



THE
ROYAL
PARKS

RICHMOND PARK TREE STRATEGY 2026-2032

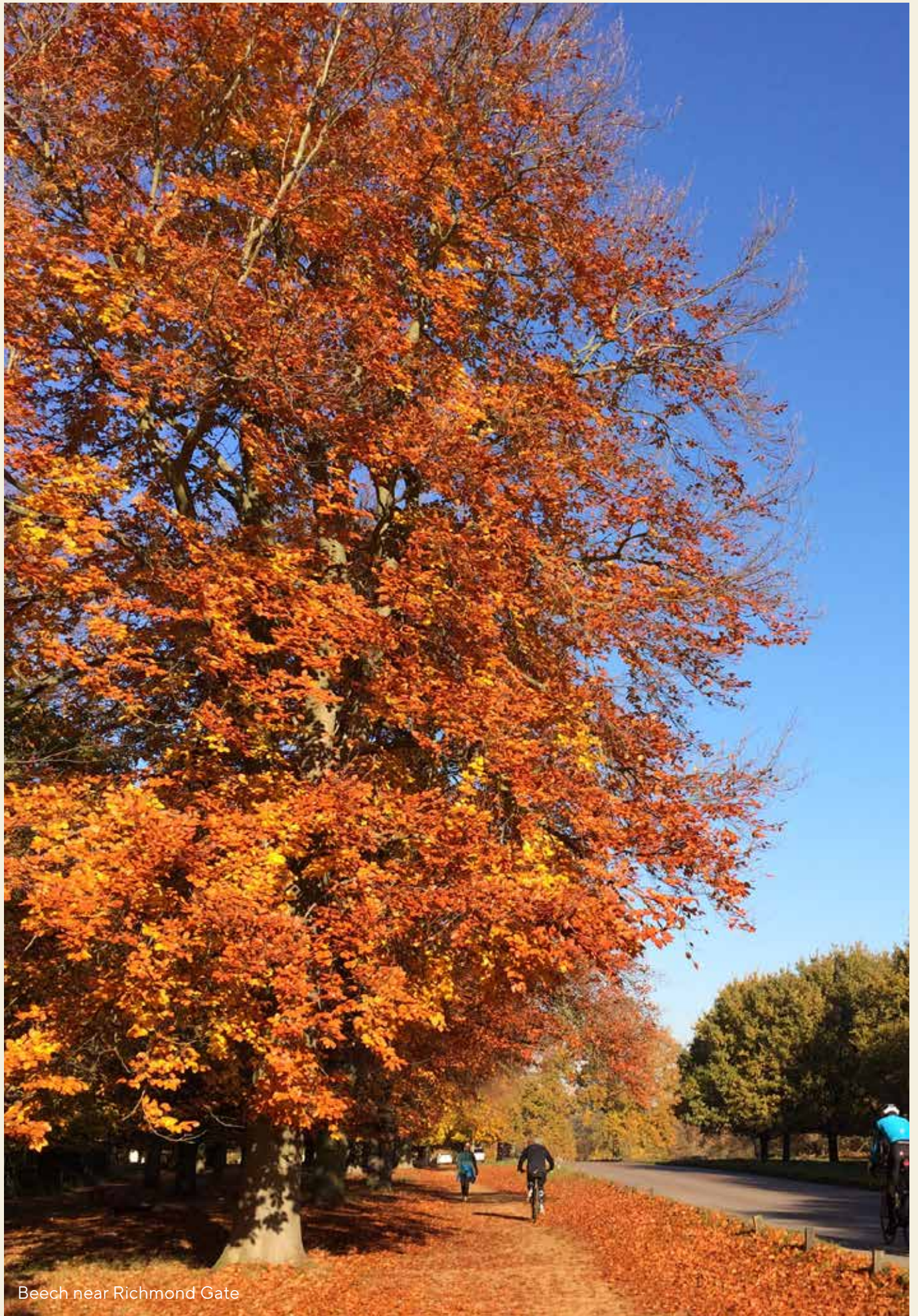
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1. VISION

An aerial photograph showing a vast green park in the foreground, densely populated with trees. In the middle ground, a residential area with red-brick houses is visible. The background features the London skyline, including the Shard and other skyscrapers, under a bright blue sky with scattered white clouds. A small airplane is visible in the upper right portion of the sky.

We will strive to protect, conserve and enhance the trees, woodlands and the biodiversity they support, in the face of threats, to ensure their sustainable future for generations to come, in Richmond Park, London's largest deer park and National Nature Reserve.



Beech near Richmond Gate

2. INTRODUCTION

Richmond Park is London's largest park at 2,500 acres. It is a deer park, a Site of Special Scientific Interest (SSSI) and a National Nature Reserve (NNR) and is home to an internationally significant population of veteran and other trees.

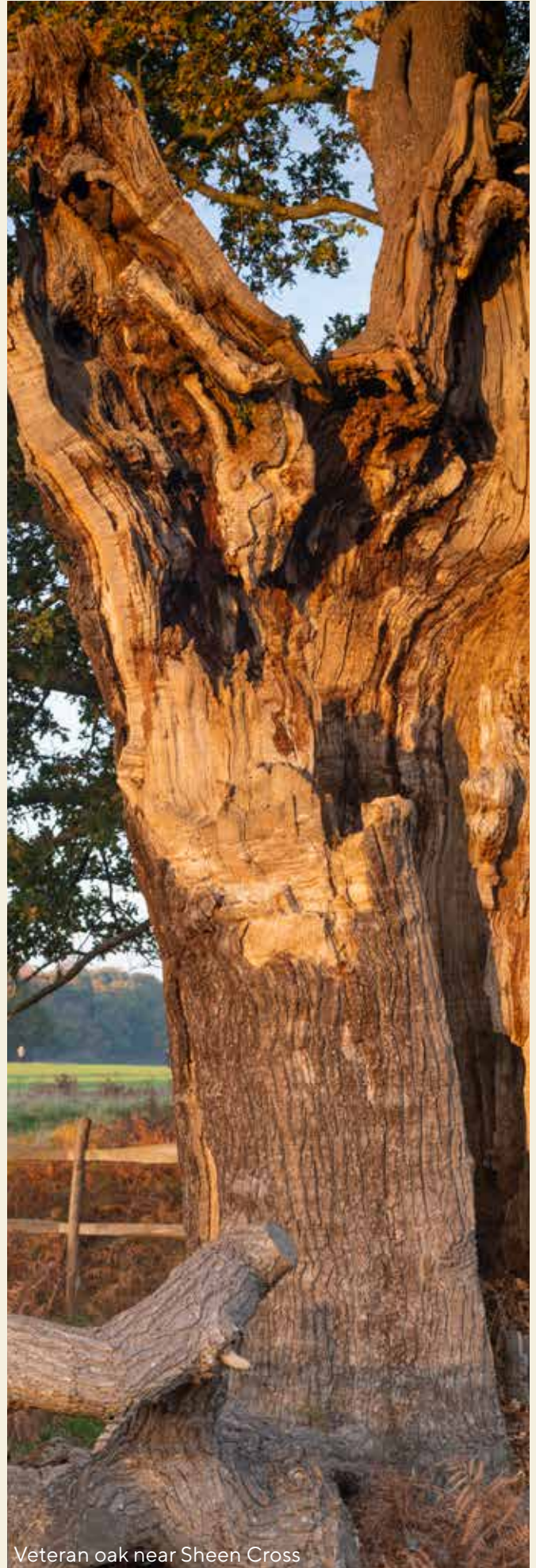
This strategy sets out the future requirements for the sustainable management of the trees in Richmond Park by The Royal Parks (TRP). It looks forward to how future visitors may see the park. As such it will provide guidance for future managers in association with the Richmond Park Management Plan.

The Tree Strategy discusses the benefits of trees and the threats they face, before identifying the key objectives the strategy sets out to deliver. This strategy draws together many of the factors that will influence the future development of the Richmond Park landscape.

It will complement The Royal Parks' existing strategies and the emerging Royal Parks landscape and tree strategies. It supports TRP's Charitable objects.

A separate Richmond Park Tree Management and Action Plan will evaluate the historic evolution of the park landscape, examine current management arrangements and identify the issues and opportunities faced by trees across the park's various character areas.

From these character areas will be drawn the key actions for delivery over the next ten years. It is noted that many of the recommended actions, such as the continuation of new pollard creation, will require long-term commitments if they are to deliver the intended benefits.



Veteran oak near Sheen Cross

3. STRATEGY CONTEXT



Pen Ponds from Lawn Field

Trees and woodlands help define the landscape of Richmond Park and are inextricably linked with its history as a deer park since its enclosure in 1637. The oldest oak trees in Richmond Park today probably date from the 14th or 15th century.

The need to protect this historic legacy for future generations requires a vision enabling future managers to follow clear objectives in the face of many threats – particularly visitor pressure, climate change and emerging pests and diseases. The strategy has a nominal ten-year span recognising the need for periodic review, and adaptation in the face of changing circumstances.

The long-term continuity and sense of place which trees represent is important to human health and well-being. Trees are valued because of their contribution to biodiversity and the wide variety of flora and fauna which are dependent on them.

In recent years, mechanisms have been developed to project a financial value to the benefits that trees provide.

Trees are amongst the longest living natural organisms and an oak tree planted today could still be standing at the onset of the fourth Millennium.



Two Storm Wood

In 2023, TRP commissioned an i-Tree Eco report for Richmond Park which is a model that uses tree measurements and other data to estimate ecosystem services and structural characteristics of the urban or rural forest. The report revealed a Capital Asset Value for Amenity Trees (CAVAT) valuation of £1.03 billion – the collective worth and benefits of Richmond Park’s trees to society, and a replacement value of £71.8 million. The report used data from a tree survey carried out in 2022 by Tim Moya Associates (TMA).

These values indicate how trees should be seen as important assets alongside our more traditionally valued built estate.

Trees in the park are valued as cultural assets. Many people are drawn to individual trees and woodlands which have a personal value in their

i-Tree Eco Statistics

£1.03 BILLION

Total amenity valuation (CAVAT)

£71.8 MILLION

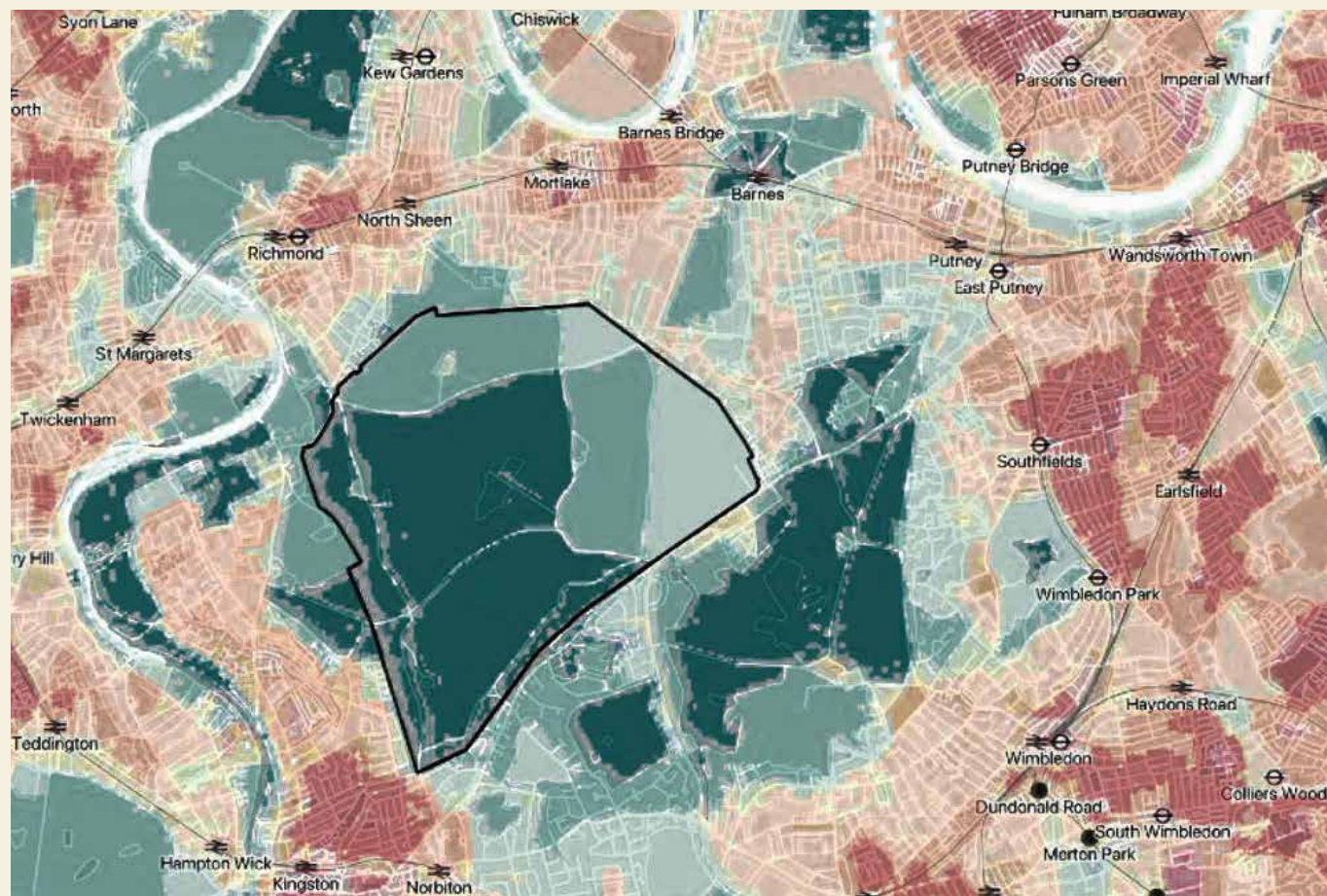
Replacement cost

£25.2 MILLION

Carbon Storage

£747,000

Pollution Removal



Contrasting Land Surface Temperature of Richmond Park (outlined) with the surrounding urban areas. Temperatures shown are 5-year averages for 2016-2020. Source: GLA



37,432

Trees recorded
(number)

172

Species recorded
(number)

36,500

Avoided runoff
(m³/year)

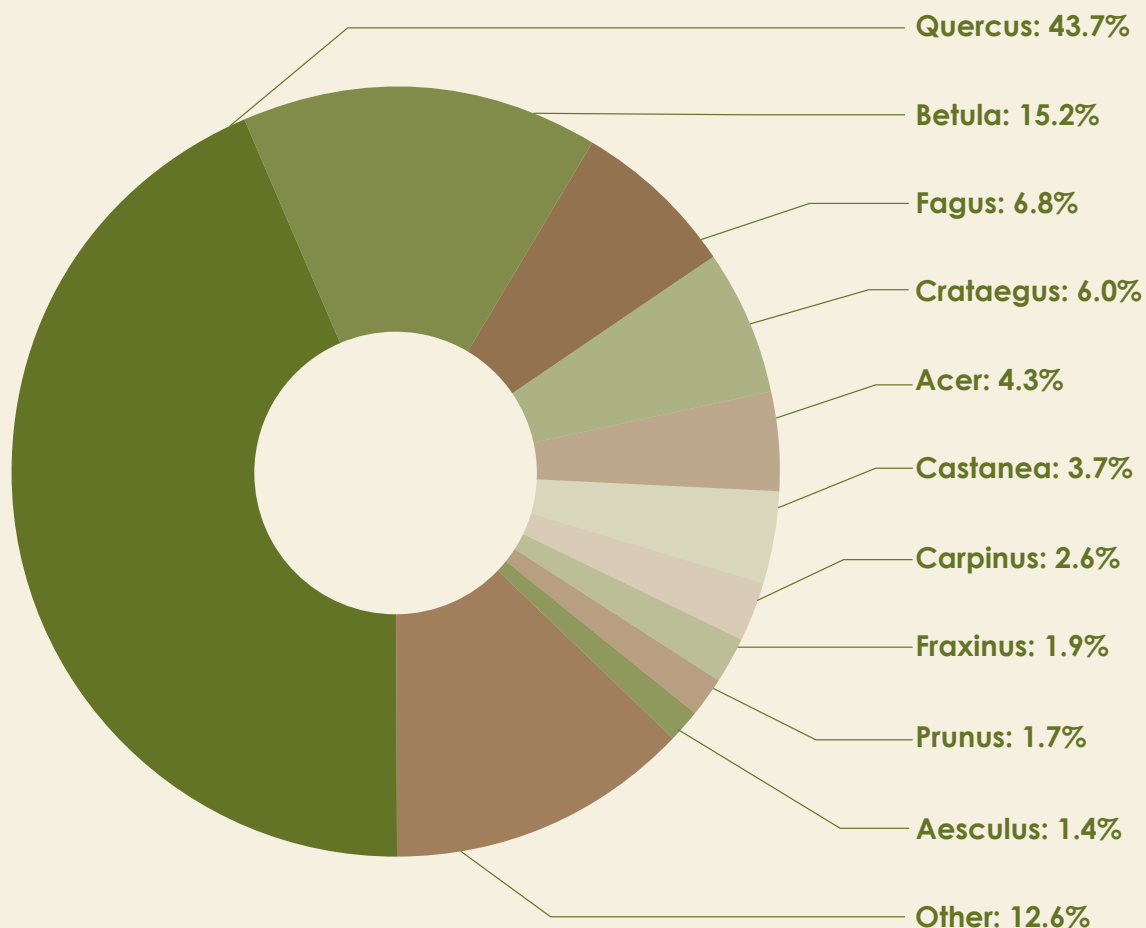
4.5

Pollution removal
(tonnes/year)

26,800

Carbon storage
(tonnes)

Top ten trees by genus.



lives. The great age of some trees means they are seen as living monuments in a changing world. A fuller list of the natural and societal benefits that trees provide is listed in the appendix.

Some 42% of all trees including veterans are oak and most visitors view the park as an oak woodland; nevertheless, there is a great diversity of other tree species present.

The landscape we see today can be described as a mixture of closed canopy woodlands, some of which are fenced to exclude the deer, a looser mosaic of scattered trees amongst expanses of grazed grassland, bracken, bramble and hawthorn scrub – known as wood pasture – and the open grasslands. The Isabella Plantation and Pembroke Lodge gardens contain extensive collections of ornamental trees.

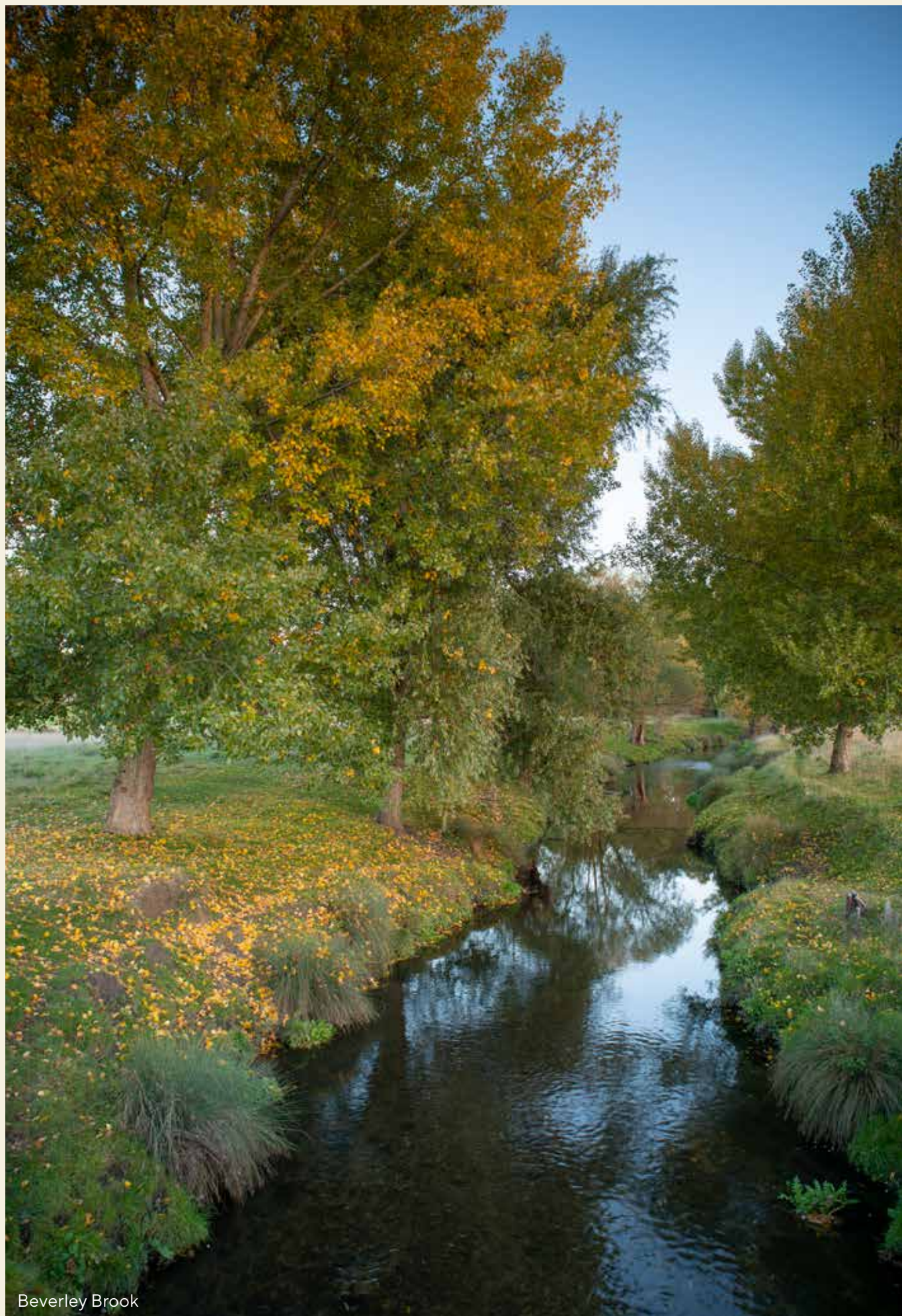
Over the centuries, the park has been managed for different purposes and the planting of trees for timber, firewood and browse (fodder for livestock and deer) would have had a far higher priority before the emergence of public access and recreation provision.

Since enclosure, the deer park has required the provision of productive trees – oak, beech

and sweet and horse chestnut – to provide sustenance for the deer herds. Timber from parkland trees is still used within the park to make tree guards and benches.

The great thread that runs through the park is the remarkable survival of over 800 veteran oak pollards. These trees are mostly estimated to be over 400 years old and were therefore growing in the park before enclosure. They are survivors of a much larger population that means that Richmond Park is one of the best sites in the UK to see veteran trees.

The assemblage of often rare saproxylic invertebrates dependent on the decaying wood (often referred to as dead wood) habitat that these trees contain, were one of the reasons for the park's designation as a SSSI in 1992. Saproxylic invertebrates are those dependent on the presence of decaying wood for all or part of their life cycle. The protection of these oaks along with other veteran species must be accorded the highest priority, together with ensuring that management enables the creation of the veterans of the future.



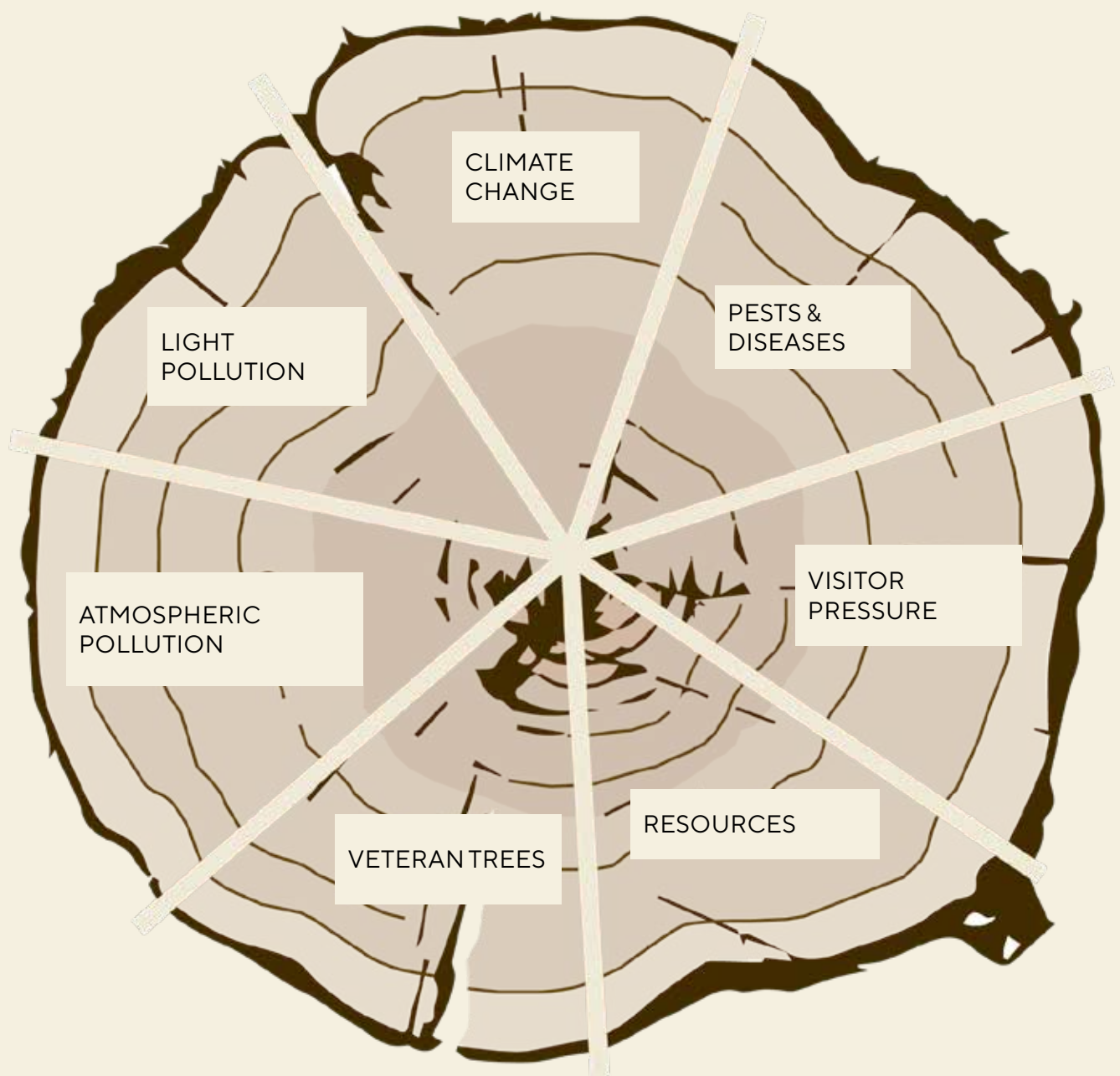
Beverley Brook

4. KEY CHALLENGES

The survival of our trees has never before been threatened by so many challenges, often acting in combination and emerging largely because of human impacts on the planet.

In the 21st century, it is expected that the park will continue to face a variety of threats to its

trees. This strategy will have met its objectives if future generations can experience a park that is richer in biodiversity than it is today and stand in a landscape that would be recognisable to today's visitor. To achieve this will require that appropriate management is continuously reviewed, and is flexible in delivery.





CLIMATE CHANGE

Climate change is having significant impacts on the health and survival of trees. More extreme weather events - high winds and heavy rain with more frequent periods of summer and winter drought - and hotter summers appear to be becoming the norm.

There is a change of seasonality. The successful establishment of young trees is compromised by the restricted availability of water supply in dry summers along with elevated fire risk.

Many of the trees we currently see in our landscape may not be viable in the forthcoming decades, which may require landscape-scale changes in tree species selection.

The park's location in southwest London is often one of the hottest and driest places in the country. While veteran trees have been resilient enough to have survived centuries, they are acknowledged to be particularly vulnerable to rapid change.



Above: Robin Hood Gate flooding

Below and right: Storm Eunice (2022) damaged beech and lime trees





PESTS & DISEASES

Until recently, global trade has been subject to limited biosecurity controls. This has facilitated the spread of pests and diseases to geographic areas where trees have not adapted defence mechanisms. This can result in devastating consequences at a species level, for example as witnessed with Dutch elm disease imported in the 1970s.

There have been rapid increases in the rate at which new pests and diseases have established in the UK in recent years. DEFRA maintains the UK Plant Health Risk Register - a risk register of existing and future pests and diseases of concern.

Notable pests and diseases of current relevance to Richmond Park include:

- Oak processionary moth(OPM)
- Acute oak decline (AOD)
- Horse chestnut leaf miner
- Horse chestnut bleeding canker
- Sweet chestnut blight
- Oriental chestnut gall wasp
- Ring-necked parakeet
- Grey squirrel

These impacts require intervention, often at a considerable expense of management time and funds.



Horse chestnut bleeding canker



Horse chestnut to bleeding canker



Oak processionary moth



AOD multiple stem lesions



Horse chestnut leaf-miner



Squirrel damage



VISITOR PRESSURE

The impact of growing numbers of visitors seeking the benefits of recreation in public open space can be detrimental to the park's trees.

Visitor numbers are estimated to have doubled since 1996. The last reliable count carried out in 2014 estimated the park received around 5.5 million visits annually. This number significantly increased during the Covid pandemic of 2020-2 and the effects were compounded by social distancing, which spread visitors across the park into areas previously less frequented. The underlying upward trend is predicted to continue due to the intensification of residential development in southwest London.

Increased footfall affects trees through the compaction of soil around tree roots. Where this occurs on slopes, erosion leads to soil loss, exposing roots to dehydration, mechanical damage and loss of stability.



RESOURCES

Resources to manage the trees and woodlands have not always been available and woodland management has not been seen as a priority. In some areas, this has led to the development of un-thinned, predominantly low age diversity woodland where young trees have out-competed the remaining few veteran trees growing amongst them. The importance of our veteran trees has only been more widely recognised in the last 40 years and ongoing measures taken to safeguard them.



Volunteers clearing invasive rhododendron



Sawyers Hill soil erosion before restoration works



VETERAN TREES

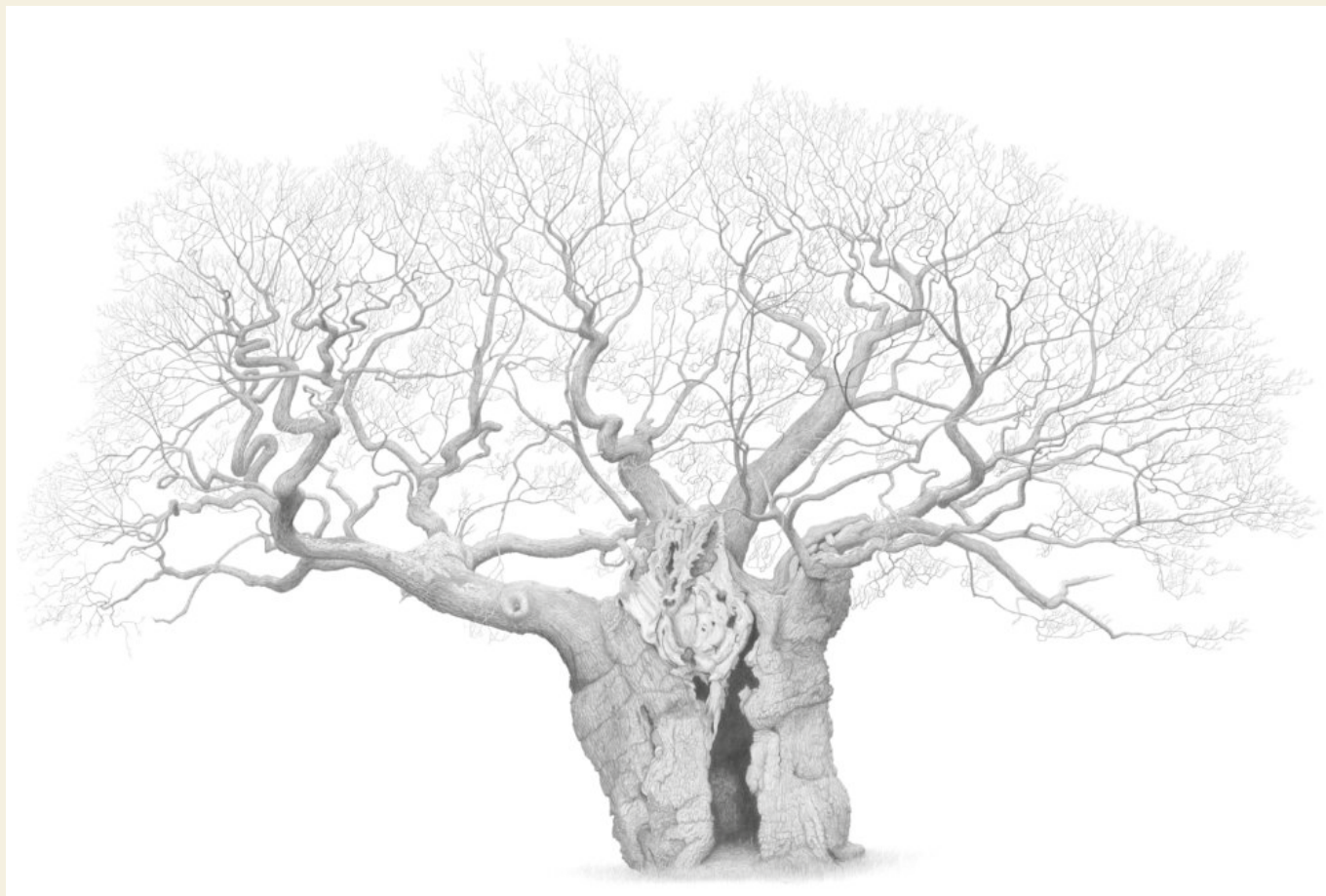
Most importantly, the huge benefits that old trees provide must be acknowledged, to outweigh the relatively low public safety risks that they present. All trees create a certain level of physical risk to visitors simply because of their existence. The sensitive management of trees can mitigate these risks to a reasonably practicable level.

Physical damage to old, vulnerable, hollow pollards occurs due to fires, climbing and den building.

Old trees are more likely to shed limbs or collapse, and the need to protect the valuable and rare habitats these trees provide, while managing the associated public safety risk, is an ongoing management challenge.

A comprehensive analysis of the risks and benefits of all trees is contained in the Forestry Commission published document by the National Tree Safety Group entitled 'Common sense risk management of trees' in 2011 FCMS024.pdf (ntsgroup.org.uk)

**We estimate the
oldest trees in
Richmond Park to
be between 400
and 750 years old**



The Royal Oak print – a drawing by Mark Frith © The Friends of Richmond Park



ATMOSPHERIC POLLUTION

Research indicates that poor air quality since the Industrial Revolution may cause or exacerbate tree disease, restricts tree growth, and limits the ability of other species such as lichens to colonise trees. Lichens are good indicators of air quality.

Following improvements in air quality in recent decades, the lichen community in Richmond Park is in the 'recolonisation' phase. The lichens present are largely early colonisers, with species with poor dispersal abilities which are typically associated with older and veteran trees largely absent.



LIGHT POLLUTION

Light spill mostly affects trees along the park perimeter and in the vicinity of properties within the park. Although this causes little, if any, direct harm to the trees, it significantly affects the ability of nocturnal species such as bats, birds and invertebrates to feed and disrupts breeding cycles and behaviour.



View from Sawyers Hill to Barn Wood and London

5. OBJECTIVES



- 5.1** To conserve our trees and associated habitats in the face of threats, to increase benefits for biodiversity and people, now and in the future.



- 5.2** To conserve the landscape and to protect and enhance the unique character of the park.



- 5.3** To seek to maximise the life of the existing veteran trees by using best practice and sensitive management, without compromise from other competing pressures and needs, and plan to create future generations of veteran trees.



- 5.4** To ensure that the nutritional needs of the historic deer herds are accounted for in tree planting programmes.



- 5.5** To seek to maintain and enhance a nationally significant tree collection within the managed landscapes of Isabella Plantation and Pembroke Lodge.



- 5.6** To provide resources to conserve and enhance our trees. Maintain trees to ensure that all our activities are proportionate to the risks and benefits trees present to the visiting public and to the park's natural features.



- 5.7** To educate and inform our visitors to enable them to support and understand the conservation objectives, where adaptation and change will be required.

5.1 To conserve our trees and associated habitats in the face of the threats and challenges to increase benefits for biodiversity and people now and in the future, we will:

5.1.1 Acknowledge that trees are at risk from climate change and future tree choices need to reflect this reality. We will examine the case for introducing new species or cultivars on a landscape scale. The wider park landscape is expected to largely retain its current appearance.

5.1.2 Work with industry partners to source and trial new species or cultivars of trees. We will seek a balance between native and naturalised trees of local provenance along with exotic species that may be better adapted to a warmer climate. Choices will be made to select species for planting which support the widest range of biodiversity.

5.1.3 Enhance woodland habitats for biodiversity and as historic landscape features, taking appropriate measures to diversify woodland structure and

species composition, for example through management, encouraging regeneration and/or planting, whilst being mindful of their distinct landscape character and history. Woodland enhancement will be guided by woodland management plans.

5.1.4 Maintain the overall area of tree canopy cover at 2023 levels. Maintain the current proportions of closed canopy woodland, open wood pasture and grassland. Statutorily protected grassland habitats will not be widely over-planted whilst underlying archaeology (such as areas of ridge and furrow) will be protected from planting.

5.1.5 Manage our trees to minimise or prevent the impacts of pests and diseases.



Sawpit Plantation

5.2 To conserve the landscape and to protect and enhance the unique character of the park, we will:

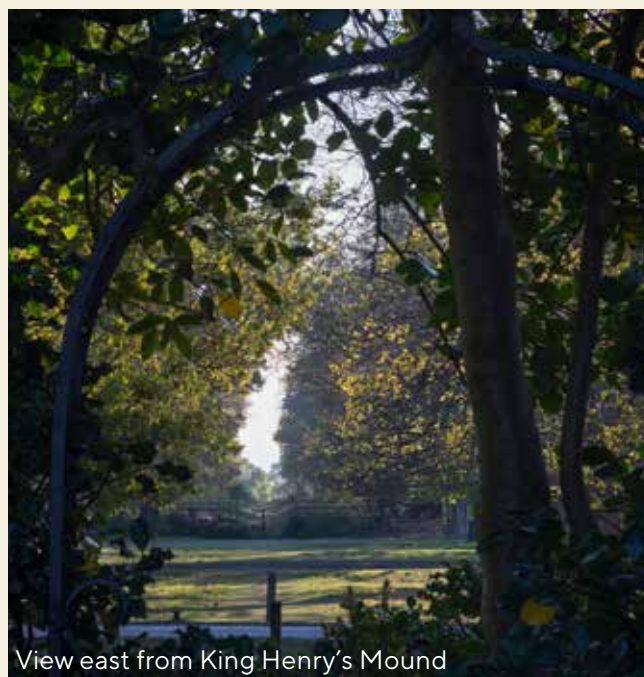
5.2.1 Maintain existing protected views such as that from King Henry's Mound. King Henry's Mound, by a combination of pruning and establishing 'no tree planting' areas.

5.2.2 Maintain and enhance the important boundary tree screens, replanting and extending where necessary. Trees in proximity to the listed park wall will be managed to protect the wall and adjacent freebord.

5.2.3 Ensure that appropriate varieties of trees are planted to maintain landscape character.

5.2.4 Identify areas of the park that can be considered as ancient woodland (continuously covered by trees for over 400 years) and protect them.

5.2.5 Recognise the importance of the park's relationship with the surrounding communities and seek to improve green corridors with adjacent landscapes to improve connectivity.



View east from King Henry's Mound



Lawn Field towards Pen Ponds

5.3 To seek to maximise the life of the existing veteran trees by using best practice and sensitive management, without compromise from other competing pressures and needs, and plan to create future generations of veteran trees, we will:

5.3.1 Manage our veteran trees and associated decaying wood habitats, to keep them alive for as long as possible. Veteran trees will continue to be considered individually, and individual management prescriptions implemented.

5.3.2 Develop plans to allow for the development of future veteran trees and the accompanying biodiversity reliant on them.

5.3.3 Protect those veteran trees which are growing in proximity with more recent planting and are being out-competed for light, resulting in rapid deterioration. Sensitive clearance of competing vegetation is important but needs careful communication where adjacent trees are to be heavily pruned or removed.

5.3.4 Protect existing trees that are often in locations of high footfall. Take actions such as diverting paths, moving park furniture and fencing off root zones from compaction.

5.3.5 Maintain decaying wood across the park, both standing and fallen, whilst taking a balanced approach to address issues such as the risk of falling deadwood to visitors, fire risk and disturbance of deadwood and

other habitats (for example, ponds and streams).



5.4 To consider how the nutritional needs of the historic deer herds are accounted for in tree planting programmes, we will:

- 5.4.1** Ensure that future tree choices will provide autumn fruit by considering which other varieties of trees might provide alternative fruits and seeds in a situation where heat and moisture deficits are likely and if the current dominant species decline.



5.5 To seek to maintain and enhance a nationally significant tree collection within Isabella Plantation & Pembroke Lodge, we will:

- 5.5.1** Manage our gardens to conserve and expand our outstanding collections of ornamental trees. These should focus on the ornamental and biodiversity contribution to the garden landscapes through appropriate choices of size, form, fruit, and seasonality.
- 5.5.2** Consider how climate change will affect the choice of trees that are able to be grown and what new varieties may be selected for future planting.
- 5.5.3** Investigate whether some of the tree collections could be considered for national collection status, as a contribution towards wider national tree conservation.



Thomson's lawn, Isabella Plantation

5.6 To provide resources to conserve and enhance our trees. Maintain trees to ensure that all our activities are proportionate to the risks and benefits trees present to the visiting public and to the park's natural features, we will:

5.6.1 Develop our skills within TRP and secure resources to develop our tree management from the current, mainly risk-based, management to broader conservation-based management, allowing our trees to develop their full potential and delivering the widest benefits to biodiversity and society.

5.6.2 Continue to employ experts in the field of arboricultural management and reflect current best practice and knowledge.

5.6.3 Continue to work with organisations undertaking research in relation to current and emerging threats and issues, facilitating and implementing solutions.



5.7 To educate and inform our visitors to enable them to support and understand the conservation objectives, where adaptation and change will be required, we will:

5.7.1 Work with colleagues and partners to explain the contribution that our trees deliver to society and biodiversity.

5.7.2 Work with volunteers and other groups to introduce programmes where our visitors can actively engage in tree related conservation programmes.

5.7.3 Promote the importance of our veteran trees and woodlands by delivering improved communications and working with interested partners to promote the national significance of our trees.

5.7.4 Embed the nature, heritage and well-being aspects of Richmond Park's trees in learning and engagement programmes and projects, ensuring these:

- Raise awareness of pro-nature behaviours;
- Reflect TRP's efforts to address biodiversity loss and the climate change emergency;
- Consider and promote the well-being benefits of trees for communities;
- Engage visitors and local communities through trees' folklore, heritage, shared memories and stories.



6. ACKNOWLEDGEMENTS

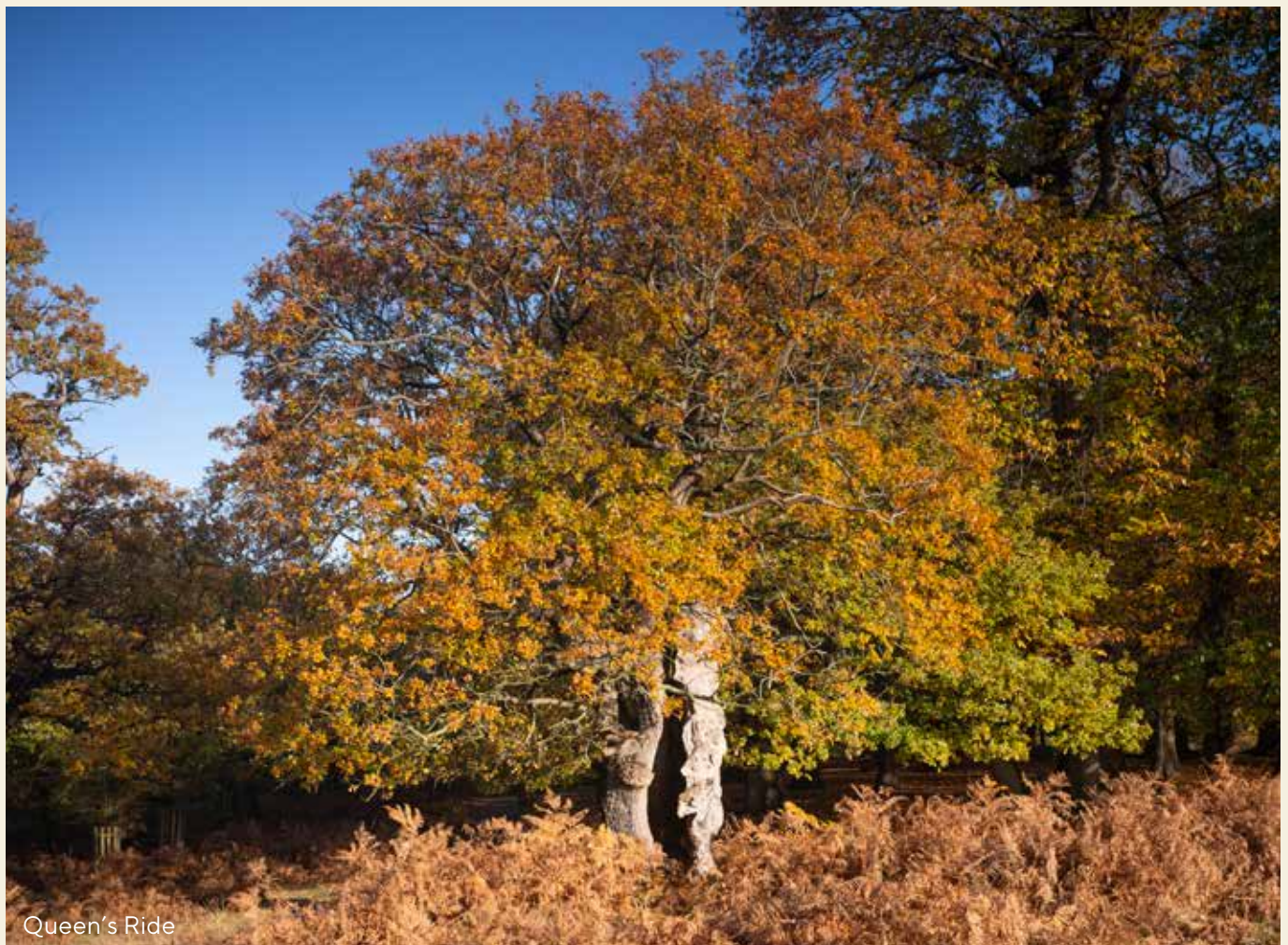
The drafting of this strategy has been undertaken by Simon Richards, the Park Manager of Richmond Park from 1997-2022 and seeks to ensure that some of the lessons learned in managing this precious landscape over a quarter of a century are captured for future generations.

In preparing this strategy, a huge amount of input and helpful advice and guidance has been given by colleagues within The Royal Parks and elsewhere who have freely offered advice and spent time writing content and revising numerous drafts. My grateful thanks to Charlotte Brooks, Rhona Harley, Gillian Jonusas, Ian Rodger, Alister Hayes, Jane Pelly, Jo Scrivener, Paul Richards, Pete Lawrence.

Photography credits: Max A Rush, Gillian Jonusas, Mark Laing and TRP.

The production of this strategy has been informed by reports and discussions with the following:

- Treework Environmental Practice have been our key advisors and surveyors of the veteran trees since 2000.
- Treeconomics who produced the i-Tree Eco report.
- Tim Moya Associates who undertook the tree survey.
- Kevin Martin at the Royal Botanic Gardens, Kew, for his advice regarding the likely impacts of climate change.



Queen's Ride

APPENDIX

Summary of the key benefits of trees in Richmond Park:

Social/cultural:

- Contribution to landscape character, local distinctiveness, aesthetic.
- Engagement with the natural world.
- Contribution to the health and well-being and reduced stress to visitors.
- Form important landmarks both as individuals and groups.
- Can become cultural icons.
- Frame views both internal and external.

Environmental:

- Provide summer shade and winter shelter.
- Intercept rainfall, filter air and absorb pollutants.
- Absorb carbon dioxide and produce oxygen.
- Carbon storage.
- Soil improvement.
- Reduce erosion.
- Reduce stormwater runoff to mitigate flooding.
- Reduce noise levels.
- Support and increase biodiversity.
- Provision of deer food through fruit and seed.
- Screen boundary development and reduce light spill.
- Physical links to external sites – species and habitat connectivity.

Economic:

- Potential income from timber sales and re-use within the park.
- Positively affect adjacent property values.



The Royal Parks is registered in England and Wales

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Spankers Hill Wood from Martin's Pond