Low

Section 4: Regulation

* Low <£10K Medium £10K -£100K High >£100K

Action No	Topic	Key people / Bodies	Actions	Priority	Cost
4.1	Regulation	Farmers and woodland managers	Clarify the need for Felling Licences and introduce fast track application procedures, backed by adequate staff resources.	Medium	Low
4.2		Home owners	Ensure adequate staffing for TPO, Conservation Area, etc., consultations and notices.	Medium	Low
4.3		All tree managers and professionals	Ensure tree professionals are aware of the protection afforded to bats and of necessary procedures. Issue licences rapidly where appropriate.	Medium	Low

Appendix D

Information leaflet distributed to the residents of Ceredigion

Gwywiad Coed Ynn yng Ngheredigion

Mae coed Prydain o dan fygythiad newydd gan haint ffyngaidd a elwir Gwywiad Coed Ynn. Gallai'r Gwywiad Coed Ynn ladd dros 90% o goed ynn Ceredigion dros y 5 i 10 mlynedd nesaf. Er nad oes triniaeth ar gael, gallai canran fechan o goed ynn wrthsefyll neu oddef yr haint. Gellir defnyddio'r rhai sy'n goroesi i feithrin coed ynn sy'n gallu goddef y clefyd ar gyfer y dyfodol.

Mae Cyngor Sir Ceredigion yn mabwysiadu dull ar sail risg i leddfu'r peryglon posibl i iechyd a diogelwch poblogaeth Ceredigion, ac i warchod cynefinoedd naturiol cyn belled ag y bo'n bosibl. Byddwn yn datblygu cynllun gweithredu i ddelio â choed y mae'r Cyngor yn gyfrifol amdanynt.

Beth i'w wneud os oes Onnen ar eich eiddo

Os oes Onnen ar eich eiddo, yna eich cyfrifoldeb chi yw cyflogi tyfwr coed / meddyg coed cymwysedig i archwilio eich coeden cyn gynted ag sy'n bosibl. Gall ddweud a yw eich coeden wedi'i heintio ac a oes ganddi'r potensial i'ch peryglu chi ac eraill.

Peidiwch â cheisio torri'r goeden i lawr eich hun gan fod Gwywiad Coed Ynn yn achosi i goeden fynd yn frau sy'n golygu nad yw'n ddiogel ei thorri heb offer arbenigol. Bydd eich tyfwr coed cymwysedig yn gallu rhoi rhagor o fanylion i chi ynglŷn â hyn.

O dan Ddeddf Coedwigaeth 1967, mae trwydded yn angenrheidiol er mwyn cwmpo'r rhan fwyaf o goed. Ceir manylion ar wefan Cyfoeth Naturiol Cymru ynghylch sut i wneud cais am drwydded ac unrhyw eithriadau a all fod yn gymwys.

Dylid ymgymryd ag unrhyw waith cwmpo y tu allan i'r tymor nythu (1 Mawrth tan 31 Awst), oni bai yr ystyrir bod coeden yn beryglus iawn ar y pryd. Mae'n bosibl, hefyd, y bydd clwydfannau ystumod mewn coed aeddfed. Gwarchodir clwydfannau ystumod hyd yn oed pan nad oes ystumod ynddynt. Bydd angen trwydded gan Gyfoeth Naturiol Cymru ar unrhyw un sydd am ddinistrio man gorffwys neu safle magu unrhyw rywogaeth o ystum.

Gofynnwn i chi ystyried plannu coed brodorol yn lle'r coed ynn hyn er mwyn diogelu cymeriad tirwedd Ceredigion ar gyfer y dyfodol.

Am ragor o wybodaeth, ewch i Ceredigion.gov.uk/GwywiadCoedYnn



Cyngor Sir
CEREDIGION
County Council

Cysylltwch â ni drwy
ffonio
01545 570881



Ash Dieback disease in Ceredigion

Britain's trees are under a new threat from a fungal infection called Ash Dieback (ADB). ADB has the potential to kill over 90% of Ceredigion ash trees over the next 5 to 10 years. 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.

Ceredigion County Council is taking a risk-based approach to mitigate potential health and safety risks to the population of Ceredigion, and to preserve natural habitats as much as possible. We will be developing an action plan for dealing with trees for which the Council has responsibility.

What to do if you have an Ash Tree on your property

If you have an Ash Tree on your property, then it is your responsibility to employ a qualified arborist/ tree surgeon to come and inspect your tree at the earliest opportunity. They will be able to determine if your tree is infected and if it has the potential to cause a hazard to you and others.

Do not attempt to cut the tree down yourself as ADB causes trees to become brittle, meaning they are not safe to cut down without specialist equipment. Your arborist will be able to provide you with further details on this.

Under the Forestry Act 1967, a licence is required to fell most trees. Details of how to apply for a licence and any exemptions which may apply are available on the Natural Resources Wales website.

Felling work should be undertaken outside of bird nesting season (1 March to 31 August), except for where a tree is considered to be an immediate danger. Mature trees may also be occupied by bat roosts. Bat roosts are protected even when not occupied. A licence is required from Natural Resources Wales to destroy a resting place or breeding site of any species of bat.

Please consider planting native replacement trees to preserve Ceredigion's landscape character for the future.

For more information see Ceredigion.gov.uk/AshDieback



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County Council

Contact us by telephone
on
01545 570881

