

From: Susan Carey, Cabinet Member for Environment
Rebecca Spore - Director of Infrastructure

To: Environment and Transport Cabinet Committee – 19th January 2023

Subject: Ash Dieback in Kent

Decision No: N/A

Classification: Unrestricted

Electoral Division: All Divisions

Summary: This report provides an update on Ash Dieback in Kent and describes the evolving local response and the outbreak's environmental and economic impacts. It further seeks to identify future trends and risks, as well as policy, staffing, financial and other resource implications for Kent County Council and its partners. The extent of the challenge is illustrated by the fact that the proportion of trees exhibiting Ash Dieback symptoms across Kent survey sites has increased by an average of 1.21% in the last year.

Recommendation(s):

The Cabinet Committee is asked to:

- a) note the significant threat Ash Dieback poses to the environment and economy of Kent and the leadership role being played by the County Council in the response to the outbreak; and
- b) endorse the monitoring, planning, and response strategy outlined within this report.

1. Purpose

- 1.1 It was agreed by the Environment, Highways and Waste Cabinet Committee on 10th January 2012 that the Committee should receive regular future updates on Ash Dieback impacts. The last update was reported to the Environment & Transport Cabinet Committee on 18th January 2022.
- 1.2 This is the fifth report to Cabinet Committee, which outlines the evolution of the outbreak in Kent, developments since the last update, and identifies future trends, risks and resource implications for the County Council and its partners.

2 Background

- 2.1 Kent was a bridgehead into the British Isles from continental Europe for the invasive fungal pathogen Ash Dieback. Within its native Far Eastern range,

this organism is a harmless bacterium associated with Manchurian Ash and Chinese Ash. There is no treatment currently available to either prevent or cure Ash Dieback, though genetic resistance may facilitate some recovery of the European Ash population in the longer term.

- 2.2 European Ash is Kent's most widespread tree, recorded in 930 of the County's 1,043 2km squares (89.16% of the County) and forms a key component of the makeup of Kent's nationally significant ancient woodland heritage, where it is often the tallest canopy tree and its dappled shade allows for the development of a uniquely diverse ground flora, in a UK context.
- 2.3 Ash Dieback is now present across the entire County, wherever Ash grows. Survey work undertaken by the County Council identifies some 20,000 Ash present on KCC owned and maintained highway land, with as many as 0.5 million trees growing on private and unregistered land adjacent to highways, by-ways, and other publicly accessible land, this has implications for current and future safety works and associated costs.
- 2.4 In response to the identification of Ash Dieback within the British Isles, KCC and Kent Resilience Forum partners initiated a Strategic Co-ordinating Group (SCG) in November 2012, in compliance with Part II of the Civil Contingencies Act 2004.
- 2.5 It was agreed that the County Council was best placed to assume the strategic lead for Kent because of its animal and plant health duties. Tony Harwood (Resilience and Emergency Planning Manager) is SCG chair, and a Group continues to meet to guide the multi-agency response.

3. Progress to Date

- 3.1 The Ash Dieback SCG acted to co-ordinate planning and intelligence gathering and implement a wide-ranging Action Plan. Actions to date have included:
 - contributing to guidance for stakeholders (notably [Managing Chalara Ash Dieback in Kent](#) and [Ash Dieback Advice to Schools](#)).
 - Installing public warning and informing signage, that emphasises biosecurity guidance, across key locations in the County.
 - undertaken annual Ash Dieback surveys since summer 2013. The County Council has contributed its data to an influential scientific paper ["Estimating mortality rates of European Ash \(*Fraxinus excelsior*\) under the Ash Dieback \(*Hymenoscyphus fraxineus*\) epidemic"](#).
 - significantly informed the Tree Council issued a UK [Toolkit](#),
 - issued 'Trading Standards Alerts' warning the public and businesses of the risk of 'rogue traders' seeking to profit from the outbreak.
 - Interventions to address identified safety concerns in line with the adopted Kent Tree Officers Group Ash Dieback Toolkit. This approach is deemed to be most locally appropriate in fostering genetic resistance, and in landscape, biodiversity, and financial terms.
 - Developed an e-learning package addressing biosecurity policy and practice, and prominently featuring Ash Dieback, completed by more than

516 KCC personnel to date. This training tool has been marketed by the County Council to seek to recoup development costs.

4. Current position

- 4.1 Analysis of [summer 2022 survey data](#) paints a mixed picture (Appendix 1), with some increase in infection rates, over 2021 levels, observed in East and West Kent but with a decrease seen in Mid Kent. The overall proportion of trees exhibiting Ash Dieback symptoms across the nine survey sites, increased by an average of only 1.21% between 2021 and 2022, this follows a larger average increase of 16.70% between 2020 and 2021. Available evidence and comparison with neighbouring counties indicate that the biosecurity interventions delivered by KCC, and its partners have contained and slowed the spread of Ash Dieback in the County, however, the outbreak has now intensified in four of the nine survey tetrads (or 2km squares) since last year.
- 4.2 Biosecurity and containment policies initiated by the Ash Dieback SCG encompassed measures to prevent movement of potentially infective material by human means out of heavily infected East Kent, alongside pro-active maintenance interventions, such as removal of infected saplings and small trees wherever sporadic outlier outbreaks were identified in Mid and West Kent. Survey data indicates that this approach was previously successful in slowing the expansion of the pathogen from its East Kent stronghold. However, recent survey data has evidenced a second infection front spreading Eastwards into Mid and West Kent from East Sussex, Surrey, and Greater London, with fungal spores likely carried on prevailing South Westerly winds.
- 4.3 A concerning development is the recent increase in reports of other new tree pests and pathogens in the County. Larger Eight-toothed European Spruce Bark Beetle (*Ips typographus*) has recently arrived in Kent from continental Europe and is impacting Spruce (particularly trees that are already under stress, such as drought or soil compaction). Though Spruce is non-native and not economically significant in the South East, the Forestry Commission is concerned that Kent could become a 'stepping stone' into those other parts of the UK, where the tree is a significant component of commercial forestry. As a result, the Forestry Commission has recruited a Ips Project Officer to lead its local biosecurity response. More significant from a human safety, wildlife and landscape perspective is the recent emergence in Kent of Acute Oak Decline. This newly described disease of Oak trees was first observed in the UK in the late 20th century. It can kill trees within four to six years of the onset of symptoms. For infection to occur, it is likely that trees need to be weakened by external environmental stresses. Recent prolonged drought conditions are thought to be a key factor behind the recent appearance of the disease in Maidstone, the Medway Towns and on the Low Weald.
- 4.4 As a consequence of this growing threat to Kent's trees the long-standing multi-agency Ash Dieback SCG has recently been re-purposed as the Kent Tree Health SCG. KCC provide the chair and secretariat for the SCG, with

membership drawn from Kent Districts, Medway Council, Forestry Commission, Defra, National Highways, Tree Council, Woodland Trust, and Kent Downs AONB Unit. The Surveillance and Management of Multiple Risks to Treescapes, Integrating Epidemiology and Stakeholder Behaviour (SMARTIES) collaborative project, led by Rothamsted Research with Forest Research, has described the SCG as “a forerunner in taking a multi-pest and disease approach to tree health”.

- 4.5 Recent years have seen an ebb and flow of infection across the County. In 2021 the proportion of trees exhibiting symptoms increase by an average of 16.7% over 2020 levels, when infection rates had decreased by an average of 13.14% over 2019 totals.
- 4.6 There is evidence from both Kent and Denmark that the impact of Ash Dieback on street and other urban trees is less severe than in semi-natural habitats such as woodland. This is due to lower levels of airborne fungal spores, increased airflow, higher canopy temperatures (limiting fungal development), and a lower likelihood of infection by secondary pathogens. However, a further study has shown that trees in the wider rural landscape, including agricultural land, are infected as readily as woodland trees.

5. Looking Forward

- 5.1 Any local expansion and intensification of the Ash Dieback outbreak will result in increases in reactive health and safety tree works, with resultant impacts upon all relevant KCC budgets and most significantly Highways, Public Rights of Way and Access and the Resilience and Emergency Planning Service.
- 5.2 The current observed annual average rate of increase in Ash Dieback infection in the County, calculated from annual survey data, is 1.21% (with an average of 50.12% of Ash trees in the County currently showing signs of infection). However, there is some local evidence of individual trees, in particular older specimens, showing natural resistance and recovery to the pathogen. It should be noted that following initial infection there is a time lag before the extent of dieback, secondary infection and/or decay processes render trees unsafe. Further, recovery occurs in those years where climatic conditions favour Ash and/or disadvantage the fungal pathogen. Therefore, the actual time horizon for the range of Ash Dieback impacts in Kent cannot be reliably forecast at this time. High rainfall levels in the summer months, as seen in 2021, appear to favour the development of fungal fruiting bodies, sporulation and hence infection rates. The hot and dry spring and summer experienced in 2022 should, theoretically, have created sub-optimal conditions for the fungus and therefore 2023 may provide an opportunity for some recovery of Ash (see Appendix 2 for context).
- 5.3 Reflecting the continued increase in documented Ash Dieback infection across the County and rising costs and challenges surrounding non-compliant private landowners, the County Council’s Corporate Management Team continues to identify Ash Dieback as a **medium** risk.

6. Financial and Other Implications

- 6.1 Initial projections indicated a potential eventual cost as high as £16 million for Ash Dieback related highway safety interventions in Kent (this was calculated on the basis that 4% (20,000) of KCC street trees are Ash with a median cost for maintenance interventions, lane hire fees and other costs of £800 per tree).
- 6.2 With as many as 0.5 million trees growing on private and unregistered land adjacent to the public highway, the eventual worst-case longer-term cost to KCC was estimated to be as high as £400 million. This figure was predicated upon the fact that interventions for trees on private and unregistered estates often incur legal and administrative costs for Local Authorities to find and engage with landowners.
- 6.3 In a wider context, research published in the journal Current Biology in May 2019 calculates the eventual cost to the UK from Ash Dieback at £14.8 billion. For comparison, this figure is one third greater than the National Audit Office estimate for the total cost of the 2000/2001 UK Foot and Mouth Disease outbreak.
- 6.4 However, evidence to-date continues to show safety intervention costs associated with Ash Dieback in Kent, are much lower than these earlier estimates. This is due to fluctuations in infection intensity from year to year, the relative resilience of Ash outside of woodlands, and its ability to mount a recovery in years with lower infection rates. (See Appendix 3).
- 6.5 So far, the cost to KCC Highways for the 2022/23 financial year is £23,445 (covering the period until December 2022). Since a peak of £66,000 in 2018/19, costs have since decreased annually (down 37% between 2020/21 and 2021/22, 7% between 2019/20 and 2020/21 and 22% between 2018/19 and 2019/20).
- 6.6 In recognition of the potentially significant costs which could arise from Ash Dieback in the future, at the start of the outbreak, KCC submitted the required 'expression of interest' for a claim against the Bellwin Scheme of Emergency Financial Assistance within the prescribed timescale. Where the criteria for the scheme are met, the grant is normally payable to authorities at 85% of eligible costs incurred above a threshold set for each authority (for KCC this remains £1,764,324). However, to date, all costs captured fall well below this qualifying threshold.
- 6.7 A practical concern amongst local stakeholders is lane hire cost and management of road closures to undertake necessary safety interventions in response to Ash Dieback impacts. At a Forestry Commission event, held with conservation organisations from across the South-East, this was identified as a major operational obstruction to progress, with achieving effective co-operation between the County Council, landowners and contractors seen as a key challenge. This issue has been raised by KCC at the Defra ADB Health and Safety Taskforce.

7. Conclusion

- 7.1 Overall, Ash decline is continuing in Kent, and there will be changes to our landscape and wildlife as profound as those experienced during the historic Elm and Lime declines. The resultant loss of Ash is already eroding tree cover and associated benefits from environmental services – including flood attenuation, shelter, shade and sequestration of atmospheric carbon and particulates.
- 7.2 Young trees continue to be susceptible to Ash Dieback further limiting recruitment of new generations of Ash, while mortality of semi-mature and mature Ash is also increasing, particularly in those locations where trees are subject to secondary infection and additional stressors such as drought, soil compaction or waterlogging.
- 7.3 **Veteran and ancient** Ash (those trees aged between 100 and 200+ years), continue to evidence an observed sustained recovery in crown health across all survey areas (and elsewhere in the County).
- 7.4 The continued unpredictability of outbreak intensity and resultant requirements for safety interventions underlines the importance of maintaining ongoing monitoring and cost recording, including KCC's annual survey and analysis effort. Ensuring up-to-date outbreak data enables informed decision making and implementation of measured, appropriate, and cost-effective safety interventions.
- 7.5 Recovery considerations will also increasingly come to the fore and will encompass the replacement of lost tree cover. From a local perspective, KCC must ensure records are maintained of how many Ash trees are lost from their estate, informing any eventual tally to be replaced. This will allow for restocking once sustainable planting sites are identified and a local recovery process is determined and funded. The KCC tree establishment strategy includes consideration of the options for tree replacement including native tree species Field Maple, Small-leaved Lime, and Large-leaved Lime.
- 7.7 KCC continue to lobby Government and other potential sponsors for a sustainable funding mechanism to support recovery. Latterly, Government has initiated a [Tree Health Pilot Scheme](#), where Kent is singled-out as a 'primary target area' for investment. KCC is yet to make a bid.
- 7.8 Further, the County Council accessed, with four other English local authorities, a share of a £2.53 million HM Treasury Shared Outcomes Fund grant award, which provides 100% funding for a project officer post until September 2023 and has already seen 3,942 native trees and shrubs planted across Kent, as well as 33,181 tree seeds sown, 18,589 seedlings propagated, 5,000 square meters set aside for natural regeneration and 17,930 native trees provided free to Kent residents as part of the KCC Free Tree Scheme.

8. Recommendation(s):

8.1 The Cabinet Committee is asked to:

- a) note the significant threat Ash Dieback poses to the environment and economy of Kent and the leadership role being played by the County Council in the response to the outbreak; and
- b) endorse the monitoring, planning, and response strategy outlined within this report.

9. Background documents

Appendix 1 - Percentage of Ash with No Symptoms Compared to Ash with Observed Symptoms

Appendix 2 - Increase/Decrease of Ash Dieback Symptoms Observed Symptoms in Summer 2018 2019 2020 2021 2022

Appendix 3 - Percentage increases in trees exhibiting Ash Dieback Symptoms Observed Across All Survey Sites

10. Contact Details

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