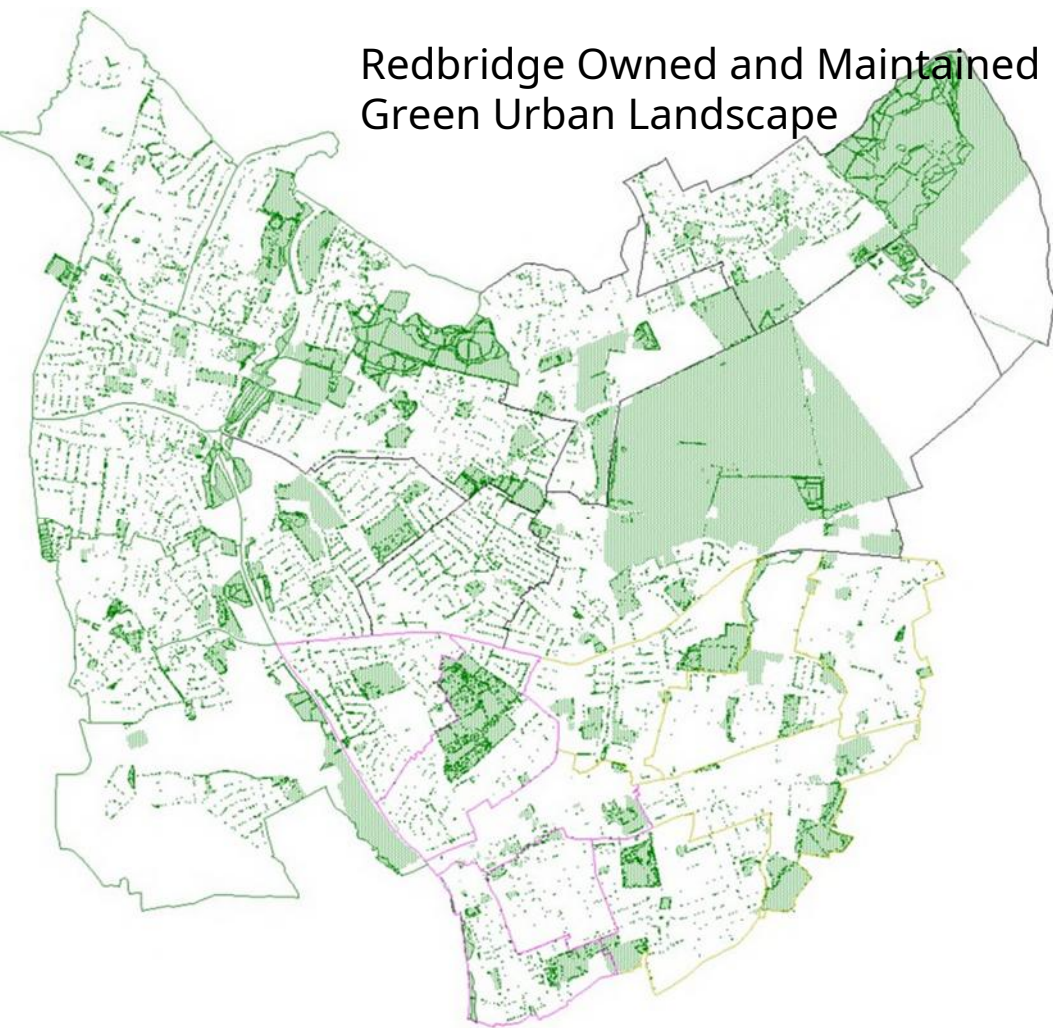


Peter Marshall
Arboricultural and Horticulture Manager
London Borough of Redbridge

www.redbridge.gov.uk/our-streets/attractive-streets/

Redbridge Owned and Maintained
Green Urban Landscape



Methods of weed control **Feasibility of a 'pesticide-free** **Redbridge'**

How can we help and encourage residents to adopt or care for trees in their neighbourhood, and whether there can be more engagement after new planting.

Current arrangements with contractors for tree care after planting

Reasons for, and statistics on, tree deaths

Information on pollarding

Tree care

Weed Control 1-6

No-Treatment Approach

Ineffective for controlling weed growth.

Leads to increased weed visibility, potential infrastructure damage pedestrian trips and long term maintenance costs.

Volunteer / Community-Based Weeding Models

Encourage community groups and residents to remove weeds manually.

Low operational cost when volunteer-led.

Quality and consistency vary.

Weed Control 2-6

Glyphosate (Knapsack Herbicide Treatment)

Generally, the lowest-cost option.

Effective at killing both visible growth and root systems.

Concern about environmental and health issues

Licence under review (15 December 2026)

Ultra-Low-Volume Herbicide Applicators

Reduced water and herbicide volumes.

Higher capital costs

More complex to use.

Acetic Acid / Vinegar-Based Herbicides

Acts quickly on visible growth, burning the surface of the plant.

More expensive than Glyphosate due to higher product usage.

does not reliably kill roots.

Hot Water and Foam Treatment

Weed Control 3-6

Uses high-temperature water to break down plant cells.

Higher operational cost than vinegar due to labour, equipment, and energy demands.

Limited impact on root systems.

Electric Weed-Control Systems

Transmits electrical current through plant tissue to damage cells.

High upfront equipment cost.

Limited impact on root systems.

Not proven suitable for widespread or routine use

Manual Weeding & Mechanical Brushing

Includes hand weeding, mechanical brushes, pedestrian sweepers, or scraping.

Very labour intensive and is the in highest cost.

May require additional teams or seasonal staff.

Limited impact on root systems.

Weed Control 4-6

Parks & Open Spaces:

- Glyphosate use has been cut by approximately 75%.
- Reverting to manual removal and using leaf mulch to suppress weeds in shrub beds.

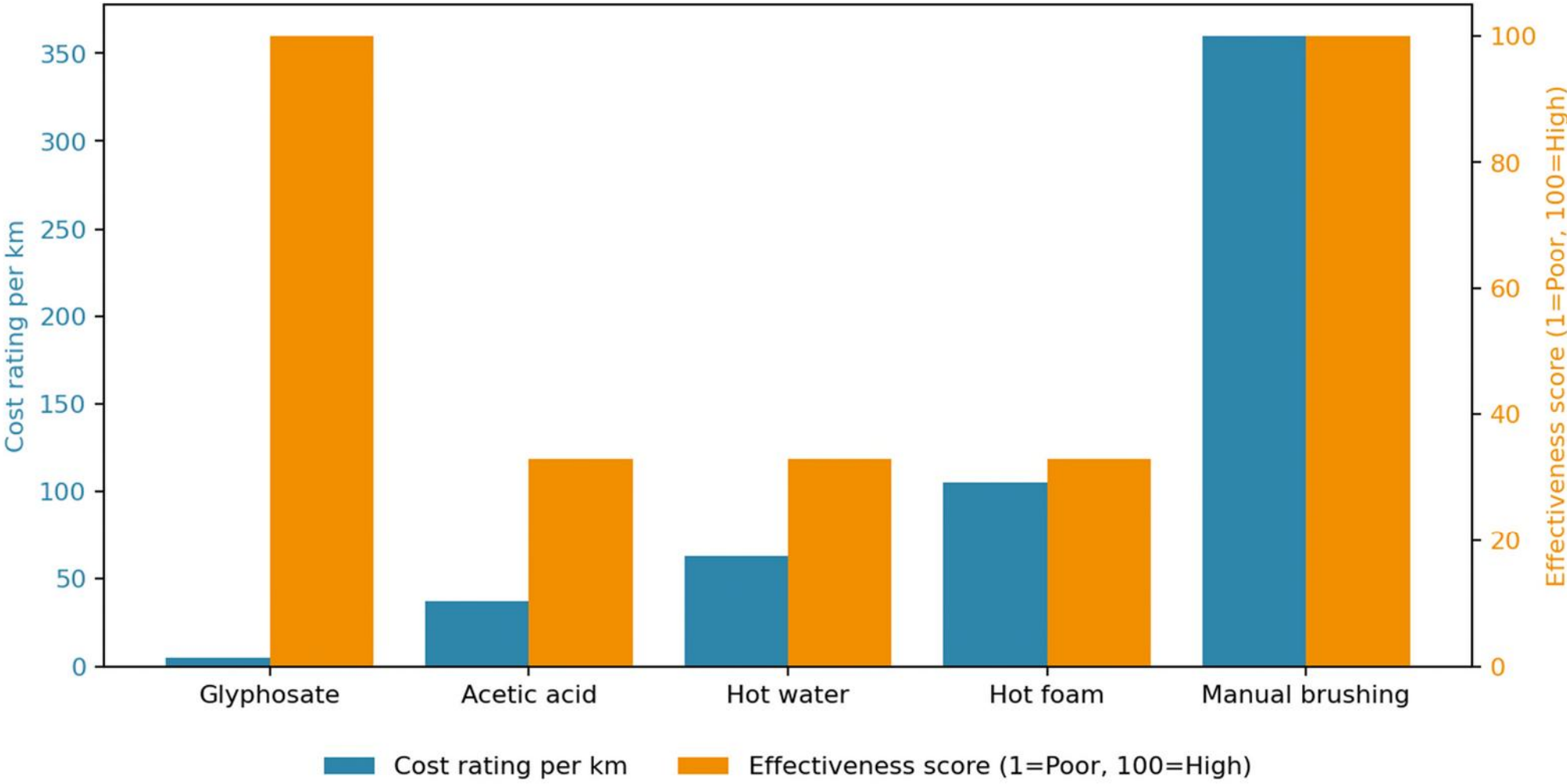
Housing Sites:

- Herbicide use has ceased around tree bases, grass and hedgerows.
- Weed growth in garage areas and drying areas is now controlled mechanically.

Highways:

- Glyphosate use has been reduced by over 50%.
- Ceased spraying grass next to paths, and trees and street furniture
- Using modern equipment for more efficient application.
- Over 2,000 tree pits are excluded from spraying because they're adopted or newly planted.
- Shrub bed treatments reduced from 3 per year to 1-2.
- Trials of reduced glyphosate concentration on 7 km of road network.
- 4 km of road network excluded from spraying under Pollinator Pathways

Weed Control 5-6



Weed Control 6-6

We will continue with phased reduction of glyphosate

Monitor trials and alternative control methods.

Expand Pollinator Pathways.

Reduce the number of tree pits treated through adoption and newly planted trees.

Work with street cleansing teams to manually remove weeds and detritus in hotspot areas.

Tree Planting 1-6

700 highway trees planted a year

4 nurseries and companies to plant



1994 and 2010 average 12%

2023 average 8%

2024 average 18%

www.redbridge.gov.uk/our-streets/attractive-streets/

Tree Planting 2-6

Reasons for early tree death:

Poor Planting Technique: Trees planted too deep or too shallow

Watering Issues: Too little water causes drought stress

Soil & Drainage Problems: Compacted soil, lack of nutrients and poor aeration.

Transplant Shock: Damaged roots struggle to take up water and nutrients.

Environmental Stress: Heat, lack of rain fall, early and late seasonal weather.

Poor Stock: Species selection.



Tree Planting 3-6

Urban Planting - Biodiversity - Pests & Diseases - Climate Change

Acer campestre Elegant	Catalpa bignonioides	Morus nigra	Quercus robur 'Fastigiata'
Acer campestre 'Elsrijk'	Celtis australis	Parrotia persica 'Vanessa'	Quercus rubra
Acer campestre 'Fastigiata	Cercidiphyllum japonicum	Phellodendron amurense	Sequoiadendron giganteum
Acer campestre 'Fastigiatum'	Corylus columna	Picea abies	Sorbus aria
Acer campestre 'Royal Ruby'	Crataegus laevigata 'Pauls Scarlet'	Pinus nigra 'Austriaca'	Sorbus aria 'Lutescens'
Acer campestre 'William caldwell'	Crataegus monogyna	Platanus xhispanica	Sorbus arnoldiana 'Kirsten Pink'
Acer platanoides 'Globosum'	Crataegus monogyna 'Stricta'	Prunus 'Accolade'	Sorbus aucuparia
Alnus incana 'Aurea'	Crataegus prunifolia	Prunus avium	Sorbus aucuparia 'Asplenifolia'
Amelanchier arborea 'Robin Hill'	Crataegus x grignonensis	Prunus fruticosa Globosa	Sorbus aucuparia 'Cardinal Royal'
Amelanchier 'Ballerina'	Crataegus x lavellei	Prunus 'Kanzan'	Sorbus aucuparia 'Sheerwater Seedling'
Amelanchier canadensis 'Rainbow Pillar'	Crataegus x lavellei 'Carrieri'	Prunus 'Pandora'	Sorbus commixta 'Olympic Flame'
Amelanchier lamarckii	Fagus sylvatica 'Dawyck Purpurea'	Prunus 'Royal Burgundy'	Sorbus 'Golden Wonder'
Apple 'Rode Boskoop'	Ginkgo biloba	Prunus serrula 'Tibetica'	Sorbus intermedia 'Brouwers'
Betula nigra	Ginkgo biloba Globosa	Prunus serrulata 'Amanogawa'	Sorbus torminalis
Betula pendula	Halesia carolina	Prunus 'Shimidsu' Sakura	Styrax japonicus June Snow
Betula pendula 'Dalecarlica'	Hibiscus Resi	Prunus subhirtella 'Autumnalis Rosea'	Tilia cordata 'Green Spire'
Carpinus betulus	Ligustrum lucidum 'Excelsum Superbum'	Prunus 'Sunset Boulevard'	Tilia x euchlora
Carpinus betulus 'Fastigiata'	Liquidambar styraciflua	Prunus 'Yedoensis'	Zelkova serrata
Carpinus betulus 'Lucas'	Liriodendron tulipifera	Quercus robur	Zelkova serrata 'Green Vase'
Castanea sativa	Malus Rudolph	Quercus robur 'Fastigata Koster'	

Tree Planting 4-6

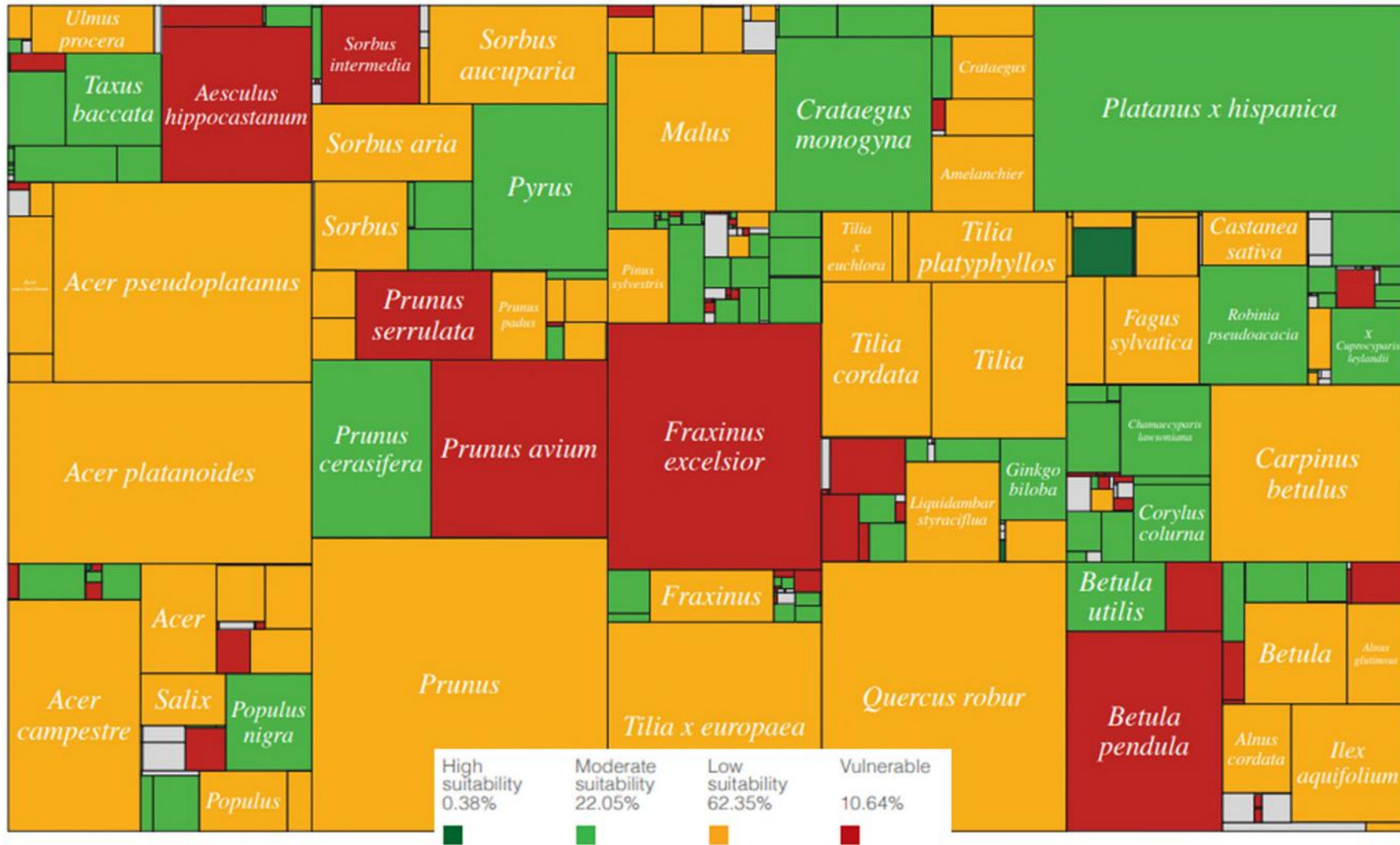


- By 2090 if no changes are made, in total, 73% of London's public trees may struggle to thrive or survive as the climate changes.
 - 0.38% - highly suitable for future climate conditions.
 - 22% - moderate suitability to future climate.
 - 62% - low suitability to future climate.
 - 10.6% - vulnerable to future climate.

Suggested citation:
Hirons, A. D. and Martin, K. W. E.
(2025) *Future climate suitability
of London's public realm trees.*
Urban Plant Lab.

<https://www.london.gov.uk/media/110943/download>

Tree Planting 5-6



Tree Planting 6-6

Box 3: Species evaluated as high and moderate suitability which should play a role in the strategic diversification of London's urban forest. Native species in bold.

HIGH SUITABILITY SPECIES

1. *Acer monspessulanum*
2. *Acer tataricum*
3. *Arbutus unedo*
4. *Cupressus arizonica*
5. *Cupressus macrocarpa*
6. *Eucommia ulmoides*
7. *Olea europaea*
8. *Ostrya carpinifolia*
9. *Parrotia persica* •
10. *Quercus frainetto*
11. *Quercus ilex* •
12. *Quercus suber*
13. ***Sorbus torminalis*** •
14. *Tamarix ramosissima*

MODERATE SUITABILITY SPECIES

1. *Abies concolor*
2. *Acacia dealbata*
3. *Acer buergerianum*
4. *Acer cappadocicum*
5. *Acer davidii*
6. *Acer griseum*
7. *Acer negundo*
8. *Aesculus indica*
9. *Aesculus pavia*
10. *Amelanchier alnifolia* •
11. *Betula albosinensis* •
12. *Betula jacquemontii*
13. *Betula papyrifera*
14. *Betula utilis*
15. *Buxus sempervirens*
16. *Carya illinoensis*
17. *Catalpa bignonioides*
18. *Catalpa speciosa*
19. *Cedrus atlantica*
20. *Cedrus deodara*
21. *Cedrus libani*
22. *Celtis australis* •
23. *Celtis occidentalis*
24. *Cercis siliquastrum*
25. *Chamaecyparis lawsoniana*
26. *Corylus colurna* •
27. *Corylus maxima*
28. *Crataegus x lavalleyi* •
29. ***Crataegus monogyna*** •
30. *Crataegus x persimilis* •
31. *Cupressus sempervirens*
32. *Cydonia oblonga*
33. *Diospyros kaki*
34. *Elaeagnus angustifolia*
35. *Eucalyptus pauciflora*
36. *Fagus orientalis*
37. *Ficus carica*
38. *Ginkgo biloba* •
39. *Gleditsia triacanthos*
40. *Gymnocladus dioica*
41. *Heptacodium miconioides*
42. *Hippophae salicifolia*
43. *Juglans nigra*
44. *Juglans regia*
45. *Juniperus scopulorum*
46. *Juniperus virginiana*
47. *Koelreuteria paniculata*
48. *Ligustrum japonicum* •
49. *Ligustrum lucidum* •
50. *Malus baccata*
51. *Malus yunnanensis*
52. *Morus alba*
53. *Morus nigra*
54. *Nothofagus antarctica*
55. *Paulownia tomentosa*
56. *Picea pungens*
57. *Pinus contorta*
58. *Pinus nigra* •
59. *Pinus pinaster*
60. *Pinus pinea*
61. *Pinus radiata*
62. *Pinus wallichiana*
63. *Platanus x hispanica* •
64. *Platanus orientalis*
65. *Pseudotsuga menziesii*
66. *Prunus cerasifera* •
67. *Prunus dulcis*
68. *Prunus maackii*
69. *Prunus serrula* •
70. *Pyrus calleryana*
71. *Pyrus communis*
72. *Quercus castaneifolia*
73. *Robinia pseudoacacia*
74. *Sequoia sempervirens*

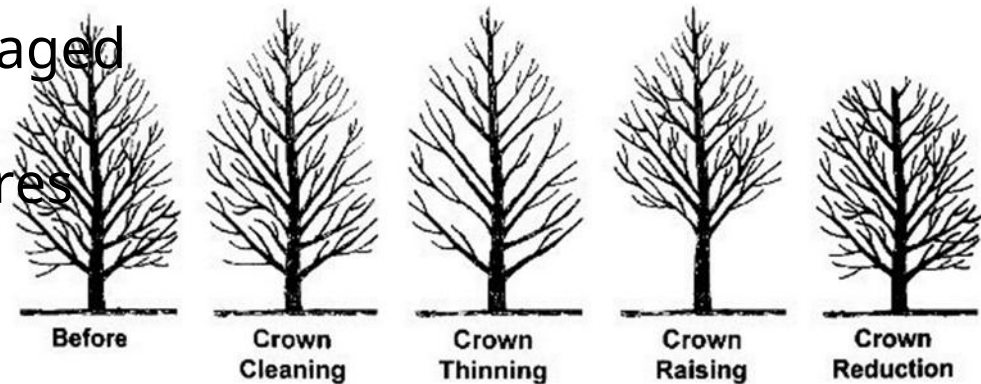
75. *Sequoiadendron giganteum*
76. *Sorbus discolor*
77. *Sorbus vilmorinii*
78. *Styphnolobium japonicum*
79. *Syringa vulgaris*
80. *Syringa reticulata*
81. *Tamarix gallica*
82. *Tamarix tetrandra*
83. *Taxodium distichum*
84. ***Taxus baccata***
85. *Tilia mongolica*
86. *Ulmus* (resistant cultivars)
87. *X Cuprocyparis leylandii*

Tree Maintenance 1-3

40,000 council trees as individuals
Trees in 128 hectares of woodland

Pruning

- Overhanging branches
- Low branches
- Subsidence mitigation
 - Tall trees
 - Blocking light
 - Leaf and fruit fall
- Safety – Dead, decayed, damaged
- Obstruction of road signs, streetlights and telephone wires
- Pollarded trees
- New pollarded trees



Tree Maintenance 2-3



Tree Maintenance 3-3

Wanstead Park	Completed	Pruning	Work PDF (460KB)	August
Newbury	Completed	Yearly	Work PDF (106KB)	August
Seven Kings	Completed	Yearly	Work PDF (53KB)	August
Ilford Town	Completed	Yearly	Work PDF (330KB)	August
Wanstead Village	Completed	Pruning	Work PDF (162KB)	August

Chaucer Road, Wanstead Village

Sequence	Location	Species	Trunk size and height	Work
1	S/O 41, Spratt Hall Road.	Acer campestre 'Nanum'	3cm-Small 0-5m	Remove low Branches Cut back from neighbouring property
2	S/O Police Station	Malus tschonoskii	26cm-Medium 5-10m	Clear branches from Road Sign
3	OS 60	Prunus cerasifera 'Pissardii'	32cm-Medium 5-10m	Remove low Branches Reduce tree in height and width
4.5	OS 56	Ligustrum japonicum	8cm-Small 0-5m	Remove broken branch Remove low Branches
5	S/O 76, Addison Road & OP 48	Malus tschonoskii	33cm-Medium 5-10m	Remove low Branches Reduce tree in height and width
6	OS 42	Crataegus xlaivallei	20cm-Small 0-5m	Cut back from neighbouring property Remove deadwood. Remove low Branches
7	Opposite 38	Celtis australis	27cm-Medium 5-10m	Cut back from neighbouring property Remove low Branches
8	OS 32	Crataegus xlaivallei	14cm-Small 0-5m	Cut back from neighbouring property Remove low Branches
9	SO 1, Dangan Road and OP 30	Prunus cerasifera 'Pissardii'	35cm-Medium 5-10m	Remove low Branches Cut back from neighbouring property

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Attractive streets: www.redbridge.gov.uk/our-streets/attractive-streets/

Council Trees: www.redbridge.gov.uk/our-streets/attractive-streets/council-trees/

Tree Adoption: www.redbridge.gov.uk/our-streets/attractive-streets/adopt-and-water-a-tree/

Restore Nature Pledge: www.redbridge.gov.uk/our-streets/attractive-streets/restore-nature-pledge/

Community Gardens: www.redbridge.gov.uk/our-streets/attractive-streets/spruce-up-your-neighbourhood/

Pollinator pathways and adoption: www.redbridge.gov.uk/our-streets/attractive-streets/adopt-a-tree-pit-and-pollinator-pathways/

Do More Redbridge: www.redbridge.gov.uk/leisure-sport-and-the-arts/do-more-in-redbridge/