From:	Susan Carey, Cabinet Member for Environment Barbara Cooper, Corporate Director of Growth, Environment and Transport
To:	Environment and Transport Cabinet Committee – 29 November 2019
Subject:	Ash Dieback in Kent
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 28% in the last year. Further, monitoring reveals that the cost to KCC Highways for felling and other safety interventions on Ash Dieback infected trees on the KCC Highways estate has increased by over 1,000% between 2014/15 and 2018/19 (up from £5,696 to £66,000).

Recommendation(s):

The Cabinet Committee is asked to:

- 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
- Endorse the planning and response contingencies outlined within this report.

1. Purpose

1.1 It was agreed by Environment, Highways and Waste Cabinet Committee on 10 January 2012 that the Committee continue to receive regular updates on Ash Dieback. The last update was reported to Environment & Transport Cabinet Committee on 30 November 2017. This report outlines the evolution of the outbreak in Kent and other developments since the publication of that report and seeks to identify 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 introduced and invasive fungal pathogen Ash Dieback (*Hymenoscyphus fraxineus*). Within its native Far Eastern range, this organism is a harmless endophyte associated with Manchurian Ash (*Fraxinus mandshurica*) and Chinese Ash (*Fraxinus chinensis*). However, following its initial accidental introduction to Central Europe in the 1990s the fungus has infected native European Ash (*Fraxinus excelsior*) and a small number of related tree and shrub species, where it rapidly kills young trees and progressively brings about the death of individual twigs and branches within the crowns of more mature trees - through a cycle of annual infection and re-infection. This creates potentially dangerous standing dead wood and makes Ash trees susceptible to lethal secondary infection such as Honey Fungus. There is no treatment currently available to either prevent or cure Ash Dieback, though genetic resistance may facilitate a recovery of the 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% of the county). Its landscape and biodiversity contribution are locally significant, especially at the urban edge and across the Kent Downs Area of Outstanding Natural Beauty and Greensand Ridge, where Ash is the dominant large native tree species and can support some 112 invertebrate species and 255 lichens. Ash forms a key component of the makeup of Kent's nationally significant ancient woodland heritage, where it is often the tallest canopy tree (on the Kent Downs AONB and Greensand Ridge for example) and allows for development of a uniquely diverse ground flora, in a UK context, by virtue of the light, dappled shade it creates.

2.3 Unfortunately, Kent's gateway status for international trade, sylvan landscape (with more surviving ancient woodland than any other county in the UK), large and growing population and extensive transport network means that this and other tree species are particularly exposed to such pathogens from overseas. Ash Dieback is now present across the entire County wherever Ash grows.

2.4 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, which has implications for future safety works and associated costs.

2.5 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 the Civil Contingencies Act 2004.

2.6 **I**t was agreed that the County Council was best placed to assume the strategic lead. Tony Harwood (Resilience and Emergency Planning Manager) is SCG

chair and the Group continues to meet regularly to guide the multi-agency response.

3. Progress to Date

3.1 The Ash Dieback SCG acts to co-ordinate planning and intelligence gathering and implement a wide-ranging Action Plan (see Appendix 1) and has contributed to guidance for stakeholders (notably Managing Chalara Ash Dieback in Kent and Ash Dieback Advice to Schools). Public warning and informing signage, emphasising biosecurity guidance, has also been installed across key locations in the County.

3.2 KCC has undertaken annual Ash Dieback surveys since 2013, focussed upon nine randomly selected 2km square sample areas, and undertaken across the same sites every year, with three each in East, Mid and West Kent. Resultant survey data provides vital intelligence in terms of better understanding outbreak intensity, trends and associated health and safety and resource implications. The County Council recently contributed data to an influential scientific paper "Estimating mortality rates of European Ash (*Fraxinus excelsior*) under the Ash Dieback (*Hymenoscyphus fraxineus*) epidemic", published in December 2018.

3.3 Analysis of summer 2019 survey data indicates that a 'tipping point' has been reached, i.e. hitherto a range of biosecurity interventions had acted to contain and slow the spread of Ash Dieback in the County, however, the outbreak has now intensified and become County-wide. Biosecurity and containment policies initiated by the Ash Dieback SCG previously 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 expansion of the pathogen from its East Kent stronghold. However, latest survey data evidences a second infection front spreading Eastwards into Mid and West Kent from East Sussex and Surrey, with fungal spores likely carried on prevailing South Westerly winds (see Appendix 2).

3.4 The proportion of trees exhibiting Ash Dieback symptoms observed across the nine Kent survey sites has increased by an average of 28% between 2018 and 2019 (Appendix 4 provides a breakdown).

3.5 There is evidence from Kent and Denmark that the impact of Ash Dieback on street and other urban trees is less severe than in semi-natural habitats. This is due to lower levels of airborne fungal spores, increased air flow, higher canopy temperatures (limiting fungal development), and a lower likelihood of infection by secondary pathogens. However, a recent study has shown that trees in the

wider rural landscape, including agricultural land, are infected as readily as woodland trees.

3.6 Nationally, KCC remains an active partner within the Defra Ash Dieback Health and Safety Taskforce. Further, the Tree Council issued a UK Toolkit in February 2019, which is significantly informed by Kent's local response to the Ash Dieback outbreak. The County Council has also issued 'Trading Standards Alerts' forewarning the public and businesses of the risk of 'rogue traders' seeking to profit from the outbreak.

3.7 An e-learning package addressing biosecurity policy and practice and prominently featuring Ash Dieback has been developed by the Resilience and Emergency Planning Service with Learning and Development colleagues and has been completed by more than 420 KCC personnel to date. This training tool is now being marketed by the County Council to seek to recoup development costs.

4. Looking Forward

4.1 Local expansion and intensification of the Ash Dieback outbreak will inevitably result in year on year increases in urgent 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.

4.2 The current observed annual average rate of increase in Ash Dieback infection in the County, calculated from annual survey data, is 28.36% (with an average of 50.61% of Ash trees in the County now showings signs of infection). If this trajectory is maintained, by 2023 100% of Ash populations across Kent will be affected by Ash Dieback. However, there is some local evidence of individual trees showing natural resistance to the pathogen and for Ash in urban areas being less susceptible to infection than trees growing in semi-natural locations. It should be noted that following initial infection there is a time lag before extent of dieback, secondary infection and decay processes render trees unsafe. Therefore, the actual time horizon for the range of Ash Dieback impacts cannot be reliably forecast at this time.

4.3 Reflecting the exponential increase in documented Ash Dieback infection across the County and rising costs and challenges surrounding non-compliant private landowners, the County Council's Growth Environment and Transport (GET) Directorate Management Team raised Ash Dieback from a **medium** to a **high** risk on the GET Risk Register on 6th November 2019.

5. Financial and Other Implications

5.1 Monitoring reveals that the cost to KCC Highways for felling and other safety interventions on Ash Dieback infected trees on the KCC Highways estate has increased by **1,058%** between 2014/15 and 2018/19 financial years (up from £5,696 to £66,000). Though actual costs remain relatively low, it must be understood that we are still in the early stages of this outbreak. The recent exponential increase in extent and intensity of infection and a worsening prognosis, as evidenced by the latest survey data, suggests that the costs to the County Council and its partners will continue to increase year on year (see Appendix 3). So far, the cost to KCC Highways for the 2019/20 financial year is already **£58,265**.

5.2 KCC and partners operate policy and practice whereby minimum required interventions are undertaken to address identified safety concerns. This approach is enshrined within the Kent Tree Officers Group Ash Dieback Toolkit, adopted by KCC and all Kent Districts. This approach is locally deemed to be most appropriate in fostering genetic resistance, landscape, biodiversity and financial terms. KCC Highways does not currently have a tree replacement budget, and felled street trees are therefore not routinely replaced. The tree stock within the highway has therefore declined steadily since 2009 as the County Council removes more trees, due to their being identified as a potential danger, than are replanted.

5.3 In recognition of the potentially significant costs which will arise from Ash Dieback in the future, KCC submitted the required ‘expression of interest’ for a claim against the MHCLG administered 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 below this qualifying threshold.

5.4 Projections indicate a potential eventual cost as high as £16 million for Ash Dieback related highway safety interventions in Kent (calculated on the basis that 4% of KCC street trees are Ash according to a recent County-wide survey, equating to some 20,000 individual trees, with a median cost for maintenance interventions, lane hire fees and other costs of £800 per tree). With as many as 0.5 million trees growing on private and unregistered land adjacent to the public highway, the eventual longer-term cost to KCC or Kent could be as high as £400 million. This figure is 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 e.g. Land Registry searches, serving of notices and follow-up action. Serving notices can

sometimes result in costly boundary disputes with private landowners. Dealing with trees on unregistered land can involve Local Authorities addressing all these issues themselves which requires additional resources. As wider context, research published in the journal Current Biology in May 2019 calculates the eventual cost to the UK of Ash Dieback as £14.8 billion. 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.

5.5 A practical concern amongst local stakeholders is facilitation, lane hire cost and management of road closures to undertake the necessary safety interventions in response to Ash Dieback impacts. At a recent 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.

5.6 The maintenance of bespoke budget headings for Ash Dieback safety interventions and associated staff time devoted to Ash Dieback planning and response are key to understanding overall costs. All Districts, Boroughs and relevant KCC services are regularly reminded to capture of all costs arising from the Ash Dieback outbreak within their respective budgets. As a snapshot, officer time devoted to Ash Dieback interventions across KCC Highways and Resilience and Emergency Planning Service total some 318 hours in the current financial year alone.

6. Conclusion

6.1 Susceptibility of young trees to Ash Dieback is already preventing recruitment of new generations of Ash, while mortality of semi-mature and mature Ash is increasing, particularly in those locations where trees are subject to secondary infection and additional stressors such as drought or waterlogging. Kent is undergoing an ***Ash decline,*** which will inevitably result in changes to our landscape and wildlife as profound as those experienced during the historic Elm and Lime declines. The resultant loss of street and other urban Ash is eroding urban tree cover and associated benefits from environmental services – including flood attenuation and sequestration of atmospheric carbon and other pollutants.

6.2 Increasing outbreak intensity and the resultant safety interventions are driving rising costs for the County Council, as associated planning and response activity ramp-up. It is therefore vital that ongoing cost recording, annual survey and analysis effort are maintained. This will enable informed decision making and measured and appropriate safety interventions.

6.3 Recovery considerations will also increasingly come to the fore and will encompass replacement of lost tree cover. Increasingly, counties impacted by Ash Dieback are framing policies addressing replacement of lost trees. For example, both Devon and Norfolk County Councils have now agreed a 3:2:1 tree replacement system, with three replacements for a large tree lost, two for a medium sized tree and one for a smaller tree. From a local perspective, it is crucial that KCC ensures records are maintained of how many Ash trees are lost from their estate informing any eventual tally to be replanted. This will allow for restocking once appropriate receptor sites are identified and a local recovery process is determined and funded. The development of a recovery strategy is currently being scoped by officers and will include consideration of the options for tree replacement. Guidance already produced by the County Council and partners recommends appropriate native tree species to replace the lost Ash, including Field Maple (*Acer campestre*), Small-leaved Lime (*Tilia cordata*) and Large-leaved Lime (*Tilia platyphyllos*). KCC Highways and Resilience and Emergency Planning Service continue to lobby Government and other potential sponsors on behalf of the County Council for a sustainable funding mechanism to be established to support such a recovery strategy.

7. Recommendation(s):

The Cabinet Committee is asked to:

- 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
- Endorse the planning and response contingencies outlined within this report.

8. Background documents

Appendix 1*: KRF Ash Dieback Outbreak SCG Action Plan;*

Appendix 2*: Graph - Percentage of Ash with No Symptoms Comparison to Ash with Observed Symptoms 2017, 2018 & 2019;*

Appendix 3*: Percentage increases in trees exhibiting Ash Dieback symptoms observed across all survey sites between 2018 and 2019; and*

Appendix 4*: Graph - Cost to KCC Highways, Transportation & Waste for the Felling & Pruning of Ash Dieback Infected Ash of KCC Estate.*

9. Contact Details

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