

Committee(s)	Dated:
Epping Forest Consultative Epping Forest and Commons	13 06 2018 09 07 2018
Subject: The Woodford Green Chestnut Avenue: Future Management Proposals (SEF 29/18)	Public
Report of: Director of Open Spaces and Heritage	For Decision
Report author: Geoff Sinclair, Head of Operations, Epping Forest	

Summary

This report, which represents a companion to the report on the Jubilee Avenue also before your Committee, advises on the deteriorating condition of the Woodford Green Horse Chestnut Avenue. The 191 Chestnut tree avenue first planted around 1900 by the Urban District Council - a forerunner to the London Borough of Redbridge-, forms an important and much-loved townscape feature of Woodford Green and Woodford Wells and is a recognised component of both Conservation Areas.

Only 64% of the original planting now survives, with 40 (21%) trees missing as avenue gaps which are not being replaced while 25 (13%) trees replanted as young 10 to 20-year old trees which are struggling to flourish in the shade of the Avenue. Recent mature tree losses have been attributed to Bleeding Canker Disease of Horse Chestnut and possibly a reduction in vitality from damage by a new Invasive Non-Native Species (INNS) - the Chestnut Leaf Miner Moth.

The report proposes a collaborative project with the London Borough of Redbridge, who is responsible for the maintenance of the Avenue and whose Conservation Area Appraisals indicate the need to perpetuate the landscape feature. Further work is needed to raise public awareness over the plight of the Chestnuts, together with public consultation to initiate a discussion on potential replanting options for existing gaps and likely future tree failures as well as identifying options for financing future management of replacement trees.

Recommendations

Members are asked to approve:

- The joint commission with the London Borough of Redbridge of an Arboricultural Assessment of the Chestnut Avenue, considering options for the future management and possible replacement of the Avenue;
- Public consultation, alongside similar engagement on the Jubilee London Plane Avenue, on preferred options for the future management of the Chestnut Avenue.
- The investigation of sustainable financing options for the long-term management of the Chestnut avenue.

Main Report

Background

1. Land at Woodford Green was acquired by the City of London Corporation on 1 May 1882 and has been held in trust as part of Epping Forest. On acquisition the 39.5 acres (16ha) of greenspace were surrounded by open fields, which were subsequently subject to late Victorian and Edwardian residential development.
2. A distinctive landscape feature bordering and crossing Woodford Green is a network of tree avenues with two main north-south running tree avenues:
 - a. Woodford Green Chestnut Avenue – a 1.9km avenue of 191 remaining Horse Chestnut Trees (*Aesculus hippocastanum*) stretching between the Burlington Place junction with the High Road in the north to the Broomhill Walk A119/A104 junction to the south to Woodford Green.
 - b. The Jubilee Avenue – known locally as the ‘Churchill Avenue’ an avenue of 89 remaining London Plane (*Platanus acerifolia*) and hybrid Poplar (*Populus spp*) and running between the Broadmead Road (A1009) to the north and High Road (A1199) to the south.
3. Tree avenue planting has been a significant feature of British rural and urban landscapes. Avenues were first planted in the 16th century to provide shaded walks close to large houses. By the 17th century, more ambitious schemes crossing parks or forming an approach to a feature or vista became more common. Charles Bridgeman’s 1720 lime avenue at Stowe Landscape Park and more locally George London’s 1710 avenues at Wanstead Park are the culmination of the avenue planting fashion. Tree avenues remained a popular feature until the mid-nineteenth century, enjoying a brief revival in late Victorian period civic schemes to celebrate the Monarch’s jubilees and avenues of honour linked to military campaigns.
4. The second Superintendent of Epping Forest Lt Col Alexander Mackenzie acknowledged in contemporaneous correspondence in 1886 that proposals for tree avenue planting at Woodford Green originated from ‘influential petitions from the residents of Woodford’. The precise date of the Chestnut avenue planting is unclear from the City Corporation’s records, with various external sources placing the date between the ‘turn of the century’ to between the 1930-1940s. The 1912 Ordnance Survey map for Woodford Green clearly shows the planted avenue in place, which indicates a planting date prior to map survey (Appendix 1). The Avenue may well mark the coronation of Edward VII in 1902, though this possibility will require additional research.
5. The 191 Chestnut tree avenue was first planted by the Urban District Council, a forerunner to the current London Borough of Redbridge. The London Borough of Redbridge continues to manage the safety, maintenance and replacement of the existing Chestnut Avenue.

6. The Chestnut Avenue stretches for 1.9 km between the Woodford Green and Woodford Wells Conservation Areas jointly established in 1970 by the London Boroughs of Redbridge and Waltham Forest. The balance of the Avenue planting reflects the nature of the City Corporation's landholding which is largely to the east of Woodford High Road. Some 118 trees are planted to the east, while just 73 trees are planted to the west.
7. The Conservation Area Enhancement Scheme adopted on 22nd April 1993 states that 'The Horse Chestnut Avenues of Woodford Green and Woodford Wells form a significant townscape element of the High Road and the Conservations Areas (*Woodford Green and Woodford Wells both designated in 1970*). The avenues were created early this century and some investigation would be required to determine the best management policy to maintain and continue the consistency of the treescape of the avenues in the future'.
8. The London Borough of Redbridge 2007 publication 'Woodford Green and Woodford Wells Conservation Areas – A Special Character Appraisal' clearly acknowledges on page 29 at 3.5.3 The Lower Green that 'The Council (the Woodford Urban District Council at that time) planted these chestnuts in the early twentieth century on behalf of local residents on Epping Forest land. The chestnuts are now coming to the end of their lives'.

Current Position

9. Horse Chestnut is not native but is now considered to be a naturalised British tree species and should enjoy a lifespan of up to 350 years. Currently, after an estimated 110 years of growth, the original 191 Chestnut tree planting scheme, has been reduced to 123 (64%) trees planted at 32-foot (10 metre) intervals. Some 25 (13%) lost trees have been replaced by new plantings and are aged between 10 and 20 years old which are planted off-centre to avoid the original tree stump. These young trees are struggling to establish in the shade of the mature trees. A small number of missing trees – 3 (2%) - have been replaced by the natural regeneration of oak and sycamore.
10. Some 40 (21%) trees are missing and under current policy and practice by the London Borough of Redbridge, the owners of the trees, there are no proposals for their replacement. If this practice continues the future of the avenue as a distinctive landscape feature and important aspect of the Woodford Green and Woodford Wells Conservation Area will decline. A review of the options for financing the establishment and maintenance of future avenue trees needs to form part of future development proposals
11. Horse Chestnuts are generally considered to cope well when planted in the urban context and are usually relatively unaffected by urban levels of air pollution and compaction from the proximity of pavements and the High Road. However, the Chestnuts at Woodford Green are now under additional pressure from a non-native moth and a new bacterial tree disease.
12. The Horse chestnut leaf miner moth (*Cameraria ohridella*) is an Invasive Non-Native Species (INNS) insect pest which lives in horse chestnut trees. Horse chestnut leaf miner was first observed in Macedonia, in northern Greece, in

1985, and was described as a new species in 1986. In 1989, it appeared unexpectedly in Austria, and since then it has spread throughout central and eastern Europe. It was first found in Great Britain in 2002, in the London Borough of Wimbledon. The moth's caterpillars 'mine' or burrow through the Chestnut's leaf cells removing on average 50% of each leaf's photosynthetic capacity leaving brown blotches. Research has indicated that although leaf capacity is seriously reduced, leading to early browning of leaves in August and September, overall ring growth and therefore overall tree health is not affected. However, the long-term impact of this defoliation may make the trees more prone to other pests and diseases.

13. Bleeding canker is a new disease that affects Horse Chestnut trees. The disease was first reported in Britain in the 1970s, although it was recognised in the USA much earlier in the 1930s. Pre-2000, symptoms of the disease were associated with two *Phytophthora* pathogens. The causal agent is now most often due to a bacterial pathogen, *Pseudomonas syringae* pv *aesculi*, and only very occasionally caused by *Phytophthora*. Today, the incidence of the disease within the UK has increased dramatically. In 2000, only four cases were reported, but this rose to more than 110 reports in 2006 and survey results show that in 2007 around half the horse chestnut trees in Britain showed some degree of symptoms. Several existing Horse Chestnut trees within the Avenue exhibit poor health which may be attributed to bleeding canker disease.
14. Surveys and research by the Forestry Commission reveal that where owners have replaced mature diseased trees with young horse chestnuts, some of the replanted trees have shown signs of infection within a few years. The Forestry Commission therefore does not recommend replanting with the same species.
15. Based on some small-scale surveys, both white (*Aesculus hippocastanum*) and red horse chestnuts (*Aeculus x carnea*) seem similarly affected by the disease. Japanese Horse Chestnut (*Ausculus turbinata*) can also develop the disease, but the Indian or Himalayan Horse Chestnut (*Aesculus indica*) may not be susceptible to the UK strain of bleeding canker disease.

Proposals

16. Four management options are outlined in this report:

Option 1: No action.

Option 2: Support the London Borough of Redbridge's policy of not replanting the Horse Chestnut avenue where individual trees fail.

Option 3: Undertake the planting of avenue gaps with replacement Horse Chestnuts at Local Risk expense

Option 3 - Commission an Arboricultural Assessment in partnership with the London Borough of Redbridge to explore practical alternatives to perpetuate the landscape feature prior to public consultation.

17. **Option 1 No Action** – Given the visual importance of the Chestnut Avenue and the London Borough of Redbridge obligations under the Health and Safety at Works Act, together with the City Corporation's potential Occupiers Liability responsibilities this option is unrealistic. **The option is not recommended.**
18. **Option 2 Support the London Borough of Redbridge's no replacement planting policy** – This approach does not address the long-term survival of an avenue planting in line with the Conservation Area appraisal. **The option is not recommended.**
19. **Options 3 Replacement of lost trees with Horse Chestnut.** Given the Forestry Commission's concern that replacement plantings can be infected by Bleeding Canker disease, this option is unlikely to be viable in the longer term. **This option is not recommended.**
20. **Option4 Arboricultural Assessment** -Given the marked decline in the Horse Chestnut Avenue at a relatively early stage in in the tree's expected lifespan, together with the advent of a new disease that has already lead to the felling of trees in the Avenue a new approach to perpetuating the Avenue is required. This is additionally required as felled trees are no longer being replaced by the avenue tree's owner. An Arboricultural Assessment would inform your Committee of the potential available options in managing the Avenue both in the short and long-term and will aid assessment of how future management will be funded. Following discussion by your Committee, the Assessment would also provide a suitable basis for public consultation. **This Option is recommended.**

Proposals

21. Because of the dominance of the Site of Special Scientific Interest and the Special Area of Conservation which favours the natural regeneration of native species Epping Forest does not have a species-based tree planting policy. However, where specific planting initiatives have been made at Gaunt Wood, the Trafalgar planting and most recently Gifford's Wood, have been selected from the traditional Epping Forest 'palette' of Oak, Beech and Hornbeam. Beech is increasingly less favoured in new plantings over its concerns regarding climate change adaptation.
22. The Arboricultural Assessment will also need some careful thought to the aesthetics of Avenue design as canopy form and height relative to avenue width and length can determine the success of an avenue. The current harmonious relationship between tree height and road width across the Chestnut Avenue is a positive landscape attribute.
23. Horse Chestnut as the existing main avenue tree species in the Woodford Green and Woodford Wells Conservation Areas may now need to be reconsidered because of its disease susceptibility. The selection of a new avenue Chestnut variety or tree species for the 'Chestnut' Avenue may in due course influence the species chosen to replace the remaining avenue trees within the Conservation area. Potential species appropriate for the location and which fit Epping Forest's native woodland conservation perspective would include:

- a. English Oak (*Quercus robur*)
- b. Hornbeam (*Carpinus betulus*)
- c. Common Lime (*Tilia europaea*)

Corporate & Strategic Implications

24. **Legal** – The Epping Forest Act 1878 under section 33(1)(i) provides the City Corporation with powers ‘To fell, cut, lop and manage in due course the timber and other trees, pollards and underwoods, and to sell and dispose of the timber cuttings and loppings, and to receive the proceeds, and to plant trees and shrubs for shelter or ornament’. In exercising powers in relation to planting the Conservators shall not do anything that would materially take away or hinder the exercise of rights of common (sub-section (2))
25. The avenue is within the Woodford Green and Woodford Wells Conservation Areas. Conservation Areas are areas of special architectural or historic interest, designated under the Planning (Listed Buildings & Conservation Areas) Act 1990, the character or appearance of which it is desirable to preserve or enhance. Consequently, tree management is subject to oversight by the London Borough of Redbridge as the Local Planning Authority, with six weeks prior notice required to be given to the Council of the proposed felling and other tree works. This enables the Local Planning Authority to decide if any of the trees should be made subject to a Tree Preservation Order. Those carrying out works to trees should ensure they do not contravene laws protecting wildlife and must have a regard to statutory obligations concerning protected species.
26. **Financial** – The cost of replanting the Chestnut Avenue is estimated at a minimum of £40,000 spread over ten or more years. There is a considerable potential to secure local sponsorship of the planted trees however funding the future management of new planted trees needs to be reviewed and options developed as it is likely the London Borough of Redbridge will not take on custodianship or the replacement trees.
27. **Communications:** Previous works at Woodford Green have attracted significant public comment and concern, as has the removal of Chestnut Avenues elsewhere in London. Prior to any works commencing extensive liaison with local stakeholders, including the local planning authority, should be undertaken to identify and address issues of concern.

Conclusion

28. Almost 40% of the existing 110-year old Chestnut Plantings within the Woodford High Road Avenue have been lost. A further number of trees are not in good health and are liable to succumb to a combination of stress pressures on urban street trees and Bleeding Canker of Horse Chestnut Disease. With previous young plantings likely to be overtaken by Bleeding Canker Disease and the current approach by the London Borough of Redbridge not to replace avenue trees, while the long-term future of the much-loved feature cannot be perpetuated.,

29. A well-informed approach to replacing the avenue is needed to recognise the value to both Epping Forest and the Woodford Green and Woodford Wells Conservation Areas. There is little public awareness of the current plight of the Avenue and sensitive public consultation will be required to explore new planting options for the remainder of the century.

Appendices

- Appendix 1 - 1912 Ordnance Survey Map of Woodford Green showing the newly planted avenue.
- Appendix 2 – Map of the Woodford Green Tree Avenue location

Background Papers

Price, Colin (2009), Epping Forest Avenues Report

Geoff Sinclair

Head of Operations

T: 020 532 1010

E: geoff.sinclair@cityoflondon.gov.uk & jeremy.dagley@cityoflondon.gov.uk