

1.0 Aims

The aim of this report is to assess the trees in both cemeteries for pest and disease symptoms, and to propose solutions to any issues. The main focus is on the extent of spread of Ash dieback, *Hymenoscyphus fraxineus*, and the consequent measures for the phased removal of Ash over the next 10 years.

This is particularly important to inform the delivery of the landscape masterplan being produced in 2021.

2.0 Report Limitations

This is an overview of the key pest and disease threats to the tree population at Highgate, and is not a comprehensive coverage of every single threat.

The inspection has been carried out as a walkover survey at one point in the year, early September, and therefore symptoms only evident at other times of the year, or not visible from ground level, will not have been recorded.

This is not a hazard tree survey, although any significant hazards encountered which pose a risk of harm to people or property have been noted and reported separately.

3.0 Overview of the Tree Population

The East and West Cemeteries both contain a framework of mature trees scattered through the compartments between the path networks. The path layout in the earlier West Cemetery is more serpentine and flowing based on a clear landscape design, while that in the East Cemetery is grid-like and regimented, with the priority being the maximisation of grave space.

The West contains a mix of broadleaf and conifer specimens; there are several mature Ash but also Beech, False Acacia, Sycamore, Lime, Horse Chestnut, Weeping Ash, while Yew, Corsican Pine, Cedar, Wellingtonia, and Monkey Puzzle make up the coniferous component.

The East is strongly broadleaf dominated with occasional conifers. There are several Oak, Lime, London plane, and Ash, as well as a scattering of Horse chestnut, Hornbeam, Cherry, Lawson's cypress, Sawara cypress, and Japanese red cedar.

In both Cemeteries, there is extensive secondary Ash woodland which has developed naturally under the overstorey framework since the 1970s. This Ash layer requires proactive management in light of the threat of disease to Ash, and also of the damage these self-set Ash are causing to graves and gravestones.

4.0 Pest and Disease Issues

Various pest and disease issues pose a threat to the tree population at Highgate, and the key ones are reviewed below. Some of these are already present, while others are explained because they may infect the trees in the near future, although there are not symptoms at present.

4.1 Chalara Ash Dieback (*Hymenoscyphus fraxineus*)

'Chalara Ash Dieback' is a fungal infection which overwinters as fruiting bodies on fallen leaves; spores produced from these in the early summer spread by wind to living trees and infect via leaves and bark. This initially causes twig and stem, and ultimately whole tree, death (See Appendix 3 for symptom photographs). Over the UK, there appear to be some Ash genotypes that can resist infection; however unfortunately the long-term impact is likely to be very widespread and damaging, with the majority of the Ash population dying.

Overall, the trees at Highgate are showing minor symptoms of this disease. The RH columns of the woodland schedule in Appendix 1 shows scoring for the severity of infection. The compartments in the eastern central area of the East Cemetery below Marx's grave (woodland compartments 3a,b,d) are the worst infected at present, and should be considered as high priority for felling and replanting (see photos 1 and 2).



Photos 1 and 2 : Chalara Ash Dieback symptoms in woodland between Lime Path and Mound Road

The disease can progress rapidly over 2-3 years, and therefore it is recommended that the high priority works are carried out during winter 2020-21, or 2021-22 at the latest. Section 5 gives recommendations for the phasing of the Ash replacement programme.